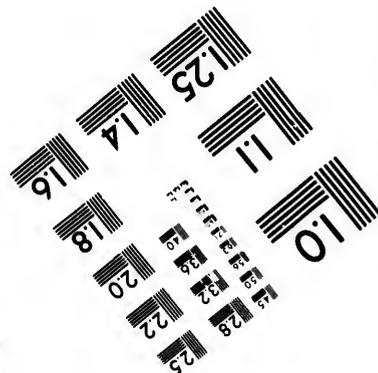
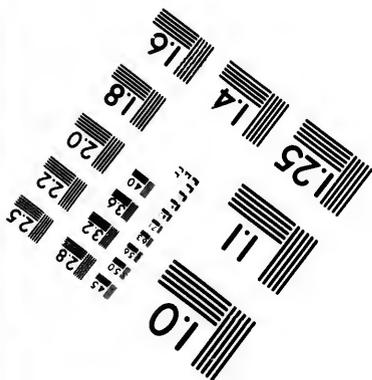
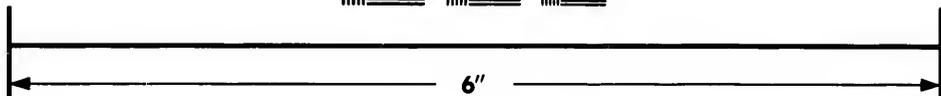
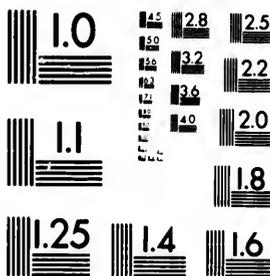


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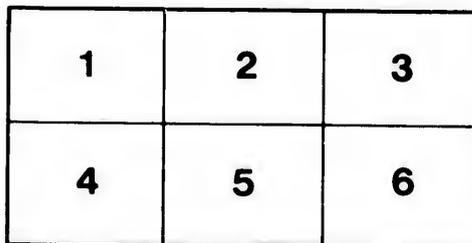
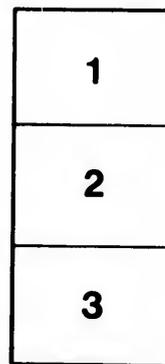
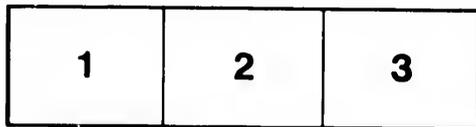
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according to a *New Globular Projection*,

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as directed by the GREAT SEAL of Great Britain.

As is fully justified by Dr. HALLEY.

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CHARTS on the *PLANE* of the *Equinoctial*,

as is fully justified by the *BRITANNIC CATALOGUE*;

and for finding the Latitude in the Night.

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By NATHANIEL C

L O N D O

Printed for JAMES and JOHN KNAPTON, WILLIAM and JOHN
in *Bartholomew-Close*; ARTHUR BETTESWORTH, JOHN OS
Row; JOHN SENEX in *Fleet-street*; EDWARD SYMON in *Corn*
St. Martin's Lane; and the Executors of WILLIAM TAYLOR de

on *Justified* by Dr. HALLEY.

L S O T W O

S on the PLANE of the Equinoctial,

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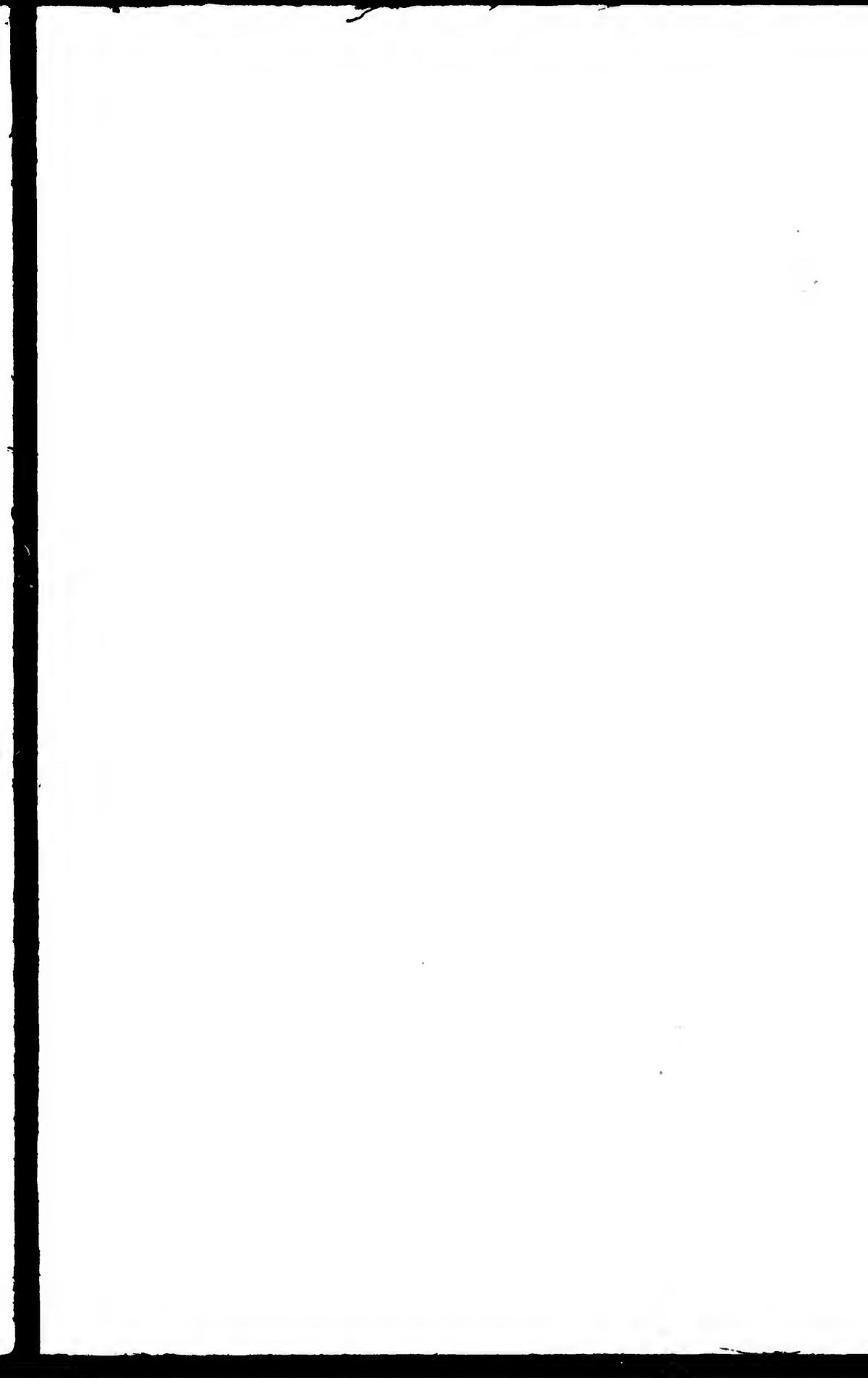
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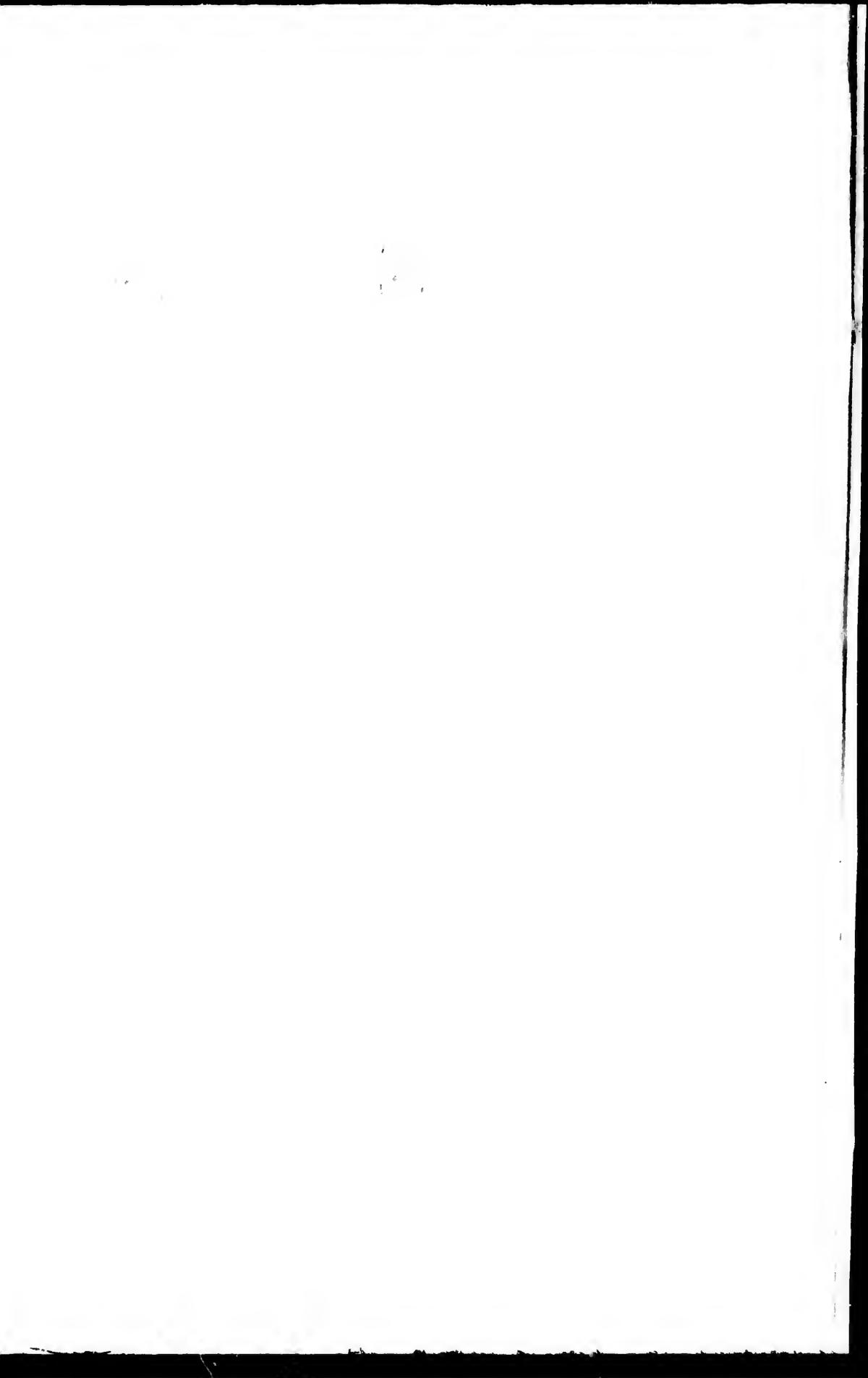
CHARTS is made Plain and Easy to the meanest
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DANIEL CUTLER.

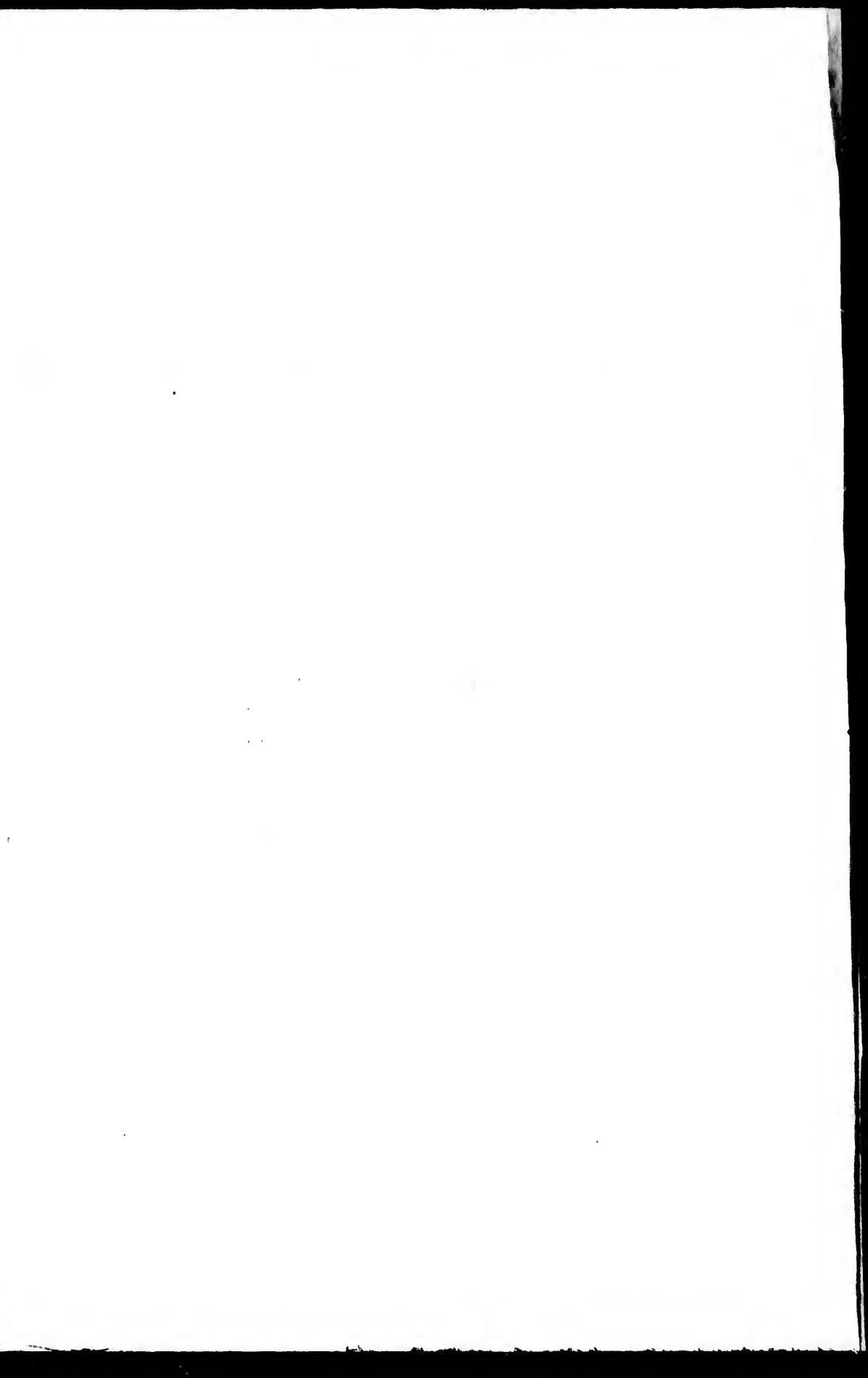
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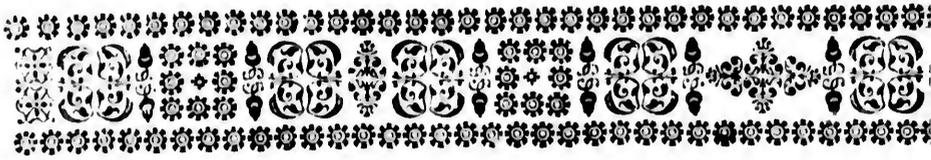
LIAM and JOHN INNYS in *St. Paul's Church-yard*; JOHN DARBY
ORTH, JOHN OSBORN and THOMAS LONGMAN in *Pater-noster-*
RD SYMON in *Cornhill*; ANDREW JOHNSTON in *Peter's Court* in
LIAM TAYLOR deceas'd. M.DCC.XXVIII.









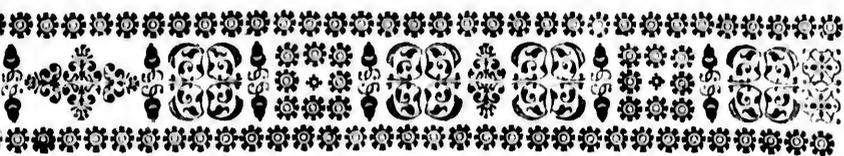


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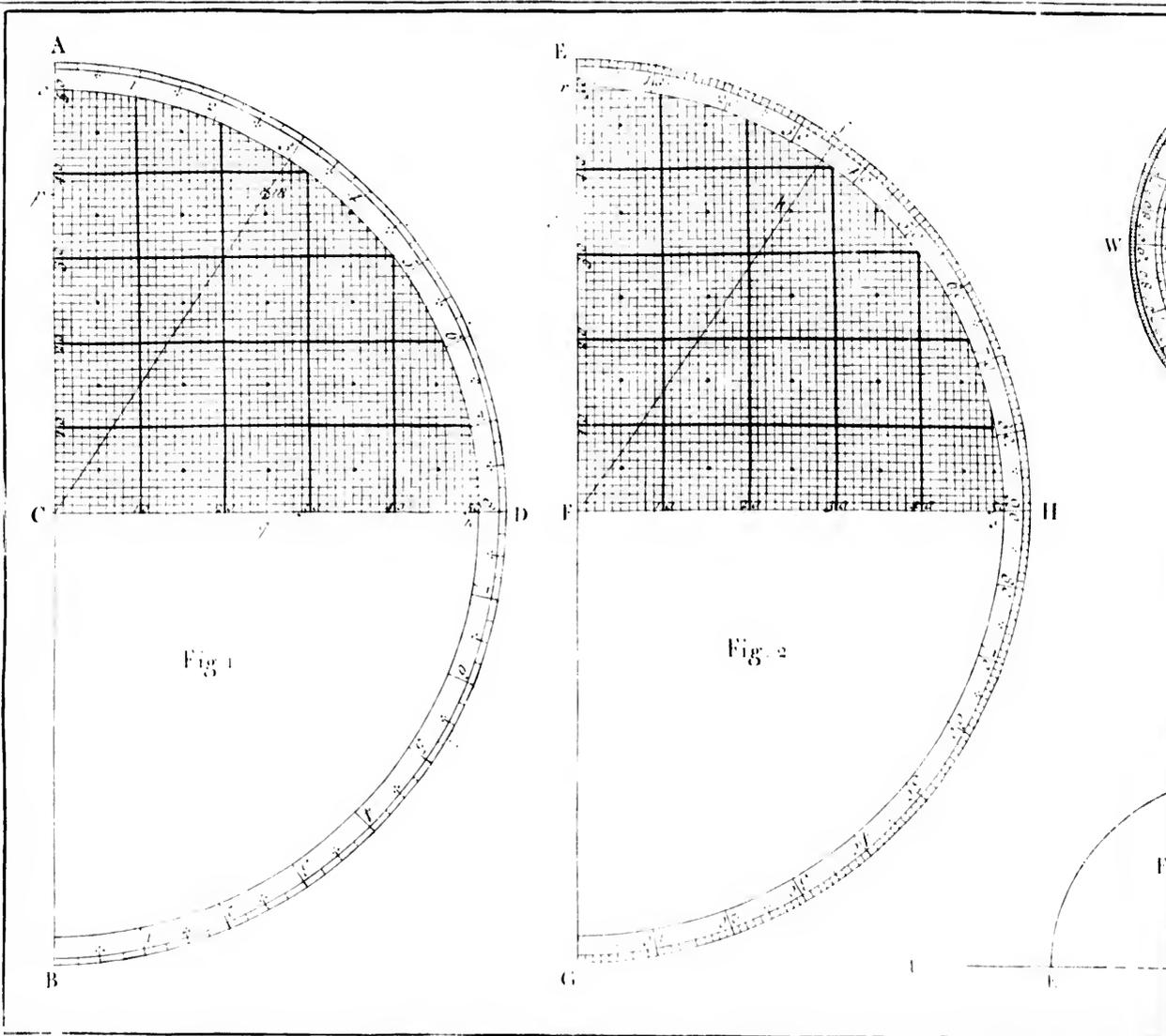
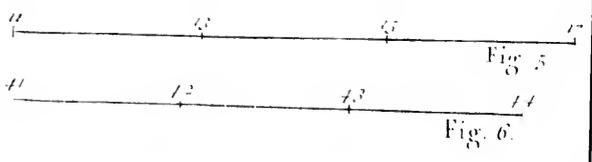
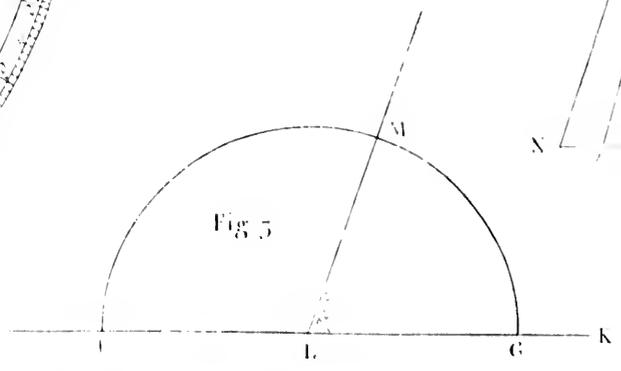
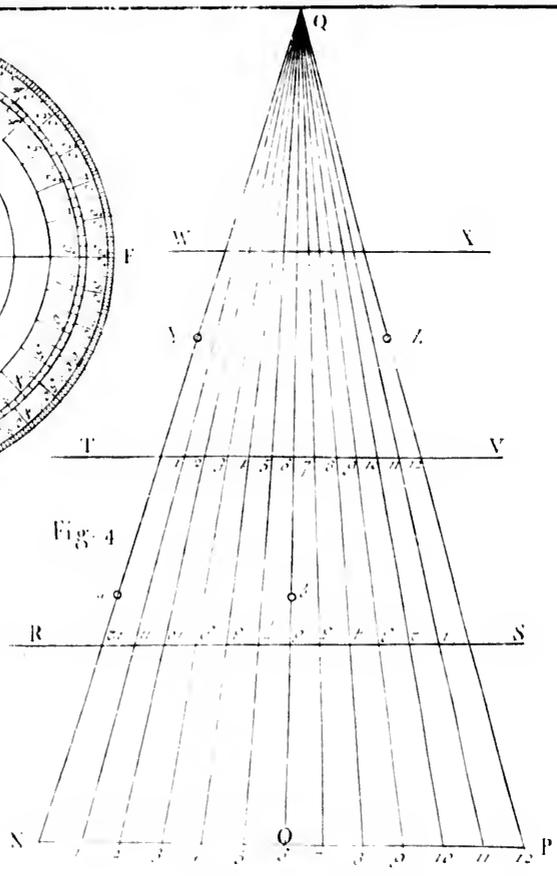
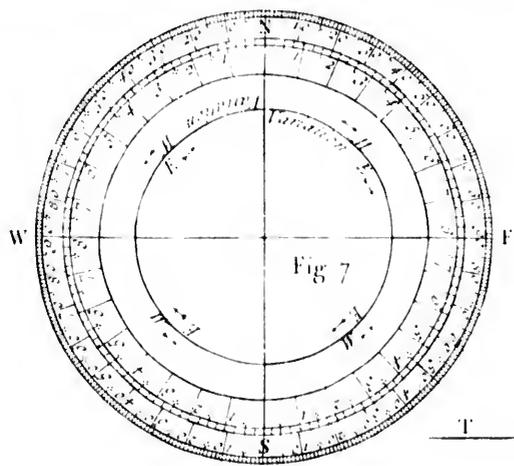
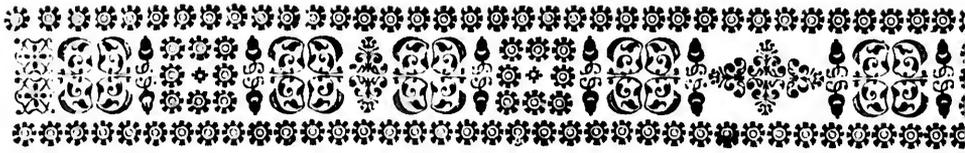


Fig 1

Fig 2

1. The Line Diagrams to the Drawing of III. Shows the method of drawing a circle





DIRECTIONS to M

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OR the more easy Use of the GLOBULAR CHARTS and other Purposes in Navigation, it will be proper for the Mariner to make on Velum, thick Parchment, or Pastboard (or to have made in Bras) two Protractors in the following Forms :

Figure 1. Draw AB, and erect CD perpendicular thereto ; on the Center C, with an Interval of about 3 Inches, describe the Semi-circle ADB: Divide each Quadrant, AD and DB, into 8 equal Parts, representing the Points of the Mariner's Compaſs, number them, as in the Figure, and divide each of thoſe Points into Half-points and Quarter-points.

After the ſame manner may another Protractor be made, in which each Quadrant may be divided into 90 equal Parts or Degrees, as EHGE. Fig. 2.

Again, Divide each of the Radius's, Co, Cn, Fr, and Fs, into 50 equal Parts, and thro' the ſeveral Diviſions draw Lines parallel to the ſaid Radius's ; as the Figures 1, 2, direct.

The Uſe of theſe Protractors are,

1. To lay down any given Angle.

EXAMP L E.

From the given Point L, Fig. 3, in a Line IK given, to make an Angle of 70 Degrees.

Lay the Center of the Protractor to the given Point L, ſo that the Side of the Protractor EG, may coincide with the

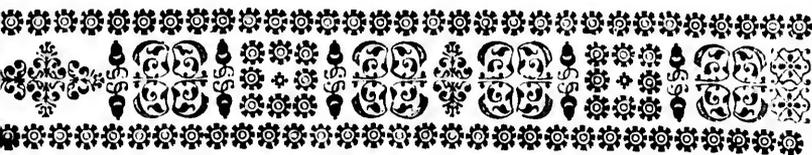
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4. Having the Latitude sail'd from, with the Diff. of Latitude and Departure ; to find the Diff. of Longitude.

E X A M P L E.

A Ship from the Lat. 35° N. sails between the S. and W. till her Diff. of Latitude is 25 miles, and her Departure 35 miles ; to find her Diff. of Longitude.

Latitude came from	$35^{\circ} 00'$ N.
Diff. of Latitude	$00^{\circ} 25'$ S.
Latitude arrived to	$34^{\circ} 35'$ N.
Sum of the Latit.	$69^{\circ} 35'$
Middle Latitude	$34^{\circ} 47'$

Lay the Center C of the Protractor (1), over F the Center of the Protractor (2), so that its Edge CA may pass thro' the Middle-Latitude $34^{\circ} 47'$ (*f*), in the Quadrant EH: count the Departure 35 miles from F to *g*; thro' the Point (*g*) imagine a Line drawn parallel to FH, as *gb*; cutting the Edge CA of the upper Protractor *,

in the Point (*b*); then will the said Edge shew F*b* the Diff. of Longitude to be $42 \frac{1}{2}$ miles.

Universally making E*f* the Middle-Latitude, F*g* the Departure, F*b* will be the Diff. of Longitude.

And here again, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, of the Departure will give accordingly $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, &c. of the Diff. of Longitude.

This Method of finding the Diff. of Longitude will be exact enough in all short Distances sail'd, not exceeding 100 or 150 miles, and in Latitudes not near the Poles; but in large Distances, and in Latitudes near the Poles, it will be best for the Mariner to find the Diff. of Longitude by help of the Table of meridional Parts, by the common Method taught.

**These Protractors accurately made in Brass, may be had of Mr. Tho. Wright, Mathematical Instrument-Maker in His Majesty's Ordnery and Fleetstreet.*

IT may be proper also for the Matiner to make the following Figure on Paper. *Fig. 4.*

them, as in the Figure, and divide each of those Points into Half-points and Quarter-points.

After the same manner may another Protractor be made, in which each Quadrant may be divided into 90 equal Parts or Degrees, as EHG E. *Fig. 2.*

Again, Divide each of the Radius's, C o, C n, F r, and F s, into 50 equal Parts, and thro' the several Divisions draw Lines parallel to the said Radius's; as the *Figures 1, 2, direct.*

The Use of these Protractors are,

1. To lay down any given Angle.

E X A M P L E.

From the given Point L, *Fig. 3,* in a Line IK given, to make an Angle of 70 Degrees.

Lay the Center of the Protractor to the given Point L, so that the Side of the Protractor EG may coincide with the given Line IK; then by 70°, in the Limb of the Protractor, make a Point on the Paper, as M; by L and M draw a Line, the Angle M L G is an Angle of 70 Degrees.

2. Having the several Courses and short Distances sailed, as in the *Log-Book,* to find the Diff. of Latitude and Departure for each.

E X A M P L E.

A Ship sails N.E. by N. 45 Miles, to find the Diff. of Latitude and Departure.

Lay the Center F of the Protractor (2) upon the Center C of the Protractor (1), so that its Edge FE may pass thro' the 3d Rumb, as the Line C 3; then by 45 miles counted from the Center F, on the Edge FE, of the upper Protractor, make a Point on the under Protractor, as (m); thro' the Point (m) imagine a Line drawn parallel to CD, as pm; Cp equal to mq, estimated by the Divisions from the Center C, shews the Diff. of Latitude to be 27 $\frac{1}{2}$ miles, and (pm) the Departure 25 miles.

If the Distance given be above 50 miles, lay off $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, &c. of the same, it will accordingly shew $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, &c. of the Diff. of Latitude and Departure.

3. Having given the Diff. of Latitude and Departure, to find the Course and Distance.

E X A M P L E.

A Ship makes her Diff. of Latitude 27 $\frac{1}{2}$ miles, and her Departure 25 miles, to find her Course and Distance.

The Diff. of Latitude 27 $\frac{1}{2}$ miles being counted from C to p, and the Departure 25 miles from (p) to (m), and the Center F of the Protractor (2) being laid on the Center C of the Protractor (1), so that its Edge FE may touch the Point (m), the said Edge FE will shew the Course in the Quadrant AD to be 3 Points, and the Distance Cm to be 45 miles.

If the Diff. of Latitude or Departure be too large for the Protractor, lay off $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, &c. of the given Diff. of Latitude, and $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, &c. of the given Departure, then will the said Edge FE shew the true Course in the Quadrant AD, and by its Edge from F $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, &c. of the Distance accordingly.

in the Point (of Longitude Univerſally parture, F b w And here ap dingly $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$ This Meth enough in all miles, and in tances, and in Mariner to find of meridional

IT may be ing Figure Draw the L NP; lay off on the Line P; by each of draw also thro T V, W X, & The Use of equal Parts of

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To divide *Fig. 6.* into 6 Take the Points of the as near as may in the Points the Points (b parallel to R applied to the may thereby

If the Mari Parts or Degr Points of the Half-points a Variation E. o accounted in ing, he may v pass in each C

in the Point (*b*); then will the said Edge shew *Fb* the Diff. of Longitude to be $42 \frac{1}{2}$ miles.

Universally making *Ef* the Middle-Latitude, *Fg* the Departure, *Fb* will be the Diff. of Longitude.

And here again, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, of the Departure will give accordingly $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, &c. of the Diff. of Longitude.

This Method of finding the Diff. of Longitude will be exact enough in all short Distances sailed, not exceeding 100 or 150 miles, and in Latitudes not near the Poles; but in large Distances, and in Latitudes near the Poles, it will be best for the Mariner to find the Diff. of Longitude by help of the Table of meridional Parts, by the common Method taught.

These Protractors accurately made in Brass, may be had of Mr. Tho. Wright, Mathematical Instrument-Maker to His Majesty, at the Orrery and Globe in Fleetstreet.

IT may be proper also for the Mariner to make the following Figure on Paper. *Fig. 4.*

Draw the Line *NP*, and from *O* erect *OQ* perpendicular to *NP*; lay off 6 equal Parts of about a Quarter of an Inch each, on the Line *NP*, from *O* towards *N*, and from *O* towards *P*; by each of which Divisions, and the Point *Q*, draw Lines; draw also three, four, or more Lines, parallel to *NP*, as *RS*, *TV*, *WX*, &c.

The Use of this is for the more easy dividing each of the equal Parts of any Line into twelve or six other equal Parts.

E X A M P L E 1.

To divide each of the equal Parts of the Line *11. 17.* *Fig. 5.* into 12 equal Parts.

Take the Part *11. 13.* in the Compasses, and apply the Points of the Compasses in a parallel Position to *TV* in *Fig. 4.* as near as may be, till they fall in the outer Lines *NQ* and *PQ*, as in the Points *Y* and *Z*; fold the Paper Back to Back by the Points *Y* and *Z*, so that the folded Edge may be parallel to *TV*, the Distance *YZ* on the Edge of the folded Paper applied to the several equal Parts of the Line *11. 17.* they may thereby be readily divided into 12 equal Parts.

E X A M P L E 2.

To divide each of the Equal Parts of the Line *41. 44.* *Fig. 6.* into 6 Equal Parts.

Take the Part *41. 42.* in the Compasses, and apply the Points of the Compasses in a parallel Position to *RS* in *Fig. 4.* as near as may be, till they fall in the Lines *OQ* and *NQ*, as in the Points (*a*) and (*b*). Fold the Paper Back to Back by the Points (*b*) and (*a*), so that the folded Edge *ab* may be parallel to *RS*; the Distance *ab* on the folded Edge being applied to the several Equal Parts of the Line *41. 44.* they may thereby be readily divided each into 6 Equal Parts.

If the Mariner divide each Quadrant of a Circle into 90 Equal Parts or Degrees, and also into 8 Equal Parts, representing the Points of the Mariner's Compass, and those Points again into Half-points and Quarter-points, and number and mark it with Variation *E.* or *W.* as *Fig. 7.* The Variation *E.* or *W.* being to be accounted in each Quadrant that way the Darts are made flying, he may very readily allow for the Variation of the Compass in each Course before he sets them down in his *Log-Book.*

E X A M P L E S.

<i>Course by the Compass.</i>	<i>Variation.</i>	<i>True Course.</i>
N.N.E. —	— { $\frac{1}{2}$ Point E. $\frac{1}{2}$ Point W.	N.N.E. $\frac{1}{2}$ E. N. by E. $\frac{1}{2}$ E.
S.E. by E. $\frac{1}{4}$ E.	— { $\frac{1}{2}$ Point E. $\frac{1}{2}$ Point W.	S.E. $\frac{1}{2}$ E. E.S.E.
S.W. —	— { $\frac{1}{2}$ Point E. $\frac{1}{2}$ Point W.	S.W. $\frac{1}{2}$ W. S.W. by S. $\frac{1}{2}$ W.
N. 50°. W. —	— { 5° E. 5° W.	N. 45° W. N. 55° W.

In the Globular Charts, the Lines drawn from the Top to the Bottom are Meridians, or North and South Lines; these from the Equator approach nearer to each other, till at length they all meet in the Poles, as they do on the Globe.

The Curve, or crooked Lines, from the Left hand to the Right-hand, are Parallels of Latitude Lines.

The Figures at the Top or Bottom Degrees of Longitude East or West passing thro' the City of *London*.

The Figures on each side of each Meridian, by the Figures placed to that Meridian in the middle of each Chart, shew the Distance

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E.
W.

The Mariner (at the End of each 24 Hours sailing) finding the Latitude and Longitude his Ship is got into, by help of the Table of meridional Parts, according to the common Method taught, may thus prick off his Ship's Place on the Chart. And this Method of finding the Ship's Place on the Chart by the Latitude and Longitude she is got into, is most to be depended on, and ought constantly to be used.

P R O B L E M IV.

Given, Any Point on the Chart.

From thence to draw any given Rhumb.

Here it is to be observed. That by reason the Meridians on the Globe do incline towards each other, till at length they all meet in the Poles, and like Rhumbs, making equal Angles with every Meridian which they pass thro': Therefore the Rhumbs are not Right Lines, but Curves, or Spiral Lines, on the Globe; and therefore must be so drawn on these Charts.

the Top to the
es; these from
at length they
the Left hand

P. V. 1. M. P. I. E. 1.

P R O B L E M III.

Given, The Latitude and Longitude of a Point or Place.
Required, Such Point or Place on the Chart.

E X A M P L E.

A Ship is got into the Latitude of 19° North, Longitude $3^{\circ} 30'$ East: To find the Point or Place on the Chart where she is. *Fig. 8.*

Lay the Edge of a Ruler, as Z X, over the given Longitude $3^{\circ} 30'$ East, both in the Parallel of 20° (the next Parallel above the given Latitude) as also in the Parallel of 15° (the next Parallel below the said Latitude).

Then from the graduated Meridian passing nearly thro' the middle of the Chart, from the Parallel of $\frac{20}{17}$ Degrees take the Distance to the given Latitude 19° , the same Distance laid by the Edge of the laid Ruler from the same Parallel of $\frac{20}{17}$ Degrees the same way, will give the Point A the Place where the Ship is.

	<i>Latitude.</i>	<i>Longitude.</i>	
After the same manner there being given the — —	15 25 N.	7 40 E.	} The Ship will be found to be in the Point — {
	12 56 N.	6 08 E.	
	8 20 N.	2 45 W.	
	2 40 N.	6 12 E.	
	1 30 S.	7 08 W.	

the Point F, b
 veral Western

From the Po
 Lay the Edg
 thro' the like
 next Parallels
 the other below

To lay off a
 This may be
 passing nearly
 60 Miles for each
 Leagues on the
N. B. If the
 given Dist
 the said Gra

From the Po
 W.S.W. Rhumb
 Take 5 Degre
 passing nearly th

It have Occasion to lay off such

M P L E 2.

down an East Rhumb. *Fig. 9.*
from the Point F to the next Pa-
off that Distance upon the next
on the same Parallel of Latitude,
from K to L, from M to N, &c.
L, N, &c.

the same manner a West Rhumb might be drawn from
the Point F, by laying off the Distance F G upon the next se-
veral Western Meridians, from the same Parallel of Latitude.

E X A M P L E 3.

From the Point S to draw a due North or South Line. *Fig. 9.*
Lay the Edge of a Ruler by the Point S, so that it may pass
thro' the like Degrees and Minutes of Longitude in the two
next Parallels of Latitude to the said Point (the one above it,
the other below it) and from the said Point S draw ^{ST Northerly}
_{SU Southerly.}

P R O B L E M V.

To lay off any Number of Miles on any given Rhumb.

This may be done by the help of the Graduated Meridian
passing nearly thro' the middle of the Chart, by allowing
60 Miles for each Degree, or by help of the Scale of Miles or
Leagues on the Chart.

N. B. If the Rhumb curve much, it will be best to lay off the
given Distance by 2, 3, or more short Extents taken from
the said Graduated Meridian, or Scale of Miles or Leagues.

E X A M P L E.

From the Point A, *Fig. 9.* To lay off 600 Miles on the
W.S.W. Rhumb.

Take 5 Degrees or 300 Miles from the Graduated Meridian
passing nearly thro' the middle of the Chart, and lay the same
from

E X A M P L E S.

Course by the Compass.	Variation.	True Course.
N.N.E. —	— { Point E. Point W.	N.N.E. † E. N. by E. † E.
S.E. by E. † E.	— { Point E. Point W.	S.E. † E. E.S.E.
S.W. —	— { Point E. Point W.	S.W. † W. S.W. by S. † W.
N. 50° W. —	— { 5° E. 5° W.	N. 45° W. N. 55° W.

In the Globular Charts, the Lines drawn from the Top to the Bottom are Meridians, or North and South Lines; these from the Equator approach nearer to each other, till at length they all meet in the Poles, as they do on the Globe.

The Curve, or crooked Lines, drawn from the Left-hand to the Right-hand, are Parallels of Latitude, or East and West Lines.

The Figures at the Top or Bottom of each Chart, shew the Degrees of Longitude East or West from the First Meridian, passing thro' the City of London.

The Figures on each side of each Chart, but more accurately the Figures placed to that Meridian passing nearly thro' the middle of each Chart, shew the Degrees of Lat. N. or S.

P R O B L E M I.

Given, Any Point or Place on the Chart.
Required, Its Latitude.

E X A M P L E.

The Point A is given. Fig. 8. To find its Latitude.

The shortest Distance from the Point A to the Parallel of 19 Degrees being laid on the graduated Meridian, passing nearly thro' the middle of the Chart from the same Parallel of 19 Degrees the same way, shews the Latitude of the Point A to be 19° 00' North.

After the same manner the Point or Place ——— { B } will be found to be { 15 25 N.
C } in the Latitude { 12 56 N.
D } of ——— { 8 20 N.
E } { 2 40 N.
F } { 1 30 S.

P R O B L E M II.

Given, Any Point or Place on the Chart.
Required, Its Longitude.

E X A M P L E.

The Point A is given. Fig. 8. To find its Longitude.

Lay the Edge of a Ruler, as ZX, by the given Point A, so that it may pass thro' the like Degrees and Minutes of Longitude both in the Parallel of 20° (the next Parallel above the given Point) as also in the Parallel of 15° (the next Parallel below the given Point); then will the said Edge of the Ruler ZX, shew the Longitude of the given Point A to be 3° 30' East.

After the same manner ——— { B } will be found to be { 7 40 E.
C } { 6 08 E.

The Mariner (at the End of each 24 Hours find the Latitude and Longitude his Ship is got into, by Table of meridional Parts, according to the count taught, may thus prick off his Ship's Place on the Chart. And this Method of finding the Ship's Place on the Chart, by the Latitude and Longitude she is got into, is most depended on, and ought constantly to be used.

P R O B L E M IV.

Given, Any Point on the Chart.
From thence to draw any given Rhumb.

Here it is to be observed, That by reason the Meridians of the Globe do incline towards each other, till at length they meet in the Poles, and like Rhumbs, making equal Angles with every Meridian which they pass thro': These Rhumbs are not Right Lines, but Curves, or Spirals, on the Globe; and therefore must be so drawn on the Chart.

E X A M P L E 1.

From the Point A in Fig. 9. to draw a W.S.W. Rhumb. Lay the Center of the Protractor to the given Point A, that its side BC may coincide with the Meridian in which Point A is, if A happens to be in a Meridian; if not, Point A happens not to be in a Meridian, as in Fig. 9. then so lay the Center of the Protractor by the Point A, that its side BC may pass thro' like Degrees and Minutes of Longitude in the two next Parallels of Latitude to that of Point A (the one above it, the other below it). The Point D, so laid, by the sixth Point or W.S.W. Rhumb, in the Protractor make a Point on the Chart, as D. From Points A and D draw a Line till it cut the next, i. e. the eighth Meridian, in the Point (1).

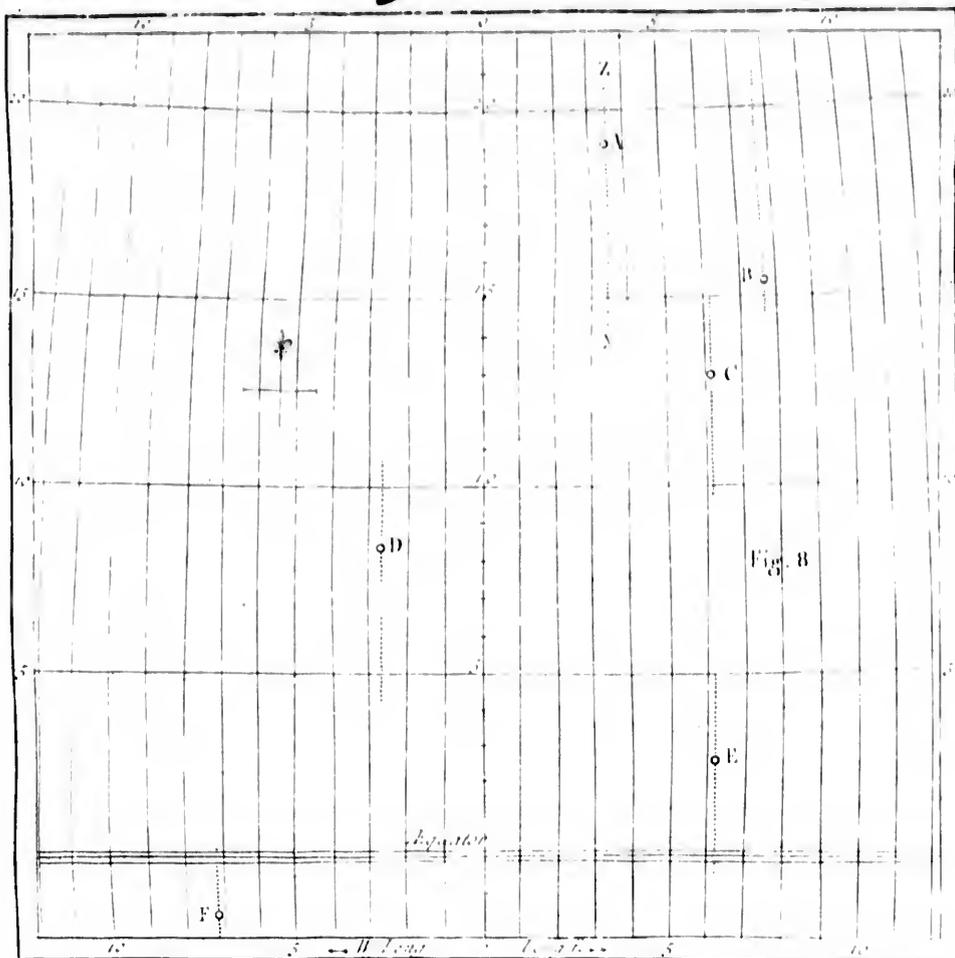
Again, Lay the Center of the Protractor by the Point (1), so that its side BC may coincide with the said Meridian, and by the sixth Point or W.S.W. Rhumb of the Protractor make another Point on the Chart, as (2). and the said Point (1) draw the Line (1. 2.) cutting the eighth Meridian in the Point (2).

After the same manner draw Lines from one Meridian to another, making Angles of 6 Points with every Meridian; you have the Rhumb A, 1, 2, 3, 4, 5, 6.

In like manner may any Rhumb, whether a Half-point, or Quarter-point of the Compass be drawn. And if the other Protractor, whose Limb is divided into 90 Degrees be used, any Rhumb in Degrees may be drawn.

It is to be noted, That the nearer the Meridians are together on the Chart, the more accurate will they be when laid down by this Method: The Rhumb will be the more exact, if the Meridians pass thro' every single Degree of Longitude; but if the Meridians on the Chart pass thro' every two Degrees of Longitude, in such Case, if the Mariner be very exact, he may draw new Meridians on his Chart, in the middle between every two of such Meridians, and shall have Occasion to lay off such Rhumb.

And seeing those Rhumbs that are near the North Pole run a great length before they cross the next Meridian, the Mariner may draw new Meridians thro' every 3 Degrees of Longitude, so far as he shall have Occasion to



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The Point A is given. Fig. 8. To find the shortest Distance from the Point of 11 Degrees being laid on the graduated nearly thro' the middle of the Chart from of 11 Degrees the same way, shews the Latitude to be 19° 00 North.

After the same manner the Point or Place — — — will be found in the Latitude of — — —

PROBLEM 1

Given, Any Point or Place on the Chart. Required, Its Longitude.

E X A M P L E 1

The Point A is given. Fig. 8. To find the Longitude. Lay the Edge of a Ruler, as Z X, by the Point A, so that it may pass thro' the like Degrees of Longitude both in the Parallel of 20° (the next Parallel above the given Point) as also in the Parallel of 15° below the given Point; then will the said Ruler shew the Longitude of the given Point to be 3° 30' East.

After the same manner the Point or Place — — — will be found in the Longitude of — — —

If each Degree of Longitude on the Chart be divided into 6 Equal Parts, the Longitude in each Parallel may very accurately be taken by the Eye.

PROBLEM 2

Given, The Latitude and Longitude of a Point or Place. Required, Such Point or Place on the Chart.

E X A M P L E 1

A Ship is got into the Latitude of 19° 30' North and 30° 30' East: To find the Point or Place on the Chart. Fig. 8.

Lay the Edge of a Ruler, as Z X, over the Point A, so that it may pass thro' the like Degrees of Longitude both in the Parallel of 20° above the given Latitude) as also in the next Parallel below the said Latitude).

Then from the graduated Meridian pass the Edge of the said Ruler from the same Point A, so that it may be parallel to the middle of the Chart, from the Parallel of 19° the said Ruler shews the Distance to the given Latitude 19°, the said Ruler shews the Distance to the given Longitude 30° 30' East, the same way, will give the Point A where the Ship is.

	Latitude.	Longitude.
After the same manner there being given the — — —	15 25 N.	7 40 E.
	12 56 N.	6 08 E.
	8 20 N.	2 45 W.
	2 40 N.	6 12 E.
	1 30 S.	7 08 W.

E X A M P L E.

ven. *Fig. 8.* To find its Latitude.
 Distance from the Point A to the Parallel
 laid on the graduated Meridian, passing
 the middle of the Chart from the same Parallel
 the way, shews the Latitude of the Point A

{ B } will be found to be { 15 25 N.
 { C } in the Latitude { 12 56 N.
 { D } of ———— { 8 20 N.
 { E } of ———— { 2 40 N.
 { F } of ———— { 1 30 S.

P R O B L E M II.

Point or Place on the Chart.

Longitude.

E X A M P L E.

ven. *Fig. 8.* To find its Longitude.
 Lay a Ruler, as Z X, by the given Point A,
 thro' the like Degrees and Minutes of Lon-
 gitude of 20° (the next Parallel above the
 Parallel of 15° (the next Parallel
 below it); then will the said Edge of the Ruler
 shew the Longitude of the given Point A to be

{ B } will be found to be { 7 40 E.
 { C } in the Longitude { 6 08 E.
 { D } of ———— { 2 45 W.
 { E } of ———— { 6 12 E.
 { F } of ———— { 7 08 W.

Longitude on the Chart, by help of
 the Parallel of 6 Equal Parts, the like Minutes of
 Longitude may very accurately be judged of

P R O B L E M III.

Latitude and Longitude of a Point or Place.

Point or Place on the Chart.

E X A M P L E.

Point or Place on the Chart where
 the Latitude of 19° North, Longitude

of 7° 40' East, lay the
 Edge of a Ruler, as Z X, over the given Longitude
 thro' the Parallel of 20° (the next Parallel
 above it) as also in the Parallel of 15° (the
 next Parallel below it).

Then will the said Edge of the Ruler
 passing nearly thro' the
 middle of the Chart from the Parallel of 19°
 Latitude take the
 same Distance laid by
 the Ruler from the same Parallel of 19°
 Latitude give the Point A the Place where the

Latitude.	Longitude.	} The Ship will be found to be in the Point ————	{ B C D E F
25 N.	7 40 E.		
56 N.	6 08 E.		
20 N.	2 45 W.		
40 N.	6 12 E.		
30 S.	7 08 W.		

Meridian, in the Point (1)

Again, Lay the Center of the Protractor by the said Point
 (1), so that its side BC may coincide with the said ninth Me-
 ridian, and by the sixth Point or W.S.W. Rhumb in the Limb
 of the Protractor make another Point on the Chart, by which
 and the said Point (1) draw the Line (1. 2.) cutting the next,
i. e. the eighth Meridian in the Point (2.)

After the same manner draw Lines from one Meridian to an-
 other, making Angles of 6 Points with every Meridian, and
 you have the Rhumb A, 1, 2, 3, 4, 5, 6.

In like manner may any Rhumb, whether a Whole-point,
 Half-point, or Quarter-point of the Compass be laid down:
 And if the other Protractor, whose Limb is divided into twice
 90 Degrees be used, any Rhumb in Degrees may be also described.

It is to be noted, That the nearer the Meridians are placed
 together on the Chart, the more accurate will the Rhumb be
 when laid down by this Method: The Rhumb will be near
 enough if the Meridians pass thro' every single Degree of Lon-
 gitude; but if the Meridians on the Chart pass thro' only every
 two Degrees of Longitude, in such Case, if the Mariner would
 be very exact, he may draw new Meridians on his Chart in the
 middle between every two of such Meridians, so far as he
 shall have Occasion to lay off such Rhumb.

And seeing those Rhumbs that are near the North or South
 run a great length before they cross the next Meridian, the
 Mariner may draw new Meridians thro' every 30 Minutes of
 Longitude, so far as he shall have Occasion to lay off such
 Rhumbs.

E X A M P L E 2.

From the Point F to lay down an East Rhumb. *Fig. 9.*

Take the nearest Distance from the Point F to the next Pa-
 rallel of Latitude, F G; lay off that Distance upon the next
 several Eastern Meridians from the same Parallel of Latitude,
 the same way as from H to I, from K to L, from M to N, &c.
 and connect the Points F, I, L, N, &c.

After the same manner a West Rhumb might be drawn from
 the Point F, by laying off the Distance F G upon the next se-
 veral Western Meridians, from the same Parallel of Latitude.

E X A M P L E 3.

From the Point S to draw a due North or South Line. *Fig. 9.*

Lay the Edge of a Ruler by the Point S, so that it may pass
 thro' the like Degrees and Minutes of Longitude in the two
 next Parallels of Latitude to the said Point (the one above it,
 the other below it) and from the said Point S draw ST Northwardly
_{ST} Southwardly.

P R O B L E M V.

To lay off any Number of Miles on any given Rhumb.

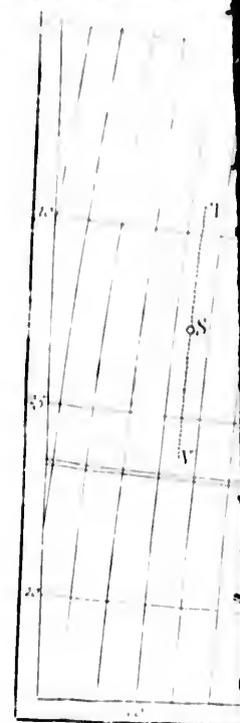
This may be done by the help of the Graduated Meridian
 passing nearly thro' the middle of the Chart, by allowing
 60 Miles for each Degree, or by help of the Scale of Miles or
 Leagues on the Chart.

N. B. If the Rhumb curve much, it will be best to lay off the
 given Distance by 2, 3, or more short Extents taken from
 the said Graduated Meridian, or Scale of Miles or Leagues.

E X A M P L E.

From the Point A, *Fig. 9.* To lay off 600 Miles on the
 W.S.W. Rhumb.

Take 5 Degrees or 300 Miles from the Graduated Meridian
 passing nearly thro' the middle of the Chart, and lay the same
 from



East the in y Rhumb

Directions to M A R

from A to P, and from P to E, or lay off 2 Deg. or 120 Miles
5 times from A to E.

P R O B L E M VI.

Given, The Latitude and Longitude of a Place sailed from,
with the Course and Distance sailed.

Required, The Latitude and Longitude the Ship is arrived to.

E X A M P L E 1.

A Ship from A, *Fig. 9.* in the Latitude $38^{\circ} 00'$ N. Longi-
tude $9^{\circ} 30'$ E. sails W.S.W. 600 Miles, What Latitude and
Longitude is she gotten into?

The Rhumb being drawn by *Problem IV.* and the Distance
A E laid off by *Problem V.* the Ship will be got to the Point
E. the Latitude of which by *Problem I.* will be found to
be $34^{\circ} 10'$ N. and the Longitude
 $1^{\circ} 51'$ W.

In order that the Mariner may jud-
Chart, here follows the Arithmetica

As Radius ———
Is to the Distance 600 Miles ———
So is the Sine of the Course 67 ———
To the Departure 554 Miles ———

As Radius ———
Is to the Distance 600 Miles ———
So is the Sine Comp. of the Course ———
To the Diff. of Latitude 230 Miles ———

Latitude came from ———
Diff. of Latitude ———
Latitude arrived to ———
Meridian Diff. of Latitude ———

	<i>Miles.</i>
As the Diff. of Latitude	230
Is to the Departure	554
So is the Merid. Diff. of Lat.	285
To the Diff. of Longit.	686

Longitude came from ———
Diff. of Longitude ———
Longitude arrived to ———

E X A M P

A Ship from F, *Fig. 9.* in the La-
 $3^{\circ} 30'$ E. sails due East 300 Miles, W

The Rhumb being laid down by
by *Problem V.* the Ship will be got
Longitude $9^{\circ} 7'$ E. by *Problem I*

The Arithmetical

As the Sine Comp. of the Latitud
Is to the Distance 300 Miles ———
So is Radius ———

ions to MARINERS.

of 120 Miles

If the Mariner will take pains to find the Latitudes and Longitudes that the Ship hath got into at the End of each 24 Hours by Arithmetical Computation, he will find they agree with thofe by the Chart as above. which Computations I have omitted, conceiving they would take up too much room.

failed from,

EXAMPLE 4.

s arrived to.

A Ship from the Point A, *Fig. 11.* in the Latitude $60^{\circ} 00' N.$ Longitude $20^{\circ} 00' W.$ fails N.E. by E. 1200 Miles. What Latitude and Longitude is the Ship got into?

N. Longitude and

The Courfe being laid off by *Problem IV.* and the Distance by *Problem V.* the Ship will be found to be at the Point B, in the Latitude $71^{\circ} 07' N.$ by *Problem I.* and in the Longitude $20^{\circ} 53' E.$ by *Problem II.*

the Distance to the Point e found to

The Arithmetical Computation.

So is the Merid. Diff. of Lat. 285 |
 To the Diff. of Longit. 686 |

Longitude came from _____
 Diff. of Longitude _____
 Longitude arrived to _____

E X A M P

A Ship from F, *Fig. 9.* in the La
 3° 30' E. sails due East 300 Miles, W
 The Rhumb being laid down by
 by *Problem V.* the Ship will be ge
 Longitude 9° 7' E. by *Problem I*
 The Arithmetical

As the Sine Comp. of the Latitud
 Is to the Distance 300 Miles .
 So is Radius _____

_____ 10.000000 _____

10.000000

e would be CB 794 Miles, and
 o A, S.W. by W. 1200 Miles,
 A 1226 Miles; in the former
 art, the Mariner would con-
 204 Miles more, and in the
 reality it is.

*is for finding the said true
 distances.*

—	—	10.000000
3 Miles	—	3.389697
Latitude of B	18° 53'	9.510065
94 Miles	—	2.899762

—	—	10.000000
3 Miles	—	3.389697
Latitude of A	30° 00'	9.698970
226 Miles	—	3.088667

lar Chart the Mariner will not
 the true Meridian Distance in
 short Distances taken from the
 ly thro' the middle of the Chart,
 leagues on the Chart, as other

nces of Places can be truly ex-
 mot see, whilst it is taken on
 Meridians are parallel to each
 art (*Fig. 11.*) was to be made
 Latitude of 80°, and two Places
 n in the Latitude of 60° distant
 f two other Places were to be
 0°, the one bearing due North
 orth from (*n*), the two Places
 c (*p*) and (*q*), distant from each
 pon the Surface of the Globe,
 the Latitude of 60°, be distant
 at Place in the Latitude of 80°

* a

bearing

Directions to MARINERS.

from A to P, and from P to E, or lay off 2 Deg. or 120 Miles 5 times from A to E.

PROBLEM VI.

Given, The Latitude and Longitude of a Place sailed from, with the Course and Distance sailed.

Required, The Latitude and Longitude the Ship is arrived to.

EXAMPLE 1.

A Ship from A, *Fig. 9.* in the Latitude $38^{\circ} 00' N.$ Longitude $9^{\circ} 30' E.$ sails W.S.W. 600 Miles, What Latitude and Longitude is she gotten into?

The Rhumb being drawn by *Problem IV.* and the Distance A E laid off by *Problem V.* the Ship will be got to the Point E. the Latitude of which by *Problem I.* will be found to be $34^{\circ} 10' N.$ and the Longitude by *Problem II.* will be $1^{\circ} 51' W.$

In order that the Mariner may judge of the Truth of the Chart, here follows the Arithmetical Computation.

As Radius	—	10.000000
Is to the Distance 600 Miles	—	2.778151
So is the Sine of the Course $67^{\circ} 30'$	—	<u>9.965615</u>
To the Departure 554 Miles	—	2.743766

As Radius	—	10.000000
Is to the Distance 600 Miles	—	2.778151
So is the Sine Comp. of the Course $22^{\circ} 30'$	—	<u>9.582840</u>
To the Diff. of Latitude 230 Miles	—	2.360991

Latitude came from	—	$38^{\circ} 00' N.$ — 2468
Diff. of Latitude	—	<u>3 50 S.</u>
Latitude arrived to	—	$34^{\circ} 10' N.$ — 2183
Meridian Diff. of Latitude	—	285

As the Diff. of Latitude	230	Miles. } N. B. This may be wrought
Is to the Departure	554	by the common Numbers,
So is the Merid. Diff. of Lat.	285	as in the Rule of Three,
To the Diff. of Longit.	686	without the help of Logarithms.

Longitude came from	—	9 30 E.
Diff. of Longitude	—	<u>11 26 W.</u>
Longitude arrived to	—	1 56 W.

EXAMPLE 2.

A Ship from F, *Fig. 9.* in the Latitude $27^{\circ} 10' N.$ Longitude $3^{\circ} 30' E.$ sails due East 300 Miles, What Longitude is she gotten into?

The Rhumb being laid down by *Problem IV.* and the Distance by *Problem V.* the Ship will be gotten to the Point Q, in the Longitude $9^{\circ} 7' E.$ by *Problem II.*

The Arithmetical Computation.

As the Sine Comp. of the Latitude $62^{\circ} 50'$	—	9.949235
Is to the Distance 300 Miles	—	2.477121
So is Radius	—	<u>10.000000</u>

If the Mariner will take pains to find the Latitude and Longitude that the Ship hath got into at the End of Hours by Arithmetical Computation, he will find it with those by the Chart as above, which Computation omitted, conceiving they would take up too much room.

EXAMPLE 4.

A Ship from the Point A, *Fig. 11.* in the Latitude $60^{\circ} 00' N.$ Longitude $20^{\circ} 00' W.$ sails N.E. by E. 1200 Miles. What Latitude and Longitude is the Ship got into?

The Course being laid off by *Problem IV.* and the Distance by *Problem V.* the Ship will be found to be at the Point B in the Latitude $71^{\circ} 07' N.$ by *Problem I.* and in the Longitude $20^{\circ} 53' E.$ by *Problem II.*

The Arithmetical Computation.

As Radius	—	10.000000
Is to the Distance 1200 Miles	—	3.079181
So is the Sine of the Course $56^{\circ} 15'$	—	<u>9.919181</u>
To the Departure 998 Miles	—	2.998181

As Radius	—	10.000000
Is to the Distance 1200 Miles	—	3.079181
So is the Sine Comp. of the Course $33^{\circ} 45'$	—	<u>9.748181</u>
To the Diff. of Latitude 667 Miles	—	667

Latitude came from	—	$60^{\circ} 00' N.$ — 6000
Diff. of Latitude	—	<u>11 07 N.</u>
Latitude arrived to	—	$71^{\circ} 07' N.$ — 6667
Meridian Diff. of Latitude	—	667

As the Diff. of Latitude	667	Miles. } 667
Is to the Departure	998	998
So is the Merid. Diff. of Latitude	1640	1640
To the Diff. of Longitude	2453	2453

Longitude came from	—	20 00 W.
Diff. of Longitude	—	<u>40 53 E.</u>
Longitude arrived to	—	20 53 E.

It may be proper here for the Mariner to consider that the Departure, altho properly enough made use of in discovering the Longitude in the Arithmetical Computation above, yet is not to be depended on for the Estimating the Ship's East or West Distance from the Meridian of the Place sailed from (commonly called Meridian Distance) as he may make use of the same; which Error Mariners have often made into by their using the Plain Charts; for by that, if a Ship was to sail from A to B, N.E. by E. 1200 Miles (A being in the Latitude $60^{\circ} 00' N.$ Longitude $20^{\circ} 00' W.$ and B in the Latitude $71^{\circ} 07' N.$ Longitude $20^{\circ} 53' E.$) it would appear by the Plain Chart, and therefore so the Mariner would naturally conclude, that his Departure or Meridian Distance would be 998 Miles, whereas in truth, by reason of the Inclination of the Meridians in sailing from A to B, the

e would be CB 794 Miles
A S.W. by W. 12

ains to find the Latitudes and
 ot into at the End of each 24
 tion, he will find they agree
 e, which Computations I have
 take up too much room.

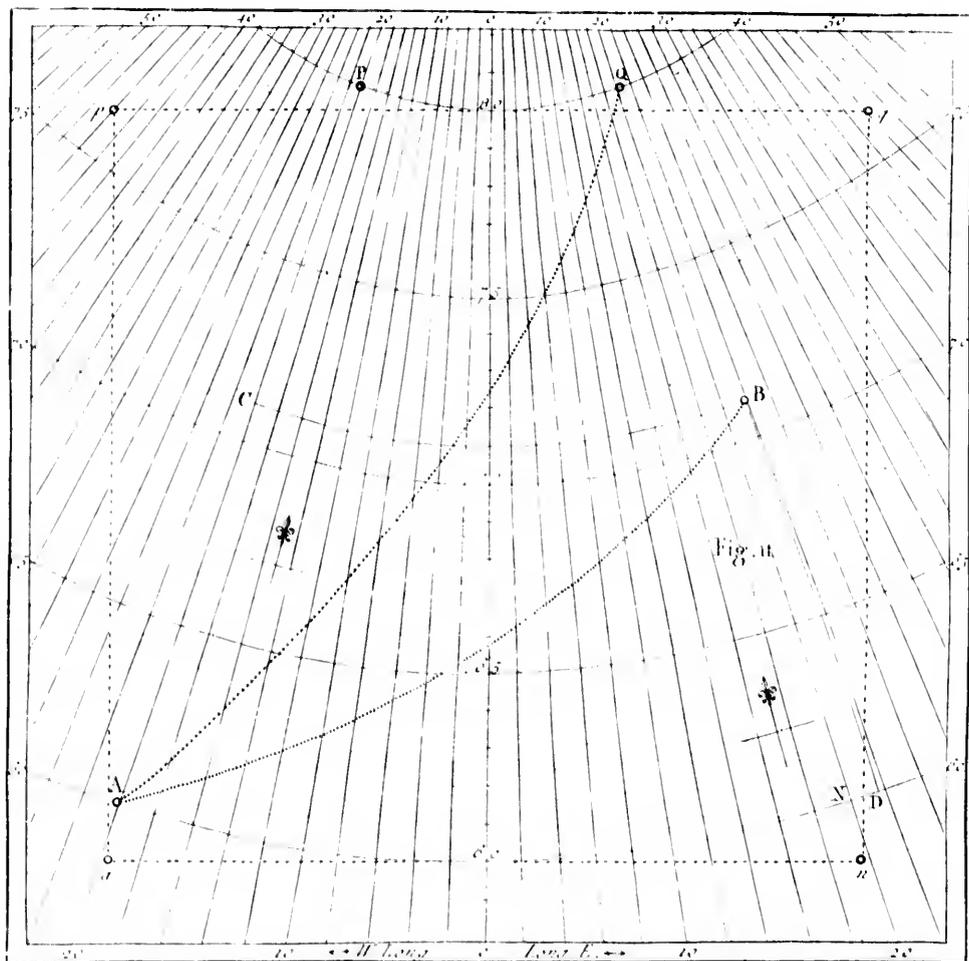
² L E 4.
 11. in the Latitude $60^{\circ} 00' N.$
 by E. 1200 Miles, What La-
 got into?

Problem IV. and the Distance
 found to be at the Point B,
 Problem I. and in the Longitude

Computation.

10.000000	
les	3.079181
e $56^{\circ} 15'$	<u>9.919846</u>
es	2.999027
	10.000000
	3.079181
urf $53^{\circ} 45'$	<u>9.744739</u>
iles	2.823920
	MP.
60 00 N.	4528
11 07 N.	
71 07 N.	6168
	1640
	Mils.
	667
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ude	1640
	2453
	20 00 W.
	40 53 E.
	20 53 E.

ne Mariner to consider, That
 enough made use of for the
 Arithmetical Computations as
 d on for the Estimation of his
 the Meridian of the Place first
 Meridian Distance) as Mariners
 Error Mariners have been led
 charts; for by that, if a Ship
 by E. 1200 Miles (Fig. 11.),
 200 Miles, in either Case it
 t, and therefore so the Mariner
 his Departure or Meridian Dif-
 erences in truth, by reason of the
 sailing from A to B, N.E. by E.
 e would be CB 794 Miles, and
 o A. S.W. by W. 1200 Miles.



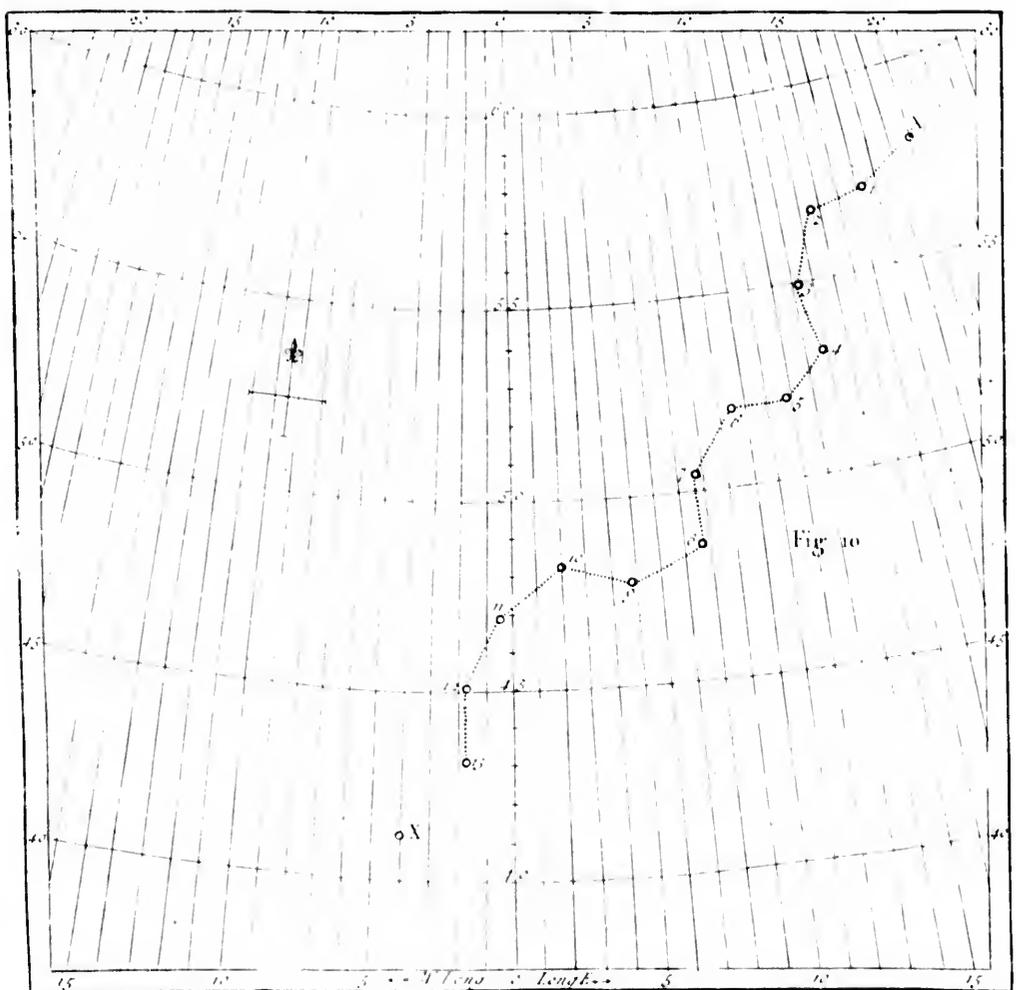
Put this in the Margin under the Title Directions to Mariners page V. Column 2. towards top to fold in

50 is the Merid. Dist. of the
 To the Diff. of Longit.
 Longitude came from
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 E X A
 A Ship from F, Fig. 9. in
 $3^{\circ} 30'$ E. sails due East 300 Mi
 The Rhumb being laid dov
 by Problem V. the Ship wil
 Longitude $9^{\circ} 7'$ E. by Pro
 The Arithme
 As the Sine Comp. of the L
 Is to the Distance 300 Miles
 So is Radius —
 To the Diff. of Longitude

Longitude came from
 Diff. of Longitude
 Longitude arrived to
 E X A
 A Ship from the Point
 $58^{\circ} 00'$ N. Longitude 20°
 Latitude $41^{\circ} 00'$ N. Long
 makes her Way good S.W. by
 90 Miles, the 3d Day S.S.W.
 110 Miles, the 5th Day S.
 Miles, the 7th Day S.W. b
 Miles, the 9th Day W.S.W.
 $\frac{1}{2}$ W. 118 Miles, the 11th
 Day S.S.W. $\frac{1}{4}$ W. 126 Miles
 Latitude and Longitude is f
 and Distance to the said Po
 Having laid off the said
 manner aforesaid, the Ship
 titudes and Longitudes in
 be found in the Point (13).
 gitude $01^{\circ} 44'$ W. An
 S.W. by S. $\frac{1}{2}$ W. nearest di

The Journal of which the

Day of the Month and Year.	Sun- day.	N ^o of Days.
5 Jan. 1728.		1
6		2
7	○	3
8		4
9		5
10		6
11		7
12		8
13		9
14	○	10
15		11
16		12
17		13



Paste this in y Margent under y Tit. Directions to Manner page V Column 1 towards y Bottom to open y readers

Merid. Dist. of Lat. 285 | without the help of Logarithms.

Longitude arrived to ——— 20 53 E.

Longitude came from ——— 9 30 E.
 Diff. of Longitude ——— 11 26 W.
 Longitude arrived to ——— 1 56 W.

EXAMPLE 2.

Ship from F, Fig. 9. in the Latitude 27° 10' N. Longitude 11° 26' W. sails due East 300 Miles, What Longit. is she gotten into? Rhumb being laid down by Problem IV. and the Distance Problem V. the Ship will be gotten to the Point Q, in the Latitude 9° 7' E. by Problem II.

The Arithmetical Computation.

Sine Comp. of the Latitude 62° 50' ——— 9.949235
 Sine Distance 300 Miles ——— 2.477121
 Radius ——— 10.000000
 Diff. of Longitude 337 Miles ——— 2.527886

Longitude came from ——— 3° 30' E.
 Diff. of Longitude ——— 5 37 E.
 Longitude arrived to ——— 9 07 E.

EXAMPLE 3.

Ship from the Point A, Fig. 10. in the Latitude 41° 00' N. Longitude 20° 00' E. is bound to a Port X, in the Latitude 41° 00' N. Longitude 4° 00' W. the 1st Day she goes S.W. by W. 107 Miles, the 2d Day W. by S. 120 Miles, the 3d Day S.S.W. 120 Miles, the 4th Day S. by E. 110 Miles, the 5th Day S.W. 100 Miles, the 6th Day W. 90 Miles, the 7th Day S.W. by S. 120 Miles, the 8th Day S. 110 Miles, the 9th Day W.S.W. 122 Miles, the 10th Day W.N.W. 118 Miles, the 11th Day S.W. 124 Miles, the 12th Day S.W. 126 Miles, the 13th Day S. 122 Miles; What Latitude and Longitude is she got into, and what is her Course and Distance to the said Port X?

Having laid off the said several Courses and Distances in the under-written Table, the Ship will have past thro' the several Latitudes and Longitudes in the under-written Table, and at last will be in the Point (13), in the Latitude 43° 05' N. Longitude 01° 44' W. And the Port X will bear from her S. 1/2 W. nearest distant 161 Miles.

The Journal of which the Mariner may keep in the following Form.

of the Month	Sunday.	N ^o of Days.	Course made good each 24 Hours.	Dist. of Miles.	Latit. got into.	Longit. got into.
Jan. 1728.		1	S.W. by W.	107	59° 04' N.	17° 16' E.
	○	2	W. by S.	90	56 47 N.	14 36 E.
		3	S.S.W.	120	54 56 N.	13 14 E.
		4	S. by E.	110	53 08 N.	13 49 E.
		5	S.W.	100	51 57 N.	11 52 E.
		6	W.	90	51 57 N.	9 26 E.
		7	S.W. by S.	120	50 17 N.	7 40 E.
		8	S.	110	48 27 N.	7 40 E.
		9	W.S.W.	122	47 40 N.	4 52 E.
	○	10	W.N.W. 1/2 W.	118	43 14 N.	2 3 E.
		11	S.W. 1/2 W.	124	47 01 N.	0 26 W.
		12	S.S.W. 1/2 W.	125	45 07 N.	1 44 W.
		13	S.	122	43 05 N.	1 44 W.

It may be proper here for the Mariner to consider, That the Departure, altho properly enough made use of for the discovering the Longitude in the Arithmetical Computations as above, yet is not to be depended on for the Estimation of his Ship's East or West Distance from the Meridian of the Place first sailed from (commonly called Meridian Distance) as Mariners make use of the same; which Error Mariners have been led into by their using the Plain Charts; for by that, if a Ship was to sail from A to B, N.E. by E. 1200 Miles (Fig. 11.), or from B to A, S.W. by S. 1200 Miles, in either Case it would appear by the Plain Chart, and therefore so the Mariner would naturally conclude, that his Departure or Meridian Distance would be 998 Miles, whereas in truth, by reason of the Inclination of the Meridians in sailing from A to B, N.E. by E. 1200 Miles, the Meridian Distance would be CB 794 Miles, and no more; but in sailing from B to A, S.W. by W. 1200 Miles, the Meridian Distance would be DA 1226 Miles; in the former Case, by the Use of the Plain Chart, the Mariner would conclude his Meridian Distance to be 204 Miles more, and in the latter Case 228 Miles less than in reality it is.

The Arithmetical Computations for finding the said true Meridian Distances.

As Radius ——— 10.000000
 Sine to the Diff. of Longitude 2453 Miles ——— 3.389697
 So is the Sine Comp. of the Latitude of B 18° 53' 9.510065
 To the Meridian Distance CB 794 Miles ——— 2.899762

As Radius ——— 10.000000
 Sine to the Diff. of Longitude 2453 Miles ——— 3.389697
 So is the Sine Comp. of the Latitude of A 30° 00' 9.698970
 To the Meridian Distance DA 1226 Miles ——— 3.088667

But by the Use of this Globular Chart the Mariner will not be in danger of being so misled: the true Meridian Distance in either Case may be measured by short Distances taken from the Graduated Meridian passing nearly thro' the middle of the Chart, or from the Scale of Miles or Leagues on the Chart, as other Distances are.

How the East and West Distances of Places can be truly expressed on the Plain Chart I cannot see, whilst it is taken on that Chart for granted that the Meridians are parallel to each other; for supposing a Plain Chart (Fig. 11.) was to be made from the Latitude of 60° to the Latitude of 80°, and two Places (a) and (n) were to be laid down in the Latitude of 60° distant from each other 1200 Miles, if two other Places were to be laid down in the Latitude of 80°, the one bearing due North from (a) and the other due North from (n), the two Places in the Latitude of 80° would be (p) and (q), distant from each other 1200 Miles also; but, upon the Surface of the Globe, if the two Points A and N, in the Latitude of 60°, be distant from each other 1200 Miles, that Place in the Latitude of 80° bearing

* a

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bearing due North from A would be P, and that in the Latitude of 80° bearing due North from N would be Q, which Places P and Q would be distant from each other no more than 417 Miles; *i. e.* the Places (*p*) and (*q*) on the Plain Chart would be represented 783 Miles farther distant from each other than really they are. On the other hand, If two Places in the Latitude of 80°, distant from each other 417 Miles, be laid down true on the Plain Chart, then two other Places in the Latitude of 60°, respectively bearing due South from the former, would be represented distant from each other no more than 417 Miles also, whereas in reality, upon the Surface of the Globe, they would be distant 1200 Miles; so that, in this Case, the two Places in the Latitude of 60° would be represented 783 Miles less distant from each other than in reality they are.

The Arithmetical Computation is as follows :

	<i>Co. Ar.</i>
As the Sine Comp. of the Latitude of A D 30°	— 0.301029
Is to the Distance A D 1200 Miles	———— 3.079181
So is the Sine Comp. of the Latitude of P Q 10°	— 9.239670
To the Distance P Q 417 Miles	———— 2.619880

Again, If the East and West Distances of Places are laid down true in the middle of the Plain Chart, then the East and West Distances of Places nearer to the Pole will be accordingly represented greater, and those nearer to the Equator less than in reality they are.

The Bearings and Distances of Places also on the Plain Chart must be also faulty. As in the former Case the Course from (*a*) to (*q*) must be represented N.E. (the Diff. of Latitude being supposed equal to the Departure) and the Distance 1697 Miles. For

As the Sine of the Course 45° 00'	———— 9.849485
Is to the Departure 1200 Miles	———— 3.079181
So is Radius	———— 10.000000
To the Distance <i>a q</i> 1697 Miles	———— 3.229696

But on the Terrestrial Globe the Course will be N. 31° 56' Easterly, or N.E. by N. nearest, and the Distance 1414 Miles, *i. e.* the Course will be represented on the Plain Chart 13° 04' more than it is, and the Distance 283 Miles more than in truth it is. See the Arithmetical Computation.

Latit. from 60° 00' N.	^{MP.} — 4528	
Latitude to 80° 00' N.	— 8377	
20	3849 miles.	
60		
1200 Miles.		
		Diff. of Longit. 40°
		60
		2400 miles.

As the Meridian Diff. of Latitude 3849 miles	— 3.585348
Is to the Diff. of Longitude 2400 miles	———— 3.380211
So is Radius	———— 10.000000
To the Tang. of the Course 31° 56'	———— 9.794863

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to MARINERS.

Latitude	As the Sine Comp. of the Counté	58° 04'	————	9.923736
Places	Is to the Diff. of Latitude	1200 miles	————	3.079181
n 417	So is Radius	————	————	10.000000
would	To the Distance	1414 miles	————	<u>3.150445</u>
er than				

And in such a multiplicity of Errors and Falsities on the Plain Chart, no wonder if the Mariner is often in a Maze; sometimes imputing his being out in his Reckoning of the Ship's Way to bad Steeridge, Lee-way-Currents, Variation of the Compaſs, &c. whilst it is very likely the greatest Fault of all is in his Plain Chart, which he least of all suspects. This Evil will be in great measure remedied, would Mariners lay aside their Plain Charts, and make use of the *Mercator Charts* or *Globular Charts* only. The *Mercator's* Chart, notwithstanding it doth not exhibit to the Eye a true Representation of the Surface of the Earth, nor of the Circles of the Sphere, the Degrees of Latitude on that being unequal which are equal on the Globe, the Degrees of Longitude on that being equal which are unequal on the Globe, the Rhumbs on that being Right-Lines which are Curves on the Globe, and the Magnitudes and Distances of Places thereon being represented to the Eye much larger than they really are, yet nevertheless the *Mercator's* Chart is an excellent Invention; Places thereon may be laid down in their true Latitudes and Longitudes, and the Bearings and Distances of Places thereon accurately enough measured by a particular Method usually taught: But the same being a distorted Representation of the Superficies of the Terrestrial Globe, which, tho' intelligible enough to Mathematicians, yet is not so to Persons of small Capacities; and there not being any common Scale thereon whereby the Distances of Places, or a Ship's Way, may be measured or laid down as on the Plain Chart, hath caused most Mariners to neglect the same, and to make use of the Plain Chart only, which they judge more easy to be used as well as understood. These *Globular Charts* therefore are designed to represent to the Mariner, in as easy a manner as possible, the Circles of the Terrestrial Globe, and the several Places on the Globe in their due Magnitudes, Latitudes, Longitudes, Positions, and Distances from each other, and that as near to the Truth as it is possible for small Portions of a spherical Superficies to be represented on a Plain: near enough for the Use of Mariners. On which Charts the Degrees of Latitude are represented Equal, as they are on the Globe; the Degrees of Longitude Unequal, as they are on the Globe; the Rhumbs, Curves or Spiral-Lines, as they are on the Globe; the Magnitudes and Distances of Places thereon duly represented as on the Globe, and the Distances of Places thereon may be easily measured by help of the Graduated Meridian, or by a common Scale of Equal Parts, on the Charts. The Protractor applied to the Chart for laying down a Ship's several Courses thereon, is no more than a Representation of the Mariner's Compaſs passing over the Surface of the Terrestrial Globe: The Whole is only a following Nature in the most simple and easy manner, and obvious to the meanest Capacities.

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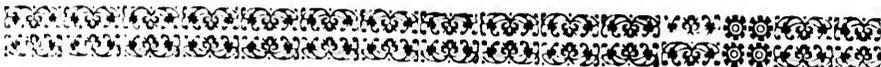
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But on the Terrestrial Globe the Course will be N. $31^{\circ} 56'$ Easterly, or N.E. by N. nearest, and the Distance 1414 Miles, *i. e.* the Course will be represented on the Plain Chart $13^{\circ} 04'$ more than it is, and the Distance 283 Miles more than in truth it is. See the Arithmetical Computation.

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Latit. from $60^{\circ} 00'$ N. —</td> <td style="text-align: left;">^{MP.} 4528</td> </tr> <tr> <td style="text-align: right;">Latitude to $80^{\circ} 00'$ N. —</td> <td style="text-align: left;">8377</td> </tr> <tr> <td style="text-align: right; border-top: 1px solid black;">20</td> <td style="text-align: left; border-top: 1px solid black;">3849 miles.</td> </tr> <tr> <td style="text-align: right; border-top: 1px solid black;">60</td> <td style="text-align: left; border-top: 1px solid black;">1200 Miles.</td> </tr> </table>	Latit. from $60^{\circ} 00'$ N. —	^{MP.} 4528	Latitude to $80^{\circ} 00'$ N. —	8377	20	3849 miles.	60	1200 Miles.	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Diff. of Longit. 40°</td> </tr> <tr> <td style="text-align: right; border-top: 1px solid black;">60</td> </tr> <tr> <td style="text-align: right; border-top: 1px solid black;">2400 miles.</td> </tr> </table>	Diff. of Longit. 40°	60	2400 miles.
Latit. from $60^{\circ} 00'$ N. —	^{MP.} 4528											
Latitude to $80^{\circ} 00'$ N. —	8377											
20	3849 miles.											
60	1200 Miles.											
Diff. of Longit. 40°												
60												
2400 miles.												

As the Meridian Diff. of Latitude 3849 miles	—	3.585348
Is to the Diff. of Longitude 2400 miles	—	3.380211
So is Radius	—	10.000000
To the Tang. of the Course $31^{\circ} 56'$	—	9.794863



E R R A T

The Letter *a* denotes the first, and *b* the second

PAge 3. in Tit. dele *Part I.* P. 4 *a*, l. 4. place the : after *Nesb.* P. 5 *a*, l. 16. for *Land r. Sands.* l. 35. dele *about 3 Miles.* P. 25 *b*, l. 11. r. S.E. P. 27 *b*, l. 43. r. *that Depsh.* P. 57 *a*, l. 4. r. *Avero.* lb. *b*, l. 10. r. S.W. P. 58 *a*, l. 21. r. *Xeres.* P. 60 *a*, l. 15. from bot. r. *Majorca.* P. 69 *a*, l. 17. from bot. r. *Boon.* P. 72 *a*, l. 16. from bot. r. *Engia.* P. 73 *b*, l. 7. for *Bahabera r. Bobabora.* P. 78 *a*, l. 32. r. 88 *L.* P. 83 *b*, l. 26. r. *Fortaliza.* P. 84 *b*, l. 61. for *is r. it.* P. 85 *b*, l. 24. from bot. after *Shoals* add or *Baxos.* P. 87 *b*, l. 7. from bot. r. *the Lee.* P. 89 *b*, l. 9. from bot. r. *Fort.* P. 90 *b*, l. 42. for *January r. March,* and for *May r. August.* P. 95 *a*, l. 37. r. *Coast as.* lb. *b*, l. 9. from bot. r. *Frio.* P. 96 *b*, l. 34. from bot. put the ; after *it.* l. 23. and 18. from bot. r. *Zocetra.* P. 97 *b*, l. 8. from bot. for *Point r. Port.* P. 99. the Paragraph in Col. 2. beginning *Mount Felix,* should be put in before that in Col. 1. beginning *Aden lies.* P. 101 *a*, l. 19. r. *any directed Course.* l. 21. from bot. r. *Sinda.* l. 17. from bot. for 20. r. 2. P. 103 *a*, l. 17. r. *Cockeen.* P. 108 *b*, l. 12. from bot. r. *over to.* P. 109 *a*, l. 1. &c. r. *Gulngam.* P. 115 *a*, l. 23. r. *Bandermaffen.* l. 24. from bot. r. *that Po-*

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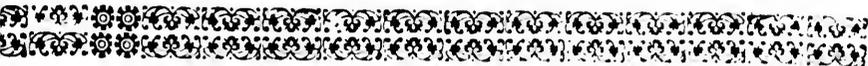
sition. P. 11
r. *Hell-Gat.*
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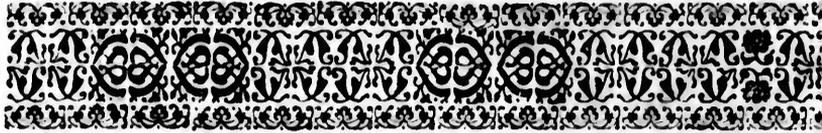
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R R A T A.

the first, and *b* the second Column of the Page.

s. P. 5 *a*,
11. r. S.E.
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69 *a*, l. 17.
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sition. P. 116 *b*, l. 41. r. *Singapore*; and for *pass* r. *passing*. P. 126 *b*, l. 31.
r. *Hell-Gar*. P. 130 *a*, l. 12. r. *sometimes*. P. 133 *b*, l. 26. r. *called also*.
P. 136 *b*, l. 41. dele the full point after *way*; and put a full point after *Ex-
trance*. P. 139 *a*, l. 12. r. *Quibnico*. P. 144 *a*, l. 10. from bot. r. *Ficon-
dido*. P. 145 *a*, l. 33. for *dos r. los*. P. 147 *a*, l. 17. from bot. for *at r. op-
posite to*. P. 148 *a*, l. 49. r. *the Coast*. P. 156 *a*, l. 19. from bot. r. *Reque*.
The same in Col. 2. P. 157 *a*, l. 13. r. *Ilba*. P. 161 *a*, l. 10 from bot.
r. *Le Maire*. The same in Col. 2. P. 165 *a*, l. 57. r. *but*. P. 168 *a*, l. 35.
from bot. r. *Islands*. l. 10. from bot. r. 58 *d*. P. 169 *b*, l. 12. dele all after
expected. P. 171 *b*, l. 35. r. *Limare*. P. 180 *b*, l. 12. from bot. dele *then*.
P. 182 *a*, l. 25 from bot. r. *Line in hand*. P. 187 *b*, l. 38. r. *terminates it*.
l. 21. from bot. r. *out at Sea*. P. 188 *a*, l. 46. for *from r. into*. P. 189 *b*,
l. 17. from bot. r. *Champion*. P. 190 *a*, l. 5. r. *Plantations*. l. 8. r. *Tiago*.
Ib. *b*, l. 40. put a , after further. P. 192 *b*, l. 16. from bot. for *back again*
to New Spain, r. and *back again thither*. P. 193 *a*, l. 3. from bot. for 34
d. S. r. 17 d. N. and S. P. 194 *b*, l. 7. r. *small Islands*.



DIRECTIONS

F R O M

Mouth of the River of *Thames*, G R E A T B R I T A I N

P A R T

From the Sand call'd the Spitts in the Mouth of the River of Thames, in the County of Suffolk, and Norfolk, to Winterton-Nefs, and the Downs.

[N. B. *Pilots being always taken to sail up and down the Thames, Spitts on the North-side, and at the Downs on the South.*



THE *Spitts* is a Sand on the North-side of the River, and on the Coast of *Essex*, between the Entrance into *Malden Water* West, and *Colchester Water* East, going down the *King's Channel*: and being to sail into *Harwich*, or to the *Rolling Grounds* off of *Harwich*, you go over the *Spitts* into the *Wallet*.

The *Wallet* is a clear part of the River lying within the *Gunfleet*, and between all those Sands about the *Gunfleet*, and the Shore of *Essex*.

The Buoy of the *Spitts* lies in shoal Water, so that you must be careful to observe the Tides in going over it into the *Wallet*: At low Water, there is but five to seven Foot Water, and not always a like Depth.

Being in the *Wallet*, you have deep Water, five to eight Fathoms, and good clean Ground to the *Naze*, East-North-East.

The *Naze* is a high Point of Land E.N.E. from the *Wallet*; 'tis known by a new round Building of Brick rais'd upon it for a particular Mark: It is as high as a Light-house; tho it is not made use of as such, only as a Sea-mark to know the *Naze* and other Places. The old Mark was a Farm-House surrounded with

ONS for SAILING

FROM THE

of *Thames*, round the whole Island of
EAT BRITAIN.

PART I.

*the Mouth of the River Thames, along the Coast of Essex,
 orton-Nefs, and from thence to the Orkneys in Scotland.*

*And down the Thames, we do not take that River into our Work, but begin at the
 Towns on the South. And the same may be observ'd of all other navigable Rivers.]*

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The Flood at Spring-Tides makes into the Harbour from the
 S. and rises $2\frac{1}{2}$ Fa. at least ; at Neap-Tides 10 to 11 Foot.

Sailing from *Harwich*, or from the *Rolling Ground* to the
 North, you are to keep the *Suffolk Coast* on your Larboard-
 side, generally at the distance of half a League to a League and
 half, as by the following Directions.

Supposing your Ship bound to the N. from the *Wallet*, as
 above, or from the *Gunfleet*. The Buoy of the *Gunfleet* lies
 S.E. by E. easterly from the *Naze* ; your Course to the N. is
 along the S.E. side of the *West Rocks* in 7 to 8 Fa. Water into
 the *Sledway*, keeping *Balsøy* or *Baudsøy Church* N.W. and
 N.N.W. till you bring *Harwich Steeple* on the *Languard-Fort*
Brewhouse : Then go away W. keeping *Orford Church* and
Castle open of *Balsøy Cliff* about a Sail's breadth, till *Har-*
wich Lights come together. Here you may stand in for *Har-*
wich if you please, taking a Pilot as before. But in this
 Course to go N. you must pass by *Balsøy Sand* ; and the *Ship-*
walk, which lies without it.

Balsøy Sand lies a L. from Shore, stretching in length N.N.E.
 and S.S.W. To pass by the N. end of it, bring *Orford Castle*
 between N. by W. and N.N.W. and *Orford Light-house* N. $\frac{1}{2}$ E.



the Entrance into *Malden Water* West, and *Colchester Water* East, going down the *King's Channel*: and being to sail into *Harwich*, or to the *Rolling Grounds* off of *Harwich*, you go over the *Spitts* into the *Wallet*.

The *Wallet* is a clear part of the River lying within the *Gunfleet*, and between all those Sands about the *Gunfleet*, and the Shore of *Essex*.

The Buoy of the *Spitts* lies in shoal Water, so that you must be careful to observe the Tides in going over it into the *Wallet*: At low Water, there is but five to seven Foot Water, and not always a like Depth.

Being in the *Wallet*, you have deep Water, five to eight Fathoms, and good clean Ground to the *Naze*, East-North-East.

The *Naze* is a high Point of Land E.N.E. from the *Wallet*; 'tis known by a new round Building of Brick rais'd upon it for a particular Mark: It is as high as a Light-house; tho it is not made use of as such, only as a Sea-mark to know the *Naze* and other Places. The old Mark was a Farm-House surrounded with Trees; but this new Building is set up by Authority for a Sea-mark, as above.

The Course is East by North under the *Naze*, Distance about half a Mile or a Mile; come no nearer, because of a Stone Bank which lies from the *Naze Trees*, as above, E. by N. a Mile and half from the Point. There is one Fathom and a half between that Bank and the *Naze* at low Water.

The Marks for the *Stone Bank* are thus. (1.) Bring *Panes Trees*, which lie a little to the South of *Harwich*, open and shut with *Harwich Cliff*, and you run directly for the Bank: Or, keep the *Trees* on the *Cocksand* just open of the *Nazeland-Point*, that will do the same: Or, keep *Harwich Steeple* on *Harwich-Beacon-Cliff*, and that carries you between the *Stone Bank* and the *Land of the Naze*: And the same Mark carries you between the *Pye* and the *Ridge* into the *Rolling Ground*.

The *Rolling Ground* is a safe Road, and good anchoring in 3 to 4 Fa. at low Water. Bring *Harwich Wind-mill* two Sails breadth open of *Harwich Cliffs*, that gives you the best place to anchor in the *Rolling Ground*.

The light *Colliers* going to the N. generally keep from the *Naze* between the *Cocksand* and the *Ridge*; which is done by keeping the *Naze Trees* S. W. and the Course N. E. in 5 to 7 Fa. Water.

N. B. You are clear of the *Cocksand*, when you see *Harwich Steeple* over the *Brew-house* on the N. of *Languard-Fort*.

Harwich is a very safe Harbour when you are in, but the Entrance nice and difficult. Therefore Strangers and loaden Ships, bound into *Harwich*, come to an Anchor in the *Rolling Ground*; and making the usual Signal, the Pilots come off to bring them in.

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Sailing from *Harwich*, or from the *Rolling Ground* to the North, you are to keep the *Suffolk Coast* on your Larboard-side, generally at the distance of half a League to a League and half, as by the following Directions.

Supposing your Ship bound to the N. from the *Wallet*, as above, or from the *Gunfleet*. The Buoy of the *Gunfleet* lies S.E. by E. easterly from the *Naze*; your Course to the N. is along the S.E. side of the *West Rocks* in 7 to 8 Fa. Water into the *Sledway*, keeping *Balsøy* or *Baudsøy Church* N.W. and N.N.W. till you bring *Harwich Steeple* on the *Languard-Fort Brewhouse*: Then go away W. keeping *Orford Church* and *Castle* open of *Balsøy Cliff* about a Sail's breadth, till *Harwich Lights* come together. Here you may stand in for *Harwich* if you please, taking a Pilot as before. But in this Course to go N. you must pass by *Balsøy Sand*; and the *Shipwash*, which lies without it.

Balsøy Sand lies a L. from Shore, stretching in length N.N.E. and S.S.W. To pass by the N. end of it, bring *Orford Castle* between N. by W. and N.N.W. and *Orford Light-house* N. $\frac{1}{2}$ E.

N. B. This End of the Sand lies five Miles from the Shore, and some part of it is dry at low Water.

Shipwash Sand lies without *Balsøy*, and without the *Whiting* also: It stretches N. by E. and S. by W. about nine Miles in length, and not above a quarter of a Mile broad, except at the S. end, where 'tis a little broader: 'Tis dry at low Water in several Places. The Marks for it are thus: For the S. end bring *Balsøy Church* N.W. $\frac{1}{2}$ W. distance 8 Miles at least: For the N. end, bring *Orford Church* N.W. and the *Light-house* N.W. half W.

The *Whiting Sand* lies N.E. by N. and S.W. by S. in length about five to six Miles. The Marks for the S. end are, *Balsøy Church* bearing W. by S. and W.S.W. for the N. end, *Orford Castle* bearing N.W. and by N. in 5 Fa. Water.

N. B. There are good Soundings on both sides the *Whiting*, so that you may go within or without it at pleasure.

In this Course you pass by *Woodbridge Haven*; it lies just at the W. end of *Balsøy Cliff*. It is a very good Haven, but a difficult and uncertain Bar, with not above three or four Foot Water at low Tide; and the Sand at the Entrance often shifts, so that you may know the Bar at one time, and not find it at another. The Pilots are always ready at the Cliff to carry you in. The Haven, when you are in, runs up to *Woodbridge Key* 8 or 7 Miles, very safe and deep Water: The Water flows at *Woodbridge Bar* 15 to 16 Foot at Spring-Tides, the Springs flow S. and S. and by E.

There is *Hofely Bay* within all these Sands, which lies fair for Ships from the N. going into *Harwich* or *Woodbridge*. It is a very secure Road, good clean Ground, and safe anchoring. Ships from *Holland*, bound in for *Harwich*, often come to an Anchor here to wait for the Flood.

From

Directions for sailing from the Thames

From the Mouth of the *Thames* to *Hofely Bay* you go thro' the *Sledway*, and thence between *Balscy Cliff* and *Balscy Sand* as above; and thence being bound to the N. ward, you keep all along the Beach: to *Orford-Nefs* you have good Sounding, and 7 to 8 Fa. all the way, with room enough to turn it down or up.

Orford-Nefs is a low Beach pointing into the Sea E. half a Point N. having two Light-houses on it. The *Nefs* is not seen far, but the Church and Castle are Marks at a great distance, being seen 6 or 7 Ls to Sea. The *Whiting Sand* lies right off, but the Passage within is fair and good. There were formerly two small Sands lying between the *Nefs* and the *Whiting*; but they are worn out, and quite gone: So that now you have deep Water all the way thro'; bringing *Orford Lighthouse* together in one, carries you off to Sea between the *Shipwash Sand* and the *Aldbros Knaps*.

Aldbros Knaps lies due E. from *Aldbros Church*; 'tis a small round Sand distant from the Shore almost 2 Ls, deep Water from 5 to 12 Fa. and without the Sand from 12 to 16 Fa. but upon the Sand not above 2 Fa. to 2 $\frac{1}{2}$. You go clear of this Shoal by bringing *Orford Church* and Castle in one.

Directions for crossing the Mouth of the Thames, from the Spitts to the North Foreland, or to the Downs and Dover Road.

If instead of going to the N. ward, you are bound from the *Essex Coast*, suppose from *Colchester Water* or any other Port thereabout, to the *Downs*, or to the *North Foreland*.

Being at the *Spitts*, keep the Shoalings of the *Gun-Fleet* in 7 to 8 Fa. till you bring the *Naze Tower* N.N.W. then go away N.E. by E. and E.N.E. till the *Naze Tower* bears W. by N; then keep more Easterly till you get into 17 to 18 Fa. that you may go clear of the *Long Sand Head* and of the *Kentish Knock*; but keep your Depth, and go no shoaler: then steer S.S.W. if with the Ebb, or S.S.E. and S. by E. or S. as the Tides are strong or weak, and you will soon see the *Foreland*. The *Kentish Knock* bears from the Church of *St. Peters* on the *Forland* N.N.E. Easterly: You will see the *Foreland* from the *Kentish Knock*, but not from the *Long Sand Head*, unless the Weather be very clear.

N. B. The *Long Sand Head* lies from the *Naze* E.S.E. and S.E. by E. distance 5 Leag.

If when you are clear of the *Gunfleet* in 17 Fa. as above, you would not go into the *Downs*, or to the *Foreland*, but go away to the W. ward on the back of the *Goodwin*, you must then steer away more Easterly, till you get 26 to 30 Fa. then go away S. or S. by E, keeping the same Depth of Water, till you bring the two *South Foreland Lights* together, or till

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Leostoff, one on a Hill to the N.ward of the Town, and the other a small one on the low Beach close by the Sea-side.

When these two are brought into one, they bear N.N.W. Northerly: then you may run boldly in with them till you come into 3 Fath. and within a Cable's length of the Shore; then go away to the N.ward almost close to the Beach; and when the highest Light bears W. by S. from you, then you are upon the *Standforth* in the shoalest part, where you will have but 2 Fa. to $2\frac{1}{2}$ at low Water.

N. B. The Tides do not rise here above one Fa. or one Fa. one Foot. If it below Water, 'tis best to anchor in *Leostoff* Road till the Flood.

There is another Sand call'd by two Names also, *viz.* the *Home* and the *Corton*, but 'tis the same Sand. The Channel is narrow between the Beach and this Sand; but it is very good, and you have 6 Fa. close to the *Home*. Being over the *Standforth*, you run between the *Home* and the Beach clear away to the *Roads*.

If you meet with Northerly Winds, so as you are oblig'd to turn from *Leostoff* to the *Roads*, you must then first stand in towards the *Newcom* into 4 Fa. Water, then into the Head of the *Home* in 8 Fa. and then stand over again between *Leostoff* Beach and the *Home* towards the Beach in 3 Fa. then again towards the *Home* into 7 Fa. when you will be over the *Standforth*; be sure to keep your Lead going in this Passage: but after you are over the *Standforth*, you have a fair turning Channel into the *Roads*.

The Haven of *Yarmouth* enters on the S. of the Town, a little above *Corton*; and to enter you must pass *St. Nicholas* *Gat*, which is a Channel between *Corton* Sand and the *Knowle*.

But as there are always Pilots ready at the Pier to come off, and that no Ships go in without their Assistance, 'tis needless to give Directions here.

Being in the *Roads*, and bound to the Nward by *Winterton* *Nefs*, keep close by the Shore to *Caster* *Lights*, which are two Lights standing beyond the Town N. near the Sea side. Keep those Lights together all the way, till you come within half a Cable's length of the Beach; and keep so going on by the Beach, till you come off of *Winterton*, where are two Lights more. Those you must bring together, and keep them in one, to sail out at the *Nefs*.

There is a Spit of Sand which lies off from the middle of the Passage; the Channel is narrow but good: and there is a Buoy on the Sand which you must leave on the Starboard side, and which carries you clear out.

There are two more Lighthouses beyond *Winterton* on the *Sandhills* at the *Nefs*; they are low, and are placed there to guide Ships to keep clear of the N. end of the Sand called the *Middle*: whereas the other two Lights of *Winterton* Town

Tides are strong or weak, and you will soon see the *Foreland*. The *Kentish Knock* bears from the Church of *St. Peters* on the *Foreland* N.N.E. Easterly: You will see the *Foreland* from the *Kentish Knock*, but not from the *Long Sand Head*, unless the Weather be very clear.

N. B. The *Long Sand Head* lies from the *Naze* E.S.E. and S.E. by E. distance 5 Leag.

If when you are clear of the *Gunfleet* in 17 Fa. as above, you would not go into the *Downs*, or to the *Foreland*, but go away to the W. ward on the back of the *Goodwin*, you must then steer away more Easterly, till you get 26 to 30 Fa. then go away S. or S. by E, keeping the same Depth of Water, till you bring the two *South Foreland Lights* together, or till you bring the Land of *Dover* open of the *South Foreland*, that will carry you clear of the *South Sand Head*.

From *Orford-Nefs*, being bound to the *Roads*, you keep under Shore due N. 4 Miles to *Aldbrough Bay*, being a stony Beach, deep Water, very good Shoalings: You have also good anchoring before the Town in 5 to 7 Fa. from *Orford-Nefs* to *Leostoff*; the Shore lies N. by E. Here is neither Reef or Ridge, Rock or Sand, but a bold Shore, and Shelter every where in case of hard Weather.

Sole, *Swole*, or *Southwold Bay* in this Space, famous in Story for a great Sea Engagement between the *English* and *Dutch*. A little S. of *Swole* goes in a Creek, which divides as soon as you are over the Bar into three: the N. Branch runs by the Town of *Swole*, the S. Branch to *Dunwich*, and the middle which is the best to *Walders Wyck*. This Creek receives small Vessels only: 'Tis distant from *Orford-Nefs* 4 L.

Steering from *Southwold* to *Leostoff*, you must be sure to keep without a small Sand with two Names, call'd the *Bernard* and *Newcom*, tho they are but one and the same Sand. Small Vessels in good Weather and at high Water may go within; it lies but a little Mile from the Shore: it runs from *Catynefs* to *Peakfield*; the S. end is call'd the *Bernard*, and the N. end the *Newcom*; they have but 3 to 4 Foot at Low Water: the Shoalings are good, but you should keep off in 4 to 5 Fa. at least.

North from the *Knaps*, and S.E. from *Leostoff*, lies the *Red Sand* about 2 Miles in length N. N. E. and S. S. W. 'tis a narrow Sand not above a Cable's length over, from 2 to 3 Fa. upon it, but 15 to 16 Fa. between the Sand and the Shore, for 2 Ls in breadth; for so far it is from the Shore. When you have *Leostoff* Church about 2 Sails breadth upon the S. end of the Town, you are upon the shoalest part of the Sand. It bears from *Swole* N.E. by E. and from *Gunton Wood* S.S.E.

Between *Leostoff* and the *Roads* is a Sand they call the *Standforth*, or *Standford*, being as it were the first of the Sands which makes those Deeps they call *Tarmouth Roads*. To pass in there, you are to observe, that there are two Lighthouses at

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Being in the Roads, and bound to the Nward by *Winterton Nefs*, keep close by the Shore to *Caster Lights*, which are two Lights standing beyond the Town N. near the Sea side. Keep those Lights together all the way, till you come within half a Cable's length of the Beach; and keep so going on by the Beach, till you come off of *Winterton*, where are two Lights more. Those you must bring together, and keep them in one, to sail out at the *Nefs*.

There is a Spit of Sand which lies off from the middle of the Passage; the Channel is narrow but good: and there is a Buoy on the Sand which you must leave on the Starboard side, and which carries you clear out.

There are two more Lighthouses beyond *Winterton* on the *Sandhills* at the *Nefs*; they are low, and are placed there to guide Ships to keep clear of the N. end of the Sand called the Middle; whereas the other two Lights of *Winterton Town* are high, and seen 4 or 5 Ls off at Sea. *Winterton Steeple* is a high square Tower, and is also seen far at Sea.

N. B. The Tides flow at *Winterton* not above 6 or 7 Foot, and make half Tides on the Shore; for it runs in at the *Nefs* three hours after it is high Water off shoar. Note, It is very narrow turning in and out at the *Nefs*.

If you are bound to the Nward, and minded not to go thro' the Roads, take the following short Directions.

Being off of *Leostoff*, and if you would sail without the Sands, keep about 4 or 5 Miles off of the *Standforth* in 12 to 16 Fa. that carries you to the back of the other Sands. Also the Southermost part of *Tarmouth Sands* is the *Home Head* against *Leostoff*, and the Northermost is the *Middle at Winterton Nefs*. The *Home* and *Corton* are one Sand, the next is the *Knowle*; all which are one Sand. There are small Swatches over them, which are made use of by the Fishermen, but great Ships will not venture thro' that way. The next is the *Cockle* and the *Middle*: The *Cockle* lieth between the *Calves Knowle* and *Caster*; some Places of these Sands are dry at low Water: Being on the back of the Sands, you may keep 4 or 5 Miles from the Shore of *Tarmouth* in from 12 to 16 Fa. Water, which will carry you between *Tarmouth Sands*, and the *Newark Sand*.

The Banks which lie off from *Winterton* and beyond the *Leman Ore*, are called the *Well-bank*, the *White-water Bank*, and the *Dogger Bank*. As they lie all over towards the Coast of *Holland*, and have no where less than 10 Fa. Water on them at low Water, they are needless to be described as on our Coast; there being also no danger of Ships miscarrying upon them for want of Water.

The rest of the Sands call'd in general *Tarmouth Sands*, and which make *Tarmouth Roads*, are four, the *Newark*, the *Overfalls of Newark*, *Husbro'* or the *Urrey*, and the *Leman Ore*, or the *Leman and Ore*.

The *Newark* is a Sand that lieth to the E.ward of *Tarmouth*, and the S.end drieth at low Water, which end lieth from *Tarmouth*

Directions for Sailing from the

mouth Steeple E. half N. 3 Ls. and the N.E. end bears N.E. half E. from the same Steeple, and E. half N. from *Winterton Light*, dist. about 2 Ls. and a half. There is a broad Channel between *Yarmouth Sands* and the *Newark*, the narrowest place being between the N. end of *Newark* and the *Calves Knowle*, which is 4 Miles, and 16 to 18 Fa. between them. This Sand commonly shews it self by the Sea breaking on it at high Water; it lieth N.W. by N. about 4 or 5 Miles long: and beyond lie those dangerous places which they call the *Overfalls of Newark*.

They lie N.E. from the N. end of *Newark*, stretching still farther N.E.; having at one place, which is the middle, but 3 Fa. and so deepens towards each end to 7 and 8 Fa. You have 19 and 20 Fa. Water close to them: They lie from the Lights of *Winterton* N.N.E. about half E. 4 or 5 Ls. I am told there are more Banks and Overfalls to the N.E. of *Yarmouth Land*, on which is about 2 Fa. and a half; but I have no authentick Ground for it.

Hasebro', or the *Urrey*, is a Sand that lieth 8 Miles from *Winterton Ness*, N.E. and S.W. about 7 Miles in length, and very narrow. On which there is but 6 to 8 Fa. at low Water. The N.E. end beareth from *Winterton Church* N.E. by N. 8 Miles, and the S. end beareth from *Hasborough Church* N.E. half N. about 6 Miles off. This Sand is steep too, having 20 and 21 Fa. close by it on the inside and outside; but the ends lie off shoal, 4 to 7 Fa.

The *Leman* and *Oar*, or *Ower*, are two very dangerous Sands; on the first of which the *Glocester* Frigate was lost: This is the innermost, and is the longest of the two; it is called the *Leman*, the Body of which lieth from *Hasebrough* N.E. by E. about 8 or 9 Ls. This Sand lieth in length N.W. by N. about 6 Miles, and at low Water hath not above 6 to 8 Foot Water. This Sand also is steep too, having 22 Fa. close to it. The *Ower* lieth 2 or 3 Miles without the *Leman*, N.W. by W. about 3 Miles; on which is 9 Foot at low Water, and is steep too, having 22 Fa. on each side of it, and 22 Fa. between the two Sands. At the ends of the *Ower* you will have 3 to 7 Fa. a Cable's length off, and then 15 to 22 Fa. If you keep a fair sight of the Land you will run within it; for I could not see the Land from the Masthead of a Yacht, when I rid at anchor close by the *Leman*; but being at anchor 3 or 4 Miles within the *Leman*, I saw the Church and Land of *Hasebrough*. The distance between this Sand of the *Leman* and *Hasebrough* Sand is 6 Ls. and the depth between them 19 to 22 Fa. so that there is breadth enough to avoid them, if you are not driven out of your Knowledge by Storms, or in the dark.

There is another great Sand beyond the *Leman* and *Ower*, which however is needful to be known for many Reasons, yet is not shoal enough to do any hurt; and this is call'd *Well Bank*. The S.E. part of it bears from *Winterton Ness* N.E. about 14 Ls. The N.W. part of it bears N. by E. 17 Ls. and 3 from the *Leman* and *Ower*; it lieth N.E. and S.W. about 21 Ls. in length, and in breadth N.W. and S.E. 12 Ls. at least, at the S.W.

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the great Steeple comes on with another smaller Steeple, you will see the first Buoy of the Channel at the S. end of the *Pole* and *Piper*, a Sand on the W. side of the Channel: The fair way is between the Buoys, but far in 'tis dry at low Water; yet 'tis a place of much Trade and Shipping for Corn and Coal.

Three Ls. to the Westward lies *Wells*, another Port for *Corn*. Between them, running along the Shore, lies the Sand called the *Pole* and *Piper* (as above) there is also a Shoal just off the Entrance into the Channel of *Wells*, without any Name; it runs far out into the Sea: the Channel goes in at the W. end of this Sand, and the Beacons which you sail by and guide into the Haven, are on the outer edge of the *Piper*. When *Hobroom* bears E.S.E. from you and the Trees stand against the Steeple, then you are in the fair way or Channel. This also is a Tide Haven; nor is there any very good Road without.

Two Ls. beyond *Wells* is *Burnham*, another Tide Haven. In the Midway lies *Burnham Flatts*, a broad Sand lying about a L. from the Shore, and much of it dry at low Water. Under this Bank is the only Road hereabout, where you may ride in 5 to 6 Fa. good Ground. At high Water small Ships go over it; the Shoalings on the N. side are good, and you may run boldly to it within 4 to 5 Fa. but come no nearer, and keep the Lead going; on the inner side 'tis steep and dangerous. As soon as you are over it, you have 7 to 12 Fa. and the Channel within is safe from Easterly Winds, which are the worst on this Coast. If you would go into *Burnham*, come to an anchor here, and take a Pilot.

Here and at *Wells* they take Pilots also for *Lyn*, *Boston*, and *Spalding*, which are all such difficult Channels, that very few Ships venture in without Pilots.

From *Burnham* the next Place is *Chapel Land* W.S.W. distance 5 Ls. Between them is a Sand call'd the *Woolpack*, lying E. and W. about a Mile from the Shore: 'Tis best keeping without it: There is a Buoy on the outer Edge of the Sand. There is also a Light-house at *Chapel*, but no Harbour to the Northward. Off of this Point lies a Sand call'd the *Sunk*, distance from the Point 2 Ls. It lies dry at low Water, and there is a good Channel either within or without.

N.B. Here begins the Entrance into the Channels call'd *Lyn Deeps*; and here also Pilots are taken for carrying Ships up either to *Lyn* or *Spalding*, *Wisbech*, or *Boston*; Which being sufficient, we need not describe these Channels and Sands, which are almost numberless.

From the Coast of *Norfolk* to the Coast of *Lincolnshire*, leaving *Lyn* and *Boston Deep* to the S.W. and S.W. by W. the first Land you make is the high Grounds within *Leger Nefs*. From whence to the Mouth of the *Humber* is 7 Ls. the Courte N.N.W. In the way, about a L. short of *Humber*, is *Saltfleet Haven*; and a little to the Southward of *Sandfleet* is a Spire Steeple call'd *Wilgrip*. Thwart of *Sandfleet*, a little to the Northward of the Spire, is a Sand call'd *Sand*

deep too, having 22 Fa. on each side of it, and 22 Fa. between the two Sands. At the ends of the *Ower* you will have 3 to 7 Fa. a Cable's length off, and then 15 to 22 Fa. If you keep a fair sight of the Land you will run within it; for I could not see the Land from the Masthead of a Yacht, when I rid at anchor close by the *Leman*; but being at anchor 3 or 4 Miles within the *Leman*, I saw the Church and Land of *Hasebrough*. The distance between this Sand of the *Leman* and *Hasebrough* Sand is 6 Ls. and the depth between them 19 to 22 Fa. so that there is breadth enough to avoid them, if you are not driven out of your Knowledge by Storms, or in the dark.

There is another great Sand beyond the *Leman* and *Ower*, which however is needful to be known for many Reasons, yet is not shoal enough to do any hurt; and this is call'd *Well Bank*. The S.E. part of it bears from *Winterton Nefs* N.E. about 14 Ls. The N.W. part of it bears N. by E. 17 Ls. and 3 from the *Leman* and *Ower*; it lieth N.E. and S.W. about 21 Ls. in length, and in breadth N.W. and S.E. 12 Ls. at least, at the S.W. end, which is the broadest; but the N.E. end grows narrower: There is on this Bank from 13 to 17 Fa. Water, and 22 to 24 Fa. between the *Leman* and *Ower* and this Sand; and from 24 to 28 Fa. between it and the *Dogger Bank* distance 6 Ls.

The *Dogger Bank* lieth between the *Well Bank* and the *Broad Fourteens*, stretching over to the Coast of *Holland*; so that it is out of our way here. It lieth N.E. and S.W. about 10 Ls. in length, whereon is 16 Fa. and is distant from the *Well Bank* 5 Ls. But I say this is quite off of our Coast, so I return to the Land.

From *Winterton Nefs* the Land falls away W.N.W. and then W. till you come into the Channels of *Lyn*, *Spalding* and *Roston*, which are called the *Deeps*: This is a very dangerous Place, and has been a fatal Coast, especially to Ships bound from the North, and deep loaden, as the *Colliers* generally are, here being no good Harbours in case of a hard Gale of Wind; and as they are embay'd on every side, if the Wind blows from the Sea, unless their Ground Tackle be very good, and they can ride it out, there is no Relief but to run in West for *Lyn Deep*, which is very difficult, especially in the Night, or to go on Shore, which is almost as bad as Death.

From *Winterton* the next Point is *Hasebro'*; the Course is N.W. dist. 3 Ls. and then the Land falling off Westerly, the next Point is *Cromer*, the Course W. by N. and W.N.W. dist. 4 Ls. The Shore begins here to lie flat off a great way.

From *Cromer* to *Blackeny* the Course is W.N.W. 4 Ls. from thence to *Wells* W. by N. 3 Ls. and thence to *Burnham*, the Land still falling away more, the Course is W. and by S. 2 Ls.

There is a Place called *Mockbeggars Hall*, midway between *Winterton* and *Hasebro'*; off of which, not far from the Shore, lies a Flat, over which no Ship can fail. Between this Flat and the Shore is a narrow Channel, where there is 2 Fa. Water; but without it you have 6 to 7 Fa.

Blakeny and *Clye* go in at the same Channel, distance from *Cromer* as above. *Blakeny* has a high Tower Steeple, which bring S.E. and run into 5 Fa. Water, till you see the Buoys. When

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Clofe to the *Hail* Southward is a Sand call'd the *Rose*, which bends out into the Sea a good way E.S.E. so that if a Ship bound from *Cromer* to the *Humber*, or towards the *Spurn Head*, should be drawn in to the Westward, by the Force of the Indraft of the Tide towards *Lyn Flats*, as is mention'd above, they may be in danger of falling upon the Tail of the *Rose*, and be fast a-ground. It is a broad Sand, and lies off of *Wilgrip* due East.

A little above the *Sand Hail*, at the Entrance into the *Humber*, lies a Shoal call'd the *Bull*; it bears S.W. from the *Spurn*, distance 1 L. and this League distance makes the fine Turning-Channel up the *Humber*, having 10 to 11 Fa. Water at the lowest Ebb. On the inner side, *viz.* to the Westward of the *Bull*, is a Sand stretching from *Cly Nefs*, a Point of Land to the S. of *Grimsby*, opposite to the N.W. end of the *Bull*: And this makes a Channel that runs S. to *Homerston*, having 3 Fa. at low Water; and the Sand stretches W. by N. to *Grimsby*.

At *Grimsby*, which is the next Land to *Saltfleet*, if you come from the S. or at the *Spurn*, if you come from the N. you will find Pilots to carry you up the *Humber*, and into *Hull*, or farther up into the *Ouse* to *York*, or into the *Trent* to *Gainsborough*, or into the *Air* to *Selby*, and any other Places as your Occasions require. There is a great Indraft in the Mouth of the *Humber*, the Tide therefore is very violent.

If you are bound out of the *Humber*, or from *Grimsby*, you must take great care to avoid a Sand grown up within a few Years past near the *Spurn Head*: Its Name is enough to warn you, 'tis call'd the *Dreadful*, and several Ships were lost on it before it was thorowly known. The Danger is now lessen'd by two Light-houses being set up on the *Spurn*, by Order of the *Trinity-house* of *Hull*, who caus'd the Sand also to be perfectly survey'd.

The Town of *Kilnsea* bears N.W. $\frac{1}{2}$ W. from the S. point of it; the *high Land* on *Durlington* bears N.W. by N. and the *two Light-houses* on the *Spurn* bear W. by N. from it, distance 4 Miles. In order to go clear of the S. end of the Sand, bring *Effington Steeple* and the *Mill* behind it, into one.

The S. end of the *Dreadful* has but 7 Foot Water at low Water, and is steep too, having 6 Fa. close by it; which makes running upon it truly dreadful; for the Head of a Ship shall be a-ground, and the Stern a-float in 6 Fa. Water. The Sand lies N.E. by N. and S.W. by S. about a Mile and half in length. Between the Sand and the Shore you have from 5 to 9 Fa. both ways.

There is another new Sand discover'd without the *Humber's* Mouth, and within the *Dreadful*: It was survey'd by the *Trinity Men* of *Hull* in *July 1713*. 'Tis distant from the *Dreadful* about 2 Miles N.W. and bears from the *Spurn Lights* E. by S. half S. *Kilnsea Church* bearing from it N.W. by N. It stretches E.N.E. and W.S.W. about a quarter of a Mile, and has on it not above 5 Foot Water at low Tide. There is a good Channel within it, with 6 Fa. gradually shoaling to the Main; and between it and the *Dreadful* another with 7 to 8 Fa.

If you are within these Sands, and on the W. side of the *Spurn Head*, and lie for a Wind, or are intending to go up the *Humber*, or over to the other Coast, you edge to the Northward, where you may ride well with a N.E. or E.N.E. Wind, or steer away W. and by N. towards the *Bull Sand*, keeping in 7 to 8 Fa. and from thence keeping the thwart Mark of the Buoys in view, which is a *House* upon the W. end of *Clay Nests Cliff*; and with that Mark you may run over to *Grimsby Road*, where is good anchoring below the *Beacon* in 7 to 9 Fa.

If you are bound into *Humber* from *Foul Nests*, or the *Well*, keep *Patrington Spire* a Sail's breadth open of the *Spurn Head*, and steer in with that Mark till you come to *Burcom Beacon*; then the Course is N.N.W. but, as above, you may make Signals for a Pilot.

There are some Shoals and Overfalls on the S. Shore, which have not above 6 to 9 Foot Water; but if you keep the fair way, you are to the northward of them. There is also a dangerous Shoal in the Channel it self, call'd the *Silver Pits*, lying thwart the Buoy of the *Bull*: To avoid which you must keep the S. side of the Channel; and to go clear of it, you must steer from the *Buoy of Clay Nests* to the *Buoy of Burcom*, leaving them both on the Larboard-side going up, and on the Starboard-side coming down.

N. B. There was a *Newcastle* Collier loft on that Sand, tho she drew not above 13 Foot Water.

N. B. In this Channel before the *Humber*, an E.N.E. and a W.S.W. Moon make full Sea.

N. B. From *Cromer*, and *Blackney*, or *Foul Nests*, on the Coast of *Norfolk*, to the *Spurn* and *Flambrough Head*, the Flood sets S.E. and the Ebb sets N.W.

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N.W. from *Flamborough* is *Scarborough*, distant 5 Ls. To the southward of the Cattle is a fair *Sandy Bay*, where is a good Road, and a Pier belonging to the Town, and a little Pier within that: But the Ships lie dry in both at low Water; the Road without this Pier is good ('tis call'd *Scarborough Wyck*) and here is very good riding in 4 to 7 Fa. the Spring-Tides rising 13 Foot. The Land is high on all this Shore from *Flamborough Head* to *Whitby*, and on to the *Tees Mouth*.

Between *Scarborough* and *Whitby* is *Robin Hood's Bay*, where is good anchoring in 6 to 8 Fa. But 'tis a bad Road for easterly Winds.

Whitby is a Tide-Haven too; good Ships may go in at high Water, and lie dry at low Water. There are Pilots to carry you in clear of the Rock, which lies off of the Bar; so I need guide you to the Entrance only: The Mark to go in is to bring *Whitby Church Steeple* open to the northward of the S. Point of the Haven.

From *Whitby* the Land upon the Coast lies very high, trending away W.N.W. and W. by N. The first high Land is call'd *Huntly Foot*, or *Hunt Cliff Foot*, being a high Cliff close to the Sea, distance from *Whitby* 3 Ls. to the W. and 4 Ls. to the Eastward of the *Tees*.

Next to *Huntly Foot* is *Red Cliff*, distinguish'd by its Colour, from whence it has the Name of *Red*: This *Red Cliff* and *Hartle Pool* make the Mouth of *Tees*, at least the *Tees* comes in between them. Close to the southward of the Mouth of *Tees* lie three Ledges of Rocks call'd the *Salt Scarrs*, stretching into the Sea E.N.E. a Mile and half: They are very foul and dangerous, but are dry at low Water. On the S. side they are so steep that sounding 13 to 14 Fa. you shall be upon them before you can heave the Lead again; but on the N. side they have good Shoalings.

Between *Hartle Pool* and the *Tees* lies another dangerous Rock, call'd the *Long Scarrs*, near the Shore. Come no nearer to it than 5 to 6 Fa.

About 2 Ls. up the River is the Town of *Stockton*, a good Port, and a place of Business. There are Pilots also to carry you up to the Town, which is difficult to Strangers, the Freshes being sometimes very strong here. The Town stands on a Point, lying out like an Island; the Harbour is in a Bite, to the southward of the Town.

Hartle Pool lies N.W. from *Whitby*, distance 7 Ls. There is a Stone Pier or Head very secure for Vessels when they are in, but 'tis dry at low Water. The Direction for the Pier is very short; there is a *Beacon* at the Entrance; leave it on the Starboard side, (to avoid some Rocks which lie off on the Shore) and run right in at high Water: There is no danger, if you draw not above 12 Foot Water. There is a Sand call'd the *Gamble*, which you will avoid by keeping as near the Pier as you can.

To the southward of the Town there is a good Road, where you may come to an Anchor in 4 to 6 Fa. The Town stands on a Peninsula, which runs out far eastward into the Sea; and

make Signals for a Pilot.

There are some Shoals and Overfalls on the S. Shore, which have not above 6 to 9 Foot Water; but if you keep the fair way, you are to the northward of them. There is also a dangerous Shoal in the Channel it self, call'd the *Silver Pits*, lying thwart the Buoy of the *Bull*: To avoid which you must keep the S. side of the Channel; and to go clear of it, you must steer from the *Buoy of Clay Nests* to the *Buoy of Burcom*, leaving them both on the Larboard-side going up, and on the Starboard-side coming down.

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N. B. From *Cromer*, and *Blackney*, or *Foul Nests*, on the Coast of *Norfolk*, to the *Spurn* and *Flamborough Head*, the Flood sets S.E. and the Ebb sets N.W.

Being off of *Foul Nests*, and bound to the N. to the *Spurn*, or *Flamborough Head*, as above, you must steer according as you have the Tide, and of which you must be very watchful; for there is a great Indraft in the Bay on the Coast of *Lincolnshire*, and the Flood sets very strong into *Lyn* and *Boston Deeps*: When you are open with them, the Flood sets in S.E. and the Ebb sets out N.W.

When you have made the *Spurn*, keeping but off from being embay'd, you have nothing to hurt you between *Foul Nests* and the *Head*. From thence to *Flamborough* the Course is N. by W. a bold and clear Shore, distance 9 Ls. There is a good Light-house upon *Flamborough Head*.

On the S. side of the *Head* under the Hills, lies *Burlington* or *Bridlington*: There is very good anchoring in the Bay, and clean Ground well secur'd from most Winds; for there is *Smythick Sand* to secure it from the Winds off Sea, and *Flamborough Hills* for the Winds off Shore. The N. end of this Sand lies S.S.W. from the *Head*, distance 2 Miles: And between the Sand and the *Head* is good Ground in 7 to 9 Fa. and the like just before the Town. The S. end bears from *Burlington Key* S.E. by E. distance 1 L. The shoalest of the Sand bears S.E. by E. and E.S.E. from the *Key*. Here also is very good anchoring in 4 to 6 Fa at low Water, and very good going in or out at the W. end of the Sand; and you may stand in to the Shore in what Depth you please. *Burlington Key* is a Tide Haven, dry at low Water: The Spring-Tides rise 2 Fa. or thereabout.

Three Leagues from *Flamborough Head* is *Filey Brigg*, which is not a Bridge, as the Word seems to suppose, but a Ledge of Rocks, and should have been call'd (as 'tis believ'd it was originally) *Filey Rigg* or *Ridge*, for so they call a Ridge in their northern Dialect: They lie stretching out into the Sea N. by W. from *Flamborough Head*, but S.E. by E. from the Land: There is good anchoring within the Rocks in 5 Fa. being safe from northerly Winds. There is a Town of the same

rous Rock, call'd the *Long Scars*, near the Shore. Come no nearer to it then 5 to 6 Fa.

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To the southward of the Town there is a good Road, where you may come to an Anchor in 4 to 6 Fa. The Town stands on a Peninsula, which runs out far eastward into the Sea; and then turning S. makes a small Hook: The Pier is within this Hook, lying on the W. side of the Town.

Two Leagues to the northward of *Hartle Pool*, and about a Mile from the Shore, are two Rocks, one under Water and the other above; they are call'd the *Dogger* and the *Boat*: The first is the largest, and appears above Water like a Ship lying in the Water bottom up; the other is 2 Fa. under Water at low Water.

The next Port N. from *Hartle Pool* is *Sunderland*, distance 4 Ls. It is a Barr'd-Port and a Tide-Haven; and therefore the larger Colli^r take in their Coals without the Bar. Here is a very great Spring for Coals, and the Colliery is so great, and the Coal-Pits so many upon the River *Wear*, which comes in here from *Durham*, *Lumley*, and other Parts, that they say, if the Port was able to receive great Ships, there would be more Coals loaden here than at *Newcastle*: But there is but 2 Foot at low Water in the Haven, and but 12 at high Water; so that the Keels which bring the Coals, are oblig'd to go over the Bar into the Road, where sometimes they are lost, and often in danger, having neither Sail or Rudder, and lying heavy with their Loading, they soon fill and go to the Bottom. There is a dangerous Rock call'd *Henden* in this Entrance: It lies to the southward of the Bar, and must be carefully avoided: To go clear of it, keep *Whitborn Church* open to the eastward, with the *Humock* upon the *Cliff*, and that carrys you without it.

North from *Sunderland* is *Tinmouth*, distance 7 Miles: The Name directs us to know that 'tis the Mouth of the River *Tine*. Just at the Entrance, and on the N. Point, stands the Castle and a Light-house. It is a Barr'd-Port, and the Entrance difficult, as the Winds and Tide may happen: Yet there is 2 F. at low Water, and 3 $\frac{1}{2}$ at high Water: So that the Tide rises here 14 Foot at least; whereas at *Sunderland* it rises but 10 Foot: The Difference is occasion'd by the Indraft of the

Directions for Sailing from the Th

the River *Tine*, where the Tide runs very strong in, and goes far up.

Besides the high Light-house upon *Tinmouth* Castle, there are two other Light-houses within the Bar, on the same N. Shore of the River: They are leading Marks also for going over the Bar. The N. Shore of the Entrance is rocky and stony: And on the S. side is a Sand call'd the *Hardened*. But you may have a Pilot always here to carry you over the Bar; and when you are in, the Harbour is very good, between the two Towns of *North* and *South Shields*, and the River likewise, all the way up to *Newcastle*: So that 1000 Sail of Ships may lie and load in the River at a time, with the greatest Security.

About a Mile N. from *Tinmouth* is a small artificial Haven, made by Hands, call'd *Cullercoats*; 'tis made for loading Coals and Salt, and is of no other importance: 'Tis a Tide-Haven, and the Entrance lies among several Rocks; but 'tis mark'd or directed by Beacons known to those that use the Place, and needless to others; for 'tis a Port only belonging to private Hands, for the Use of some Colliereys adjoining.

The Coast from hence goes still away due N. for near 40 Miles: In that length you have several small Ports or Creeks, and Havens, mostly us'd for loading Coals and Salt; as first *Seaton*, or *Seaton Sluice*, distance from *Tinmouth* 5 Miles: 'Tis a small Tide-Haven, and a Pier; but there is not above 10 Foot at high Water. There is good anchoring in the Road in 4 to 8 Fa. and there the Ships take in their Loading, if they draw too much Water for the Pier.

The next Place is *Blyth*, at the Mouth of the River *Coquet*, distance from *Seaton* 1 L. The Entrance to this Place is difficult; but the Fishermen are all Pilots, and will guide any Ship in, the Channel being all beacon'd.

N. B. The Pilot Books must be strangely erroneous here, which may endanger any Vessel if the Master is not acquainted, and does not take a Pilot: For they say expressly, there is 6 Foot Water in the Entrance at low Water; whereas I have rode over the Entrance at low Water several times, and not been up to the Horse's Belly.

Also they say there is 16 Fa. at high Water, and but 6 Foot at low Water; which cannot be true: And yet the Words *sixteen Fathoms* are twice repeated. This I note for the Safety of Strangers that may be bound in. The truth of the Case is thus, That at the *Key* there is 16 Foot Water at the Top of the Springs, and 2 Foot to $2\frac{1}{2}$ at low Water, between the *Beacons* at the Entrance.

There is a good *Key* within the Bar for the loading of Coals, but no Town nor any Navigation farther up, except for small Boats, Keels, and Fishing Vessels.

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N. B. The Tide flows to the Southward in the Offing, till it is two hours or two and a half Ebb a Shore.

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Five Miles N.W. from the *Fern* lies *Holy Island*, in a kind of Bay, and within about a Mile of the Shore. There is no Channel between the Island and the Main, but the People ride on Horseback over the Sands to and from the Island. On the South side of the Island is a very good Harbour, defended by a Castle on a high Hill, and a Platform of Guns.

This Harbour, tho' so far North, is oftentimes a Shelter to the Colliers Ships bound from *London* to *Newcastle*, when they are put by the Bar at *Tinmouth* in bad Weather; for there being no Harbour nearer hand, they are forced to run away to the North, as far as this Island.

Also the *Russia* and *Greenland* Ships, after enduring long S.W. Winds, often put in here. Here is a good Convenience to haul on Shore, stop Leaks, careen, wash and tallow, &c.

There are four several ways to go in or out of this Harbour; but the broadest and best Channel is between the *Staples* and the *Goulston*: The *Staples* are described above. The *Goulston*, or *Goldston*, is a small Rock lying under Water half Tide; and above Water half Tide; that is, from half Flood to half Ebb'tis under Water, and from half Ebb to half Flood 'tis above Water. It is bold too, and Water enough every where without.

There is another Rock called the *Plough*; this is above Water at a quarter Ebb to three quarters Flood. The N.E. end of it is foul about a Cable's length. The *Plough* lies E. from the Castle on *Holy Island*, distance about half a Mile.

The Harbour is barr'd, but there is 9 Foot Water upon the Bar at low Water, and there is a good Road, the Castle bearing N.E. where you may ride in 4 to 5 Fa. till the Tide serves to carry you into the Harbour. You may take a Pilot to carry in the Ship, or observe this Direction: You see a Ledge of Rocks called the *Stone Ridge* on one side, and another called the *Partner Still* on the other: Bring the old Church on the Island to bear N.W. and get the Soundings of the *Stone Ridge*, which is the bolder side, and keep close to them, and you are in the fair way, and the best of the Channel into the Harbour. You have 4 Fa. Water upon the Bar, at high Water Spring Tides.

N.W. by W. from *Holy Island* is the Port and Town of *Berwick* upon *Tweed*, distance 3 Ls. The Entrance into the *Tweed* is narrow, and the Port has a Bar where is about 6 to 7 Foot at low Water, and no more. But the Springs rise here full 3 Fa. so that you have 25 Foot at high Water, which is enough for Ships of good Burden. Also when you are in the Harbour, it is very good, and you go close up to the Key.

N. B. Here is no Navigation beyond the Town, notwithstanding the *Tweed* is so great a River: for within little more than a Mile from the Bar is the great Stone

pressed, and does not take a Pin: For they lay expressly, there is 6 Foot Water in the Entrance at low Water; whereas I have rode over the Entrance at low Water several times, and not been up to the Horse's Belly.

Also they say there is 16 Fa. at high Water, and but 6 Foot at low Water; which cannot be true: And yet the Words *sixteen Fathoms* are twice repeated. This I note for the Safety of Strangers that may be bound in. The truth of the Case is thus, That at the *Key* there is 16 Foot Water at the Top of the Springs, and 2 Foot to $2\frac{1}{2}$ at low Water, between the *Beacons* at the Entrance.

There is a good *Key* within the *Bar* for the loading of Coals, but no *Town* nor any *Navigation* farther up, except for small Boats, Keels, and *Fishing Vessels*.

Some *Rocks* lie E. from *Blish*, about a *Mile* off in the *Sea*; they are seen above *Water* the last quarter *Ebb*. They bear N. by E. from *Scaton*. They who sail along *Shore* ought to be very careful of these *Rocks*. The *Flood* here sets away S.E. by S. and the *Spring Flood* rises almost 3 Fa. but ordinarily 16 Foot.

Cocket Island lies 6 *Is.* from *Tinnmouth* *Castle*, and above a *Mile* off *Shore*; it is a good *Road* for southerly *Winds*: From the *South* end of the *Island* to the *Shore* it is all *Rocks* and broken *Ground*, where at low *Water* at one place there is 8 or 9 Foot, and dangerous: But the N. side is bold, only from the N.W. part of the *Island* lie off some *Rocks* about half a *Mile* into the *Sea*. Small *Vessels* may bring the *Island* S. and anchor in 3 or 4 Fa. but greater *Ships* must bring the *Island* S.E. and anchor in 5 Fa. at low *Water*. The *Road* is clean *Sand*.

From *Cocket Island* the *Shore* goes away N.W. to *Aylemouth* and *Warkworth* *Castle*. There is a *Creek* where the *River Ayle* empties into the *Sea*, but no *Harbour*. There is good anchoring in the *Road* in 5 to 9 Fa. From *Warkworth* the *Shore* turns again N. to the *Staples*, and *Firm* or *Fern* *Island*: There are several uninhabited *Islands* lying E. from the *Shore*, the outmost of them distant 5 or 6 *Miles*, and many *Rocks* about them very dangerous. They are N. by W. from *Cocket* dist. 6 *Is.* Between the *Isle* of *Firm* and the *Main* is a good *Channel* a *Mile* and half broad, and very good anchoring off of *Bambro'* *Castle*, where you are safe from an E. or N.E. *Wind*; but 'tis open to the S.E. 'tis called *Scate Road*. There is a *Light-house* on the *Fern* *Island*, but 'tis used only as a *Seamark*: The *Staples* lie a *Mile* without the *Fern* N.E. and are rather a *Ledge* of great *Rocks* than *Islands*: You have 24 Fa. *Water* within half a *Cable's* length from them, and 30 Fa. within a *Mile*.

If you are bound N. from the *Cocket*, or from *Tinnmouth*, keep in 38 to 40 Fa. and the *Depth* will carry you at least 3 *Is.* to 4 *Is.* clear of the *Staples*. All this *Course* you see the *Chevior* *Hills*, far within the *Shore*; which are so exceeding high, that they are seen 8 *Is.* to *Sea* or more, and are a sure *Guide* to know the *Coast* by.

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N. B. Here is no Navigation beyond the Town, notwithstanding the *Tweed* is so great a River: for within little more than a Mile from the Bar, is the great Stone Bridge over the River, the largest Bridge in *Europe* so near the Sea.

From *Berwick* the Course lies N.W. by N. to *St. Tabbs Head* (called so from *Couldingham Abbey*) distance 5 Ls. Between them is a small Port called *Heymouth*, formerly of note for *French* Squadrons landing Forces for the Succour of the *Scots* in their Wars with *England*, but now of use only for Fishing Vessels and other small Craft.

Between *St. Tabbs Head* and the *Bafs* is the Port of *Dunbar*. But tho the Town is a Royal Burgh, and has a considerable Trade, yet the Haven is but small and among the Rocks; and is of use chiefly for their Fishing Boats and other small Vessels.

From *St. Tabbs Head*, the Shore still falling off West, lies the Isle of *Bafs*, distant 4 Ls; the Course is W.N.W. The *Bafs* on the South, and the *May* on the North, make the Entrance into the *Firth* or *Frith* of *Edinburgh*. The *Bafs* is a high round Rock in the Sea; 'tis not inhabited now, tho formerly it had a Fortification, and a House, which is now demolish'd: 'Tis a good Mark to know the *Firth* by, for it is seen a great way off at Sea: 'tis about a large Mile from the Shore, and is steep too all round it. Also you have 15 Fa. Water in the Channel between the Island and the Main.

The *May* bears N.N.E. Easterly from the *Bafs*, distance 7 Miles: 'tis larger than the *Bafs*, but not so high. This Island is also uninhabited except by one Man or Family, who dwells there to tend the Light-house, which is very high and well serv'd: this Light is seen 6 Ls. off.

Bringing this Lighthouse to bear from you W.S.W. you may anchor to the Eastward of the Island; when if your Anchor should not hold, you will duly drive into deep Water. Also you may anchor on the West side of the *May* in 15 to 16 Fa. Between the *May* and the South Shore of *Fife* is a large Channel and deep Water, which all Ships go thro', bound from *Leith Road* to the North.

N. B.

Directions for Sailing on the Coast of

N. B. Here the Squadron of *French* Men of War rode, when having the Pretender on board they design'd an Invasion in his favour, and when having notice of the *British* Squadron being in the Mouth of the *Firth* off of *Dunbar*, they stood away North thro' this Channel to make their Escape.

If you are bound up the *Firth* to *Leith Road*, the Course from the *May* is W.S.W. to *Inch Keith*, an Island opposite to *Leith*, distance 7 Ls. and from *Inch Keith* to *Leith* S.S.W. 1 L. As also bringing *Leith Town* to bear S. or S.S.E. you may anchor in 5 to 8 Fa. Water a Mile and a half from the Shore: This is called *Leith Road*.

It is a general Rule for the whole *Firth* below *Leith*, that wherever you anchor in less than 12 Fa. you have good clean Ground.

Leith is a Tide-Haven, as all the Havens in the *Firth* are, where the Ships lie dry at low Water. They that go in here must enter with the Flood, or on the top of high Water, leaving the Beacon which is at low Water Mark on the Larboard side; and stand right in for the Pier Heads. The Tide flows 13 Foot between the Heads at Spring Tides, but ebbs out half a Mile from the Heads; so that it flows at least 16 to 17 Foot in the Offing.

From *Leith Road* to the *Queens Ferry* the Course is W. by S. keeping the S. Shore on board, and steering between the Isle of *Cramond* and the *Rock-Muckgry*: Then go away W.N.W. till you open the *Queens Ferry Town*, before which you may anchor in 5 to 7 Fa. Water.

The *Firth* growing narrow here at once, viz. from 7 Miles to 2 Miles, and then immediately widening again to 4 and 5 Miles, and continuing that breadth for 2 or 3 Ls. as high as *Albway*. and with deep Water also, frequently makes a great Indraft of Water; and that causes a very strong Tide at the Ferry, where there is an Island in the middle, which yet straitens the Channel more.

Above the Island, and in the very narrow Passage of the Ferry, is a sunk Rock; the Top of it may be seen above Water at $\frac{1}{2}$ Ebb: Close to which Rock, and in most part of the Channel, is from 30 to 36, to 40 and 45 Fa. Water.

If you are bound thro' here, and are going up to *Borrowstoness*, or *Albway*, Pilots are always to be had at the Ferry, or at *Innerkeithing*, a Haven in the Bite on the N. Shore below the Bay, where there is a good Road in 16 to 20 Fa. Water.

The *Firth* is full of small Towns on either side, between *Innerkeithing* and the *May* and the *Bass*; at most of which there are small Tide-Havens or Pier-Heads, as at *Innerkeithing*, *Brunt-Island*, *Kinghorn*, *Kirkaldie*, *Dysert*, *Weems*, *Methel*, *Lerven*, *Aufiruther*, *Croill*, *Pittenweems*, *Preston-Pans*, *Port Seaton*, *Fisheraw*, *Cockenzie*, &c. But there are no Shoals or Sands on either Shore, only that all the Shore from *Leith* to *Muslebro'* is flat a great way off; so that in some Places the Tide ebbs above a Mile out. There is very good anchoring in the Bay off of *Port Seaton* in 5 to 8 Fa.

Harbour; but a small Bite in the ashore in it will be a Fishing Season in the anchoring in *St.* but not otherwise.

One L. and from the *Carr* a red *Sandbill*, two Light-houses into the River which is the N. a Mile and half is the S. Sand. S. side of the low Water. Below the River *Tay*, is but 3 Fa. Water the River *Tay*, or N. half W. Water the high deck'd *Ty*, which is a mile's length of 10 Fa. Water: This being above *Cass* void the *New* *Broughty*, and or 6 Fa. Water and safe Road towards *Perth*.

If you should the Sea high, according as you Head-sail: but in great Sea, it is the Channel better.

From the River by N. about 3 Miles Town and Pier ward of *Red* a good anchoring

North from *Montrose*, distant above two Cable Rock called the Spit of Sand can't entrance into the but they generally for, as above, running strong Breach.

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on the Coast of Scotland.

Harbour; but when you come into it, 'tis no more than a small Bire in the hollow of the Shore: The Fishing Boats lie ashore in it when Fishing is over, and shelter in it also in the Fishing Season in case of bad Weather. There is very good anchoring in *St. Andrews Bay*, when the Winds are off Shore, but not otherwise.

One L. and half farther N. the *Firth of Tay* opens, bearing from the *Carr Rocks* N.N.W. On the N. Shore of the River is a red *Sandhill*, called *Bokannis*, or *Botonnas*, on which stand two Light-houses by the Shore; being a leading Mark to sail by into the River *Tay*. You go in between two Sands; the one, which is the N. Sand, is called the *Goa*, and lies off E.S.S. a Mile and half from *Bockannais* side; the other, which is the S. Sand, is called *Avertie*, and lies off from the S. side of the River E.N.E. two Miles and a half, and dries at low Water. Between these two Sandheads is the going into the River *Tay*, which are a Mile asunder without; and there is but 3 Fa. Water from Sandhead to Sandhead. To sail into the River *Tay*, bring the highest part of *Bukannais Hill* N.W. or N. half W. Westerly, or the Lights together, till you bring the high deck'd Hill, call'd *Dundee-lrw*, just over *Castle Broughty*, which is a leading Mark in. You may sail within a Cable's length of the low Light by the Water side, having 6 or 7 Fa. Water: Then sail up half West, and half Southerly. Being above *Castle Broughty*, keep nearest the N. Shore, to avoid the *Nexcome* Sand that lies on the S. Shore above *Castle Broughty*, and then anchor before the Town of *Dundee* in 5 or 6 Fa. Water; bring the Town N.E. where is a very good and safe Road for all Winds. If you are bound higher up towards *Perth*, take a Pilot at *Dundee*.

If you should sail into this River when it bloweth hard and the Sea high, take 2 or 3 hours Flood with you, more or less, according as your Ship is in Burden; and be sure to keep a good Head-sail: but if you should go in with a Tide of Ebb, and a great Sea, it is very frightful and dangerous for laden Ships, all the Channel being of a Breach.

From the River *Tay* to the *Red Head*, the Course is N.E. by N. about 3 Ls. A Mile Westward of the *Red Head* is the Town and Pier of *Arbroth*, a place for Boats only. To the Northward of *Red Head*, is a fair Bay called *Louuan Bay*, where is good anchoring in 8 or 9 Fa. Water, the *Red Head* bearing S.

North from the *Red Head* is the Entrance into the River of *Montrose*, distance 4 Miles: The Channel is very narrow, not above two Cables length over: On the South side there lies a Rock called the *Stone*, and from the North side runs off a Spit of Sand called the *Annot*. Between these two is the Entrance into the River; the Entrance has very good Marks, but they generally take a Pilot at the Mouth of the River; for, as above, when the Wind blows hard off Sea, and the Ebb is running stronger out, the Mouth of the River is all of a Breach.

From *Montrose* to the *Todhead* the Course is N.E. distance 4 Ls. All the way between both is good riding, if the Winds are off Shore; but if otherwise the Sea goes high, and makes a foul

Ferry, where there is an Island in the Channel, which yet maintains the Channel more.

Above the Island, and in the very narrow Passage of the Ferry, is a sunk Rock; the Top of it may be seen above Water at $\frac{1}{2}$ Ebb: Close to which Rock, and in most part of the Channel, is from 30 to 36, to 40 and 45 Fa. Water.

If you are bound thro' here, and are going up to *Borrowstonefs*, or *Alloway*, Pilots are always to be had at the *Ferry*, or at *Innerkeithing*, a Haven in the Bite on the N. Shore below the Bay, where there is a good Road in 16 to 20 Fa. Water.

The *Firth* is full of small Towns on either side, between *Innerkeithin* and the *May* and the *Bafs*; at most of which there are small Tide-Havens or Pier-Heads, as at *Innerkeithin*, *Brunt-Island*, *Kinghorn*, *Kirkaldie*, *Dyfert*, *Weems*, *Methel*, *Leven*, *Anstruther*, *Creill*, *Pittensweems*, *Preston-Pans*, *Port Seaton*, *Fisheraw*, *Cockenzie*, &c. But there are no Shoals or Sands on either Shore, only that all the Shore from *Leith* to *Muslebro'* is flat a great way off; so that in some Places the Tide ebbs above a Mile out. There is very good anchoring in the Bay off of *Port Seaton* in 5 to 8 Fa. Water. The North Point of Land, which makes the Mouth of the *Firth* on that side, is called *Fifenefs*, being the South-eastmost Point of the County of *Fife*, and a L. distant from the Island *My*.

E. N.E. from this Point, and distance one Mile to Seaward, lies the *Curr*. There are a Ledge of very great Rocks, which lie mostly under Water, only the outward Rock drieth the last quarter Ebb; the others are only seen at low Water, at Spring Tides. Keep the Light of the *May* S. by W. and that will carry you clear of the *Curr*. In the Night come no nearer it than in 15 or 16 Fa. Water. If you lie to the Northward of it, you will have 15, 16, and 17 Fa. and if to the Southward, you will have 22 to 24.

N.E. half N. from *Fifenefs*, lies another great and very dangerous Rock, mostly under Water, except at the last quarter Ebb; it is called *Inch Cape*, the word *Inch* in that Country signifying an Island. From the Mouth of the River *Tay* it bears E. half S. distance 4 Ls, and from the *Red Head* S.E. $3\frac{1}{2}$ Ls, and from the Light-house on the *May* N.N.E. 6 Ls.

Bringing the Isle of *Bafs* in one with the *May*, carries you just on the Edge of the Rock; but the *Bafs* on the East part of the *May* carries you clear. It is bold, and you have 18 to 22 Fath. within a Mile of it, except just on the S.W. side of it, where there is but 4 and 5 Fa. a Mile off: The Rock it self is about a Mile long, and a Cable's length broad. The Flood runs over it S.W. and the Ebb N.E. and the Sea breaks upon it with great Violence, with a S.E. or N.E. Wind; but the greatest danger is in smooth Water, and near the top of the Tides.

N. from *Fifenefs*, and between the *Nefs* and the Mouth or Firth of *Tay*, is *St. Andrews Bay*: In the bottom of the Bay is the Town or City of *St. Andrews*, close upon the Shore: There is a small Tide Haven with a Stone Pier, where is not above 10 to 11 Foot Water at high Spring Tides, and 7 or 8 at Neap Tides. Two Miles to the Northward of this Port is an Inlet called *Eden*: at high Water it shows from the Sea like a

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From the River *Tay* to the *Red Head*, the Course is N.E. by N. about 3 Ls. A Mile Westward of the *Red Head* is the Town and Pier of *Arbroth*, a place for Boats only. To the Northward of *Red Head*, is a fair Bay called *Louman Bay*, where is good anchoring in 8 or 9 Fa. Water, the *Red Head* bearing S.

North from the *Red Head* is the Entrance into the River of *Montrose*, distance 4 Miles: The Channel is very narrow, not above two Cables length over: On the South side there lies a Rock called the *Stone*, and from the North side runs off a Spit of Sand called the *Annot*. Between these two is the Entrance into the River; the Entrance has very good Marks, but they generally take a Pilot at the Mouth of the River; for, as above, when the Wind blows hard off Sea, and the Ebb is running stronger out, the Mouth of the River is all of a Breach.

From *Montrose* to the *Todhead* the Course is N.E. distance 4 Ls. All the way between both is good riding, if the Winds are off Shore; but if otherwise the Sea goes high, and makes a foul Shore. From hence, steering still N.E. Easterly on the N. side of a small Bay, is *Dounfit*, distance 2 Ls; the Bay is called by the same Name: there is good anchoring in 9 Fa. the Point S. In the bottom of the Bay is the Town of *Stonehive*. There is a good Pier built of Stone, where at Spring Tides is 2 Fa. to 13 Foot Water, but lies dry at low Water. From hence to *Girdle Ness* the Course is N.N E. half E. distance 4 Ls; and a little beyond the *Ness* is the Entrance into *Aberdeen*.

There is very good anchoring in the Bay in 7 to 9 Fa. bringing the Point of *Girdleness* to bear S. and S. by E. from you. *Aberdeen* is a Tide-Haven, tho the River is large, being two Rivers joyned together, and which part the old Town of *Aberdeen* from the new. The Entrance into this Port is very difficult, the Channel narrow, and the Bar often shifting, so that no Ship of any consequence ventures in without a Pilot.

From *Girdleness* or *Aberdeen*, to *Buchanness*, the Course is N.N.E. and N.E. by N. distance 8 to 9 Ls: In the Midway between both is a small Creek, called *Newbro*, a place fit to receive Filhing Boats and small Vessels; and a little to the Northward of the *Ness*, is *Peter Head*, a little within a small Island called *Calk Inch*, that is, the *Chalky Island*. Here are two little Tide-Piers to receive small Vessels only, and them but at high Water: But a little on the South side of *Peter Head*, is a large Bay where is very good riding in 8 to 9 Fa. secur'd from Northerly and Westerly Winds by the *Hea*, and from Easterly by the Island or *Inch*. But if a Southerly Wind springs up, you had best be gone, for you will have a hard Road if it over blows.

E.N.E. from *Calk Inch* is *Ratter-head*, or *Katter-head*, distance 2 Ls; 'tis only remarkable because of a Ledge of Rocks which runs off N.E. from the Head a Mile into the Sea: To avoid which come no nearer to the Shore than 12 to 13 Fa. or keep a high Hill (which you will see within the Land, and which appears like a Saddle) called *Mormount*, in sight above the Sand Hills of *Ratter Head*. *Mormount* may be seen 10 or 12 Ls. at Sea.

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Directions for Sailing on the Coasts of th

N. B. This *Buchan Ness* is the Place from which Ships take their Departure, and keep their Reckonings, and measure Distances; as *Winterton Ness* is in the North, or the *Downs* in the South of *England*.

From this Point of Land called *Buchan Ness*, which is the Eastermost Land of all *Scotland*, the Shore falls off West, and makes a deep Bay called *Murray Firth*; and then stretches to *Dungsby Head*, which is the Northermost. This Bay is also called the *North Firth*, as that of *Edinburgh* is called the South. In the bottom of this Bay West, lie the two excellent Harbours of *Cromarty*, and *Inverness* or *Innerness*.

Cromarty lies due West from *Kinnards-Head*, distant 20 Ls. The River is described already; the Entrance is near a Mile broad, and the Town of *Cromarty* is on the South side of the Entrance: There needs no Pilot, for there is neither Shoal or Rock; and when you are in 'tis a noble Harbour, fit to receive the Royal Navy, but has no Trade.

Inverness is a little to the Southward: if you would fail to *Inverness*, there are Pilots ready at *Cromarty* to guide you in, the Entrance being narrow and difficult.

N.E. by N. from the Mouth of *Cromarty* is *Tarbet Ness*, distant 4 Ls. a bold Shore: Some Rocks lie about half a Mile from the Shore, called the *Three Kings*; but they are above Water, and to be seen.

There is a Harbour called *Tayn*, which if you are bound to, you must take a Pilot at *Tarbet Ness*.

From *Tarbet Ness* to *Dungsby Head*, the Course is N.E. by N. 18 Ls. This *Dungsby Head* is the Northermost Land in *Scotland*, and is directly opposite to the Islands of the *Orkneys*: The Sea between is a large Channel, called *Pentland Firth*.

Sailing Directions for the Islands of Orkney.

The Islands of *Orkney* are several Islands that lie to the Northward of *Scotland*, in which are many good Harbours, and good sailing between the most part of them: but the Tides run very strong among them, and in some of those Passages the Tides run very strangely; the Flood running here one way, and there another, of which the Pilots will inform you, but none of them can tell the reason of it.

Pomona is the greatest Island, on which is the Town of *Kirkwall*, where the Bishop of *Orkney* used to reside. In this Island are 2 very good Harbours, viz. *Dearfound* and *Cairston*.

Dearfound lieth on the N.E. end of *Pomona*, just within the *Mulhead*; which Head is a high Point of Land, and very remarkable, as you may see by the marking of it in most of our Charts. The *Mulhead* is bold and steep too; the Harbour's Mouth lies from this Head a L. and is about a Mile over: Keep in the middle, for there are some sunk Rocks which lie off from Point *Neslin*, which is on the Starboard-side going in. Being past this Point, then edge to the N. ward, and bring Point *Nes-*

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The Coasts of the Orkneys and Shetland.

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To sail into *Wirefound* from the Eastward, you must go into *Stronsa Firth*, between the *Mulhead* and *Stronsa*; in which *Firth* runs a very strong Tide, especially on Spring-Tides; so that if you should anchor, your Cables and Anchor must be very good to hold, tho there should be no Wind; besides, the Ground is foul. Here you will have great Ripplings and Breakings, caused by the strength of the Tides, and yet deep Water. Being enter'd into the *Firth* between the *Mulhead* and *Stronsa*, keep over to *Shapinsba*, and sail between it and *Green Island*, leaving *Shapinsba* on the Larboard-side: And then sail between *Wire*, *Eglesha* and *Rowsay*; which three Islands make a good Road call'd *Wirefound*: You may turn in with the Tide, there being no danger; only from the S. end of *Eglesha* lie off some Rocks, of which you must beware; they lie a Mile off. Bring St. *Agnes Church* N.E. or E.N.E. and anchor in 6 to 9 Fa. Water: This is a good Road, and but little Tide, and is used by the *Iceland* Fishermen when they are bound out on their fishing Voyages.

There is a narrow Channel to sail out at the N. end of *Wirefound*, between *Rowsay* and a little Island call'd *Scoknesholm*, where is 4 Fa. at low Water: Keep in the Middle between them; but the best Channel is to go out at the S. end of *Elgesha*, and so sail out at *Westra Firth* between *Westra* and *Rowsay*, keeping nearest to *Rowsay*; for there lie some sunk Rocks about two Miles off from *Croskirk* on *Westra*. There is a Channel between *Stronsa*, *Sanda* and *Eda*, into *Stronsa Firth*, and so to *Wirefound*, and out at *Westra Firth*.

I have given you an Account of the best Harbours in these Islands only; there are several others which are made use of but by small Vessels, which I have no Occasion to mention, my Design being only to direct Ships into the best Harbours.

Between the Islands of *Orkney* and those of *Shetland*, is a small Island call'd *Fair Isle*, at which the *Dutch East-India* Ships do usually stop as they go and come from *India*.

Sailing Directions for the Islands of Shetland.

The first Island as you come from the S. is *Sumbrough-head*: Between it and *Fitfil-head* are three Bays. The best is *Quandale Bay*, and lies on the E. side of *Fitfil-head*; and is a good place to anchor in 6 to 8 Fa. the Sea being open but to 4 Points of the Compass.

A little to the Westward of *Sumbrough-head* is a small Bay call'd *West Voe*, where you may anchor in 7 or 8 Fa. Water, and is a good Road for all Winds but from the S. to the S.E. About a Mile to the Westward of *Sumbrough-head* is a Bay call'd *East Voe*, which lies in S.S.W. where you anchor in 3 to 4 Fa. It is a good Road for all Winds but the N.E. As you sail in and out, you must keep a Cable's length from the N. Point, which is flat off: At the Entry into this Bay is another Bay, which runs in W. and by N. where is shoal Water not above 4 and 5 Foot.

About 6 Miles to the northward of *Sumbrough-head* is a little Inlet, where are two Bays, *Laganwick* and *Sandwick*.

The Islands of *Orkney* are several Islands that lie to the Northward of *Scotland*, in which are many good Harbours, and good sailing between the most part of them: but the Tides run very strong among them, and in some of those Passages the Tides run very strangely; the Flood running here one way, and there another, of which the Pilots will inform you, but none of them can tell the reason of it.

Pomona is the greatest Island, on which is the Town of *Kirkwall*, where the Bishop of *Orkney* used to reside. In this Island are 2 very good Harbours, viz. *Dearfound* and *Cairston*.

Dearfound lieth on the N.E. end of *Pomona*, just within the *Mulhead*; which Head is a high Point of Land, and very remarkable, as you may see by the marking of it in most of our Charts. The *Mulhead* is bold and steep too; the Harbour's Mouth lies from this Head a L. and is about a Mile over: Keep in the middle, for there are some sunk Rocks which lie off from Point *Neslin*, which is on the Starboard-side going in. Being past this Point, then edge to the N. ward, and bring Point *Neslin* E. and by N. and anchor in 5 Fa. at low Water: It sloweth here at Full and Change S.E. and by S. The Spring Tides rise and fall 10 and 12 Foot, and the Neap Tides 7 and 8, in the Harbour. The *English* Convoy, and Fishermen for *Iceland*, most commonly make use of this Harbour to fill fresh Water, and take in Turf for Firing. Provisions also are here good and plenty: All these Islands afford much Corn, and some Cattle; and Fish of all sorts is very plenty and cheap.

Cairston lieth at the S.W. end of *Pomona*, and is a good and safe Harbour, having a good Outlet to the Westward. There are several Channels to sail in, as you may see by the Charts. There is a good Channel off of the S. end of *Pomona*, call'd *Hansfound*. You sail close by the Point of *Rosness*, leaving the Island *Lambolme* on the Larboard side, and to keep the Island *Pomona* aboard till you come up to *Cairfound*. There is also a good Channel between *South Ronaldsha* and *Burra*, and another broad Sound between the Islands of *Hoy*, *Flota*, and *South Ronaldsha*; also between the Isle of *Hoy* and *Pomona*, are many good places to anchor in, where you ride land-lock'd.

The Tides run in and out very strong between the W. end of *Hoy* and *Pomona*, where you will have great Ripplings and Breaches, as tho they were shoal Water: Yet the Channel is bold and deep, and no danger. In the Harbour of *Cairston* is no manner of Tide, but you ride with great safety: It flows here at Full and Change S.E. the Spring-Tides should rise and fall 10 and 12 Foot.

The next good place to anchor in is *Kirkwall Road*. To go in there, you must sail between *Pomona* and *Shapinsha*, leaving the Island *Elgarholm* on the Starboard-side, and the Island *Thievesholm* on the Larboard-side. Being about the Island, stand into *Kirkwall Road*, and anchor before the Town in 5 to 9 Fa. Water.

There is good anchoring to the Southward of *Kirkwall Bay*, call'd *Moonos Bay*: There are several sunk Rocks that lie to the Northward of *Kirkwall Bay*, between it and the Island *Garfay*; and no Stranger should sail there without a Pilot.

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The first Island as you come from the S. is *Sumbrough-head*: Between it and *Fitfil-head* are three Bays. The best is *Quandle Bay*, and lies on the E. side of *Fitfil-head*; and is a good place to anchor in 6 to 8 Fa. the Sea being open but to 4 Points of the Compass.

A little to the Westward of *Sumbrough-head* is a small Bay call'd *West Voe*, where you may anchor in 7 or 8 Fa. Water, and is a good Road for all Winds but from the S. to the S.E. About a Mile to the Westward of *Sumbrough-head* is a Bay call'd *East Voe*, which lies in S.S.W. where you anchor in 3 to 4 Fa. It is a good Road for all Winds but the N.E. As you sail in and out, you must keep a Cable's length from the N. Point, which is flat off: At the Entry into this Bay is another Bay, which runs in W. and by N. where is shoal Water not above 4 and 5 Foot.

About 6 Miles to the northward of *Sumbrough-head* is a little Inlet, where are two Bays, *Lewenwick*, and *Sandwick*.

Lewenwick lies in W.N.W. and W. by N. and as soon as the Bay opens, you sail in W. and W. by S. and anchor in 7 and 8 Fa. Water.

Sandwick runs in N. and N. by E. and is a little Bay, where you anchor in 7 Fa. The Point of *Nonnaife* lies from *Lewenwick* about a Mile.

From the Point of *Nonnaife* lies the Island of *Musa* N.E. about a Mile. There is a Channel between the Island and the Main N.W. by N. and N.N.W. From this Island is a little Inlet going in N. call'd *Eths Noe*, where is but 10 and 12 Foot Water.

From the Island of *Musa* to the Head of *Brassey* or *Wart-hill*, the Course is N. distance two Ls. Between the Island of *Brassey* and the Main, is the going into *Brassey-sound*, leaving *Brassey* it self on the Starboard-side. There is no manner of Danger in sailing in or out at *Brassey-sound*. You may anchor before the Town of *Lerwick* in 5 to 10 Fa. Water, land-lock'd. The *English* Admiral, the Earl of *Sandwich*, in the Year 1665, anchored here with the *English* Fleet. This is an excellent Harbour, and much frequented by the *Dutch* with their Herring Busses; where they have sometimes had 1500 together: Here they have fresh Water, Turf for Firing, and great plenty of good Provisions.

You may easily know the Going into *Brassey-sound* by the Island of *Nosse*, which lies to the Eastward of *Brassey* Island; the E. part of which Island is call'd *Hang Cliff*, by the Land on the Sea-side hanging over into the Sea. *Wart-hill*, or *Sandwick-hill*, is very remarkable; and you may see it far off at Sea, before you see any other part of the Island.

It flows here at Full and Change, S.E. and by S. The Spring-Tides rite and fall 8 Foot, and at a Neap-Tide 5 Foot. Here is but a small Tide, which comes into the S. Entrance, and runs out at the N. Entrance; the Ebb Tides are strongest at the N. Entrance.

Directions for Sailing from the

Being in *Brassey-sound*, and if you are to sail out at the N. end call'd the *North-sound*, keep the Main-side till you are pass'd a small Island call'd the *Holm of Craister*: for to the Westward of this Island lie some sunk Rocks call'd *Loof-barbor*. Being pass'd these Rocks, steer away to the Northward; and when you come to the first narrow Entrance, there is a middle Bank, on which is but 15 Foot Water: But there is a narrow Channel of 18 Foot Water, you may keep on either side of it, the Shores being bold: And then you come into a broader place, and then narrow again, which is the northermost Passage. You must keep the Main aboard, and go close by the small Island or Rock call'd *Seotland*; for there lie some sunk Rocks off from *Brassey* side, as you may see by the breaking of the Sea over them towards the *Sound of Brassey*. Being out at the N. end, you have a good Channel between *Beoster Island* and *Green Island*, quite out into the Sea.

Between the Island of *Brassey* and a Head-land call'd the Mouth of *Ufweck*, lie four deep Sounds and Bays, call'd by the Inhabitants *Voes*: The Southermost is call'd *Deals Voe*, and lies two Miles to the Northward of the Island *Brassey*; it is a small Bay lying in S.W. by S. two Miles, but not above a Quarter of a Mile broad. About three Quarters of a Mile from *Kebesters Point*, which is on the S. side of the Entrance, there lies a Rock call'd *Toagrood*, which shews it self at half Tide; it bears from the said Point N.E. by N.

A Mile to the northward of *Deals Voe* is *Laxford Voe*, lying S.W. by S. two Miles, much like *Deals Voe*; where is 4 to 10 Fa. Water, good Shoalings, clear Ground, and good anchoring.

A little to the Northward of *Laxford Voe* lies *Webster's Voe*, a Mile in W. by S. where is good anchoring in 4 to 8 Fa.

Catford Voe is the northermost, and the best of all the *Voes*; for there you ride Land-lock'd for all Winds. This is an excellent Bay, able to receive a Royal Navy, where you may anchor in what depth you please, from 3 to 14 Fa. clear Ground. From *Sumbrough-head* to *Nonnaise* the Flood runs to the Northward, but from *Nonnaise* to *Brassey* the Ebb falls to the northwards, and the Flood to the contrary, as the Ebb does from *Nonnaise* to *Sumbrough-head*; so that the Tides part at *Nonnaise*.

Directions for Sailing from the Downs to the and from thence to the Isles of Scilly; acc



FROM the *Downs* to the *South Foreland*, the *Light-house* upon the *Foreland* bearing S.W. from the *South-sand-head*, is the surest Mark, and is known by all Mariners going out by the *South-sand-head* S.S.W.

From the *South Foreland* to *Dengy-Ness* the Course is S.W. by S. distance 6 Ls; but if you find Occasion to go into *Down Road*, being taken short by westerly or S.W. Winds, stand in from the *Foreland* S.W. by W. till you bring the

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From *Fittil-head* to the Island of *Colla*, the Courle is N.N.W. distance 2 Miles: And from *Colla* to the Island *St. Ringins*, the Courle is N. by W. 2 Miles. This Island is-join'd to the Main by a little Isthmus of Sand, which overflows at some high Tides. To the southward of this Isthmus, and within the Island, is a fair sandy Bay, where is a good Road to anchor, in 7 to 9 Fa. There is a good Road to the northward of this Isthmus, which is also good against easterly and southerly Winds.

Two Miles N. by W. from the Island of *St. Ringins*, are two Islands call'd *Little Hevra* and *Great Hevra*; between which and the Main is the little Island call'd *Maywick*: Between this *Maywick* and the Island *Hevra* is the Entrance into *Cliff-Sound*, which is a fair and clean Sound, and runs in N. half E. 2 Ls. and a half, having the Island of *East-Buro* and the Island *Trouzo* on the W. and the main Land on the E. It is a Mile broad in some places, and in other places less, as you may see in the entring: There you may anchor in good Ground, from 18 to 5 Fa. at the northermost part of this Sound. The Island of *Trouzo* lies within a Cable's length of the Main; at which narrow place is a Bar, where is but 6 and 7 Foot at low Water, and 11 and 12 at high Water. To sail over the Bar keep close to the *Main*, and within half a Mile of the Town of *Scallaway*.

The best Channel to go into *Scallaway*, is to sail without the Island of *Buro*, and bring the *Castle of Scallaway* N.E. by E. There is a leading Mark, which is to keep the *Castle of Scallaway* just open of the S. side of *Green Island*; and this Mark will carry you in between *Buro*, *Oxna*, and *Papa*, leaving *Buro* on the Starboard side, and *Oxna*, and *Papa* on the Larboard-side; and so sail in between *Green Island* and the little Island call'd *Narry*, which are not above a Cable's length asunder. Being past these Islands, run in with the *Castle* open before the Town in 2 to 4 Fa. Water: It flows here at Full and Change S. S. E. and S. E. by S. from *Sumbrough-head* to *Scallaway* the Tide of Ebb runs to the northward, and the Flood to the contrary. Here the Variation is found to be 6 Deg. westerly, and the same at the Islands of *Orkney*.

Downs to the Land's-End of Cornwall Westward, off Scilly; according to the Best and Latest Surveys.

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The Shore is flat with a high Beach at the farther part; 'tis adviseable not to come too near the Shore, especially off of *Pemsey*, there being a Stone Bank off of that place, on which there is not above 10 to 12 Foot Water. The Mark for it going to the Westward is, *Beachy-head* S.W. and *Pemsey Castle* N. half E.

Beachy is a high chalky Cliff, being the southmost Point of that they call the *South Downs*, which run from thence thro' the whole W. part of *England* to *Salisbury Plains*, and into

the Northward; but from *Nonnaife* to *Bragey* the Ebb falls to the northwards, and the Flood to the contrary, as the Ebb does from *Nonnaife* to *Sumbrough-head*; so that the Tides part at *Nonnaife*.

Directions for Sailing from the Downs to the and from thence to the Isles of Scilly; acco



FROM the *Downs* to the *South Foreland*, the *Light-house* upon the *Foreland* bearing S.W. from the *South-sand-head*, is the surest Mark, and is known by all Mariners going out by the *South-sand-head* S.S.W.

From the *South Foreland* to *Dengy-Nefs* the Course is S.W. by S. distance 6 Ls; but if you find Occasion to go into *Dover Road*, being taken short by westerly or S.W. Winds, stand in from the *Foreland* S.W. by W. till you bring the *Whiteway* to the N.W. of *Dover Castle*, right over the Hill which comes from *Dover Castle*, or between the Hill and the square Tower of *St. James's Church* in *Dover*: Then you may anchor in any Depth you please, from 8 to 14 Fa. off of *Folkston*, and between the *South Battery* and *Folkston*, you have very good anchoring for a S.W. Wind in 8 to 10 Fa.

There is a Sand lies off of *Dover*, about 2 Ls S. from the *South Foreland*, 'tis call'd the *Gunman*; and E.N.E. from *Dengy Nefs* it stretches away N.E. and SW. There is 5 to 6 Fa. close to it all round, but only 2 Fa. upon it at low Water.

Dungen or *Dengy-Nefs*, is a low beachy Point running far out to Seaward, the Shore is bold, and, with the Wind off Shore, you may go as near it as you please, keeping in 9 to 10 Fa. but if the Wind be off Sea, come not so near, for there is a very dangerous Bank juft within the Point, that has but 12 Foot Water upon it. There is a *Light-house* upon the Point.

On the E. side there is good anchoring with a westerly Wind; but if you turn to windward from *Dover* to get about the *Nefs*, you must take care of the *Rip Raps*, a long Sand which lies off of the *Nefs*, mid-way between *Dover* and the *French Coast*; the shoalest part of it is from *Dover* S. and from *Calais Cliffs* W. by S. It lies N.E. and S.W. 12 Ls. in length, but very narrow: There is about 15 Foot Water on it at low Water.

Being about the *Nefs*, and bound westward, you open the Port of *Rye*: 'Tis a Bar'd-Port, made so by laying the Lands dry, and banking in the Marshes, so as to check the Indraft, and have no back Water to keep open the Mouth of the Channel; by which means they have choak'd up the best Harbour on all this Coast, from the *Thames* to *Portsmouth*. Some of our Pilots say the Water rises here 4 Fa. and when you are in, you have 2 $\frac{1}{2}$ Fa. at low Water; but upon the Bar not above 9 Foot.

The Fishermen of *Rye* are the best Pilots; and if you are bound into the Harbour, 'tis necessary to furnish your self with one of them; for it is a very nice and difficult Place.

From *Dengy Nefs* to *Beachy*, the Courte is W.S.W. 9 Ls.

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to *Scalloway* the Tide of Ebb runs to the northward, and
the Flood to the contrary. Here the Variation is found to
be 6 Deg. westerly, and the same at the Islands of *Orkney*.

Downs to the Land's-End of Cornwall Westward, of Scilly; according to the Best and Latest Surveys.

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The Shore is flat with a high Beach at the farther part; 'tis
adviseable not to come too near the Shore, especially off of
Pemsey, there being a Stone Bank off of that place, on which
there is not above 10 to 12 Foot Water. The Mark for it
going to the Westward is, *Beachy-head* S.W. and *Pemsey*
Castle N. half E.

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Beachy is a high chalky Cliff, being the southmost Point of
that they call the *South Downs*, which run from thence thro'
the whole W. part of *England* to *Salisbury Plains*, and into
Gloucestershire. To the westward of the *Head* lie other chalky
Cliffs, which they call the *Seven Cliffs*, and are very well known.

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To the eastward of *Beachy* you may anchor very safe under
the *Head*, in 6 to 7 Fa. the *Head* bearing N. and N. by W.
from you: And to the westward, thwart the W. end of the
Seven Cliffs, you may anchor in 7 to 9 Fa. right against the
Swindle, from whence you may run along S. into the Haven
of *Cookmore*.

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About 2 Ls. from *Beachy*, the *Head* bearing N by W. lies
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Shoal the *Triumph* struck, and the *Nassau* lost her Rudder,
when the Royal Navy was turning down the Channel.

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At the W. end of the *Seven Cliffs* is *Cookmore Haven*; 'tis
a Tide-Haven; the Entrance lies N.W. by W. When it blows
a Storm from the Sea, the Harbour is quite barr'd up with
Shingle, but opens again by the Land-water. *New Haven*
does the same exactly, which makes them both be of very
small use; the latter is 3 Ls. from *Beachy* W.

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W.S.W. 9 Ls.

West of *Beachy* lies *Shoreham*, distance 7 Ls. and between
them *Brightelmston*, vulgarly *Bredbemston*. The latter has
no Haven, but the Vessels haul up upon the Beach with Crabs
to lie dry; 'tis a large Place for fishing Barks, which go yearly
to *North-Yarmouth* to the Fishing Fair for Herring. *Shoreham*
is a Tide-Haven, but the best of the kind upon the whole
Coast; and Vessels that do not draw above 9 Foot Water, may
lie a-float within the River a little below the Town. The
W. Point of the Entrance runs out easterly farther than the E.
Point: so that when you come from the W. you cannot see
the Opening of the Harbour; but as you come from the E.
it opens, and is seen at a League distance. You must take a
Pilot to go in, because the Sands shift often, so I need not de-
scribe the Entrance.

West from *Shoreham* lies *Arundel*, distance 4 Ls. The Pilots
call it a Tide-Haven, and yet own that Ships ride a-float wh n
they are in; which I cannot reconcile. All to the westward
of *Shoreham* hither is a bold Shore, and you may stand in
and come to an Anchor any where in 7 to 8 Fa. but from
Arundel

Directions for Sailing from the Th

Arundel westward is a flat Shore, so that you will not have above 6 to 7 Fa. 2 Leagues from the Shore.

S.W. by S. from *Arundel* lies a Bank call'd *Eastborough-head*, distance 3 Ls. 'Tis dry at low Water for near a Furlong in length; the whole Sand is a League long at least: But there is another Sand call'd the *Owers*, very near the other; they lie 4 Ls. from the Shore S. by W. and they have but 10 Foot Water on them: And between *Eastborough-head* and the *Owers*, half a League from the first, N.W. lies a Ledge of Rocks, on which there is not above 6 Foot Water. The *Owers* is a very dangerous Sand, and has been fatal to many good Ships; it ought to be thorowly describ'd, because it lies so directly in the way of all our Ships passing up and down the Channel; it lies S.E. from *Chichester Spire*, 4 Ls. from the Shore, and 4 to 5 Ls. from *Benbridge Point* on the *Isle of Wight*, the Illand bearing due West.

It is a large Sand, for it lies extended 9 Miles in length, and 3 in breadth, in the Middle, but narrow at both Ends; it generally lies dry at low Water.

There are a great many other Sands within it, as particularly the *Mixens*, which lies out from the S. Point of *Selfey* 2 or 3 Miles to the southward, and is also dry at low Water: Between the *Owers* and the *Mixen* are two other Sands, one to the E. call'd *Middle-Ground*, and one to the W. call'd the *Pulver*: There are Channels between them all, but not fit for any Vessel of Burden to venture in among them without a very skilful Pilot.

Our Direction therefore and Advice to all Commanders of Ships is, to steer without the *Owers*, whether bound to the E. or to the W. and to keep a good Offing; that they be not driven upon them by Streis of Weather; the Direction is very plain and short.

From *Beachy-head* to the *Isle of Wight* the Course is W.S.W. 18 Ls. If you are bound to the W. keep *Dunnofe* W half Southerly, so you run a good Birth without all these Shoals; and there are divers good Marks to avoid them besides: For Example, (1.) There is 12 Fa. Water close to them, keep in 18 Fa. you are sure to go clear of them all.

(2.) The thwart Mark for the *Owers* is *Chichester Steeple*, which is a high Spire, bearing N.N.W. from you, as you are on the out-side of the Sand; it is part dry at low Water.

(3.) If you come from the W. and are bound to the E your Course is E. half N. still keeping, as above, in no less than 18 Fa. at your Peril.

There is a Channel also between the *Owers* and the Main, coming from the W. and leading into *Chichester*; but you ought to be very well acquainted there too, or take a Pilot, for there are many Sands within, which on that Account we need not describe. Within these Sands is a great Sound, wherein lies the Port of *Chichester*, and several other Creeks and difficult Places, which, as above, I refer to the Pilots, for no Vessels go in

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And on the Starboard-side you have a large Sand call'd the *Horse*, on which there is but 7 Foot at low Water.

If you would go on for *Spithead*, and not come to an Anchor in *St. Helens*, the leading Mark is to bring a white Tower by the Sea-side call'd *Gilkicker*, and *Stoke Church* into one; and this is the best of the Channel, lying between the two great Sands call'd the *Horse* and the *No-man's-land*; but you may also keep *Stoke Church* just open to the fourthward of *Gilkicker*. When you bring a small Village by the Sea-side on the *Isle of Wight*, call'd *Ryde*, to bear W.S.W. and *Gilkicker* N.W. then you are in the best of the Road at *Spithead*, and may anchor where you please; 'tis a very good Road, clean Ground, and room enough for the Royal Navy, which has often rode there.

The two Sands above, call'd the *Horse* and *No-man's-land*, are worth describing here, because they are very necessary to be avoided in coming into this well frequented Bay of the *Isle of Wight*: The *Horse* is a Sand between *St. Helens* and *Spithead*, it is hard Ground, and in some places has not above 7 Foot at low Water: When the great white Patch, so well known upon *Portsmouth Down*, is on upon *South-Sea Castle*, then you are within the Sand; keep *Portsmouth Steeple* in one with the *Redoubt* on the E. side of the Town, which is like a Pigeon-house, it will carry you close by the *Horse* in 5 to 6 Fa. Water.

The Eastermost part of this great Bank is called the *Dean*; when the Windmill on the *Isle of Wight* bears S.W. by W. then you are a-breast of the Buoy of the *Horse*.

N. B. If you turn from *St. Helens* between the *Horse* and *No-man's-land* to go into *Spithead*, be very careful of coming too near *No man's-land*; for it is so steep, that near it you may have 10 to 12 Fa. and the next Cast be a ground.

No-man's-land is a large Sand, lying all along Shore from the East quite to the North part of the Bay N.E; it goes stretching round from *St. Helens* Road, almost as far as *Newport Point*: 'Tis called by several Names in several Places by Fishermen, but is the same Sand called in the Charts *No-man's land*.

The thwart Mark for the *Spit* of *No-man's-land*, as you go out of *St. Helens*, is to bring the Windmill on the *Isle of Wight* between the S.W. and the S.W. by W. when it will be just over a square Field by the Sea side, and keeping sight of the Mill, will carry you clear; but if the Mill comes behind the Land out of sight, you will be a-ground upon the *Spit*. The same Mark will carry you up into *Cox's Road*, keeping the *No-man's-land* all the way on the Larboard side: All within the *Isle of Wight*, where you are clear of the Sands, is good Ground and safe anchoring.

The Buoy of *No-man's-land* lies on the N.E. Point of the

and there are divers good Marks to avoid them besides: For Example, (1.) There is 12 Fa. Water close to them, keep in 18 Fa. you are sure to go clear of them all.

(2.) The thwart Mark for the *Owers* is *Chichester Steeple*, which is a high Spire, bearing N.N.W. from you, as you are on the out-side of the Sand; it is part dry at low Water.

(3.) If you come from the W. and are bound to the E your Course is E. half N. still keeping, as above, in no less than 18 Fa. at your Peril.

There is a Channel also between the *Owers* and the Main, coming from the W. and leading into *Chichester*; but you ought to be very well acquainted there too, or take a Pilot, for there are many Sands within, which on that Account we need not describe. Within these Sands is a great Sound, wherein lies the Port of *Chichester*, and several other Creeks and difficult Places, which, as above, I refer to the Pilots, for no Vessels go in without them.

The chief Reason why so many Ships have fallen on these Shoals, is the great Indraft of the Tide, setting strong into *St. Helens*, 8 Hours in 12 or more; the latter part of the Flood also sets into the Road of *St. Helens*: My Advice is, when you are near this Place in the Night, or in thick Weather, be very careful, and keep your Lead going well. In little Winds, or stark Calms, you shall be drawn in here to Admirable by the strong Indraft; which if you find, you must come to an Anchor in time.

To the Eastward of the *Owers* there is another Going or Entrance into *Chichester*, leaving *Selfy Point* on the Starboard-side: 'Tis the Channel which the Vessels from *London* use, who go into *Chichester*, *Emsworth*, and other small Places thereabout; but 'tis very difficult, and none but such as are well acquainted ought to venture in without a Pilot.

Suppose your Ship now to be without all these Sands in 18 Fa. Water, as above, and bound to the Westward, to the *Isle of Wight*, or to *St. Helens Road*: Being in sight of the *Isle of Wight*, there you will see a white, steep, chalky Cliff, very high, call'd *Culver Cliff*, or *Swan Cliff*: Keep it before you W.N.W. and N.W. by W. it is within 2 Miles of *Benbridge Point*; when you come within about a League of the *Cliff*, steer in for *St. Helens*, but be careful of a Spit of Sand call'd *Benbridge-ledge*, that lies away to the eastward of *Benbridge Point*, 2 Miles into the Sea.

N. B. This *Benbridge Point* is the easternmost Land of the *Isle of Wight*.

When the *Swan Cliff* is lost behind *Benbridge Point*, then you are within that Spit; you may run over the Spit in 5 to 6 Fa. Also about one League N. by W. from *Benbridge Point*, lies a small Sand call'd the *Warrens*, upon which there is a Buoy about a Mile from the Shore.

If you would anchor in *St. Helens Road*, bring *St. Helens Church* to bear W.S.W. from you, and then you have 5 to 8 Fa. Water; there is a small oozy Bank in the Bay of *St. Helens*, which at a low Ebb has but 14 Foot Water on it:

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the East quite to the North part of the Bay N.E; it goes stretching round from *St. Helens* Road, almost as far as *Newport Point*: 'Tis called by several Names in several Places by Fishermen, but is the same Sand called in the Charts *No-man's land*.

The thwart Mark for the *Spit* of *No-man's-land*, as you go out of *St. Helens*, is to bring the Windmill on the *Isle of Wight* between the S.W. and the S.W. by W. when it will be just over a square Field by the Sea side, and keeping sight of the Mill, will carry you clear; but if the Mill comes behind the Land out of sight, you will be a-ground upon the *Spit*. The same Mark will carry you up into *Cows Road*, keeping the *No-man's-land* all the way on the Larboard side: All within the *Isle of Wight*, where you are clear of the Sands, is good Ground and safe anchoring.

The Buoy of *No-man's-land* lies on the N.E. Point of the Sand: from thence, steering N.W. by N. and W.N.W. with the Mill in sight, will carry you into *Cows*; and keeping a little more Northerly in the same Course, carries you into *Stoaks Bay*, or into *Hamton Water*: But for all those Waters, you may take Pilots at *St. Helens* as you find occasion.

Cows Road is the best Harbour on the inside of the *Isle of Wight*; the fair way out to the *Needles*. is the easiest Passage of its kind: there is a hard Shoal in the fair way to *Cows*, 'tis called the *Bramble*, and reaches thwart of *Newport*; 'tis almost dry at low Water: Keeping close to the Island avoids it, for all the Shore of the Island is bold, from *Newport Point* where the *No-man's-land* ends, almost to the *Needles*; between *No-man's-land* and the *Brambles* lie two small Sands, one called the *Ryde Middle*, and the other the *Middle*; but they are out of the way here. When you come from *St. Helens* to the Westward, you go within them a great way, keeping towards the main near *Stoak's Bay*, till you bring the *Wight* Windmill S. from you, or S. by W, and then you are past the *Ryde*.

From *Cows* to *Hurst Castle* is a fair way, or from *Yarmouth* is the same. Near *Hurst Castle*, a little to the N.E. is a good Road called *Jack in the Basket*; if you would anchor there, bring the *Needles* just open of the Point, and *Yarmouth Castle* S. by W. or S.S.W. and you are in the best of the Road: where you have 7 to 8 Fa. and out of the Stream of the Tide, which runs very sharp here, especially between the midway and the main. Being past the Cattle, steer away boldly S.W. by S. for the Ebb, S. or S. by W. for the *Needles*, which you will see before you; they are little sharp white Rocks, and plain above Water; in the *fair way* you must keep close to them. Opposite to them are other Rocks, called the *Shingles*: by keeping close to the *Needles* you avoid the *Shingles*, the Tide of Ebb lets on them, as the Tide of Flood does on the *Needles*, and both run very strong: You have here 4 1/2 Fa. at low Water: When you are out, and the *Needles* bear N.E. from you 2 1/2 to 3 Ls. the Ground comes rocky and shingly; but keep off in 25 to 30 Fa.

N. B. *Newport* lies from *Hurst Castle* E.N.F. distance near 4 Leagues. If

Directions for Sailing from the Thar

If you come from the Westward, and are to go in at the *Needles*, take the following Directions: You will know the going in by the high white Land, and which you are to leave on your Starboard side; it is the West end of the *Isle of Wight*: You may run boldly in with the Land, till you see the *Needle Rocks*, and then keep close to them, observing the Tides, as in the *Directions for coming out*. Note, That there is an Indraft that sets in from the *Needles* into *Pool*; which Indraft hath haul'd many Ship into *Fresh Water Bay*: but I am very sure that no Ship can run ashore into *Fresh Water Bay*, if they did but mind the Lead; the neglect of which hath been the loss of many a good Ship: Keep in 25 or 30 Fa. Water, and you need not fear the Indraft of the *Wight*.

If you come from the Westward, and would come into *St. Helens* on the back of the *Wight*, you must run far enough to the Eastward, to bring the great white Patch upon *Post Down* N. by W. else you will not go clear of *Benbridge Ledge*; and bring *St. Helens Church* to bear W. by N. half N. and open of the Red Cliffs.

Of the Course of the Tides, and the Depth of the Channel between Dover and the Isle of Wight.

Between *Dover* and *Dengy Nefs*, and likewise thwart of the *Nefs*, a S.S.W. Moon maketh a full Sea; in the Channel off *Winchelsea*, a S. by E. Moon; at *Beachy* by the Shore, a S.S.E. Moon; at *Spithead* a S.E. by S. Moon; in the fair Way thwart of it, a South Moon.

In the *Offing*, from the *South* to the *North Foreland*, it runs half Tide; from the *South Foreland* to *Dengy Nefs* it runs half Tide and half quarter; from the *Nefs* to *Fairlee* it runs half Tide; and from *Fairlee* to *Beachy* one quarter Tide under another. From *Dengy Nefs* to *Dover*, the Flood sets NE. by E. and the Ebb S.W. by W; from *Beachy* to the *Nefs* E.N.E. and W.S.W; at *Beachy* by the Shore, and before the *Seven Cliffs*, the Flood sets E. by S. and the Ebb W. by N; from the *Wight* to *Beachy* the Flood sets E. by N. and the Ebb W. by S.

Between *Winchelsea* and *Picardy* in the mid Channel it's 26 and 27 Fa. deep: and in such depth you may see *Fairlee* and the *South Foreland*.

Within *Beachy* thwart of the *Seven Cliffs*, its 16 and 18 Fa. deep; and mid Channel between *England* and *France* its 26 and 28 Fa. If you would anchor in *Freshwater Bay*, bring *Dunnope*, which is the Southermost Point of the *Isle of Wight*, E. by S. or E. by S half S. there you lie in 16 to 18 Fa. the *Needles* bearing N.W. or N.W. half W. from you.

Christ Church is a little bar'd Haven, where small Vessels may run in at high Water: 'Tis the Mouth of the River *Avon* and *Willie*, which come down from *Salisbury*, and are made navigable almost to the City by Barges, &c. 'Tis about 2 Ls. from *Hurst Castle*, the Courle W. Northerly.

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at the Point of Land of *Portland*, you will touch the very Edge of the *Shambles* on the inside; but if you keep the Castle and the Point a Sail's breadth open, you will go clear

Portland Race is a terrible place indeed; it is a violent rippling of the Sea, occasion'd not by the meeting of two Tides (which is the vulgar Error) but by Overfalls and a kind of Sea Cataracts, in the Bottom; by which unevenness of the Ground when the Sea is high, *the Tides being strong*, there are great Heavings and Breakings in the Water, which makes very great Seas; and as the Winds may be, Ships are sometimes in danger of foundering there. This Rippling begins about two Miles off of *Portland Bill* one Mile Westward, and reaches East as far as *St. Albaus* or *Peverel Point*.

Within *Portland*, bearing from the Road N. by E. distance one long League is *Weymouth*, a Port of good Trade, but a barr'd Haven; there is very good Riding without the Bar in *Weymouth Road*, and at the Point of *Melcomb Regis* on the Larboard side; the Westermost Point going in is a Mole or Stone Pier very strong, with a Battery of Guns upon it.

There are two Lighthouses lately erected on the *Bill of Portland*, which have been found very serviceable in case of Ships running to the Eastward; and were the saving of two *East India* Ships a very few years ago, who tho outward bound, were in a great Storm and in a dark Night driven too near the *Race*, and in danger of being on Shore upon the *Bill* it self.

N. B. *Portland Bill* is the Southermost Point of Land of the Island, running out a great way into the Sea, and is by some thought to be the most Southerly Point of the Island of *Great Britain*.

The *Race* is two Miles without it, still farther South; Ships may run between them in moderate Weather, but there are many Dangers here about, and especially the being imbay'd, and driven upon the Beach to the Westward of *Portland*, where abundance of good Ships have been lost; 'tis a steep stone Beach, which runs away N.E. from the Northermost part of the Island, making a large Hook, with a Bay almost 7 Miles. If you are bound up the Channel from the Westward, take care, as soon as you see *Portland Lights*, to haul off to the Southward; and when you have the Lights both in one, you will be past the *Race*: and then you may go away E. by S. and you will also avoid the *Shambles* mention'd before, and so go fair up the Channel.

But if you cannot weather the *Race*, and the Winds blow hard at S.W. or thereabout, put in at a venture between the *Race* and the *Bill of Portland*, especially if you can have a Slack or Tide of Ebb; and when you have held on about a L. N.E. Easterly, steer away due N.E. by N. for *Portland Road*, and lie there for better Weather; and remember that you have escaped the greatest Danger in the whole *English Channel*.

But if you can by no means weather the *Bill*, you must

Seven Leagues, the Flood lets E. by S. and the Ebb W. by N. from the *Wight* to *Beachy* the Flood lets E. by N. and the Ebb W. by S.

Between *Winchelsea* and *Picardy* in the mid Channel it's 26 and 27 Fa. deep: and in such depth you may see *Fairlee* and the *South Foreland*.

Within *Beachy* thwart of the *Seven Cliffs*, its 16 and 18 Fa. deep; and mid Channel between *England* and *France* its 26 and 28 Fa. If you would anchor in *Freshwater Bay*, bring *Dunnoſe*, which is the Southermost Point of the *Iſle of Wight*, E. by S. or E. by S. half S. there you lie in 16 to 18 Fa. the *Needles* bearing N.W. or N.W. half W. from you.

Chriſt Church is a little bar'd Haven, where ſmall Veſſels may run in at high Water: 'Tis the Mouth of the River *Avon* and *Willie*, which come down from *Salisbury*, and are made navigable almoſt to the City by Barges, &c. 'Tis about 2 Ls. from *Hurſt Caſtle*, the Courſe W. Northerly.

Due Weſt from the *Needles* is the Entrance into the Harbour of *Pool*, diſtance 5 Ls. it is a barr'd Port, but has 10 to 11 Foot Water on the Bar at low Water, and does not flow above 5 to 6 Foot upon the Flood Tide, but then you have two Floods in every Tide; a S.E. Moon makes full Sea, and a S by E. Moon makes the other Flood; this is occaſion'd by the ſtrong Ebb out of the *Iſle of Wight*.

If you would go into *Pool*, *Wareham*, *Purbeck*, or other places, for there are ſeveral ſmall Ports within the Bay, take a Pilot at the Bar.

Between the Entrance and *Studland Point* there is good anchoring in *Studland Bay*. S. of *Studland Point* is a little Bay called *Sandwich*, or *Sunwich*; and S. of the Bay, a Point which runs far out, called *St. Albans*, and ordinarily *Peverel Point*, or *Peverly*, as ſome call it.

From *Peverly*, or *Peverel Point*, to the Weſtward, the Land is high, and is called the high Land of *St. Albans*. About 2 Ls. or more to the Weſtward of *Peverly Point*, is *Kembridge Ledge*, which lies off from the Shore S. by E. into the Sea a Mile and half: It has at that diſtance but 6 Foot at low Water, and three quarters of a Mile off 13 Foot, and a Mile off 4 Fa. There is another Ledge that lies right off from *St. Albans head*, about three quarters of a Mile off Shore, and hath but 12 Foot at low Water; it lies between *Kembridge Ledge* and *Peverly Point*.

Four Leagues from *Peverly Point* is a ſmall Cove called *Lutworth*, where ſmall Veſſels may ride with almoſt any Wind, but there is not above 12 to 13 Foot Water.

From the Weſt end of the *Wight* to *Portland Bill*, the Courſe is W. by S. and W.S.W. diſtance 11 to 12 Ls. but if you are at Sea, then the Courſe is from *Dunnoſe* W. and by S. 15 to 16 Ls.

Portland Road is a very good Harbour, perfectly landlockt from Weſterly and Southerly Winds, very good holding Ground; but you muſt take care to avoid a Sand called the *Shambles*, which is a long hard Sand off of the S.E. part of *Portland*: If you bring *Weymouth Caſtle* on, upon the Eaſt

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Beach, which runs away N.E. from the Northernmost part of the Island, making a large Hook, with a Bay almost 7 Miles. If you are bound up the Channel from the Westward, take care, as soon as you see *Portland* Lights, to haul off to the Southward; and when you have the Lights both in one, you will be past the *Race*: and then you may go away E. by S. and you will also avoid the *Shambles* mention'd before, and so go fair up the Channel.

But if you cannot weather the *Race*, and the Winds blow hard at S.W. or thereabout, put in at a venture between the *Race* and the *Bill of Portland*, especially if you can have a Slack or Tide of Ebb; and when you have held on about a L. N.E. Easterly, steer away due N.E. by N. for *Portland Road*, and lie there for better Weather; and remember that you have escaped the greatest Danger in the whole *English* Channel.

But if you can by no means weather the *Bill*, you must trust to your ground Tackle, and come to an anchor. 'Tis true, you have bad Anchor-hold in the Bay, being all loose Ground; and many Ships have been driven from their Anchors there, and gone right ahore: If then you are brought to the like Distress, and see no Remedy, observe that between *Burton* and *Chiffel* the Beach is steep too, and where it flows nine hours, and ebbs but three: If you must go on Shore, do it there if possible, and run boldly upon the Beach.

When you are on Shore, take care not to let your Men jump immediately on the Beach, as is usual in such Distress, in order to save their Lives; but if possible, and your Ship does not immediately break in pieces, have Patience for five or six Seas, and then you will find the Ship settle in the Beach, and shelter you from the Force of the Seas; and you may step leisurely upon the Beach, and get off; whereas if they immediately quit the Ship, they are inevitably lost by the Rage and breakings of the Sea.

N. B. The two Lights upon *Portland* stand N. and S. of each other, and bear N.W. by W. from the *Shambles*.

N. Westward from *Portland* in the Bay, but beyond the Beach, lies the Port of *Lime*, distance 7 Ls. Here is no River or Creek, but a strange artificial Harbour built out in the Sea, and quite distant from the Shore, only as it is joined by the Buildings. It is a Stone Pier with a *Basin* within, for Ships to lie dry; there is a Key to load and unload, and the Wall which joins it to the Shore is thick enough for Carts to go on to the Key, to fetch and carry Goods from and to the Vessels.

N. B. The Shore is stony and foul, and Ships could not lie here if this Haven had not been built.

The next Port is *Exmouth*, going up to *Topsham* and *Exeter*; the Course from *Portland* is W by N distance 12 Ls. say some of our Pilots, others say 15 Ls. I think neither of them are right; the middle reckoning of 13 Ls. I think the truest.

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Directions for Sailing from the

The going in to this Place is very narrow, having Rocks on the E. side, and Sands on the West; at low Water there is but 6 and 7 Foot on the Bar, but at high Water 16 and 18 Foot Water. Here are always Pilots ready to come off, and no Man ought to venture into the Place without one.

Between *Exmouth* and *Torbay* is *Tinmouth*, distance five Miles from the first, and near as much from the last: 'tis a small Tide-Haven, and the Town was burnt by the *French* in the late War.

Torbay is a well known Place, famous for the landing of King *William* with the *Dutch Army*, in the Year 1688; 'tis a spacious large Bay, and able to receive a very great Fleet, as appear'd at that time, when it had 50 Men of War, and near 500 Sail of Transports riding in it at once: The Ground is clean, very good Anchor-hold, and the Road safe; especially for Northerly, Westerly, and Southerly Winds, provided they are not to the Eastward of the S.

To go into the Bay, bring the West Point, and the *Berry S.* by E. or S.S.E. from you; you have 7 to 8 Fa. Water any where, and may take what Birth you think fit. There are two Piers in the Bay, one called *Brixam Key* on the S. side of the Bay, and *Tar* or *Tor Key* on the North: Small Vessels may lie close to them to take in Goods, but they must lie dry at low Water. Likewise on the N.E. side of the Bay there is a small Tide-Haven called *Tor Mount*. The whole Royal Navy has often rid in this Bay, with great safety, nothing but a S.E. Wind is uneasy to it.

The West Point of this great Bay is called the *Berry*, which runs out far S. into the Sea: Off of the East Point is a high Rock standing far out of the Sea, called the *Mew-stone*; and off of the *Berry* another called the *Berry Rock*; but they are both out of the fair Way or usual Entrance into the Bay.

Two Ls. to the Westward of the *Berry* lies the Port of *Dartmouth*: the going in is very narrow, between two high Lands; in the Narrow it is but just a Cable's length over. On the West side is a Castle, and on the East side a Block-house: The going in and out at this Place is very dangerous, except the Wind blow right in, which are Southerly Winds; for if the Winds be either Easterly or Westerly, then the high Lands which lie off on each side, cause Overflows and Calms, sometimes blowing in and presently right out again; which hinders a Ship in turning in or out, by putting them astays unawares. There are always Boats ready to come off, which are good Boats to row, and are called *Tow Boats*, and are very serviceable in towing Ships in and out, and to bring them astays: without which Boats 'tis very dangerous going in or out. The northerly Winds blow right out, and the southerly Winds right in; but the easterly and westerly Winds blow with Flaws and Calms in and out. When you are gotten in, it is a most excellent good Harbour, and can contain the Royal Navy. There is also good anchoring without the Harbour's Mouth, in the Road called *Dartmouth Range*.

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were all dash'd to pieces against the Rocks, or founder'd as they rode in the *Sound*, the third Night after they arriv'd, and most of the People lost; only one Ship was saved by running, or rather driving into *Catwater* in the dark, and in the height of the Tempest.

The *Mew-stone* on the E. and the *Ram-head* on the W. make the *Sound of Plymouth*; the W. side is the best going in, and the common Mark for anchoring in the best Ground, is to bring *Mount Edgecomb House* just open, and the *Withy Hedge* right up and down: Another Mark, and which is counted still better, is *Plymouth Church* upon the W. end of the Citadel, with *St. Nicholas Island* N.W. and *Penlee Point* S.W. there you have 7 Fa. clean coarse Sand; and a little to the northward of *Penlee Point* is *Causon Bay*, a fair sandy Shore, good anchoring close under the Land, in 9 to 10 Fa.

N.W. by N. from the *Mew-stone*, distance one Mile, is the *Shag-stone*; and W. of that; of a Mile, is the *Shag-rock*, or as some call it the *Tinkers Sheers*; but there is near 3 Fa. on it at low Water. N. by W. from the *Tinker*, lies the *Cloudestly*, or as some call it the *Shovel Rock*, call'd so from Sir *Cloudestly Shovel*, who order'd a Buoy to be put upon it; it lies funk in 16 Foot Water. When you see *Makers Steeple* over *Causon* W.N.W. then you are a-breast of the *Shovel*.

I need not give the Marks for running into *Catwater* or *Ham Oaze*, because, if you are wile, you will call for Pilots to carry you in; but the *Eddy-stone* being without all, requires to be exactly described:

The *Eddy-stone* lies S.S.W. from *Plymouth Sound*; the N.W. part of it is above Water at the Ebb of a high Spring-Tide appearing about 6 or 7 Foot high. The W. side is bold and steep; but the S.S.E. part of it is foul for about half a Mile off; and at low Water there are several other Rocks which shew themselves above Water. The main Rock lies from the *Start* W. a little southerly, and from the *Ram-head* S. by W. a little westerly, about 3 Ls. or rather more from the *Ram-head*. You have 20 Fa. Water close by the *Ram-head*, and between the *Head* and the *Eddy-stone* 35 and 36 Fa. and in the Stream of the *Eddy-stone* 40 Fa. Keep without 40 Fa. Water, and you cannot come foul of the *Eddy-stone*: It is high Water here at the *Stone*, when it is high Water at *Plymouth*. From the *Start* to the *Lizard*, in the *Offing* it flows half Tide, that is S.E. by E. It is half Flood at *Plymouth*, before the Flood gets to the eastward in the *Offing*.

West from the *Ram-head*, a little southerly, lies the Haven of *Foy*, distance 7 Ls. It is easily known, lying in between two high Lands; and as you need no Pilot to carry you in, take the following short Direction. On the W. side of the Entrance is an *Old Church*, and a *Castle*; and on the E. side the *Ruins of a Church*; the Mouth of the Port a Cable's length over, a clear Channel, and no danger at all: You may anchor before the Town, or run up above it. It has been call'd a *Barr'd-Port*; but if it ever was so, the Bar is worn out, and

the West side is a Castle, and on the East side a Block-house : The going in and out at this Place is very dangerous, except the Wind blow right in, which are Southerly Winds ; for if the Winds be either Easterly or Westerly, then the high Lands which lie off on each side, cause Overflows and Calms, sometimes blowing in and presently right out again ; which hinders a Ship in turning in or out, by putting them astays unawares. There are always Boats ready to come off, which are good Boats to row, and are called *Tow Boats*, and are very serviceable in towing Ships in and out, and to bring them astays : without which Boats 'tis very dangerous going in or out. The northerly Winds blow right out, and the southerly Winds right in ; but the easterly and westerly Winds blow with Flaws and Calms in and out. When you are gotten in, it is a most excellent good Harbour, and can contain the Royal Navy. There is also good anchoring without the Harbour's Mouth, in the Road called *Dartmouth Range*.

From *Dartmouth* to the *Start* S.W. by S. distance 3 Ls. there is a Bay, and the Shore bold, only there lies a small Rock half a Mile or more off of the *Start* : The *Start* is a low ragged Point, rising from the Sea far into the Land. From the *Start* to the *Prault* the Course is W.N.W. about a little L. and from the *Prault* to the *Boulthead* W.N.W. 2 Miles. Between these two Heads, is the going into *Salcomb*, which is a barr'd Harbour, on which there is 9 Foot at low Water, and 4 Fa. at high Water, and more. Being in, there is very good anchoring in the *Bay*, at 3, 4, and 5 Fa. at low Water. The *Boulthead* is very high Land : The Entrance into *Salcomb* is very narrow, between the *Old Castle* and the *Black Stone*, being not above three quarters of a Cable's length over.

Plymouth lies at the bottom of a deep Sound, bearing its Name, almost midway between the *Mewstone* and the *Rambhead*, 7 Ls. distance from the *Start* : the Course is N.W. by W.

In the *Sound* are two large Openings, being the Entrance of two considerable Rivers, which make a double Harbour, one for Ships bound to the East, and the other for Ships bound to the West ; either of them deep without any Bar, and able to receive the biggest Ships in the Navy. That to the E. and where Ships go in which are bound W. is call'd *Catwater*, being the Mouth of the River *Phym* : That to the W. where Ships ride which are bound to the eastward, is call'd *Ham Oaze*, and is the Mouth of the River *Tamar* : Between them is the Citadel and the Island of *St. Nicholas*.

Before the Citadel lies a fair Bay, into which both these Rivers fall : And this is call'd *Plymouth Sound*. Here Ships often ride also, but they are much in the wrong, for it is a most dangerous Place with some Winds ; they who will ride in danger, when there are two safe Harbours as any in *Britain* just at their Bows, are very much to blame. This very Mistake was the Ruin of a whole Fleet of Merchants Ships homeward bound from *Barbadoes*, and deep loaden, about the Year 1704, who putting into the *Sound* in fine Weather, with an easterly Wind and almost calm, forbore to go into *Ham Oaze* as they ought to have done, and by a sudden Storm

a little westerly, about 3 Ls. or rather more from the *Ram-head*. You have 20 Fa. Water close by the *Ram-head*, and between the *Head* and the *Eddystone* 35 and 36 Fa. and in the Stream of the *Eddystone* 40 Fa. Keep without 40 Fa. Water, and you cannot come foul of the *Eddystone*: It is high Water here at the *Stone*, when it is high Water at *Plymouth*. From the *Start* to the *Lizard*, in the *Offing* it flows half Tide, that is S.E. by E. It is half Flood at *Plymouth*, before the Flood gets to the eastward in the *Offing*.

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S.W. from *Foy*, distance 4 Ls. is the *Deadman*; it bears front the *Lizard* N.E. by E. distance 7 Ls. and from *Falmouth* N.E. distance 3 Ls. Between *Foy* and the *Deadman* lies *St. Blazys Bay*, the Point call'd *Predmont* making the W. side of it. Half a Mile from this Point lies a Ledge of Rocks call'd the *Canneys*, which appear above Water at half Tide; there is a Passage within them, but it has but 7 Foot Water, so 'tis only fit for small Vessels. N.E. from the *Deadman* lies also a great Rock above Water, call'd the *Winbead Rock*; it lies a League from the *Deadman*, and a Mile from the nearest Shore: Small Vessels, and such as are well acquainted, go within it, but 'tis hazardous to Strangers.

S.W. by W. from the *Deadman*, distance 3 Ls. is the Entrance into *Falmouth Haven*: Between them, 3 or 4 Miles S.W. from the *Deadman*, is the *Gull Rock*, distance from the Land $1\frac{1}{2}$ Mile: And at the same distance W. by S. lies another call'd the *Grey Rock*; they lie about a Mile from the Shore, and 7 or 8 Mile from the Mouth of *Falmouth Haven* N.E. They are both above Water.

Falmouth Haven is a vast Inlet of the Sea, and may be call'd a Haven full of Havens; it lies between the *Deadman* and the *Lizard*; it may be known at Sea by *Pendennis Castle* standing on a Hill at the W. side of the Harbour's Mouth. There is a Rock with a Pole upon it, at about the Middle distance from the W. Shore of the Entrance of the Harbour; 'tis call'd *Falmouth Rock*; and on the E. side of the Entrance stands *St. Maw's Castle*.

The Entrance into *Falmouth* is by several Channels; when entred, there are so many several Roads, that referring to the Pilots, 'tis needless to describe them, they are all safe and good.

S. and by W. from the Mouth of *Falmouth Haven*, lie the *Mannacles*, distance 2 Ls. these are a Cluster of Rocks, some

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above Water, some under. stretching almost a League into the Sea eastward: If you sail from *Falmouth* with the Flood S by E. you go clear of them; if with the Ebb you must go away S.S.E. or S.E. by S.

Helford lies between *Falmouth* and the *Munnacles*; 'tis an open deep *Sound*, and lies due E. and W. As you go in, keep the fair Way, a little more to the S. Shore than the N. 'tis all safe and good on that side. A little to the E. of *Helford* is a Bar, with 9 Foot at low Water.

The *Lizard* stretches out S. by W. from *Helford*; right off of the Point lies a Cluster of steep Rocks call'd the *Stags*; they stretch into the Sea S from the *Lizard* about a Mile, and are steep too, having 12 Fa. Water close to them: Therefore keep at a good distance S.

N.W. from the *Lizard* lies *Mounts Bay*, distance 6 Ls. 'tis call'd so from a high Mount standing in the Middle of a small Island or Rock on the E. side of the Bay, and which is call'd the *Cornish Mount*; on the Top of the Mount is an old Castle, and on the N.W. side of the Island a small Pier: 'tis not above a quarter of a Mile from the Shore, and they go over dry at low Water; and about 3 to 4 Miles from the Mount S.E. or S.E. by S. there is a parcel of sunk Rocks call'd *England's Key*; they have about 8 to 9 Foot Water on them at low Water. Also on the N.W. side of the Bay is *Penfance*, where there is a little Tide-Pier, only for small Vessels, and dry at low Water.

Over against the Mount W. is *Gover's Lake*, which is a good Bay for anchoring; because bringing some sunk Rocks call'd *Carrenbase*, and *Lowleigh* S.E. from you, they break off the Sea: They bear from the Church of *St. Paul* N.W. by W. and W.N.W. a quarter of a Mile from the W. Shore: Bring *St. Paul's Church* S.W. by S. and *St. Clement's* S. and S by E. and *Penfance* due N. and you will have 4 to 5 Fa. at low Water, good Ground and safe Riding. You may come to an anchor in *Mounts Bay* almost any where from 7 to 20 Fa. Water; the Spring-Tides rise above 3 Fa. Almost all the way from the Mount to the *Lizard* the Shore is full of Rocks.

From this Bay to the *Lands-end* is all a bold Shore, distance 3 Ls. About a Mile and half from the Point due S. is the *Rundie Stone*, a Rock which shews above Water at half Tide; tho' it is so near the Land, you have 20 Fa. Water between. From the *Lizard* to the *Lands-end* the Course is W.N.W. distance 9 Ls.

A little to the westward of the *Lizard* is a small Island with a Church upon it, call'd *St. Clement's*, which is the Mark for the several Anchorings in the Bay, as above; it lies just before the little Town of *Moufebole*, where there is a large Bay and good anchoring, in 7 to 8 Fa. and is a safe Road, except the Winds are at S.E. or E.S.E. which blow right in, and of course make a high Sea.

The *Gulf* is another Rock, but always above Water; it lies from the *Lands-end Point* S.W. distance 3 Ls. 'tis so steep too on every side, that there is 40 Fa. Water within a quarter

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of a Mile of it; keep the outward part of the *Long-Ships* on the *Breefin Island*, that carries you just upon it; but open them a Hand-spike's length N.W. you go clear.

When you come from the Sea, and first make the *Lands-end* E. or E.N.E. you will see two round Hills upon it, and upon the highest of them a *Spire Steeple*; as you come on, you see another *Spire*, upon the lower Ground on the outmost End; By these Marks you are to know the Land, and are sure you are right.

At the Extremity of the Land, lie some Rocks call'd the *Long-Ships*, a little N.W. by N. from the *Point* at the *Rundle Stone* due S. you may run within them on either side; but the N. side is best and broadest, and there you may anchor in 8 to 9 Fa. only avoiding a sink Rock which lies close to the N. Point of the Land.

The Islands of *Scilly* lie from this Point call'd the *Lands-end* W.S.W. distance 9 Ls. and from the *Lizard Point* due W. 16 to 17 Ls. The *Long-Ships* are high Rocks above Water, stretching out W. 2 Miles from the Land; 'tis all foul between them and the Main, tho otherwise Water enough. To the northward of them is *Whitfand Bay*, where small Vessels coasting from one Channel to the other, often come to an Anchor; and beyond the Bay is the *Breefin Island*. The Course from the *Long-Ships* is N.N.E. distance almost 2 Ls. 'Tis a little, high, round Island, and bears W. from *Cape Cornwall* about a Mile from the Shore.

West half S. from *Cape Cornwall*, distance 6 to 7 Ls. lie the *Seven Stones*; these are Rocks also above Water at half Tide; they lie in length N.W. and S.E. about 2 Miles and half, and a Mile board; they bear from *St. Martin's-head* in *Scilly* N.E. distance 3 Ls. they are very dangerous, because they lie so much in the way.

Observations of the Setting and Parting of the Tides at the Lands end of England.

The first Place for the Beginning for the Flood in the W. of *England* is at the *Long-Ships*; at this Place the main Land divides the Stream, one part setting to the Northward, and the other to the Southward; at Full and Change the Flood begins E.N.E. and sets nine Hours to the northward; and from the *Long-Ships* to the *Rundle Stone* and *Gulf*, the Tide sets S.E. three Hours: so that 'tis high Water by the Shore before the Flood sets to the southward. At the *Seven Stones*, and between *Scilly* and the *Lands-end*, the first of the Flood sets N.W. and ends in the N.E. nine Hours; and the Stream begins to set to the southward at high Water, which is E.N.E. a-shore.

It is high Water at the *Gulf* at Full and Change E.N.E. and the Tide sets to the eastward till half Ebb a-shore at *Mounts Bay*; the N. Stream begins in the N.W. and ends in the N.E. nine Hours, till it is high Water a-shore.

To an anchor in *St. Mary's Bay* almost any where from 7 to 20 Fa. Water; the Spring-Tides rise above 3 Fa. Almost all the way from the *Mount* to the *Lizard* the Shore is full of Rocks.

From this Bay to the *Lands-end* is all a bold Shore, distance 4 I.s. About a Mile and half from the Point due S. is the *Rundle Stone*, a Rock which shews above Water at half Tide; tho' it is so near the Land, you have 20 Fa. Water between. From the *Lizard* to the *Landfend* the Course is W.N.W. distance 9 I.s.

A little to the westward of the *Lizard* is a small Island with a Church upon it, call'd *St. Clement's*, which is the Mark for the several Anchorings in the Bay, as above; it lies just before the little Town of *Moufehole*, where there is a large Bay and good anchoring, in 7 to 8 Fa. and is a safe Road, except the Winds are at S.E. or E.S.E. which blow right in, and of course make a high Sea.

The *Gulf* is another Rock, but always above Water; it lies from the *Lands-end Point* S.W. distance 3 I.s. 'tis so steep too on every side, that there is 40 Fa. Water within a quarter

Directions for Sailing to and from the Islands of Sounds and Passages among those Islands, and



THESE Islands lie to the westward of the *Lands-end* of *Cornwall*, 9 or 10 I.s. distance: They are many Islands, or Rocks as big as Islands, the Number hardly known: You may see them 6 or 7 I.s. off.

The S.W. part of these Islands are very rocky, but very bold. On the southermost big Island, there stands a high Light-house, erected by the Corporation of *Trinity-house* at *Deptford*; it is a most excellent Light, and may be seen 6 or 7 I.s. off. Before this Light-house was erected, there was not a Winter but there were some Ships cast away; but since the erecting of it, there hath not a Ship been lost but by Ignorance: So that Navigation is much oblig'd to the great Care of the *Trinity house* Masters in erecting this Light.

The principal Road for Ships is called *St. Mary's Road*; and the best and most common way to go into it, is *St. Mary's Sound*, between *St. Mary's Island* and the *Island Gugh*: Being to the eastward of that Island, you must run in at the S. side of *St. Mary's*: You may know *St. Mary's Island* by the Castle, and two Windmills which stand on the S.W. part of the Island; run boldly in with the Mills, keeping close by *St. Mary's* side, which is very bold. In the fair Way between *Pennis Point* and the *Gugh*, lies a Ledge of Rocks called the *Spanish Ledge*, on which is but six Foot at low Water; therefore keep close to *Pennis*, and then steer away for the *High Land*, on which stand the Castle and *Windmills*, giving them a fair Birth to avoid the *Woolpack*, which is a sunk Rock close by the S. end of the *Hugh*. You may boldly sail within a quarter of a Mile of the *Hugh*, from the *Woolpack* to the *Sixteen*; and that will carry you clear of *Bartholomew Ledge*, which hath but six Foot at low Water, and lies S.S.W. from

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The Lands-end of England.

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It is high Water at the *Gulf* at Full and Change E.N.E. and the Tide lets to the eastward till half Ebb a-shore at *Mounts Bay*; the N. Stream begins in the N.W. and ends in the N.E. nine Hours, till it is high Water a-shore.

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the *Stevern*, about half a Mile from the *Stevern* and the *Hugh*; when you have the Light-house S.W. by S. then you are abreast of it. There are two leading Marks to avoid the *Spanish Ledge*, and *Bartholomew Ledge*: keep the high Land of *Sampson* on the *Stevern*, and that will carry you clear of the *Spanish Ledge*; and being past it, then keep *Castle Bryer*, which is a high round Rock on the low Land of *Sampson*, and that will carry you clear of *Bartholomew Ledge*; but if you are not sure of knowing these Marks, I advise you to hold to your former Directions, of keeping a quarter of a Mile from the *Hugh*; or if you keep sight of the *Vanes* of the *Windmills*, but not the Mills, that is, keep sight of half the *Vanes* above the Lands, and that will carry you between *Bartholomew Ledge* and the *Stevern*. If you will fire a Gun, and make a Whistle, you will have a Pilot come off. Being about the *Stevern Rock*, steer into the Road, and bring the *Nut Rock* W.N.W. or N.W. by W. about half a Mile from the Rock, or a quarter of a Mile; or bring the *Cattle* S.S.E. and anchor in 5 Fa. at low Water, or 7 or 8 at high Water. Here you may ride well for all Winds but S.W. Winds, which bring in a great Sea. It flows here at Full and Change E.N.E.

There is a small Pier at the *Hugh* Town, where small Vessels lie a-ground at low Water; it is a good place to clean, wash, tallow, or stop Leaks, &c.

Crow-found lies at the North end of *St. Mary's Island*, and is a barr'd Channel, where at low Tide there is not above four Foot Water: Therefore to sail in here, you must take the Tide; sailing close by the North end of *St. Mary's*; off of which Place lies a sandy Point, and that makes the Bar. Being over the Bar, there lies a Rock a quarter of a Mile from the

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Directions for Sailing to and from the

Shore, called the *Crow*; it is above Water at half Tide. Between it and the Shore is no more than 6 or 7 Foot at low Water. To sail between this Rock and the Shore, you must keep within half a quarter of a Mile of the Shore, or a Cable's length; but I advise no Man to go into this Place without a Pilot, except well acquainted. If you fire a Gun, and make a Wharf, you will have a Pilot come off.

Broad-sound is dangerous for those that are not acquainted: there are two Channels that lead you in, the S.W. Channel and the N.W. Channel. To sail in at the S.W. Channel, which is the best of the two, you must sail between the *Bishop* and the *Crim*, which are the two Westermost Rocks of *Scilly*, and are a good height above the Water: Then steer in N.E. by E. keeping the Islands of *Great Gannely* and *Great Gannick* open and shut of *St. Mary's Island*: and with this Mark you run in amongst many Rocks, very terrible to behold, and the Marks difficult to be known; therefore I advise none to sail in here without a Pilot from the Island.

Smiths-sound is likewise dangerous, and very narrow. This Sound lies on the West-side of the Island of *Agnis*, on which stands the Light-house. The Mark to sail in, is to bring *Castle Bryer*, which is a high round Rock above Water on the great *Smith*, as you may see in the Charts: and this Mark will carry you in between *St. Agnis*, *Melledgan*, and a small Rock called *Montpigo*; and being between the Island *St. Agnis*, and the Island *Annet*, steer first between *Annet* and the great *Smith Rock*, and then being about the Rocks, steer in for *St. Mary's Road* as before.

New Grimsbay is a Road, or rather a small Cove between the Island of *Tresco* and the Island of *Bryer*: There is no danger in going into this Place, it is narrow indeed, and only fit for small Ships; you anchor before the Castle in 5, 6, or 7 Fa. at low Water. It is dry between *Tresco* and *Bryer*.

Old Grimsbay is a Place where small Vessels may ride: there are two Channels in and out, and very narrow, and not to be made use of except you have a Pilot.

It is high Water at all the Islands of *Scilly* at Full and Change, half an hour past Four, that is E.N.E: The Spring Tides rise and fall 21 and 22 Foot, and the Neap Tides 15 and 16 Foot.

The Channel Tide or South Stream sets out of *St. Mary's Sound* from half Flood to half Ebb: The West Stream comes into *St. Mary's Sound* from half Ebb to half Flood, and runs out to *Broad-sound*.

Note, That about *Scilly*, and for 6 or 7 Ls. to the Westward of it, and from the Islands to the Lands-end of *England*, the N. Stream runs 9 hours to the Northward, and begins to set to the Northward the last quarter Ebb, beginning to set to the N.W. and so altering till it ends in the N.E. at which time it will be high Water ashore at *Scilly*; and then the S. Tide comes and runs 3 hours to the Southward.

You may see the Islands of *Scilly* from the S. in 60 Fa. Water, yellow sandy Ground; at which time you will be 6 or 7 Ls. off; and from the N. in 60 Fa. about 6 or 7 Ls. off, only

fail, alters the Observation for direction, they fail; especially this has been *George's Channel* to the Northward but the Variation said Indraft is 9 hours E. by S. This Practice who are unacquainted with Variation; as a Parallel not to bring them fair *St. Agnes Island Scilly* when the Weather, and safe to trust a Expectation of probable, may

Nor is this the Channel not long since wreck upon the ly departed from the only Cause it concurr'd in Survey of the done for our *ing Pilot*, and the Tides in the true Course from *Gasket Rocks* times, when Westerly, was Course, and very proper for whoever steered the Channel, tho never fall in with the lows therefore Course must be S.W. which *Chead*, will carry about midway which are about Thus far Capt

Note, That *England*, the early, and year in 6 years. H much more

fail, alters their Lat. above 10 Min. so that if they miss an Observation for 2 or 3 days, and do not allow for this Variation, they fail not to fall to the Northward of their Expectation; especially if they reckon *Scilly* to lie in or above 50 deg. This has been for some time attributed to the Indraft of *St. George's Channel*, the Tide of Flood being supposed to set more to the Northward than is compensated by the Ebb setting out: but the Variation being allow'd, it hath been found that the said Indraft is not so sensibly felt; and the Ships steering nine hours E. by S. for 3 hours E. do exactly keep their Parallel. This Practice is therefore recommended to all Masters of Ships, who are unacquainted with the Allowances to be made for the Variation; as also that they come in out of the Ocean, on a Parallel not more Northerly than 49 Deg. 40 Min. which will bring them fair by the *Lizard*: for tho' the Light-house on *St. Agnes Island* be a sufficient Security against the Dangers of *Scilly* when the Air is clear, yet in Seas subject to thick dirty Weather, and wherein the Pogg Banks are so frequent, it is not safe to trust a Ship in the Night near its Latitude, upon the Expectation of seeing the Light: which Expectation, 'tis very probable, may have occasioned the loss of many Ships.

Nor is this the only Danger to which Ships are exposed in the Channel on account of this Change in the Variation: for not long since we have had more than one Instance of Shipwreck upon the *French Coast* and the *Gaskets*, of Ships newly departed from the *Downs*: and tho' perhaps this were not the only Cause of those Losses, yet it cannot be doubted but it concurr'd in this Disaster very much; for by the late curious Survey of the Coast of *France*, compar'd with what has been done for our own by Capt. *Collins* in his *Great Britain's Coast-ing Pilot*, and others, and by my self, in a late Map describing the Tides in the Channel of *England*, it will appear that the true Course from the Land of *Beachy*, or *Denge Ness*, to the *Gasket Rocks*, is but W.S.W. half Southerly; which in former times, when the Variation was as much Easterly, as it is now Westerly, was about S.W. by W. by Compass, and then a W.S.W. Course, and which was thence called the *Channel Course*, was very proper for all Ships bound into the Ocean; but at present, whosoever steers by Compass a W.S.W. Course, in the Channel, tho' never so near to the Shore of *Beachy*, will not fail to fall in with the *Gaskets*, or rather to the Eastward. It follows therefore, that as the Compass now varies, a W. by S. Course must be accounted the Channel Course, instead of W. S.W. which Course, with a reasonable Offing from *Beachy-head*, will carry a Ship fair without the *Isle of Wight*, and about midway between *Portland Bill* and the *Gasket Rocks*, which are about 15 Ls. asunder, and nearly in a Meridian. Thus far Capt. *Halley*.

Note, That at *London*, and in and about the Channel of *England*, the Variation has for these 50 years last been Westerly, and yearly increases that way at the rate of about a Deg. in 6 years. How long it will continue to do so, and how

are two Channels in and out, and very narrow, and not to be made use of except you have a Pilot.

It is high Water at all the Islands of *Scilly* at Full and Change, half an hour past Four, that is E.N.E: The Spring Tides rise and fall 21 and 22 Foot, and the Neap Tides 15 and 16 Foot.

The Channel Tide or South Stream sets out of *St. Mary's Sound* from half Flood to half Ebb: The West Stream comes into *St. Mary's Sound* from half Ebb to half Flood, and runs out to *Broad-sound*.

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You may see the Islands of *Scilly* from the S. in 60 Fa. Water, yellow sandy Ground; at which time you will be 6 or 7 Ls. off; and from the N. in 60 Fa. about 6 or 7 Ls. off, outy sandy Ground: 20 or 22 Ls. W. by N. and N.N.W. from *Scilly*, is a Bank on which is but 50 to 52 Fa. Water; and between *Scilly* and this Bank is 60 Fa.

There has been a very exact Account given by Capt. *Edmund Halley* of the Change in the Variation of the Compass for some years past in those Parts; which causes many good Sailors to mistake in their Accounts of Distances, and especially in the Latitudes of the *Lizard*, and of the Islands of *Scilly*. We think we cannot omit giving some part of that Account, as it is published from his own Observations, that the careful Navigators may be sufficiently warn'd to keep an accurate Account of those Changes for their own Safety, in their passing up and down the Channel.

For several years last past, *says the Captain*, it has been observ'd that many Ships bound up the Channel, have unexpectedly fallen on the Islands and Rocks of *Scilly*, or to the Northward thereof; and if they have escap'd Shipwreck, have been forced to run up the *Bristol Channel*, nor without great danger; and many others have been lost in striving too late to avoid it. The reason of all this, is without dispute from the Change in the Variation of the Compass, and from the Latitude of the *Lizard*, and of *Scilly*, being laid down in the Charts too far Northerly, by near 5 Ls. For by undoubted Observations the *Lizard* lies in $49^{\circ} 55'$ in the middle of *Scilly* due W. therefrom; and the South part thereof nearest $49^{\circ} 50'$ in. whereas in most Charts and Books of Navigation, both of them have been falsely laid down, to the Northward of 50 D. and in some full 50 D. 10 M. Nor was this without a good Effect, so long as the Variation continued much Easterly, as it was when these Charts were made; but now since it is become Westerly, as it has been ever since the Year 1657, and is at this present Year 1716, no less than 1 Deg. All Ships standing in and out of the Ocean East, by the Compass only, and without having a good Observation, go more than three quarters of a Point to the Northward of their true Course; which every 60 Miles they

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Note, That at *London*, and in and about the Channel of *England*, the Variation has for these 50 years last been Westerly, and yearly increases that way at the rate of about a Deg. in 6 years. How long it will continue to do so, and how much may be its greatest Deviations, Time only can discover.

Of the Settings of the Tides, and their Fluxes in these Parts; as also in what Depths to look out for Land in the Soundings.

At *Helford* and the *Lizard E. by N.* in *Mounts-Bay*, and at the *Lands-end of England*, a W.S.W. Moon makes full Sea: In *Scilly* an E.N.E. Moon makes full Sea: To the Seaboard of the Islands of *Scilly*, and in the Channel a S.W. by W. Moon: In the entering of the *Channel* a S.W. by W. Moon: from *Scilly* to the *Lizard*, the Flood sets N.E. and the Ebb S.W. At *St. Ives* an E. by N. Moon; and at *Padstow*, *Berustable*, *Swansey* and *Milford*; also at *Lundy* and *Minthead* an E. and W. Moon make High-water; at *Bristol* an E. by S. at *Holy-head* and *Chester-bar* S.S.E. at *Liverpool* S. by E. at *Whitehaven* and the *Isle of Man* S.E. by S.

You must see the Island of *Scilly* on the S. side in 52 Fa. Water; and the Ground there is stony, with some red Shells. The *Lands-end of England* may also be seen in 52 Fa. Water. There is a Bank 21 or 22 Ls. W. by N. or W.N.W. from *Scilly*, on which is but about 50 Fa. Water; but between this Bank and *Scilly* there is 60 Fa. Water.

The *Start*, and the Hills at *Dartmouth*, may be look'd for in 45 Fa. and when you are due S. of *Plymouth*, you may see the Hills there in 50 Fa. they shew themselves like two Hills, it being high double Land.

The same double Land you may see also when you are off of *Fowey*, and all the way West till you come right thwart of *Dartmouth*.

The *Dead-man* may be seen in 24 Fa. thwart of the *Start Point*: you will have 3 Fa. 3 Ls. from the Shore, sandy Ground.

Sailing

Sailing Directions for the Bristol Channel, and round by
Coast of Scotland.

WHEN you come out of the Ocean, and, having a good Observation, are satisfy'd that you are gotten within the King's Channel, for which the Directions are as above, you may then stand away N. or N.E. to make the Land; looking well out however for the *Light-house* of *Scilly*, lest you should be mistaken.

But if you are bound for the *Bristol Channel*, take care in time, and keep to the Northward when you are in the Lat. of 49°, or sooner. As soon as you have any Soundings, then sail E. by N. or E.N.E. till you make *Scilly* Light, S.E. unless you are to the northward before, when perhaps you will find your self in the Latitude of *Cape Clear*, distance about 25 Ls. Then stand away S.E. by E. till you find your self in the Height of *Scilly*, and then E.N.E. when you will make *Cape Cornwall*, or some other Land on the N. Coast of that County.

Tho' you should endeavour to make the Isles of *Scilly*, you are in no danger; for you may see the Islands to the northward 6 or 7 Ls. in the Day, and the Light of *Scilly* almost as far in the Night; But if not, come no nearer than 60 Fa. and you are in no danger. It is an excellent Light, and is well serv'd.

N. B. If any Ship bound up the *King's Channel* misses the Soundings, and happens to be driven into the *Bristol Channel*, the best way is, as soon as they discover where they are, to stand over for *Melford Haven*, because there you are sure of a safe Road, and may come out with any Wind, to make for the right Channel; whereas if you run up to *Lundy*, or any where on the *English Coast* in the *Bristol Channel*, you will be so far in, that you may have great difficulty to get about.

When you are entred into the *Bristol Channel*, and have made the Land, the first Place on the S. Shore is *St. Ives*, a small Tide-Haven; but there is a good Road in the Bay, where you may anchor in 10 to 15 Fa. From *Cape Cornwall* to this Bay the Course is N.E. by E. and E.N.E. distance 5 Ls. the Bay of *St. Ives* is about 4 Miles broad. At the E. Point lies an Island call'd *Godrevy*, where is a great Ledge of Rocks stretching out 2 Miles into the Sea N.W. some of them are seen at half Tide. If you are bound up the Channel, keep a good Offing, for those Rocks are very dangerous; but if you are to go into the Bay, keep to the W. Point, and you go in clear. A northerly Wind makes a great Sea in the Bay.

N.E. from *St. Ives* is *Padstow*, distant 13 Ls. One League short of the Opening is *Tregarnon Point*. All the Coast hither is full of Rocks and Cliffs, with some sandy Bays, but no Port or Harbour, therefore 'tis best to keep off; yet the Shore-

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ward, till you bring the said *Flat Holme* S.W. and keep it so for 3 or 4 Miles, till you bring a Mill that stands on a Hill, on to the W. end of a Land that shews like an Island; or bring the Mill S.E. by S. then you are past the Point of the *English Grounds*. Then steer away E.N.E. on that side of the *English Grounds* which are flat, and keep the Lead going. The Tides rise here prodigious high, at a Spring, not less than 7 and 8 Fa. so if you bring a Tide with you, you cannot come to any danger. Then steer away to the *Yoslet Point*, which is steep too. A little above that is *King's Road*, where you anchor; but be sure when you anchor at high Water, that you consider how much the Tides fall. Here you take a Pilot to carry you into *Hung Road*, and so up to *Bristol*. *Hung Road* is a Place where the great Ships lie a-float by the Shore-side, and there careen, having no Dock; lesser Ships go up to the City of *Bristol*. Those Ships that have occasion to go above *King Road* up the *Severn*, or up to *Chepstow*, must take a Pilot.

Note. The Tides are very strong in all the *Severn*.

There are several little Ports and Places on the *Welsh* and *English* sides of the *Severn*; but being only for small Vessels, and that such as have occasion to make use of them always take Pilots, I need not describe them. In going up and down the *Severn* you must be very careful to keep the Lead going, by reason of the Violence of the Tides, and especially when you stand over to the *Welsh Sands*.

There are several Ports on the *English* Coast also between *Lundy* and *Hung Road*; such as *Barnstable*, *Ilfracomb*, *Minehead*, *Bridgewater*, &c. But as there are Pilots ready for them all, and that no Ship goes in without them, there is no need for particular Directions; 'tis sufficient to say there is very good riding in the Bay without the Bar off of *Barnstable*, as likewise off of *Ilfracomb*, where there is 8 to 9 Fa. at half Flood, and good Ground.

There are prodigious Tides in all this Channel, but particularly at the *Holmes*, as is said above, and all the way up the *Severn*: 'Tis the like in proportion in the Ports of *Bridge-water*, *Bristol*, and *Chepstow*: Between the *Holmes* and *Hung Road* the Tides rises above 40 Foot right up and down, and runs like a Sluice.

If you are bound higher up, either into the *Severn*, or for *Chepstow*, in the River *Wye*, or to any of the Ports of *South Wales*, from the Mouth of *Wye* to *Swanzy*; or to *Milford Haven*, you must take a Pilot at *Hung Road*; for all the Coast of *Wales* is very difficult, full of Rocks and Shoals; nor has it been ever so perfectly survey'd as it ought to be, or

Bristol Channel, you will be so far in, that you may have great difficulty to get about.

When you are entred into the *Bristol Channel*, and have made the Land, the first Place on the S. Shore is *St. Ives*, a small Tide-Haven; but there is a good Road in the Bay, where you may anchor in 10 to 15 Fa. From *Cape Cornwall* to this Bay the Course is N.E. by E. and E.N.E. distance 5 Ls. the Bay of *St. Ives* is about 4 Miles broad. At the E. Point lies an Island call'd *Godrevy*, where is a great Ledge of Rocks stretching out 2 Miles into the Sea N.W. some of them are seen at half Tide. If you are bound up the Channel, keep a good Offing, for those Rocks are very dangerous; but if you are to go into the Bay, keep to the W. Point, and you go in clear. A northerly Wind makes a great Sea in the Bay.

N.E. from *St. Ives* is *Padstow*, distant 13 Ls. One League short of the Opening is *Tregaron Point*. All the Coast hither is full of Rocks and Cliffs, with some sandy Bays, but no Port or Harbour, therefore 'tis best to keep off; yet the Shore is bold, and there's no danger but what shews it self. If you would go into *Padstow*, you must observe four White Rocks off *Tregaron Point*, which are call'd the *Cow and Calves*. The Haven of *Padstow* is a Bar, and the Entrance very narrow; therefore take a Pilot at the eastermost Point call'd *Porquean*.

N. B. The Tide rises in *Padstow Haven* 22 Foot.

Two Miles from *Padstow Haven* is another Haven call'd *Port Isaac*, N.E. half E. from *St. Ives*, distance 14 Ls. where a Vessel of 200 Tun may, upon streis of Weather, go in at high Water, and lie on Shore upon the Sand, out of the Rage of the Sea, which is very violent in all this Channel. It is but a Fishing Town it self, but several good Ships belong to it which use the *Bristol Trade*.

Hartland Point is the next good Road to *Port Isaac*: The Course is N.E. by N. 11 Ls. directly opposite to the Isle of *Lundy*, which lies due N. distance 3 to 4 Ls. *Lundy* lies in length N. by W. and S. by E. the *English* side of the Island is bold and safe; but on the *Welch* side 'tis foul; yet there is a very good Road for westerly Winds, with 10 to 12 Fa. Water. It lies in the fair way up the Channel; you may go safe on either side, but go no farther off on the *Welch* side than 3 Ls. for the *Welch* Shore is foul and rocky.

If you are bound to *Bristol* from *Lundy*, steer along the *English* Coast, leaving the Ports of *Barnstaple* and *Bidford* on the Starboard-side, till you come up as high as *Minthead* or *Portlock*; and then steer away N.E. till you come in sight of two small Islands call'd the *Holmes*. The southmost next the Shore is call'd the *Steep Holme*, and is high; and the other the *Flat Holme*, and is low. You may go safe and in deep Water between them. Keep nearest the *Flat Holme*, which is the steepest side; you may lan close to it without any danger. Being up with the *Flat Holme*, steer away to the north-

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Lundy and Hung Road; such as *Barnstable, Ilfarcomb, Minehead, Bridgewater, &c.* But as there are Pilots ready for them all, and that no Ship goes in without them, there is no need for particular Directions; 'tis sufficient to say there is very good riding in the Bay without the Bar off of *Barnstable*, as likewise off of *Ilfarcomb*, where there is 8 to 9 Fa. at half Flood, and good Ground

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The Ports on this *Welch* Coast, are only for small Vessels, Coasters and Colliers, so that they are all Pilots.

N. B. All great Ships going up or down the *Bristol Channel*, keep over to the *English* Coast, the *Welch* Coast being so very foul and dangerous.

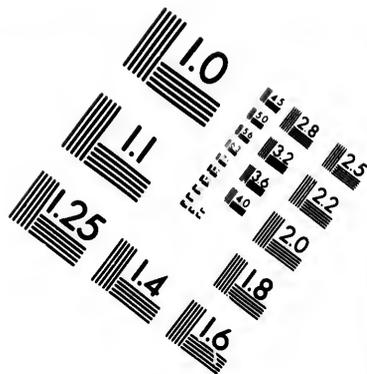
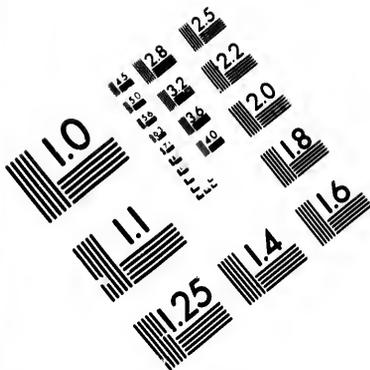
The small Ports between the *Mouth of Wye*, and *Milford Haven* are, (1.) *Cardiff*: The Course from the *Flat Holmes* or *Hung Road* is N.N.W. there is a good Road before the Place. (2.) *Neath*, a Port chiefly for Colliers, distant from *Cardiff* 11 Ls. and somewhat more; between which and *Cardiff* is a large Bay call'd after the Name of the Port, *Cardiff Bay*. (3.) *Swanzy*, bearing from *Neath* W. by S. 4 Miles. (4.) *Caermarthen* in another deep Bay; the *Naes* above *Cardiff*, and the *Worm-head* S. of *Swanzy*, make *Cardiff Bay*; and the *Worm-head* E. and the *High Lands* near the Rock *Crow* call'd *St. Gaxen's Point*, make the other large Bay, which is call'd *Tenby*.

About 3 Ls N.W. by N. from hence, is the Entrance into *Milford Haven*, which is very easy to be known, having three Islands to the N.W. all in sight, *viz.* *Scocckham, Seaumore,* and *Gresholme*; also the Isle of *Lundy* S E. or S.E. by E. You may know the going in by an old *Light-house Tower* on *St. Anne's Point*; also two old *Black-houses* or *Fortes*, one on each side, on the Cliffs; likewise a small Island call'd *Sheep Island*, just at the Entrance on the E. side, and another just within call'd *Rat Island* like the *Mew-stone* at *Plymouth*

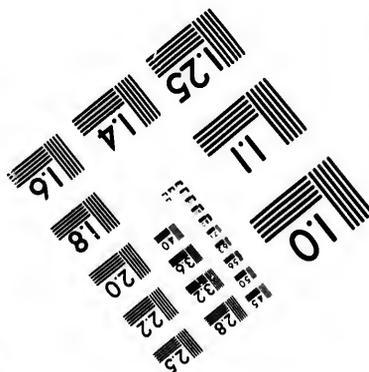
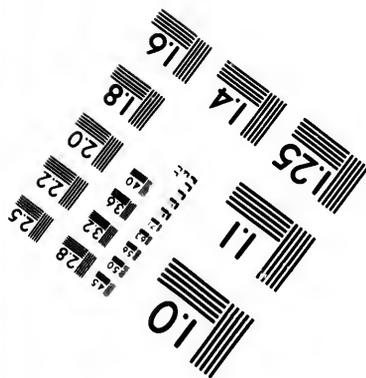
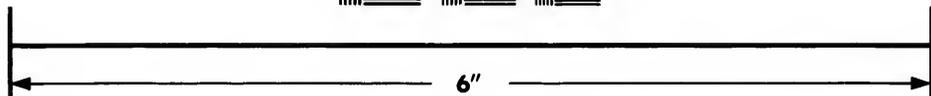
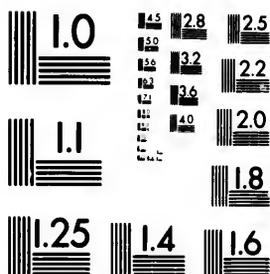
Milford is certainly the best Harbour in the three Kingdoms, there being no manner of danger in sailing in or out of it; so that you need no Pilots, and may turn in and out with safety as you will, and when you will, with almost any contrary

Winds,





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Directions for Sailing on the West

Winds, taking but the Tide ; and this as well by Night as by Day : When you are enter'd into the Harbour, you may anchor where you please, according as your Ship is in bigness ; and if a Ship in distress comes in without any Cable or Anchor, she may run a-shore on soft Ooze, and there lie with safety till she is supplied.

The Spring Tides rise 36 Foot, and the Neap above 26 ; so that you may lay Ships a-shore at any time.

But that which makes this Harbour more excellent and useful than any other in these Parts of the World, is, that in an Hour's time you are in and out of the Harbour into the Sea, and in the fair way between the *Lands-end* and *Ireland* ; also it lies in the Mouth of the *Severn* : You are in 8 or 10 Hours, if you please, over on the Coast of *Ireland*, or about the *Lands-end* in the *English Channel* : Likewise you may get to the westward out of this Place much sooner, than when you came from *Plymouth*, *Foy*, or *Falmouth*.

The Islands and Rocks to the westward of the Entrance to *Milford Haven*, mention'd above, are very needful to be known, because from *Milford Haven* to *St. Davids* is a much frequented Place, by all the Ships which use the Trade between this part of *Britain* and *Ireland*.

Scookbam is the first ; it lies W.N.W. from *St. Ann's Point*, going into *Milford*, distance a League and half. And *Scaumore* is a large Rock rather than an Island, lying above Water, a League farther N.N.W. from *Scookbam*, and W. from *St. Bride's head* ; it is bigger than the Island *Gresholme* : there is likewise a great high Rock to the westward of both the other 2 Ls. rather less. There are good Channels between them all, and they are steep too, very bold, having from 10 to 20 Fa. in the fair Way.

Between *Scaumore* and the Shore is a little Island call'd the *Middle* ; about which, and along the Shore of *St. Bride's head*, 'tis all dangerous, full of sunk Rocks, and very difficult. There is a small Rock call'd the *Barrel*, which bears W. and W. by N. from *Gresholme* about a League ; and another which lies 2 Ls. due W. from *Gresholme*, call'd the *Hatts* : Both of them are steep too.

Another Rock lies off at Sea 2 $\frac{1}{2}$ to 3 Ls. W. of *Gresholme* ; 'tis foul and rocky a Mile or more from it, especially on the W.N.W. and N.W. end.

N. R. The Tides run violently strong among all these Islands and Rocks.

Due N. or N. by W. northerly from *Scaumore*, is an Island call'd *Ransfy*, or *Ram's Eye*, distance 2 Ls. : Between them is a deep Bay, by some call'd the *Broad Bay*, by others *St. Bride's Bay* ; and on the N. of the Bay lies *St. Davids*, a little City, famous for being antiently the great South Passage or Ferry to *Ireland*, tho' now much out of use.

There is very good anchoring in any part of this Bay, in 7 to 10 Fa. The westerly Winds indeed make a great Sea in the Mouth of the Bay, but there is Shelter from them, also under

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Tractb Haven. On the N. side of this Bay is good riding, in 7 to 10 Fa. Water; and 'tis often made use of by Ships in straits of Weather, bound either to or from *Ireland*, especially to *Ireland*. If a N.W. blows very hard, Ships bound from *Chester* to *Dublin* which are often driven back, are glad to run away afore it for *Barfey* and this Bay; and in a S.W. Wind it has been the same with the Coal Ships bound from *Swansey* for *Dublin*: Also under the Islands of *Stidwall* is good anchoring, and safe from N.W. and Westerly Winds, but they are open to the S.

West from *Stidwall* is *Barfey Island*, which makes the N. Point of *Cardigan Bay*; and within the Island is good anchoring in a little Bay call'd *Aberdaron*; but great Ships in case of hard Weather care not to run in, because the Entrance is difficult.

N. by E. from *Barfey* is *Holy-bead*, distant 12 Ls. Between the two Points is *Carnarvan Bay*, being at the S. Entrance of the Channel which runs between the Isle of *Anglesey* and the Main, and makes *Anglesey* be an Island. There is a tolerable Harbour at *Carnarvan*; it has a Bar, where is but 7 to 8 Foot at low Water; but the Tide rises so high, that at half Flood almost any Ships may go in or out; however 'tis very fit to take a Pilot.

Likewise if any one would pass thro' that Channel N. to *Beaumaris*, and out at *Priestholme*, or from *Beaumaris* out by *Carnarvan Bay*, which I have known good Ships do, they must take Pilots: for tho there is Water enough for any Ship at high Water, (for the ordinary Springs flow here 4 Fa. and better) yet the Tides run so strong, and the Shore is so full of Rocks and Shoals, that it is exceeding difficult; particularly there is a Flat in the Middle of the way, call'd the *Swilly*, which is very dangerous.

There is very good anchoring in *Carnarvan Bay*, off of the Bar, in 5 to 10 and 15 Fa. N.W. from *Carnarvan Bay* is *Holy-bead*, on a small Island W. of *Anglesey Island*: The Shore is all foul, and very dangerous, especially with the Wind at S.W. But from the Point of *Carnarvan Bay* steer away N.W. keeping a good Oiling, you may go safe to *Holy-bead*: The Town and Harbour of *Holy-bead* is on the other side of the small Island, to the N.E. from the *Carren Point*.

The *Head* it self is not the farthest part of the Island; but there are two Points, one call'd the W. Point, the other the N. Point, with a little Island lying off before either of them, one call'd the *North Stack*, and the other the *South Stack*. You may sail from the first due N. to the last without fear, the Shore is bold and safe.

N.E. from the N. Point of the Island, distance 2 Ls. lies *Carren Point*, being the northmost Land of *Anglesey*. A little Mile from the Shore, N.E. from the Point, lies a Rock above Water, call'd *West Mouse*; and 2 Miles N. from it a Shoal, with but 12 Fa. on it, call'd the *Cele*. The fair Way lies between them to *Priestholme*, a small Island lying at the Entrance of the Bay of *Beaumaris*, being the other End of the Water, which cuts off the Isle of *Anglesey* from the Main.

There is a main Rock call'd the *Walter*, which lies W. and W. by N. from *Gresbolme* about a League; and another which lies 2 Ls. due W. from *Gresbolme*, call'd the *Hatts*: Both of them are steep too.

Another Rock lies off at Sea 2 $\frac{1}{2}$ to 3 Ls. W. of *Gresbolme*; 'tis foul and rocky a Mile or more from it, especially on the W.N.W. and N.W. end.

N. B. The Tides run violently strong among all these Islands and Rocks.

Due N. or N. by W. northerly from *Scaunmore*, is an Island call'd *Ramsfey*, or *Ram's Eye*, distance 2 Ls: Between them is a deep Bay, by some call'd the *Broad Bay*, by others *St. Bridis Bay*; and on the N. of the Bay lies *St. Davids*, a little City, famous for being antiently the great South Passage or Ferry to *Ireland*, tho now much out of use.

There is very good anchoring in any part of this Bay, in 7 to 10 Fa. The westerly Winds indeed make a great Sea in the Mouth of the Bay, but there is Shelter from them also under *Ramsfey Island*. There is a narrow Channel between *Ramsfey* and *St. Davids-head*, but 'tis not much us'd except by the Coasters, and those who are very well acquainted. The *Mafcus* is a great sunk Rock, which some Pilots say lies off of *Ramsfey* 5 Ls. N.W. northerly; and others say there is no such Rock, or at least that they could never find it.

This Island of *Ramsfey* is call'd the S.W. part of *Wales*: But if 'tis objected that it is separated from the Land, then *St. Davids-head* is the S.W. Point; but the Sailors call the Island the S.W. Point, and so it must pass; as *Cape Clear* is call'd the South-Westermost Point of *Ireland*, whereas it is an Island 6 or 7 Ls. from the Main. From *Ramsfey Point* to the Southmost Point of *Ireland*, call'd *Cannaroot*, a little S. of *Wexford*, the Course is W.N.W. distance 16 Ls.

N.W. from *Ramsfey* lie the famous *Bishop and his Clerks*, distance 1 L. These are Rocks which have often been fatal to Ships coming out of the Sea, from the Coast of *Ireland*; and as they are at the Extremity of the Isle of *Britain* that way, the Land falls off just from them, and trends away N.E. on the West Coast of *South-Wales*: And here begins that we call *St. George's Channel*.

You have a bold Shore here to the S. Point of *Cardigan Bay*, distance 7 $\frac{1}{2}$ Ls. This *Cardigan Bay* is a very large Gulph of the Sea, bearing in far upon the Land, stretching N. and S. from *Cardigan Point* to *Baafey Island*, 12 Ls. due N. In the Bay are several little Tide-Havens and Places only fit for small Vessels, and most of them are barr'd too, scarce worth naming, for here is neither Trade, or Sea-Port for Trade; such as *Kings Chapel*, *Aberarthy*, *Lanrysted*, *Aberistwyth*, *Aberdovey*, *Barinouth*, *Laudanog*; Places hardly heard of by Seamen, yet needful to be named too. At the N. part, in a deep Bight, you have a Bay within a Bay, a long Gulph running in N.W. by N. and at the farthest End 'tis call'd *Pubbelly Bay*. At the Bottom of this Bay there is a small River which comes into the Sea with a full Channel, and makes a pretty good Haven; 'tis call'd

and another the *Hatts* : *Gresholme* ; sially on the *Shore* is all foul, and very dangerous, especially with the Wind at S.W. But from the Point of *Carnarvan Bar* steer away N.W. keeping a good Oiling, you may go safe to *Holy-head* : The Town and Harbour of *Holy-head* is on the other side of the small Island, to the N.E. from the *Carren Point*.

The *Head* it self is not the farthest part of the Island ; but there are two Points, one call'd the W. Point, the other the N. Point, with a little Island lying off before either of them, one call'd the *North Stack*, and the other the *South Stack*. You may sail from the first due N. to the last without fear, the Shore is bold and safe.

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From this Island to *Armshead*, or *Orinhead Point*, the Course is E. by N. distance 2 Ls. E.S.E. which carries you into *Conway Bar* ; and from *Priestholme* E. by N. or E.N.E. carries you to *Hyle Lake* and the Bar of *Chester* : This is a difficult River, the Entrance wide, but the Channel narrow, the whole Coast being block'd up with Sands ; as particularly a great Sand call'd *Hyle*, which stretches out from the S.W. by W. to E. by S. almost to the Mouth of the *Mersey*, and the going into *Liverpool*. On the S. side of this W. end of the *Hyle* lies *Chester Bar* : You may have Pilots always at hand to carry you up ; so the Entrance, and the River (which is full of Sands) is none of our Business here.

On the S. and S.E. side of the E. end of *Hyle Sand*, call'd the *East-Spit*, lies the Channel call'd *Hyle Lake*, where great Ships ride on Occasion, waiting for a Wind to go into any of those Waters, either for *Chester* or *Liverpool* : Here the Men of War rode, when they waited to carry King *William* and his Army to *Ireland* This Sand of *Hyle* is dry at low Water, and part of it dry even at high Water, on Neap-Tides.

E. by S. of the E. Point of the *Hyle Sand* (the Channel of *Hyle Lake* lying between) lies a great Sand call'd the *Dove*, stretching out N.E. to a Point ; and then fills away E. to the N.W. Point of the entrance into the *Mersey*.

There is a Channel into *Liverpool* this way along the side of the *Dove*, 'tis dry at low Water ; but as the Tide flows here 28 Foot on the Springs, and 21 Foot on the Neaps, any Ship may go over at high Water, with a Pilot ; and no Stranger will venture without.

The deepest Channel into *Liverpool* is E. of the *Dove*, call'd *Formby*, which is a large Entrance, and where you have 3

to 5 Fa. at low Water. But as this Passage is not buoy'd or markt out, the great Ships bound for *Liverpool* choole to lie at *Hyle Lake*, and go over the Flat as above, oftentimes lightning their Ships before they go over.

At a Place called the *Pyle of Foudry*, due N. from the *Hyle*, dist. 10 Ls it flows 5 $\frac{1}{2}$ Fa. right up and down on the Spring Tides; 'tis the Southermost Land of *Cumberland*. All the Coast of *Lancashire*, which is on the E. side, is void of Ports and full of Sands, except the Opening into the Rivers *Ribble* and *Lune*, which goes up the last to *Lancaster*, and the first to *Preston*. Opposite to the *Ribble Mouth* lies *Preston Sand*, stretching N. and S. 5 Ls. in length: there is a good Channel within the Sand, running along the side of it N. and S. as the Sand lies; where there is 3 to 4 Fa. at low Water: But as the Tides rise here so exceeding high as to 5 or 6 Fa. Ships go over every thing at half Tide without Fear; yet I would advise no Stranger to stir without a Pilot any where between *Holy-Head* and *St. Bees*.

From *Holy-Head* to *St. Bees* the Course is N.W. Westerly. Those Pilots who direct us to steer from *Holy-Head* due North, must needs be strangely mistaken; and whoever follows that Direction in a dark Night or a thick Fog, it may be fatal to them, and run them *Bump ashore* upon the *Isle of Man*; and if they were not wreck'd there, they would be in great danger of the *King William Sand*, off of the N.E. Point of the *Isle of Man*, which lies S.W. from *St. Bees*, distant 5 Ls. and lies it self S.E. and N.W. or rather S.E. by E. and N.W. by W. in length 4 Ls. Some Pilots say 'tis 6 Ls.

From *Holy-Head* to *St. Bees*, the distance is 20 Ls. the Courte as above, and from *Holy-head* to the S. Point of the *Isle of Man* the distance is 13 Ls, the Course due N.

N. from *St. Bees Head* is the Port of *White-Haven*, distance 2 Ls. 'Tis a dry Harbour, and has a small Pier, yet 'tis

Sailing Directions for the chief Har



IN the E. side of the *Isle of Man*, about 2 Ls. from the *Calj of Man*, is *Derby Haven*, where is good anchoring for any Wind under the Castle in 3 or 4 Fa. Water; or you may run higher, and anchor between the Perches, and lie a-ground at low Water. There is also good anchoring quite without in the Road in 10 or 12, or 14 Fa. with good shelter from Northerly and Westerly Winds.

About 2 Ls. and a half to the Eastward of *Derby Haven* is *Douglas Bay*, where you may anchor in 10 Fa. Water; or you may go further up to the Westward, till you bring *Douglas Head* S.S.E. or S. and anchor in 8 or 9 Fa. secure from Westerly Winds. The Haven is only a fresh-Water River, where small Vessels may go in at three quarters Flood, keeping close to the Rocks; there is 10 or 12 Foot at high Water, but at low Water 'tis dry.

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well known, and much frequented by Ships loading Coals here for *Ireland*.

There is no River of note here, but a very good Road, and where the Ships take in their Coals ; if it over blows, they run into the Haven with the Flood, or stand away to *St. Bees*, where is very good Anchoring and safe Riding.

N. B. We do not find any of our Pilots give a Description of the Coast on the *British* side beyond *Whitehaven*, or that the Coast beyond it North has been justly survey'd ; except in such Surveys as are very antient, and which by reason of the shifting of the Sands and other Imperfections, in so long time are not entirely to be trusted to. All those Ships therefore that trade farther N. in these Seas, either for *Carlisle*, *Dumfries*, *Aire*, *Glasgow*, and any of the Ports in the *Firth* of *Clyde*, are us'd to take Pilots either in the *Isle of Man*, or at *White-Haven*, if they come from the Coast of *England* or *Ireland*, that is, from *St. George's Channel* ; but if they come out of the Ocean from the Southward, 'tis usual to make first the N. Coast of *Ireland*, either the *Fair Foreland*, the *Skerries*, or the Island of *Enstreshall* ; at all which Places they may find Pilots to direct them into *Clyde*. Likewise if they come from *Norway*, or the *Baltick*, to go North about for *Ireland*, they ordinarily put into the *South Channel* of the *Orkneys*, called *Pentland Firth*, that is to say, at *Kirkwall*, or at *Stroma* in *Orkney*, or at *Dungsbey-head*, the N.W. Point of *Caithness*, where there are good Ports, and at all which Places they cannot fail of skilful Pilots to carry them thro' the *Firth*, as also by the Western Islands of *Scotland*, to any particular Port on the Western Coast of *Scotland*, or to the North of *Ireland*, and even as far as the *Isle of Man*.

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Ramsay Bay lies at the N.E. end of the *Isle of Man* ; it is a very good Road by reason of a Sand called *Ramsay Sand*, (or by some *Behema Sand*) which lies without, and breaks off the Sea ; you may anchor in from 10 to 5 Fa. Water. There is at the bottom of the Bay a small River called *Selby River*, where small Vessels may run in at high Water, and lie dry at low Water. Between the two forelaid Bays *Douglas* and *Ramsay*, there is a small Inlet called *Laxey Bay*, where Ships may anchor in 10, 8 or 7 Fa. Water, with shelter from N. Westerly Winds.

On the N.W. side, about the middle of the Island, is *Peel Road*, on the W. side of which is an Island with a Castle upon it : If you bring the Island S.W. about a Mile distant, you may anchor in 10 Fa. Water ; or if you go further in till you bring the Island W. you have 7 Fa. It is a good Road for Southerly and Easterly Winds.



N the E. side of the *Isle of Man*, about 2 I.s. from the *Calf of Man*, is *Derby Haven*, where is good anchoring for any Wind under the Castle in 3 or 4 Fa. Water; or you may run higher, and anchor between the Perches, and lie a-ground at low Water. There is also good anchoring quite without in the Road in 10 or 12, or 14 Fa. with good shelter from Northerly and Westerly Winds.

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Directions for coming into the Channel or Sea English Channel, and for sailing on between Downs.



HE Mariner having now left the vast Ocean, and brought his Ship into the Soundings near the Land, amongst Tides and Currents, his Art must a little be laid aside, and *Pilotage* taken in hand; the nearer the Land, the greater the Danger: therefore his Care ought to be the more, being in Tides ways, narrow Channels, and among Rocks and Sands. The Mariner, however skillful, cannot take it amiss, that we recommend to him to be well inform'd of the Courses of the Tides, the Indrafts of Bays and Channels, and especially that he is very sure that his Compasses are true, and in good order, and that he keep his Lead going on all Occasions.

Particularly he must take great care that no Iron be near the Compass: for after long Voyages, and that the Compasses have been much used, they will grow dull, and yet the Virtue of the Magnet may hold good, and be the same as ever: but that which causeth the dulness, and that the Compass is not quick in traversing, is the Pin's Point (on which the Compass stands) being worn blunt; therefore sharpen it with a Hone or fine Whetstone, with Care and Exactness: and this take for a certain Rule, that the light Card Compasses traverse best in fair Weather, and the heavy Card Compasses best in foul Weather. I mean by the heavy Card Compass, that which is stified with *Muscovy* Glass, and a Plate of Steel, which is touch'd by the Loadstone, instead of Steel Wire, which is in the light ones: The heavy Card Compasses are in Brass Boxes, which are made to open to take the Card out,

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Ramsfey Bay lies at the N.E. end of the *Isle of Man*; it is a very good Road by reason of a Sand called *Ramsfey Sand*, (or by some *Behema Sand*) which lies without, and breaks off the Sea; you may anchor in from 10 to 5 Fa. Water. There is at the bottom of the Bay a small River called *Selby River*, where small Vessels may run in at high Water, and lie dry at low Water. Between the two forelaid Bays *Douglas* and *Ramsfey*, there is a small Inlet called *Laxey Bay*, where Ships may anchor in 10, 8 or 7 Fa. Water, with shelter from N. Westerly Winds.

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Your next Care is the setting of the Tides, which so frequently alter their Course, and the want of knowing which occasions the loss of many a Ship, especially when you sail close upon a Wind: then if the Tide take you on the Weather-bow, you shall fall much to Leeward of your Expectation; as on the contrary, if it takes you on the Lec-bow, it carries you to Windward of your Expectation.

Coming out of the Ocean into the Soundings, which you may know by the Water being discolour'd, your best help is a good Observation of the Latitudes; the next Consideration is your Depth of Water, with the Colour and Quality of the Ground. This last some are apt to depend too much upon, tho I think it very uncertain; as I have found by experience, when lying becalm'd in the Soundings, we have often heav'd the Lead, and found one Cast so different from another, and still in the same Depth of Water, that I would not have any to trust to it: only this is generally observ'd, that the Ground to the S.ward on the *French* Coast is gruffer, that is, the Sand is bigger or more gravelly, there are bigger Shells and more variety than on the *English* side, with a sort of sharp small things called Needles. W.S.W. from *Ushant* 8 or 10 Ls. you will have 74 and 75 Fa. Water; and 4 and 5 Ls.W. from *Ushant* 68 and 70 Fa. W.N.W. from *Ushant*, 8 or 10 Ls. you will have 70 and 71 Fa. and 4 to 6 Ls. off 65 and 66 Fa.

N.W. from *Ushant* 8 or 10 Ls. 70 Fa. at 5 Ls. 64 and 65 Fa. and at N.N.W. from *Ushant* about 7, 8 or 10 Ls. from 65 to 68 Fa. and 4 Ls. N.N.W. 60 Fa. North from *Ushant* 8 or

Directions for Sailing in the British C

10 Ls. 64 and 65; and from 3 Ls. to 5 Ls. N. you will have 60 Fa. In these Depths, Bearings and Distances, the Ground is white things like Hakes Teeth, and 'tis rougher than on the *English* Coast: but, as I said before, the Quality of the Ground being so uncertain, is not much to be depended upon.

On the Coast of *England* the Ground is something a more certain Rule. First, it is finer in general: For 5, 6 and 7 Ls. to the Southward of *Scilly*, you will have from 50 to 60 Fa. Water, fine white Sand, with some red and black amongst it; sometimes some small Shells, or pieces of Shells; and at other times white Sand only. Keep in the Lat. of 49 deg. 30 min. or 35 min. or 40 min. till you have from 60 to 55 Fa. Water, more or less, as the Tides may be high: for at *Scilly* and thereabouts the Tides rise above 3 Fa. at Full and Change. I have seen the Light-house of *Scilly* in Lat. 49 deg. 35 min. at which time the Light-house bore N. by E. about 6 or 7 Ls. off; and at the same time I had 58 Fa. Water, fine Sand with black Speckles, and pieces of Shells. To the Westward of *Scilly* the Ground is fine grey and white Sand, mingled with small black Sand and pieces of Shells, and sometimes without the black Sand, and only with pieces of Shells: but if you are to the Northward of *Scilly*, then your Ground will be white Sand and ouzy Sand. When the Island of *Scilly* bears S. about 5 or 6 Ls. you will have 53 to 57 Fa. Water: and on that side you may see the Light of *Scilly* in clear Weather 6 or 7 Ls. in the Night. Here it is to be observ'd, that whereas many Ships have mist the Channel, and run to the Northward, (into the *Welch* Channel, or the *Severn*) contrary to their Expectation, the cause of it is by the Stream setting 9 hours from the N.W. to the N.E. and but 3 to the Sward: This Stream begins to set to the N.W. when it is half Ebb at *Scilly*, and ends in the N.E. when it is high Water: It begins about 6 or 7 Ls. to the Westward of *Scilly*, and 4 or 5 Ls. to the Southward; and so between *Scilly* and the *Lizard*.

Being to the Southward of *Scilly*, about Lat. 49 deg. 30 to 40 min. and having from 60 to 55 Fa. Water, you may keep away E. in that Lat. according as you have Wind or Weather, and in the same depth: but when you have sailed about 15 or 20 Ls. from 60 to 55, or 52 Fa. then if the Weather be clear, you may steer Northerly till you make the Land. When the

Sailing Directions for the Coast of Ireland, from St. M Land of Ireland, to Entershall near London-D Land North.



C *Arnaroot* is the utmost Point of Land S.E. of the whole Kingdom of *Ireland*; 'tis distant from the Lands-end of *England* about 40 Ls. and just as many Miles from the Lands-end of *Wales* called *St. Davids*, being 16¹/₂ L. E.S.E.

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Lizard bears N. by E. distance about 9 Ls. you will have 55 to 57 Fa. Water: then you will have pieces of Shells of several Colours, thin, small, slaty Stones, and no Sand. Meeting with this Ground, you may stand in to the Northward into 50 Fa. Being past the *Lizard*, if you keep without 40 Fa. Water, you need not fear the *Eddystone*; you will have 40 Fa. in the Stream of the *Eddystone*; also if you keep in 35 Fa. then are you within the *Eddystone*. There is 35 Fa. between the *Ram-head* and the *Eddystone*.

When you are sure of being past the *Lizard*, be careful to keep off from the *French Shore*, for fear of the Rocks called the *Gaskets*: when you are near them, the Tide of Flood sets in amongst the Islands of *Guernsey* and *Jersey*, &c. You will have deeper Water very near these Rocks, and gruffer Ground than on the *English Coast*.

From the *Start* to *Portland* and the *Wight*, keep between 40 and 30 Fa. Water, or between 35 and 30, according as you go up the Channel.

When you come near the *Isle of Wight*, have a care of the Indraft mention'd before, that sets strong both into the *Needles* and *St. Helens*. Those Indrafts have drawn many a good Ship into *Freshwater Bay* and others, on that dangerous Sand called the *Owers*, which lies to the Eastward of the *Isle of Wight*, and where they have been stranded and lost; as you may see in the Description of those Places.

All the last half Flood, or the last quarter Flood, and all the Ebb sets into *St. Helens*; which hath also caused many Ships to run aground on the *Owers*.

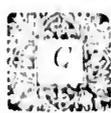
N. B. The Rules for sailing from the *Isle of Wight* to *Dengey Ness*, and so into the *Downs*, may be effectually taken by the reverse from our Directions for sailing from those Places to the *Isle of Wight*; allowing for the one being E. and the other W. Observing also, that if you stand over on the *French Coast*, there is a Bank in the fair way between *Dengey Ness* and *Bullen Bay*, which has but 13 Fa. on it, and which in the Night may cause you to think you are nearer the Shore than you are.

and, from *St. Margaret's Bay* on the *S.E. Point* of the near *London-Derry*, being the farthest Part of the

The same Mill may be a Mark to avoid the Shoal which lies off of the Point: for as long as you do not lose sight of the Mill, you are far enough from the Shore: and when it bears S.W. and S.W. by S. then you are past it all, and may go away N.W. and N.W. by W. into the Bay, as the Wind and Tide

ward, and to between *Scilly* and the *Land*
Being to the Southward of *Scilly*, about Lat. 49 deg. 30 to
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away E. in that Lat. according as you have Wind or Weather,
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Sailing Directions for the Coast of Ireland, from St. M Land of Ireland, to Enfershall near London-L Land North.

 *Carnaroot* is the utmost Point of Land S.E. of the
whole Kingdom of *Ireland*; 'tis distant from the
Lands-end of *England* about 40 Ls. and just as many
Miles from the Lands-end of *Wales* called *St. Davids*,
being 16 $\frac{1}{2}$ L. E.S.E.

From hence to *St. Margaret's Bay* the distance is but one L.
You must keep a small Offing from the Shore, because there are
several Rocks and foul Ground near the Land; but at a cer-
tain distance 'tis safe. There is a double Land which lies with-
in the Cliffs, and which at one certain distance may be seen over
them: be sure to keep so far off, that those double Lands may
always appear. If you come so near under the Cliffs as to lose
sight of them, you will be in danger.

When you are off of the Bay, bring a large House which
stands on the inner Lands into one with the Mill, which you
will see on the inside; then you are right with the Bay: There
are some Rocks in the midway above Water, you may go on
which side of them you will as the Wind serves; but there is
a sink Rock off of the Bay about two Mile S.S.E. Your safest
way in coming from *Carnaroot* Point is to go without this
Rock; to do which, keep the *Trenchin*, and the least Island of
the *Salties*, one in another.

N.E. from *St. Margaret's Bay* in *Grenore Point*, distant about
half a L. the Land is steep and flat on the top, and there is a
Shoal runs off from it into the Sea near a Mile E. by S. dry at
low Water. There is a double Land here also along the Shore,
which guides you to avoid the Shoal; for keeping the inner Land
about a Man's height in sight above the outer, you are safe; or
you may (if it be dark) take it from your Depth of Water,
keeping no nearer than 6 Fath. or 5 at the utmost, and not
without 8 or 9 Fa. lest you fall too near the *New Ground*.

This *New Ground* is so steep, that close by it you will have
10 Fa. Water, and upon it not above 2 Fa. When you would
go about the Point into the Bay, be sure keep the double Land
a Man's height above the outer Land as aforesaid, and keep
your Course North till the said high Land comes to the North-
ward of the steep Point of *Grenore*, keeping a Mill which is
near the said Point in view, the top of it appearing just over
the Point; and when you see the Cattle come without the Point,
then you are fair with the Bay, and keeping your Lead may
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N.W. and N.W. by W into the Bay, as the Wind and Tide
will allow.

Or thus; keep on N. till a long black House upon that same
Land comes out to the West of *Grenore Point*; then keep in
5 Fa. by the Shore or Shoal, till you come into 6 and 7, and
so on to 8 and 9 Fa. and then it will shoal by degrees; or keep
on N. till you see another black House come without the Point,
then you are past all Danger of the Shoal or of the Point.

When you are come into *Grenore Bay*, take a Pilot if you
are bound to *Wexford*; the Bay of *Grenore* is all safe, you
may anchor from 6 to 3 Fath. where you please.

Off of *St. Margaret's Bay* E. by S. distant about 2 Ls. lies
a great Rock called the *Tuskar*; it lies in the Sea like the
Hull of a Ship with her Keel up, but much bigger; or like the
Body of a dead Whale, only that it is not so long. There are
also some sunk Rocks on the North side of it coming from
Waterford about *Carnaroot Point*: 'tis best to go without
the *Tuskar*, but from *St. Margaret's* they keep all within it, as
above. 'Tis very needful to be particular and exact here, be-
cause 'tis the great Gangway for all the Ships which go between
Wexford and *England*, or that go about from the S. to the W.
of *Ireland*.

If you are bound from *Grenore Bay* to *Wexford*, you must
observe a dry Sand called *Henkman's Path*, which lies off of
the South Point of *Wexford Harbour*; and upon the North of
it lies another called the *New Ground*, much of the same big-
ness. If your Ship draws less than 8 Foot Water, you may
run in between *Henkman's Path* and the S. Point of *Wexford*
Bay, which is called the *Sounder*. where you have 10 Fa. at
Spring Tides: but if you draw more Water, you must keep
farther off, and go round both those Sands; but take heed not
to go farther off than 10 to 12 Fa. for fear of the Banks called
the *New Grounds*, which as above is steep too.

In order to know when you are without those Sands called
Henkman's Path and the *New Ground*, observe a Hill to the N.
of *Wexford* with a round Hummock, which you will see over
the low Lands above the *Strand*, where there is a Castle: Bring
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Directions for Sailing on the

the Hummock a little to the N. of the Castle, or in case of necessity bring them together, and then you will go clear; but take heed you do not open the Hummock at all to the Southward of the Castle. If it be thick Weather, that you cannot sail by the Marks, keep your Lead going, and keep in 7 Fa. Water, and you will go about the Sands well enough.

The best and deepest Channel to go into *Wexford*, is between *Hennians Path* and the *New Ground Sands*, where you have 4 to 5 Fa. all the way. To run thro' here, keep a little Castle which is on the S. Land within the Strand, upon the S. end of the high Land of *Wexford*, bearing from you S.W. by W. When it stands so, and also betwixt the two Northernmost little Sandhills upon the *Sounder*, then you are thro' the Channel between the Sands, and may go right for the Bar of *Wexford*.

N. B. There is on *Wexford* Bar no more than 16 Foot at high Water.

N. B. There is a Mast stands on the Tail of the *New Ground Sand*, being the Foremast of a Ship which was lost there, and is bury'd in the Sand, and where the Ground is very flat. Going towards the Bar therefore, 'tis best keep at a good distance S. left the Tide horse you on upon the Tail of it.

N. B. The Channel between these two Sands is shifted, and lies more to the Northward than it used to do; and the Tail of *Hennians Path* increases to the Northward, so that in time new Marks must be placed for the passing thro'.

Being over the Bar, you have 3 to 4 Fa. again: then you must run over to the Foot of the *Strand*, and then edge to the N. to avoid some Shoals which lie within the *Sounder* to the W. Here you may keep in from 10 to 15 Foot Water; the Mark for edging over is thus: Bring a white Castle in a Vale on the main Land on the North side of the Haven, over the steep Point of the inner Island, which is on the North Shore, and go W. by N. and W.N.W. with it, till you bring a little Chapel within the Land to the Southward of *Wexford*, or till you bring the Chapel a Cable's length to the Northward of the Castle you saw before on the N. side of the high Land S. of *Wexford*: when these Marks come together, you are above the Sands on the *Sounder*.

By these Marks you will come without the Castle of *Wexford* to the S. Shore about a Gunshot; then you may sail in by the Castle within the Soundings of the Shore, and anchor in 3 Fa. Water.

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Sailing on the Coasts of Ireland.

upon the Sand, which is steep too and above two Miles long. 1 L. farther N. lies *Arklow Head*; in this Passage you have also this Mark: Keep *Wicklow Head* fair within *Missen Head*, and you cannot come foul of the *Glaskerman*; but if you would sail on the East side of the *Glaskerman*, then keep *Wicklow Head* fair without the *Missen Head*, and so you run a Seaboard of it, and go clear also; if you keep it but even with *Missen Head*, you will run full upon the said Sand.

Arklow Head is a foul Point, and at the North end of it lies a stony Ledge, which is very steep and dangerous, especially for Ships from the North. Come not nearer than 5 Fa. you will see some small Rocks towards the Shore; when they bear W.N.W. from you, then you are past the stony Ledge, and may borrow of the Shore again: But 'tis usual in coming from the Northward, to keep a good Offing, so to avoid them.

There is a fine sandy Bay on the North of *Arklow Head*, where you ride safe as you please in 5 to 8 Fa. It is a famous Bay for fishing for Herring in the Season.

There is a Channel over against *Arklow*, between the Banks called the *Grounds*, thro' which you may run with great Safety in 7 to 8 Fa. Water. To pass this Channel, bring a round Hill, which you will see within Land, to bear from you W. N.W. or N.W. by W. and sail in with it, and go clear of the *New Ground*; but if you bring the round Hill W. and then venture, you go directly upon it.

The River of *Arklow* lies to the N. of the Point, distant one Mile; there is but one Fa. at high Water in the said River of *Arklow*; so that nothing but small Craft go in there.

From *Wexford* to *Wicklow* the Coast is N. by E. they that sail without the Grounds or Sands, must go N.N.E. if they go more to the N. they will be upon the Grounds off of *Wicklow*. Some time ago a Ship was lost there, keeping but one Point nearer to the N. and fell upon a Tail of Sand which lies N. and S. thwart of *Arklow*; the Town lay W. by S. from them as they sat upon the Sand. The Grounds against *Wicklow* lie 3 Ls. from the Shore, and to the southward but 1 L.

North from *Arklow* lies *Missen-head*, distance $1\frac{1}{2}$ L. and $2\frac{1}{2}$ Ls. farther lies *Wicklow-head*. The former appears of a black Colour; you have 8 to 9 Fa. in the Fair way between them, clean Ground and good Anchoring; only that a Mile short of *Wicklow-head* lies the *Wolf*, a small Rock close to the Shore; 'tis dry at half Tide: Small Boats may pass within it, but no other. Likewise close to the Point, and running a little out to the southward, lies the *Horse-shoe*, a stony foul Sand: Keep the high inner Land above the Land of *Wicklow*, or keep *Brab-head Point* without *Wicklow-head*, and you go clear without the *Horse-shoe* in 5 Fa. Water.

Wicklow-head makes a little double Hill, within which is a little Chapel: When you see the Chapel between the two Heads of the Hill, then you are right against the Point; it is steep and stony. The Town lies to the northward of the

Being over the Bar, you have 3 to 4 Fa. again: then you must run over to the Foot of the *Strand*, and then edge to the N. to avoid some Shoals which lie within the *Sounder* to the W. Here you may keep in from 10 to 15 Foot Water; the Mark for edging over is thus: Bring a white Castle in a Vale on the main Land on the North side of the Haven, over the steep Point of the inner Island, which is on the North Shore, and go W. by N. and W.N.W. with it, till you bring a little Chapel within the Land to the Southward of *Wexford*, or till you bring the Chapel a Cable's length to the Northward of the Castle you saw before on the N. side of the high Land S. of *Wexford*: when these Marks come together, you are above the Sands on the *Sounder*.

By these Marks you will come without the Castle of *Wexford* to the S. Shore about a Gunshot; then you may sail in by the Castle within the Soundings of the Shore, and anchor in 3 Fa. Water.

To the Southward of those Sands on the *Sounder* there is a Creek which carries you thro', and where there is more Water than in the edging to the Northward. To avoid the Sands, the Mark for this Passage is, to keep the highest Hummock mention'd before right over *Wexford Castle*; but this Passage is not worth the trouble.

When Ships come out of *Wexford*, they ought not to lade deeper than 10 foot till they come to the *Sounder*, where they may ride safe from all Winds, and take in the rest of their Loading.

They that anchor before the Bar of *Wexford* to wait for the Flood, should lie to the Northward of the Bar in 8 Fa. there it is clean Ground. There are always two Lights upon the *Sounder*, to guide the Fishermen in thro' the Channel between the Sands; they that will make use of them, must keep the highest Firelight a little to the Southward of the lowest.

To sail out from the Bar of *Wexford* to the Sea, your Course is E. by S. and so on the contrary to sail in, it is W. by N. betwixt the great Banks called the *Grounds*: But if you would go within the Bank to the North, you must run along within a Cable's length of the Shore in 6 to 8 Fa. not farther out; 'tis all clear and safe, and may be past by Night or by Day.

In this Course about 2 $\frac{1}{4}$ Ls. from *Wexford* Bar, you will see an old broken Wall, which looks like the Ruins of a Church: Opposite to this, distant a Mile, lies a Sand called the *Ram*, or the *Ruseb* and *Ram*; you may sail on either side of it, but the safest Channel is between that and the Main, keeping in 6 or 7 Fa. Here within *Dunaghmore Point* is a small Bay, and to the North of it is a Castle; this Castle is a good Mark to Ships off at Sea to come within the *Grounds*. When you are without, bring the Castle a little to the Northward of the low Point of the Bay, and you may run boldly in W.N.W. with 15 to 16 Fathom.

From hence all the way, within the Banks called the *Grounds*, lies a fair Channel quite to *Dublin* Bar, in 6 to 8 Fa. Water, several small Roads and Bays lying under Shore by the way. The first is a Sand called the *Glaskerman*, 2 Ls. from *Dunaghmore* N. you may run along between this Sand and the Shore, but in no more than 8 Fath. if you come to 10 Fa. you will be

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Point nearer to the N. and fell upon a Tail of Sand which lies N. and S. thwart of *Arklow*; the Town lay W. by S. from them as they sit upon the Sand. The Grounds against *Wicklow* lie 3 Ls. from the Shore, and to the southward but 1 L.

North from *Arklow* lies *Miffen-head*, distance 1 $\frac{1}{2}$ L. and 2 $\frac{1}{2}$ Ls. farther lies *Wicklow-head*. The former appears of a black Colour; you have 8 to 9 Fa. in the Fair way between them, clean Ground and good Anchoring; only that a Mile short of *Wicklow-head* lies the *Wolf*, a small Rock close to the Shore; 'tis dry at half Tide: Small Boats may pass within it, but no other. Likewise close to the Point, and running a little out to the southward, lies the *Horse-shoe*, a stony foul Sand: Keep the high inner Land above the Land of *Wicklow*, or keep *Brab-head Point* without *Wicklow-head*, and you go clear without the *Horse-shoe* in 5 Fa. Water.

Wicklow-head makes a little double Hill, within which is a little Chapel: When you see the Chapel between the two Heads of the Hill, then you are right against the Point; it is steep and stony. The Town lies to the northward of the Point in the Bay; there is but 10 Foot at high Water in the Haven, and there is no good anchoring in the Bay: The Ground is hard and rocky, and 'tis not much better without.

Here is a Channel between the Grounds, as at *Arklow*; to pass which, keep the Cattle of *Wicklow*, open of the Point, that is mark enough; or keep the Point of Land, which lies a League to the northward of *Wicklow*, on with the *Sugar-loaf-hill*, which will then be about N.W. half W. from you; and that will carry you into *Wicklow*. You have 8 to 10 Fa. in the Channel between the Sands or Grounds.

Four Leagues from hence N. lies *Brab Point*, being steep too, and the highest Land on this Coast. Between them lies a small Fishing Town call'd *North Castle*, with a small flat Point. At the Town you have 4 to 6 Fa. but from the *Flat Point* to *Brab Point* is 13 to 14 Fa. The Coast trends away N. and N. by W. Southward from this *Brab-head*, and opposite to the *Sugar-loaf-hill*, lies a foul stony Bank, but it has 4 Fa. Water over it. There are three Hills within Land here, call'd the *Vineyards*; the *Sugar-loaf* is the farthest of them; bring all the three in a Line one within the other, and keep them so; you may run safely with it between the *Grounds*.

You are now pass'd all the Banks call'd the *Grounds*; and from *Brab-head* to *Dalkey*, which is the S. Point of the Bay of *Dublin*, is but 2 Ls. 3 due N. *Dalkey* is a little Island lying off of the Point call'd *Dalkey Point*; the Passage between is narrow, but has a good depth of Water; 'tis call'd the *Sound of Dalkey*, and has 7 to 9 Fa. And there is good anchoring on any side, either by the Island or the Main: Nay, there is a round Rock near the Main, where they often moor their Ships to the very Rock; the Current is strong, and the Passage narrow, so that sometimes Ships moor a-thwart from the Rock to the Island. The S.S.E. and S. by E. Winds blow right in, but 'tis so narrow there can go no very great Sea.

There is also another Island call'd *Mugel*, which lies off of *Dalkey*; and there is a small narrow Channel likewise on that side, with 5 to 6 Fa. but the Ground is not good.

From

Directions for Sailing on the Coast

From *Dalkey* begins the Bay of *Dublin*; you sail into it N.W. by W. The Road at the Town of *Dalkey* is tolerable for a S.E. Wind, but bad if more easterly; there is 8 to 9 Fa. but not good Ground, especially to the westward.

All the way from the *Tuskar* Rock, off of *St. Margaret's Bay*, to this Point of *Dalkey*, the Sands call'd the *Grounds* lie parallel with the Shore; and they have Openings and Channels between, over-against all the Ports and Harbours, as is describ'd above. They are steep too on both sides, but especially on the E. or outside; for they have 10 Fa. Water close to them on the inside, and 20 Fa. on the outside, so that no Ship ought to come nearer than 24 to 25 Fa. on the Off-side; they have in some Places but 5 or 6 Foot Water upon them; at the N. end indeed they have 2 $\frac{1}{2}$ to 3 Fa. but stony and foul Ground; they lie in some places 3 Ls. from the Shore, in others not above 2 $\frac{1}{2}$, and trend along N. by E. and S. by W.

If you would go without them to the northward, you must lie so to the N. as to keep the Island call'd *Ireland's Eye* without the *Hoath Point*; and by that Mark you go clear into the Bay of *Dublin*.

N. B. The Tide in *St. George's Channel* is double; the S. Tide flows northward, and the N. Tide flows S. And they meet against *Carlingford Bay*, where they make a Race, the two Floods checking one another: Then the Ebbs set back again in the same manner.

From this Bay of *Dalkey*, the Bar of *Dublin* lies due N. distance 2 $\frac{1}{2}$ Ls. You have from 5 to 8 Fa. Water all the way; the nearer the Bar the shoaler. But as you have Pilots always ready here, we need give you no Directions for sailing into *Dublin Harbour*: The Pilots carry the Ships up to the Key, or to the Pools, where they may lie a-float according to what Water they draw.

First, to come to the Bar, keep the westernmost Rock off of *Dalkey* a Handspike's length open from the Island, or of all the other Rocks: This Mark will bring you right off the Bar.

There are two great flat Sands, which lie one on either side the Harbour: One is call'd the *South Bull*, and the other the *North Bull*; they are both dry at low Water. There runs a narrow Tail from the *South Bull*, which with a small bending Circle eastward crosses over, and joins the E. end of the *North Bull* Sand: And this makes the Bar of *Dublin*, distance from the City about 5 Miles E. Upon this Bar is a Buoy, and a Beacon upon the S.W. Point of it, where it joins the *South Bull*.

If a Ship makes for the Bar from the S. she must steer directly with the low Lands of *Hoath* N. by which she will come fair with the Buoy: If from the northward, she must run close about the Point of *Hoath*, and along under the N. Shore, till she comes to the Bar, which is deepest also on that side. Or take it thus:

If from the N. keep S. till the *Head of Hoath* bears N.N.W. and then go in W. by S. for the Bar. If from the S. bring the Rock call'd *Muggull*, which lies to the N.E. of *Dalkey Point*, to bear S. and then run in N.N.W. Or bring *Ireland's Eye* to the westward of the *Hoath-hill*, that brings you directly to

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Shore. and plain to be seen. The Haven is narrow and difficult; you must make Signals for a Pilot, who will come off to you. In the way, $1\frac{1}{4}$ L. from *Lambey*, is the Rock call'd *Aibel*; but 'tis also to be seen, and you may go fair on either side, as the Wind serves you.

Dundalk is the next Port to *Drogheda* due N. distance 6 Ls. a good Bay, but no Haven fit for Ships; 'tis all dry at low Water, you may walk over it; but 'tis well supplied by *Carlingford*, distance 3 Ls. E. from *Dundalk*. This is an excellent Harbour, tho with a difficult Entrance; the Bar has but 9 or 10 Foot at low Water, tho 'tis near a League wide; but it flows 2 Fa. at ordinary Tides. There is an Island at the Entrance call'd *Haut-Bowline Island*: Be sure to go to the eastward of it, and keep no nearer to the Island than 7 Fa. Water, and no nearer to the Main than 3 Fa. for both Shores are foul and stony; but the Channel is fair, being half a League over: And after you are over the Bar, there is 7 to 20 Fa. Water.

From the Island keep the Fair way Mid Channel up, going over to the W. Shore, leaving another Island call'd *Guerne* on the Starboard. Between that and the Main you have a fair Channel in 7 to 8 Fa. Water; only give not too large a Birth to the Point of the Island, for about half a Mile N.E. from it is a Ledge of sunk Rocks.

From this Point steer N.W. about $2\frac{1}{4}$ Miles, and you come into the Road of *Carlingford*, where you may ride in what depth you please from 7 Fa. to running a-ground, which you may also do in soft Ouze, and sit safe without Anchor or Cable. 4 Miles above *Carlingford* is the Entrance into the River *Nury*, where you have 3 Fa. Water; and 2 small Ls. within, is the Town of *Nury*, but no depth of Water, except for small Craft.

East from the Bar of *Carlingford* $1\frac{1}{4}$ L. is a Ledge of Rocks having but 8 Foot at high Water; but the Passage between them and the Shore has 8 to 12 Fa. And 5 Ls. from those Rocks N. by E. is *Dundrum*, a little but very good Haven. And 2 Ls. farther E. is *St. John's Point*, under the N. side of which is the Haven of *Arglas*, all which is fair and open, a bold Shore, and no danger.

From *Arglas*, N.E. by N. is the Haven of *Strangford*, distance 5 Miles: And within the Entrance on the W. Shore, 4 Miles up, lies the Town of *Strangford*, at the Entrance into the great Lake call'd *Strangford Lough*.

From the Mouth of *Strangford Haven* the Coast lies N.N.W. to *Port Ferry*: There are a Ledge of Rocks in the way, which lie bare at half Ebb: Keep the middle Channel between them and the Main. After you are past them, there's another Ledge of Rocks by the E. Shore; leave them to the Starboard. As you go in above *Port Ferry*, there is a Road call'd *Bally Haven*, where there is a sunk Rock just before the Road. Bring the Saddle of two Hills which are on the W. Shore opposite to you, and then you may go boldly in; but come no nearer than in 4 Fa. Water, for the Ground is every where foul and stony. The Rocks call'd the *North* and *South Rocks* lie $1\frac{1}{4}$ L. from *Strangford Harbour*. E.N.E. from the S. end of the *South Rock* lies a Ledge of Rocks, at least half a League into the Sea; and from the N.E. end another. That call'd

the Harbour : One is call'd the *South Bull*, and the other the *North Bull*; they are both dry at low Water. There runs a narrow Tail from the *South Bull*, which with a small bending Circle eastward crosses over, and joins the E. end of the *North Bull Sand* : And this makes the Bar of *Dublin*, distance from the City about 5 Miles E. Upon this Bar is a Buoy, and a Beacon upon the S.W. Point of it, where it joins the *South Bull*.

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You may go over the Bar on either side the Buoy : When you are over the Bar, the *Sugar-loaf* over *Mall-bill* is your Mark to come to an Anchor in *Pool Beg.* In the *Iron Pool* you have 4 Fa. at high Water. Bring the *Sugar-loaf* over the low Hill before it, then you are in the best of the Road. The S.W. Winds blow here with strong Gusts from the Hills, and the Sands round the *Pool* are all dry at low Water.

A Mile above the *Iron Pool* is *Clantarf*, a little Pit, where there is 9 to 10 Foot at low Water ; but the Ground is dry all round it, and the room so strait, that the larger Ships lie below at *Pool Beg.*

The *Hoath* is the N. Point of the Bay of *Dublin*, without the Bar ; there is good anchoring, and clean Ground on every side of it, only not too close to the Shore, and except about a Cable's length off of the S. Point, where is a small Shoal, tho with 4 Fa. Water.

North from the *Hoath* lie two Islands, first, one call'd *Ireland's Eye*, and the other N. of that, call'd *Lambey*. The first is the smallest ; there is a good Road on the W. side of it over-against the *Chapel* : But on the S. end of it lies a Riv^r of Rocks, and on the E. a high Rock call'd the *Stags*. Over-against this Island is a Village call'd *Maskeal*, with a Haven for small Vessels. On the N. side of *Lambey* is a good Road for a southerly Wind ; but for a Sea Wind you must weigh and be gone, for there goes a very high Sea ; in such case you may ride on the W. side near a *large House*, but 'tis a wild Road there also.

Drogheda is the next Port from *Dublin* ; the Course is N.N.W. distance 7 Ls. from *Lambey* : 10 Ls. from *Dublin*, mid-way, lie the *Skinree*, which are certain Rocks close to the

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From *Arglas*, N.E. by N. is the Haven of *Strangford*, distance 5 Miles: And within the Entrance on the W. Shore, 4 Miles up, lies the Town of *Strangford*, at the Entrance into the great Lake call'd *Strangford Lough*.

From the Mouth of *Strangford Haven* the Coast lies N.N.W. to *Port Ferry*: There are a Ledge of Rocks in the way, which lie bare at half Ebb: Keep the middle Channel between them and the Main. After you are past them, there's another Ledge of Rocks by the E. Shore; leave them to the Starboard. As you go in above *Port Ferry*, there is a Road call'd *Bally Haven*, where there is a sunk Rock just before the Road. Bring the Saddle of two Hills which are on the W. Shore opposite to you, and then you may go boldly in; but come no nearer than in 4 Fa. Water, for the Ground is every where foul and stony. The Rocks call'd the *North* and *South Rocks* lie $1\frac{1}{2}$ L. from *Strangford Harbour*. E.N.E. from the S. end of the *South Rock* lies a Ledge of Rocks, at least half a League into the Sea; and from the N.E. end another. That call'd the *North Rock* is a great Range of Rocks stretching N.N.E. at least a L. many of which lie sunk at high Water, so that 'tis hazardous to venture between them and the Main: But there is a fair Sound between the *North* and *South Rocks* themselves, with good clean Ground, and 6 to 8 Fa. Water.

Two Leagues from the *South Rock* N.N.W. lies a Shoal; you must come no nearer to it than 8 Fa. And 5 Miles from it N.N.W. is a Rock call'd the *Plow*, well known and seen above Water at half Tide. Half way between the *North Rock* and *Bally Water* lies a small Island near the Shore, call'd *Burcal*. From the *North Rock* to *Copeland* is near 6 Ls. N. by W. and N.N.W. the *South Rock* half a League more; and from the *Plow* is 8 Miles N.N.W.

Copeland is an Island lying E. by N. from *Carrickfergus*, open with the Bay, 2 Miles from the Land due E. On the W. side of it lies a sunk Rock $\frac{1}{2}$ of a Mile N.E. from the *Flat Point*; there is not above 3 Foot Water upon it: But the Passage between this *Rock* and the *Point* is good; the Sound between the Island and the Main is very good, and 7 to 8 Fa. Water; but the side next the Main is foul, therefore come not too near, and especially to the northward. There lies a sunk Rock a quarter of a Mile off from the very next Point. There are also two little Islands N. of *Copeland*, viz. the *Cross* and the *Mew*; but there is a very good Sound between them and *Copeland*, a Mile broad, and 7 to 8 Fa. Water. From hence to *Carrickfergus* is 3 Ls. W. by N. half northerly.

Carrickfergus Bay is 6 Ls. broad at the Entrance, narrowing gradually to *Belfast*, where it is only $\frac{1}{4}$ of a Mile broad, distance from the Mouth of the Bay 5 Ls. 2 Ls. within the Entrance, and on the N. Shore, stands the City and Castle of *Carrickfergus*; the Road is good before it, and there is a Pier at the Town, but dry at low Water. S. by W. distance 1 Mile lies a Bank of Sand, which has on it $1\frac{1}{2}$ Fa. at low Water;

ter ; it lies just before the Road . It has 2 Fa. to the N. and to the S. then farther S.W. 3, and in the middle of the Road 5 Fa.

S.W. from *Carrickfergus* lies *Carmoyl Road*, distance 5 Miles : There is a long Spit runs out from the N. Shore : Therefore to come into *Carmoyl*, you must run up into 4 Fa. at low Water almost to the *White-house*. Bring *Castle Rock* upon a little Village which stands on the Shore ; and then run two thirds over, and you are fair before *Carmoyl*.

Carmoyl is the Road where Ships ride which are bound to *Belfast*. The *Castle Rock* stands on a Hill to the E. a little above *Carmoyl* ; you have deep Water in *Carmoyl*, but extremely full of Weeds in the Channel. From thence to *Belfast* there are several Beacons or Poles to direct the Course ; but if you are unacquainted, there are Pilots at *Carrickfergus*.

To the N. of *Carrickfergus* lies a Harbour call'd *Old Fleet*, distance 2 Ls. Two flat *Towers*, one higher than the other, like the Fore-sail and Main-sail of a Ship, and which are on the N. side the Bay, are Marks to know it by : Also at the S. Point of it lies an Island call'd the *Knee*, which is another Mark. But from the N. Point of *Carrickfergus* you must go away N.N.E. at least 4 or 5 Ls. to keep clear of the Rocks call'd the *Maidens*, which lie N.E. by E. off of *Carrickfergus*.

There is a Rock call'd the *Hunter*, which has but 2 Fa. Water ; to go clear of it, if bound to the northward, you must keep *Knee Island* close with the Main, and then you are without it ; but if *Knee Island* be open with the Main, then you are within the Rock : Also if going into *Learn* you keep *Brown's Point* opposite to the Castle of *Carran*, then you are right against this *Rock*. So when the Rock of *Ballegill Mountain* is right with the Middle of the *Mount* it self, then you are just upon this Rock, and may see the Rippling of the Sea upon it : You may run about the *Knee* into *Learn* with all safety.

'Tis very dangerous to come near the *Maidens* by 2 Ls. there are so many of them under Water, and they reach so far into the Sea on all sides of those which are to be seen. There are some Passages between them which might be made use of in Extremity, but 'tis next to Desperation to venture it. To come from the N. you must go off to Sea S.E. by E. at least 3 Ls. to go about them.

From *Old Fleet* the Course lies N. to *Fair Foreland* 8 Ls. a bold Shore, and nothing to fear ; and under *Rathlin Point* is good riding in 8 to 9 Fa. Water, and safe from easterly Winds : You may sail round the Island of *Rathlin* as Wind or Tide directs. There is a fine Bay on the S. side of it, with clean sandy Ground, and secur'd from all Winds that blow. As you come from the W. you see no Opening. Within the Island is another small Island almost close to the Main, call'd *Sheep Island* ; you may go thro' between it and the Main ; all is safe, except that on the W. are a Ledge of Rocks, but they lie above Water, and the Channel is every where good.

You are now at the Extremity of the Island on this side ; and your next Course, which is to the *Skerres* or *Port Rush*, is W. by S. distance 4 Ls. About 2 Miles to the E. lies a Shoal call'd the *Chickens*, but there is 40 Fa. betwixt it and the

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S.W. of this Island of *Skerres* is *Band Haven*, which goes up to *Colerain*: The Haven has not above 8 Foot Water, and a most furious Current upon the Ebb; so that 'tis at least three quarters Flood before any Vessel can go up the River.

The next Port to this is the Entrance into *Lough Foil*, going up to *Londonderry*, the Course N.W. by W. from the *Skerres*, distance 3 Ls. and W. by N. from *Band Haven*: The Entrance is very large and deep. Before the Mouth of it lies a great Sand call'd the *Tunns*, running from the E. Point of *Lough Foil* 2 Miles N. and when the Wind is off Sea, the Water breaks upon it with a prodigious Noise. Small Ships may run into the *Lough* to the southward of this Sand by the E. Point of the Harbour; but there is but 3 Fa. at high Water, and the Passage very narrow; but the best Passage is on the W. side, where there is a broad Channel, and 14 to 15 Fa. Water, and off of *Magallian Point* 8 to 10 Fa.

After you are enter'd within the River, or *Lough*, you have two Channels, the right Channel is under the W. Shore: To find the Fair way, when you are in the Offing bound in, look out for a little Bay just within the N. Point, and on the W. side of the River; and under the high Land of the Shore bring this Bay open from the N. Point, and you are fair with the W. Passage; then run in along by the Land S.W. till you come off of *Green Castle*.

From *Green Castle* to *Red Castle* keep the W. Shore a-board, and all is safe and clear; whatever is capable of doing hurt is to be seen. You may ride off of *Green Castle*, so as to see *White Castle* without *Green Castle Point*. Going on from thence for the Town, keep still the W. Shore, only shun an *Oysier Bank*, which begins on that side about *Red Castle*, and stretches on to the *Three Trees*; there the Ships usually come to an Anchor.

From this Road you go to *Culmore Castle*, which is at the Entrance of *Lough Foil* to the River of *Londonderry*; still keep the W. Shore on board, 'tis all safe to *Culmore*: After that the Charts will be sufficient, or you may have Pilots up to the City.

N.B. Whoever are outward bound from *Lough Foil*, should be sure to take the last Quarter of the Ebb Tide only to run out, because the first Ebb sets right over the *Tunns*, and will force the Ship upon them, unless special care be taken: But the last Quarter of the Ebb sets N.N.W. Keep that Course, till you open the Head of *Coldoff*, and then you are clear of the *Tunns*; then go N.E. by E. to get clear of the Island of *Rathlin*.

From the W. Point of *Lough Foil* to *Ensterball* is 4 Ls. W.N.W. This *Ensterball*, or *Ensterbull*, is a Cluster of small black Rocks, which appear but just above Water, lying off of *Emistbone*, which is the most northern Land of *Ireland*. There is a Passage between those Rocks and the Main:

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You are now at the Extremity of the Island on this side; and your next Course, which is to the *Skerres* or *Port Rush*, is W. by S. distance 4 Ls. About 2 Miles to the E. lies a Shoal call'd the *Chickens*, but there is 40 Fa. betwixt it and the Shore, and 50 to the eastward. There are sunk Rocks in the inside of it, so that unless you are acquainted come not there. 2 $\frac{1}{2}$ Ls. eastward lies *Port Ballantay*, but 'tis a dangerous

Sailing Directions for the Coast of Ireland, from North, to the Loups-Head at the Mouth



EST South West from *Ensterbull* is the Entrance into *Lough Swilly*, distance 4 Ls. 'Tis an excellent Haven, able to receive a Royal Navy, but little frequented, because here are no Ports of Trade: The Entrance is on the E. side, close by the Shore.

W.S.W. from hence is *Sheeps Haven*; 'tis a large wide Harbour, and you lie secure from all Winds: But in some places it is rocky and foul. However, it matters not much; for here also want of Business renders the Haven useless. The W. Point of *Sheeps Haven* is call'd *Cape Horn*, nam'd so from a Hill which has two Heads like two Sheeps Horns. To the W. of the Point is a deep Bay, where is good riding within the Rocks, and another between *Lough Swilly* and *Sheep Haven*. Half a League off to Sea is a Ledge of Rocks, bare at low Water, but cover'd at high Water: Ships may in case of necessity sail within them, but 'tis much better to go round.

W.N.W. from *Cape Horn* lies *Tory Island*, or in *Irish* Acceptation the *Island of Thieves*. S. from it lie four Islands, call'd the *Islands of Ballyness*; you may pass between *Tory Island* and those four, and there is a good Road within the Rocks in the Passage, where you are secure from southerly or easterly Winds.

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If you would go to *Arran* from the N. keep close by the greatest of those Islands, leaving it on the Starboard Side, till you come to the E. side: Then steer away S. and so come to an Anchor on the S.E. side. There are every where good Roads either under the Island or the Main, as also several fine Bays and Harbours without Names; want of Trade rendring them unfrequented, and therefore unknown.

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You are now upon the N.W. part of the Coast of *Ireland*: The Point is call'd *Cape Telling*, 'tis distant from *Arran* 7 Ls. the Course S.S.W. Off of the Point is an Island call'd *Kathlinben*; the Sound between is very safe, and deep Water. There is a Haven under the *Cape*, call'd also *Telling Haven*, with a good Road secure from all Winds from W. to E.S.E.

Next to *Cape Telling* is *Kilbegh*, S.S.E. distance 4 Ls. a fine round Bay, a good Road, and clean Ground: At coming to it you see no Opening at first, nor is it very broad; but when
you

Directions for Sailing on the Coasts of

you are in, 'tis all safe, as well in the Entrance as in the Bay; and you may lie where you please in 5 to 8 Fa. Water. On the N. side in the Bay is the Castle for Security; you will know the Bay by a little low flat Island, plain at both Ends; it lies W. of the Bay, distance half a League.

St. John's Point lies W. of *Kilbegh*, distance 5 Miles, running out into the Sea above a Mile; and farther W. lies a great sunk Rock, you'll know it by the Sea breaking upon it with a terrible Noise; but you may sail safely within it: Between *Kilbegh* and *St. John's* lies a Bay call'd *Mac Swain*: 'Tis a good Bay when you are in, but dangerous at the Entrance, by reason of several Rocks in the Passage.

East from *St. John's*, distance 2 Ls. lies *Dunagall Harbour*; 'tis difficult going in there too, the E. Shore is very foul. There is a little Castle on the N. side, and there lies a Riff over-against it, so that you must avoid that also. When you are about the Riff Point, stand over to the N. again, for the S. Shore is flat; but by entering on the N. side, after you are past the Riff, 'tis all good.

S.S.W. from *Dunagall* is the Haven of *Ballebannon*, distance 2 Ls. And W. from *Ballebannon*, distance 3 Ls. is *Enismurphy*; there are some Roads between, where Ships may ride in safety, as *Bundorf*, *Bundat*, and others of less note. *Enismurphy* is a little Island half a League long: At the S. end of it is a large Rock above Water; and from the Rock a Ledge of small Rocks, which run out a great way into the Sea. On the S.E. side, 'tis all good and safe.

S.W. by S. southerly from *Enismurphy* lies *Ballenden Point*, distance 8 Miles. There are several Islands and sunk Rocks all the way from thence to *Rala Point*, so that this is a dangerous Coast.

S.E. by E. from *Rala Point* is the Haven of *Sligo*, distant 4 Mile: 'tis a good Haven when you are in, but full of Rocks and Shoals in the Passage. Due S. of *Sligo* is *Clonick Bay*, of little use, because little frequented: West from which Bay is *Moyl Harbour*, distant 6 Ls. at the bottom of a deep Bay. Two Ls. up, just before it lies a long Island, which makes the Harbour, being so thwart it, that there is but one Entrance. At the W. end of this Island is a Riff, which makes the Channel narrow and difficult. There is a small green Island in the Harbour, where small Ships come to an anchor, and great Ships under the Long Island.

No Ships go up to *Moyl* that draw above 8 Foot Water; 'tis a lorry Port, and dry at low Water. At the Town indeed it is deep, but the Shoals are in the way thither.

West from the Port of *Moyl*, a little North, lie certain Rocks called the *Stags of Broad Haven*, distant 8 Ls. with several Bays and Coves between, but of little use. These Rocks lie off the E. Point of *Broad Haven*, running N. by W. 2 Ls. In the way between lie 4 other Rocks, which if you go into the W. Entrance of the Haven, must be left to the South.

S.W. by W. from the *Stags*, distant 7 Miles from *Broad Haven*, lies an out Point stretching to Seaward; and 5 Ls. from thence S.S.W. lies a great Rock called the *Black Rock*; and 2 Ls. S.S.E. from that lies *Achil-head*, so that *Achil* is from

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Bay; Islands is 7 Ls. the Courte S.E. by S. These Islands make four Passages into the Bay.

1. Within the Isle of *Shere*, or *Little Arran*, between it and the Main; 'tis a bold Passage, keeping to the Shore of the Main: for there lies a great Shoal on the other side, half Channel over. This Channel is called the *South Passage*; 'tis a safe Channel, and in the fair way you have 15 to 16 Fa. Water quite thro'.

2. The next is called the *False Passage*, and lies between the *Little Arran* and *St. Gregory's Isle*, which is called the *Middle Island*: 'tis narrow and dangerous, and seldom used; it is foul at the S.W. Entrance, but if you keep *St. Gregory's Shore*, you may run thro', for there is Water enough, at least 20 Fa.

3. The third is *St. Gregory's Sound*, between the *Middle Island* and the Westermost; this is the best of the three, being clear on both sides, and deep.

4. But the fourth is the broadest of all, and is called the *North Sound*: It is at least 2 Ls. broad; but you must keep off of the Westermost Island at least half a L. the Shore on that side being rocky and foul for a great way into the Sea. The fair way lies here E. and W. From the Entrance into the *North Sound* to *Black-head*, being the first Point to the Starboard, is 7 Ls. and from thence to *Mutton Island* $3\frac{1}{2}$ Ls. This *Mutton Island* is at the Entrance into the Road of *Galloway*, distant 1 L. To the W. of this Island is a Ledge of Rocks called the *Black Rocks*; they lie half a L. from the Shore: But there is a narrow Channel between the Island and the Main, in which you have 5 Fa. Water. When you are thro', you are in *Galloway Road*, where you have also 5 to 6 Fa. and you lie as in a Mill-pond, good Ground, and safe from all Winds. It flows here near 3 Fa. up and down; so that the Rocks which lie bare at low Water, Ships sail over without Fear at high Water.

There are several good Roads and Harbours on the N. Shore of this Bay, as the Islands of *Convit* and *Conkette* off of Port *Naffdoy*. The Sound between is good, and a Mile broad; you have deep Water into *Naffdoy* 7 to 14 Fa. 2 Miles E. from *Convit* lies the famous *Batterby Bay*, which is, tho' exceeding large, a meer Harbour Landlockt on every side; the Entrance narrow like a Haven, but within 4 Miles long and 2 Miles broad, every where safe, good Ground, deep Water, still current, 5 Fa. Water close to the Shore on both sides, 10 to 12 Fa. in the middle. Great pity there is not more use for so fine a Harbour.

From *Naffdoy* S.S.E. distant 4 Miles, lies an Island called *Kronkara*; 'tis clear and good riding; but betwixt that and another Isle called the *Maes*, there is no passing for Rocks. Farther in lies *Conichin Bay*: to go thither you must keep off of the N. Shore, and without all the Islands, in at least 6 Fa. all within the depth is foul and rocky. In the Entrance into *Conichin* you have 12 to 15 Fa. Water; and in the bottom of the Bay 7 to 9 Fa. You have also a fair Channel between the *Roes Island* and *Millan*, being a Mile over, and 12 Fa. in the fair way; but you must keep Mid Channel, for 'tis foul and rocky on both sides.

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S.W. by W. from the *Stags*, distant 7 Miles from *Broad Haven*, lies an out Point stretching to Seaward; and 5 Ls. from thence S.S.W. lies a great Rock called the *Black Rock*; and 2 Ls. S.S.E. from that lies *Achil-head*, so that *Achil* is from *Broad Haven* $11 \frac{1}{2}$ Ls. It is a very high Point, and shews it self at a distance with a Saddle or Hollow in the middle; and within it are two Mountains extraordinary high; which altogether appear at Sea like 3 Islands. *Achil* is an Island, and you may sail between it and the Main; but the two Mountains are on the Main, between *Broad Haven* and *Achil*, and between the *Black Rock* and *Broad Haven*. From *Achil* there is a Sound or Passage into *Broad Haven*; so that you may ride any where: 'tis all but as one Harbour. There is a deep Bay between the Island of *Broad Haven* and *Achil*, which will also let you into the Haven.

There is no Difficulty at going into this Haven, except a funk Rock, which lies off the S. Point of the Entrance. These Bays and Harbours lie so one within another, that you need not go out the same way you come in, but may run thro' any way with safety: So that it is properly a Sound, not a Haven. But all these Harbours, however safe and convenient, are of very little use, for want of Commerce this way, especially for great Ships, except driven in by Strefs of Weather.

S.S.E. from *Achil-head* is an Island called *Enishtirk*, distant 5 Ls. which lies right against *Alarys Bay*, and N.N.W. from that the Island *Ennisbottom*: There is a good Harbour on either of them.

Due S. from *Achil-head* is a Point called *Achariston*, distant 8 Ls. and S.E. from thence is the well known Cape called *Slyne-head*, distant 8 Ls. more. Between the *Slyne* and *Achil* is a high Hill shap'd like a Sugar-loaf; 'tis called *St. Patrick's-Hill*, seen a great way off at Sea. All the Coast here is full of good Roads, Bays and Harbours, but unfrequented, and therefore unknown.

Before the Bay of *Galloway* lie three Islands, called the Isles of *Arran*, stretching almost 7 Ls. in length, from the W. side of the Bay N.W. by W. From the *Slyne-head* to those

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From hence you may still sail up the N. Shore, I mean in *Galkway Bay*; but keep at least half a L. off, for 'tis all full of sunk Rocks and unseen Dangers for above a Mile from the Land, till you come to the *Black Rocks* mention'd above.

If you come from the Southward, and would go to *Galkway*, best Course is thro' the S. Passage. If you pass thro' the same way to the Southward from *Galkway*, your Course is from a Point called *Battickla* S.S.W. to the *Loups-head*, distant 11 L. The *Loups-head* is called also *Cape Leane*, and is the N. Point of the Entrance into the River *Shannon*, or *Limerick Water*: But in your way take heed to avoid the Shoals which shoot out from the Islands of *Enniskerry*; to do which you must keep more out to Sea, at least a Point and half, which will carry you clear.

They that go out of *Galkway Bay* by the N. Passage, and yet are bound to the Southward, must go about the Great Isle of *Arran*; then the Course to the *Loups-head* is due S. half Westerly, dist. 14 L. if thro' *St. Gregory's Passage*, 'tis S.S.W. dist. 13 Ls.

The most Westerly Land of the whole Kingdom of *Ireland* is the Head of the Islands called the *Blasques*; and the Course is S.W. by W. distant 12 Ls. Between them is *Cape Kerry*, or *Cape Shannon*, being the Southermost Point of the Entrance into the River *Shannon*, which is distant from *Loups-head* $2\frac{1}{2}$ being the breadth of the Mouth of *Shannon*, the Course S. by W. Here you always find Pilots to carry you up the *Shannon* as far as *Limerick*, for so far the River is navigable.

A little from this Point S. is *Trally Bay*, with the Isle of *Fenor* in the middle of it: 'Tis a large Bay, 2 Ls. wide at the going in, and runs up 3 Ls. into the Land. And W. from *Trally Bay* is *Likem Bay*, or the *Islands of Hogs*: and 3 Ls. W. is *Smirwick Haven*, distant from the *Shannon* 7 Ls. the Course N.N.E. the Coast clean and good Ground all the way. *Smirwick Haven* is a very secure Port, nor is there any Danger going

ing in or out. 'Off of this Haven lie the *Three Sisters*, which are three small Islands lying at the Entrance of the Sound called the *Blasques*, called so from the Islands mention'd before; they are 4 in number, being small in compass, and are no more than high Rocks like Hills in the Sea. There are also some lesser Rocks every way round them; they lie W.S.W. from *Smirwick Haven*, distant near 4 Ls. The Sound or Passage between these Rocks and the Main lies N. and S. is near a Mile broad, and has 10 Fa. in the Fair Way.

A Ship bound to the Northward, and wanting a Wind, may come to anchor before the Sound on the S. side, without danger of being embay'd, or driven on a Lee Shore: for if the Wind shifts Easterly, he may go thro' the Sound, or go off to Sea, and ride under the *Blasques*; if it shifts Westerly or Southerly, 'tis fair for the *Sound*, and they go on their Voyage. The Tide in the South runs very sharp as well upon the Ebb as the Flood.

Southward of the *Blasques*, distant 8 Ls. lie the *Shellocks*; these are 3 very great Rocks, the Eastermost but 1 L. from the Main, the Westermost something above 3 Ls. They show at a distance like Ships under Sail. Between these lies *Dingle Bay*, distant from the *Shellocks* 9 Ls. it is a known Road, and much used; for now you come into a part of the Country more frequented, and full of Trade.

In the Entrance into *Dingle* there lies a small Rock off the W. Point called the *Cow*; but you may see it above Water, except at the top of a high Spring Tide, and then 'tis but just cover'd smooth: 'tis deep Water every where round it. The going into the Bay lies N.W. and S.E. About a great L. W. of this Bay lies another less than *Dingle*, but safe and good every where, called *Ventry*; and due S. from the *Ventry*, over the Mouth of the great Inlet to *Castlemain Bay*, lies another Bay called *Begins*: 'tis opposite to the E. end of the Island called *Valentia*; it goes in E.S.E. lies N.E. from the *Shellocks*, and S. by E. from the *Sound* of the *Blasques*. The E. Point of this Bay is foul a good way off, but the W. Point is clean and safe: Altho' there is a sunk Rock on the side of the Island, but you have room enough to avoid it. When you are come within the Bay, go away E. by N. You will know the Road by a high red Cliff opposite to it.

The next Head Land from the *Shellocks* is *Cape Dorfes*; they lie from one another N.W. and S.E. distant 6 Ls. between them lies the River of *Kilmore*, which opens into the Sea at a very wide Entrance called *Kilmore Sound*, and goes in N.E. Four Islands cross the Sound, as the *Arrans* do at *Galloway Bay*, only they range the Entrance of the *Sound* S.W. by W. inclining to the N. Shore. Here are abundance of Creeks and Coves, which make all good Havens for Shipping, so that no Ship can want a Harbour to run into for shelter, let the Winds blow where they will. Entering *Kilmore Sound*, the *Wenis*, one of the small Islands, lies on the Larboard side. From thence to *Cods-head*, the second Point on the Eastern Shore, there is no less than 40 to 45 Fa. Water. Beyond the Point distant 2 Ls. is *Killarull Bay*: and immediately about the 1st Point

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The Island of *Beer-haven* has a large Sound on the N. side, which is broad and deep, with clean Ground in 10 to 13 Fa. Water. At the E. end of it is a sharp Point, where lies a Ledge of Rocks, some of which are sunk at low Water; but the Shore of the Main is good. In the Passage lie two large Rocks; but as they are very high and above Water, and the Ground all clear about them, there is no danger but what is seen: you may run in and out on any side of them, or between them, with great Safety. The Entrance into *Bantry* is an open Sea, clear of all danger, and very deep. Over against it lies the Island of *Whiddy*: from *Beer-haven* to the N.E. Point of it is 4 Ls. E.N.E. In the Fair Way is from 30 to 40 Fa. Water; but betwixt *Beer-haven* and the Main, which is called the N. Sound, is no more than 5 to 10 Fa. farther towards the *Whiddy* there is 20 to 25 Fa. *Whiddy* is but a little Island, 1 L. round, or thereabout: you may sail any way round it, but the best way is to the N. or Eastward, where you must keep close to the Point, because of a little Ledge of Rocks which lie Musket-shot from the Shore; they are cover'd at high Water, but appear at half Ebb.

Beyond that Point lie 2 small Islands: you may go on any side of the biggest, till you come to a large white House by the Island *Whiddy*; against the House you may ride in 4 to 6 Fa. more or less, as you please to lie nearer the Shore, or farther off: But all the W. and S. sides of the *Whiddy* are foul and difficult. The usual Place to ride in is right against an old Abbey or Friery, opposite to the S. side of the *Whiddy*, where there is very good Ground 4 to 6 Fa. more or less, as you please. There is a little low Island to the northward of the Road, which at high Water the Tide divides into two.

W.N.W. from the E. Point of *Whiddy*, distant 1 L. lies the *Longerf* Haven. In the fair way to it from the E. Point of *Whiddy*, lies a great Rock high above Water; you may sail by it on the off side with safety; but the other is dangerous, and the Haven goes in N.N.W. There is foul Ground on the E. side, which lies dry at low Water; shun that, and all the rest is clear and good.

From *Mizen-head* the next Head is *Cape Clear*, distant 5 Ls. called so, say some, because when you are past it you are clear of this Throng of Heads and Bays, Islands and Rivers, which are so huddled together between the *Shannon* and the Cape, that they are perplexing; and if there were but one 10th part as many, the Navigation might be as good. In the middle between those two Capes lies *Crook Haven*, another very good Retreat for Ships in Distress: To go in here from the ...

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Cape Dorfes is the Head-land of an Island lying a small distance from the Main; and Ships may ride within it, and pass thro' as occasion serves; only give the Main a small Birth, because the Land is foul on that side: But there is room enough on the other side, and a safe Road. There are several great Rocks, which appear without the Cape, but they lie far enough asunder: So that you may sail between them, and all is safe and clear in the Passages any where.

S.E. from *Cape Dorfes*, distant 6 Ls. lies *Missen-head*, or *Mizen-head*; and here goes in a great Opening, which is called *Bantry Bay*, so large as that a *French* and *English* Squadron had room to engage here in *King William's War*. There are abundance of Roads, Bays and Havens, needless to describe. On the S. of those Waters, about 1 L. N. from *Mizen-head*, is a Point called *Three Castles*, because of three old Towers which stand upon it; and N.E. from the Point is another called *Sheeps-head*. These two Points make *Dunman's Bay*, a good Retreat for Ships in Distress, because easy to enter, and very safe when enter'd, otherwise not much used, no Town of Trade being thereabout.

About 1 L. from thence N.W. by W. is *Beer-haven*; the Entrance is about Musket-shot over, and goes in between the Main and an Island lying off the E. Point: The Island is called *Beer-haven Island*, and is about 2 Ls. long. The Entry of the Haven is clear; keep Mid-Channel, and you have 6 to 8 Fa. in the Fair way. There is an old demolish'd Castle on the Larboard side, and beyond that two little Rivers empty themselves

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From *Mizen-head* the next Head is *Cape Clear*, distant 5 Ls called so, say some, because when you are past it you are clear of this Throng of Heads and Bays, Islands and Rivers, which are so huddled together between the *Shannon* and the Cape, that they are perplexing; and if there were but one 10th part as many, the Navigation might be as good. In the middle between those two Capes lies *Crook Haven*, another very good Retreat for Ships in Distress: To go in here from the eastward, you must run in by *Cape Clear*, going so far about it to the Northward, till you can see thro' into the Sea as thro' a Hole; then steer W.N.W. keeping the Hole open to the N. of the Cape, then you will fall right with *Crook Haven*. The Entrance lies W.S.W. there is a little *Irish Village*: before which lies the Road, having $2\frac{1}{4}$ to 3 Fa. They have spoiled the Road, by heaving out the Ballast when Ships come to load there; so that in time they will be obliged to ride farther off.

Between *Cape Clear* and the Main lies the Island *Enisberkin*, N. by E. from the Cape; and 2 Ls. W. by S. from the Cape lies a great Rock in the Sea, very high and steep, standing by it self; 'tis called *Fasteny* or *Fastone*: and N. from the Rock dist. 4 Ls. is *Shole-haven*. To the Eastward of *Enisberkin* lies *Baltimore Haven*, well known to Sailors, and much frequented, being a very spacious Harbour, clean Ground, deep Water, and secur'd from all Winds: The Entrance is narrow, but safe. The usual Road when you are in is on the West side, just by an old Friery; there you have 5 to 6 Fa. and in the Mid Channel 6 to 7 Fa. upon the Point to the Northward of the Friery stands the Castle. There is not the least danger in this Bay, except of a sunk Rock in the Entrance, nearest to the East side, and another in the middle of the Harbour, which is seen at low Water. There is another sunk Rock without the Haven, six or seven Ships length from the Shore a little to the Eastward, but 'tis out of the Fair Way.

There is a way to sail thro' to the Northward of *Enisberkin*, and betwixt it and the Island called *Spaw*, to come out again by *Cape Clear*: But 'tis very difficult, and not to be done by great Ships, for there is not above 2 Fath. Water at half Flood. So again, there are several other Passages between the Island; but you had need be very well acquainted, if you venture.

On the E. side of the Entrance into *Baltimore Haven* lies a Ledge of Rocks, running from the E. Point about a Cable's length off; and at low Water they are dry. There is good finding

Directions for Sailing on the Coast

ding by the Fort in 5 Fa. On the W. side the Harbour 'tis stony, a black Point, as the Sailors call it; and on the E. side a Watch-houſe. The W. Shore is the ſafeſt.

E. from *Ballimore*, diſtance 1 L. lie 5 or 6 high ſharp Rocks, called the *Staggs*; they lie about a Mile off the Shore, as you come from the E. they look like Steeples; you may fail thro' between them and the Main, there is room and Water enough.

About 2 Ls. N.E. from thoſe Rocks lies *Caſtle Haven*, you will know it by a little Iſland which lies without to the Weſtward of the Entrance, which is called *The Horſe*, and another little Iſland to the E. ſo cloſe to the Land, that at low Water 'tis no Iſland. To go into *Caſtle Haven*, you run in between theſe two Iſlands, keeping cloſe to the Eaſtermolt, and run in with an old Chapel, which you will ſee before you. When you are thwart the Chapel, you will ſee the Caſtle which gives name to the Haven; on the W. ſide, and over againſt it you may ride in 10 to 12 Fa. Water.

N. B. The Haven of *Rofs* is on the ſame Shore, 2 Ls. N.E. from *Caſtle Haven*.

From *Caſtle Haven* to the old Headoff of *Kinſale*, is 9 Ls. the Courſe is E.N.E. and W.S.W. And from *Cape Clear* to the *Old Head* the Courſe is N.E. by E. and E.N.E. diſtance 13 Leagues.

Midway from *Caſtle Haven* to the *Old Head* is the Haven of *Clandore*: To go in, run cloſe aboard a high Point, called *Kedenetudo* in the *Irish* Dialect; but take care of a Ledge of Rocks which lie off from the Weſt ſide of the high Point, and come about almoſt to the Eaſt ſide. When you are in, you will ſee a Caſtle there alſo: Ride off of the Caſtle in 5 to 7 Fathom; it is good Ground, and Water enough.

The *Old Head*, called by the *Spaniards* *Cape de Vejo*, runs far out into the Sea; the Point is very high and ſteep, at a diſtance it ſhews like an Iſland, upon the top of it ſtands a Light-houſe; you may ride very ſafe under the Lee of it on either ſide, as the Wind directs; there is what depth of Water you pleaſe. The Head running out ſo far makes a Bay on the E. ſide; beyond which, and N. from the Head, goes in the Entrance of the Harbour of *Kinſale*, being the Mouth of the River *Bandon*: The Entrance is due N. and there is 16 to 17 Fa. Water in the fair way, and farther out 25 Fa. The Mouth of the Harbour is not above half a Mile wide E. and W. The E. Point is called *Prebain*, the W. Point *Sandy Cove Point*: The laſt is foul and rocky; and off of the *Prebain Point* lie ſeveral ſmall Rocks called the *Bullman*, which have alſo foul Ground on both ſides: But betwixt the *Bullman* and the *Prebain Point* the Paſſage is very good, the Shore on the Point perfectly clean, and in the fair way 4 Fa.

To run in between theſe Points ſteer N.N.E. half a Mile, and then N. a quarter of a Mile more; and you come to the Bar, where by this Courſe you will have $3\frac{1}{2}$ to $4\frac{1}{2}$ Fa. Water. This Bar croſſes the Harbour a little above the Point on the W. Shore, called *Money Point*; and there you take a Pilot to carry you in

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the Mountain to bear N.N.W. from you, and it will carry you right in: When you have it N. 'twill lead you to *Youghall*, and N.N.E. to *Cork* alſo: if you have it N.W. it will lead you to *Waterford*.

N. B. On all this S. Coaſt of *Ireland*, 9 to 10 Iſ. from the Shore, lies a Bank of Sand, on which is 40 Fa. Water, where the Fiſhermen lie to catch Cod; and it is a certain Mark by which to find the diſtance of the Land in clear Weather: You ſee *Dungarvan* Hill upon it.

Waterford is the laſt Port upon this Coaſt; 'tis due Weſt from *Carnarvon*, which is the S.W. Point of *Ireland*, and where this Survey of the Shores of *Ireland* begins. The Coaſt between lies E.N.E. and W.S.W. being full of Mountains ſeveral times doubling, and ſeveral Story high one above another; but by the Shore 'tis all low Land, with ſeveral flat Towers upon it, for Sea-marks and for Sailors Directions.

There ſtands one of thoſe flat Towers on the E. Point of *Waterford* Haven, higher than any of the reſt, and to be known becauſe 'tis white. The W. Point of the Haven is called *Credan-head*; 'tis a foul Point, and there lies a Shoal off into the Sea S.S.E. from it but the fair way is broad enough and clear, having 10 to 11 Fa. Water, 7 Fa. in the Haven's Mouth, and 4 to 6 Fa. a good way in; the Entrance is N. and N. by W.

There is a ſteep Point within the Rivers Mouth on the Weſt Shore, and there begins a long Shoal reaching Northward as far as a Village called *Paſſage*; and the Tail of the Sand afterwards ſhoals over towards the E. Shore. Between *Paſſage* and the ſteep Point there is a good Road for Ships of Burden. To go to the *Village*, you muſt go on with the Caſtle, keeping it on board the E. Shore; after which you will have 8 to 10 Fa. but if you venture off the Shore, you may run on another Shoal which lies from the Block-houſe at *Paſſage*. The Shoal is dry at low Water, and upon the dry Part is a Beacon at a diſtance; ſo you muſt give it a good Birth, for which there is room enough in the Channel. The W Shore is ſhoaly and foul; but on the other ſide there is a good Road, over againſt a large Houſe, and what depth you pleaſe from 4 to 12 Fa.

N. B. Off of *Waterford* it flows a W. by S. Moon, the firſt half Ebb running E. and the laſt half Ebb Weſtward, tho the laſt runs very ſoftly.

In going up to *Waterford* there is a little Shoal, that lies off againſt the Caſtle which is on the E. ſide; it ſtretches in part thwart the Channel, ſloping downwards: It has but 12 Foot Water at high Water; you muſt keep your Lead going to find it.

Above *Paſſage* about half a League the Stream is divided, that is to ſay, two Rivers meet there; which tho ſmall when they are ſeparate, make a very handſom Channel when joined, running together, and carrying large Veſſels. Theſe Rivers run thro' the City of *Waterford*.

About half way between *Waterford* Haven and the Point

either side, as the Wind directs; there is what depth of water you please. The Head running out to far makes a Bay on the E. side; beyond which, and N. from the Head, goes in the Entrance of the Harbour of *Kinsale*, being the Mouth of the River *Bandon*: The Entrance is due N. and there is 16 to 17 Fa. Water in the fair way, and farther out 25 Fa. The Mouth of the Harbour is not above half a Mile wide E. and W. The E. Point is called *Prebain*, the W. Point *Sandy Cove Point*: The last is foul and rocky; and off of the *Prebain Point* lie several small Rocks called the *Bullman*, which have also foul Ground on both sides: But betwixt the *Bullman* and the *Prebain Point* the Passage is very good, the Shore on the Point perfectly clean, and in the fair way 4 Fa.

To run in between these Points steer N.N.E. half a Mile, and then N. a quarter of a Mile more; and you come to the Bar, where by this Course you will have $3\frac{1}{2}$ to $4\frac{1}{2}$ Fa. Water. This Bar crosses the Harbour a little above the Point on the W. Shore, called *Money Point*; and there you take a Pilot to carry you in.

N.E. by E. from the E. Point of *Kinsale* Harbour, is the Entrance into the Harbour of *Cork*; the Shore between is good, no danger that needs any other Warning than the Eye. Two high Hummocks shew themselves upon the Land Westward; these are very remarkable, and by them you may always know the Coast: when you are a thwart the Eastermost of the two, you discover the Mouth of *Cork Harbour*.

The Entrance is fair and very safe, and full 2 Miles broad, with 10 Fa. Water in the Passage: afterwards it shoals to 5 Fa. and so gradually to $3\frac{1}{2}$ Fa. but those that are unacquainted take Pilots at *Staggs Head* to carry them up to the City.

From the *Staggs*, which is the Eastermost Point of *Cork* Harbour, farther East, is a Rock called *Hawk's Rock*, distant 4 Miles: Nearer by a Mile is a Tower, upon a high head of Land close to the Water side, with some thatch'd Houses near it, and another flat Tower a L. farther E. upon the smooth Point, on which is a long Rock cover'd with Ouzes; and from thence 'tis all low Grounds to the Point of the Haven going into *Toughball*. There is an Island upon this Coast called *Bellcotton*, E. from *Cork* Harbour distance 4 Ls. within you may ride in 4 to 6 Fa. secure from Westerly and Southerly Winds. *Cork* and *Toughball* lie N.E. by E. and S.W. by W. distance 6 Leagues. At that Island you have Pilots to carry you up to *Toughball*.

Dungarvan is 5 Ls. distance from *Toughball*, the Course is N.E. 'tis a small Tide Haven, and the Mouth of it dry at low Water: There is a long Point stretches out to Seaward, before you come to *Dungarvan*: there is a high black Tower called *Ardimore-head* stands near it; which is seen at a great distance. There is a good Road under the Point, secure against a Westerly Wind; *Dungarvan* is no place of importance. There is an exceeding high Hill, which appears behind the Town, and is called the Mountain of *Dungarvan*, 'tis a noted Sea-mark for all this Coast. If you would go into *Dungarvan*, bring

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N. B. Off of *Waterford* it flows a W. by S. Moon, the first half Ebb running E. and the last half Ebb Westward, tho the last runs very softly.

In going up to *Waterford* there is a little Shoal, that lies off against the Castle which is on the E. side; it stretches in part thwart the Channel, sloping downwards: It has but 12 Foot Water at high Water; you must keep your Lead going to find it.

Above *Passage* about half a League the Stream is divided, that is to say, two Rivers meet there; which tho small when they are separate, make a very handsome Channel when joined, running together, and carrying large Vessels. These Rivers run thro' the City of *Waterford*.

About half way between *Waterford Haven* and the *Point Carnaroot*, lie the *Saltees*: These are two small Islands, the southmost is the largest; they lie half a League from the Shore, and from the *Slade Point* directly E. distance 3 Ls. You may sail between them, but keep nearest to the smaller of the two, which is the most notherly, because there are some sunk Rocks at the N. end of the biggest, which at low Water are dry. From the smallest of the *Saltees* lies a Ledge of Rocks stretching quite to the Main; 'tis said that formerly People walk'd over to the Island upon them, whereas now good Ships sail over them: The Reason of this Difference is hard to know. From these Islands to *Waterford Haven*, the Water shoals gradually from 36 Fa. to 21, in about 2 Miles.

To go between the *Saltees* and the Main, keep nearest the Main by $\frac{1}{2}$, you have but two Fa. at low Water. There is a noted Rock call'd *Kenebeg*, which lies high above Water without the southmost of the *Saltees*, distance $\frac{1}{2}$ L. and S.W. from that, at the like distance, and S. by W. from the W. end of the *Saltees*, lies another call'd *Killmore*, which is under Water at high Water, and therefore dangerous, but at half Ebb 'tis seen: 'Tis steep too, and 14 Fa. close by its side, so that you may go as near it as you please, provided you run not on it when under Water. You may go between *Kenebeg* and the Island, if Necessity require it; but better let it alone, because 'tis difficult.

S.E. from the largest of the *Saltees*, and E. from the Rock *Kenebeg*, are several sunk Rocks call'd the *Fraits*, but at low Water they are dry, and you may sail between them: There are also other Rocks N.E. from the *Saltees*, call'd the *Tunnis*; and the northermost of the *Tunnis* is call'd the *North Rock*. There is also another Rock call'd the *Trunchin* N.N.E. from the bigger *Saltee*, and S.W. by W. from *Carnaroot*: This Rock is above Water, and all clear without; but about half a League S.E. from it, lies another, very dangerous, under Water, call'd the *Black Rock*.

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There is a Road under the biggest *Saltee* on the N.W. side, and under the least, on the E. side, there is 7 to 9 Fa. in either of them: There is a *Black Rock*, which looks like a Boat turn'd Keel up, the Road is over-against it; you must not come nearer to the Shore than 5 Fa.

All the way from *Waterford* to *Carnaroot* the Shore is full of Bays, all soft ouzy Ground, and safe riding; except one little foul place close by the Shore, to the westward of *Carnaroot Point*.

The *Saltees* are so surrounded with sunk Rocks, and foul Ground, that he who comes out of *Waterford* bound to the southward, must take great care to go clear of them: To do this, he must not go more easterly than E.S.E. till he brings the *Saltees* to the N. of him, then he may go away due N.E. for the *Tuskar*, or N.E. by E. to go clear of the *Tuskar*.

Sailing Directions for the Coasts of Flanders from the Port of Dunkirk to the Texel, the Flemish Entrance into the Sound.



THE Coast of *Flanders* lies N.E. by E. and S.W. by W. It was all formerly call'd *Flanders*, or the *Flemish Coast*, from *Calais* to *Stuys*, distance 21 Ls. but since the conquer'd Countrys are conceded to *France* by several Treaties, *Dunkirk* is esteem'd a Part of *France*; and as it is so describ'd in our Geographical Part, we follow the same Rule, and begin the *Flemish Coast* from the Port of *Dunkirk* exclusive.

As the Sea upon this Coast is full of dangerous Flats and Shoals, and the Channels between those Shoals and within them are very difficult, so the Land is full of Sand-hills and Hummocks, with abundance of Towers and Spires, and other remarkable Buildings on the Shore, which serve the Mariners for Sea-marks and Direction in their passing those Channels, and shunning those dangerous Shoals: So that the Coast, being also perfectly survey'd, is now very practicable and safe.

From *Dunkirk* to *Newport* the Course is N.E. distance 4 1/2 Ls. There are two small Places between them, but without any Haven: (1.) *South Cotton*, and (2.) a Cloister call'd *Ten Dryn*.

Newport is known at Sea by a high square Steeple with a small Spire on it, with another square Tower a little to the E. of it, call'd *Our Lady of Lombardy*; also a League farther toward *Ostend*, another call'd *Medlekirk*.

From *Newport* to *Ostend* the Course is still N.E. easterly,

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The *Tuskar* is a Rock in the Sea, describ'd before, lying
1 L. from *Grenore* S.E. by E. and $4\frac{1}{2}$ Ls. from the *Saltves*
N.N.E. $2\frac{1}{2}$ Ls. from the *Block Rock* E.N.E. and 40 Ls. from
the *Land's-end of England* N. by W.

About 10 Leagues S.E. from it there are two Islands in the
open Sea close together; they are both cover'd at high Water,
especially on Spring-Tides, one to the N. call'd *Scakum*,
the other to the S. call'd *Kamey*; others call them the *Smalls*:
And there are two Shoals by them; one N N W. from them,
and the other S.S.E. they are distance from *Grasholme* 4 Ls.
and mid-way between them lies a Ledge of Rocks, dry at
low Water; 'tis very dangerous to venture thro' between
them, especially in a Calm, because the Tide runs strong
thro'.

Coasts of Flanders, Holland and Germany, Texel, the Embs, the Weser, the Elbe, and on to the

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A League from *Blankenburg* E. is *Heist*, a high Spire; and
between them *Liestog* within the Land, being a square Steeple:
To the eastward of the *Heist* is *Knock*, a Spire Steeple: To
the E. of *Knock* up the Land is *West Chapel*, a low Tower
with a short Spire upon it: To the E. of that, is *St. Anne*, a
square Steeple; and to the E. of *St. Anne* is *Shuys*. N.B. All
those Marks are necessary to be taken notice of, as they are
made use of for the Knowledge of the Coast, and of the
Flemish Banks, which are perhaps the most remarkable of the
kind; nor is there any Coast like it in the known World, as
you will see by the following Description, which I shall give as
briefly as possible, but they must not be omitted.

*An Account of the Sands call'd the Flemish Banks, as they lie
extended between Dunkirk and the Channel of Ostend.*

On the Coast of *Walcheren*, N.W. from *Ostend*, and W. from
West Chapel, about 9 Ls. off from the *Flemish Coast*, lies a
little Bank or Flat, which yet has 3 Fa. $\frac{1}{2}$ upon it at low
Water: In foul Weather there is a great Breach of the Sea
upon it. About 5 Ls. off from *Ostend* lies another Sand call'd
the *Trick*, where there is about 15 to 16 Foot Water. Bring
St. Katherine's Steeple right against *Ostend*, then you come on
against this Sand. Between that and *Ostend* is another Shoal,
on which you have 3 Fa. but these they do not properly
esteem to lie among the *Flemish Banks*.

Shoals, and the Channels between those Shoals and within them are very difficult, so the Land is full of Sand-hills and Hummocks, with abundance of Towers and Spires, and other remarkable Buildings on the Shore, which serve the Mariners for Sea-marks and Direction in their passing those Channels, and shunning those dangerous Shoals: So that the Coast, being also perfectly survey'd, is now very practicable and safe.

From *Dunkirk* to *Newport* the Course is N.E. distance $4\frac{1}{2}$ Ls. There are two small Places between them, but without any Haven: (1.) *South Cotton*, and (2.) a Cloister call'd *Ten Duyn*.

Newport is known at Sea by a high square Steeple with a small Spire on it, with another square Tower a little to the E. of it, call'd *Our Lady of Lombardy*; also a League farther toward *Ostend*, another call'd *Medlekirk*.

From *Newport* to *Ostend* the Course is still N.E. easterly, distance $2\frac{1}{2}$ Ls. Half a L. to the West, S. of *Ostend*, is an old Work, left after the famous Siege of the Town by *Albert* Archduke of *Austria*, and call'd *Albert's Sconce*.

Newport, or *Nieuport*, is a small Tide-Haven, dry at low Water, and not capable to receive any Vessels that draw above 12 Foot Water: *N. B.* They are just now going to deepen the Entrance by removing the Bar, and making a Balon within for great Ships: If they bring it to Perfection, a new Survey of it must be taken.

Right thwart the Haven lies a Bank E. and W. which is dry at half Tide, and has but 8 Foot at high Water: The Channel within is good; the Entrance lies on the W. end of the Bank. Pilots come off at the usual Signal to carry Ships in, so it needs no Description. The Bank is steep on the N. side, so that you must not come within $\frac{1}{2}$ Fa. of it.

Between *Dunkirk* and *Newport* there is a fair Channel, and all good Ground close by the Shore, within all the Banks, 15 Foot at low Water; and the nearer the Shore the deeper the Water, except just off of *Ten Duyn*, there you must keep a little farther from the Shore, but not much.

At *Ostend* likewise you take a Pilot to carry you in, the Channels being very uncertain, and the Sands often shifting: But the Road is good and very safe to lie in, till the Pilots come on board. At low Water here is but 6 Foot Water upon the Bar, $3\frac{1}{2}$ Fa. at high Water, rather more: But the greatest Ships ride a-float at low Water within the Harbour. *N. B.* Here also they are hard at work deepning the Entrance.

From *Ostend* to *Sluys* the Course is N.E. by E. distance $5\frac{1}{2}$ Ls. not including the Entrance into the Water of *Sluys*, which goes in S.E. or S.E. by S. The Channel lies within all the Banks.

Two Leagues to the eastward of *Ostend* is *Wenduyin*, with a high Spire: Then *Blankenburg*, a square Tower W. from the Spire: And within the Land, just over *Blankenburg*, you see the great Church of *Bruges*, with two Spires upon it: Also a little to the westward stands *John David's Steeple*.

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On the Coast of *Walcheren*, N.W. from *Ostend*, and W. from
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St. Katherine's Steeple right against *Ostend*, then you come on
against this Sand. Between that and *Ostend* is another Shoal,
on which you have 3 *Fathoms*. but these they do not properly
esteem to lie among the *Flemish Banks*.

But betwixt *Ostend* and *Newport* they begin, and the first
contains four *Banks*, all lying thwart or jult off of *Ostend*;
the two nearest to the Land end thwart of *Newport*, the two
outmost run along westward almost to *Dunkirk*: That nearest
the Land is call'd the *Geer*: Betwixt that and the Land lies a
Channel of 8, 9, and 10 *Fathoms*. quite thro'. The next is call'd
Laland, or *Boomland*. Betwixt these two lies a Channel thro'
also of 8 and 9 *Fathoms*. Water: Next to them are two Banks join-
ing together; the easternmost ends about mid-way betwixt
Ostend and *Newport*, and is call'd the *Stroom*; the westernmost
reaches thwart of *Dunkirk*, and is call'd the *Stoue Bank*,
which has on the E. side a Hook, which goes off to nothing
almost against *Newport*. On this Bank is 3 to 4 *Fathoms*. and on
the E. end of it 5 to 6 *Fathoms*. Also the fourth is in two Banks,
the easternmost is call'd *Sandele*, and the westernmost *Call Bank*,
or *Small Bank*, lying along by the *Broad Bank* side.

If you are bound to *Dunkirk*, and cannot go along the *Flem-
ish Coast*, you must run without all these Banks, till you come
against *Broad Bank*, and then keep in along by it in 5 to 6 *Fathoms*.
the Channel is 15 *Fathoms*. deep. When the two flat Steeples to
the southward of *Newport* stand a Handspike's length atunder,
then you are right thwart the said four Banks, upon which at
low Water there is not above 1 *Fathom*. and at the Spring-Tide Ebbs
they lie almost dry. But betwixt all these Banks you may ride
in 9 to 12 *Fathoms*. and may run over them in 4 *Fathoms*. To the west-
ward of them is from 8 to 10 *Fathoms*.

The *Broers Bank* is next, it lies thwart of a little Town
call'd *Broers*, and the Cloister of *Ten Duyn*, running W.N.W.
about a League into the Sea: When the said Cloister bears S.
from you, then you are at the innermost part of the Bank, and
you may run thro' between this Bank and the Land, in 4 *Fathoms*.
at low Water. But usually when they sail thro' between any
of the Banks on the Coast of *Flanders*, they run to the west-
ward of this.

To the westward of the *Broers Bank* lies *Cams Bank*;
there is 3 *Fathoms*. Water upon it, and you may run thro' within it
in 8 to 10 *Fathoms*. and may ride there in all Winds by the Land:

There

Directions for Sailing on the Coasts of Flandre

There is also 5 Fa. betwixt this and the *Broers Bank*. In passing thro' between this *Cams Bank* and the *Main*, you come along by the *Quade Bank*, till you come right before the Harbour of *Dunkirk*; and when you come to the westward of *Dunkirk*, about S.W. of the *Splinter*, you run over a Shoal of 2 Fa. call'd *Willbaert Sand*; but as soon as you are over, you have 10 to 12 Fa. You are thwart of this Bank, when you bring *Borbuch Steeple* into the Valley of the *Sand-bill*. By these Marks you may sail thro' the Banks N.N.W. into the Sea, and come against the Tail of the *Broad Bank* in 4 Fa. then you must edge again a little towards the Land in 12 to 15 Fa. and then sail thro' between the *Broad* and the *Small Bank* E.N.E. and E. by N. till you are past the Cloister *Ten Duyn* and the *Broer Bank*.

To the eastward past this Bank, you come into shoal Water again, right-against *Newport*; but being past *Newport*, you may keep close to the Land in 8 or 9 Fa. and so you will run thro' betwixt the Land and the *Geer* towards *Ostend*: When you come against *Ostend*, you are clear of all the Banks, and may run away into the Sea, to pass into the *Weilings*.

But there are still five long Banks bearing North-Eastward on the *Flemish Coast*: When *Graveling* bears S.E. from you, then you are thwart the S. end of them; when *Newport* bears S.E. you are thwart the N. end of them. They are very long, and have a wide Channel betwixt each of them, with from 8 to 20 Fa. Water.

The outermost of these Banks lies from *Calais Cliff* N.N.E. about 6 Ls. and a half, and is call'd the *Cliff*, having $3\frac{1}{2}$ Fa. but betwixt that and the next lies a fair broad Channel, with 20 to 24 Fa. Water.

The second is call'd the *Ruyting*, lying from *Calais Cliff* N. E. by N. about 5 Ls. and has about 5 to 6 Fa. but upon the S. end of it 'tis shoal to $1\frac{1}{2}$ Fa. When the S. end of *Berg St. Winnox* comes betwixt two flat Steeples to the westward of *Dunkirk*, then you are thwart this Shoal.

There are three Windmills to the eastward of *Dunkirk*. When the outmost Mill comes over the E. end of the Town, it is the best Mark for this Shoal, and then the Steeple of *Dunkirk* will bear S.E. Five Leagues distance betwixt this and the third Bank lies a Channel at 12 to 13 Fa. Water.

The third Bank is call'd the *Dike*, it lies N.E. from *Calais Cliff*, and has 4 to 5 Fa. Water. Upon both Ends of this Bank are Shoals; the southermost has but 1 Fa. and lies also upon the Marks of *Winnoxberg* N.W. westerly from *Dunkirk*, and is call'd *Dike-Polder*.

The northermost Shoal has about 4 Fa. 2 Foot Water, and lies N.W. from the Cloister *Ten Duyn*. These Banks are very dangerous, for that call'd the *Ruyting* lies almost in the Fair way, and at low Water has not above 2 Fa.

The fourth is N.E. by E. and 1 Shoal, with but of Spring-Tides goes also a Chan

To the eastward *Broad* or *Bree*

In all these C turn safely to wi and anchor also

The S. end of *Cliff*, distance a is a Shoal with Water. The N ward, till *Newpo* bears E.S.E. 5 or

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Calais and *Dove*

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*Sailing Directions for the Coast of Flanders and Zealan
with the Sands upon the said C*

The fourth is call'd *Rattle Bank*, and lies from *Calais Cliff* N.E. by E. and has from 3 to 6 Fa. Upon the S. end is a Shoal, with but one Fa. at low Water; and at the Ebb of Spring-Tides those Shoals lie dry. Without this there goes also a Channel 19 to 20 Fa. deep.

To the eastward of the *Rattle Bank*, betwixt it and the *Broad* or *Brce Bank*, is also a Channel 18 to 19 Fa. deep.

In all these Channels betwixt the *Sand Banks*, you may turn safely to windward from one Bank to another every where, and anchor also between the Banks where you will.

The S. end of the *Broad Bank* lies N.E. by E. from *Calais Cliff*, distance about 4 or 5 Leagues. And at the said S. end is a Shoal with 1 $\frac{1}{2}$ Fa. but the rest of the Bank holds 3 to 4 Fa. Water. The N. end has 6 to 8 Fa. and stretches to the northward, till *Newport* bears E. by S. or till the Cloister *Ten Duyn* bears E.S.E. 5 or 6 Ls. off.

The Setting of the Tides.

All along the *Flemish Coast* near the Land, a North and South Moon make a full Sea.

In the Fair way, and without the *Flemish Banks*, a South-West Moon.

Betwixt *Calais* and *Dover* a S. W. Moon.

Along the *Flemish Banks*, the first of the Flood sets over the Banks towards the Main during one third of the Tide; afterwards along Shore: and the after Flood sets to the northward along the Sea.

When the Flood begins to go thwart off to Sea, then 'tis half Flood by the Shore; and then, or a very little after, you may go into any of the Harbours on the *Flemish Coast*.

Between *Calais* and *Dover* the Flood sets in N.E. by E. the Ebb S.W. by S.

The Depth of the several Channels.

In the Fair way betwixt the *Marsdeep* and the Head-land of *Calais* and *Dover*, is 23 to 24 Fa. deep, a little without the *Flemish Banks*, 18, 19, and 20 Fa. but nearer the *Goodwin* 26 to 30 Fa. the nearer the *Goodwin* the deeper: And when you are thwart the *Goodwin* in 28 to 29 Fa. you are not two Gun-shot from it.

When you sail from the *Marsdeep* towards *Calais*, steer S.W. and S.W. by S. observing the Tides: And when you have by your Reckoning run 4 to 6 Ls. then edge over towards the *Flemish Banks*, till you come into 20, 19, to 18 Fa. When you are in the Depth, then steer S.W. and afterwards S.W. by W. and you will be Mid-Channel between *Calais* and *Dover*.

If you can from the Poop see the *Flemish Coast*, and are in 16 Fa. Water, you are then within the Point of the *Flemish Banks*.

Calais Cliff and the *South Foreland* may be seen in 24 Fa.

ers and Zealand, from Ostend to Ter Veer; upon the said Coast.

When the Gun-mort-Min comes over the E. end of the Town, it is the best Mark for this Shoal, and then the Steeple of *Dunkirk* will bear S.E. Five Leagues distance betwixt this and the third Bank lies a Channel at 12 to 13 Fa. Water.

The third Bank is call'd the *Dike*, it lies N.E. from *Calais Cliff*, and has 4 to 5 Fa. Water. Upon both Ends of this Bank are Shoals; the southermost has but 1 Fa. and lies also upon the Marks of *Winnoxberg* N.W. westerly from *Dunkirk*, and is call'd *Dike-Polder*.

The northermost Shoal has about 4 Fa. 2 Foot Water, and lies N.W. from the Cloister *Ten Duyn*. These Banks are very dangerous, for that call'd the *Ruyring* lies almost in the Fair way, and at low Water has not above 2 Fa.

When you are not two Gun- When you S.W. and S.W. have by you towards the 18 Fa. Whe afterwards S.V. *Calais* and *D* If you can 16 Fa. Water, Banks. *Calais Cliff*

Sailing Directions for the Coast of Flanders and Zealand with the Sands upon the said



HERE are divers large and deep Channels between the Island of *Walcheren*, which is the westermost of the Islands of *Zealand*, and the *Flemish Coast*; in which Channels you may sail safely with Ships of the greatest Burden. These are as follows, *viz.* the *Weiling*, the *Spleet*, the *Doorlog*, and the *Botkil*; and they are all together call'd the *Weilings*, from the Channel of the *Weilings*, which is the largest of them.

Betwixt these Channels there are several Sands, or Shoals and Banks, which it is needful for Sailors to be well acquainted with, such as the *Inner Bank*, the *French Pole*, the *English Pole*, the *Raen*, and the *Rafes*.

The *Inner Bank* is a steep hard Sand, lying betwixt the E. side of the *English Pole* and *Cadfant*. Being off along *Cadfant*, bring the *Castle of Sluys* on with *St. Lambert* (a high Square or Tower Steeple upon *Cadfant*, to the northward of *Sluys*) then you are past the said *Inner Bank* to the eastward; and bring *West Chapel* on with the *Knock*, and you are past the W. end of it westward.

The *English Pole* lies off of the W. end of the *Inner Bank*, betwixt *Raen* and the *Flemish Coast*. This Sand is steep too: It has a Ribb running out from the W. end of it, which is about a Gun-shot over; and reaching quite away W. beyond *Ostend*, 'tis a hard Sand, and good Anchor-ground, and is call'd the *Ript*. Bring *Blankenberg* to bear S.E. and by E. from you, you are at the deepest of it, and have 6 Fa. at low Water: Farther to the eastward it is shoaler almost to 3 Fa. On the other hand, if you go farther westward, it holds near the same depth of 6 Fa. and so on to the outer Bank thwart *Ostend*, where about Gun-shot to the northward of the *Ript*, it deepens again, but 'tis soft Ground: Also about Gun-shot over the *Ript* to the S. and S.E. you have half a Fathom more Water and soft Ground. When *Heiff*, which is a high Spire Steeple, comes to the *Light-house*, thwart of that is the

shoalest of the Being past the deeper Water it is dangerous In part of the Ground; and hard Ground.

The *Raen* flax on both over: The W hard Ground that part is ca *Gallows-head* where you w

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The Marks Channel lies t *West Chapel* of the *Knock* bring the *Ca fant*, then yo say, the *Dry*

The *Rafes* the Island of the *Eastern* above 2 1/2 Foot ward; being southward. has a square are thwart o

when you are thwart the *Gobwin* in 28 to 29 Fa. you are not two Gun-shot from it.

When you sail from the *Marydeep* towards *Calais*, steer S.W. and S.W. by S. observing the Tides: And when you have by your Reckoning run 4 to 6 Ls. then edge over towards the *Flemish* Banks, till you come into 20, 19, to 18 Fa. When you are in the Depth, then steer S.W. and afterwards S.W. by W. and you will be Mid-Channel between *Calais* and *Dover*.

If you can from the Poop see the *Flemish* Coast, and are in 16 Fa. Water, you are then within the Point of the *Flemish* Banks.

Calais Cliff and the *South Foreland* may be seen in 24 Fa.

Shoals and Zealand, from Ostend to Ter Veer ; Shoals upon the said Coast.

Shoalest of this Bank: Farther to the eastward it deepens again. Being past the Mark, and edging towards the Bank, you find deeper Water, and may run over at half Flood in 3 Fa. but it is dangerous, because of the nearness of the *French Pole*. In part of the Channel betwixt this *Bank* and the *Raen* is soft Ground; and then it begins to shoal on both sides again, with hard Ground.

The *Raen* lies to the northward of the *English Pole*; it is flat on both sides, and so broad that 'tis half an Hour's sail over: The W. end is flattest, and has the best Shoalings with hard Ground on both sides. Thwart thro' it ebbs dry, and that part is call'd the *Drye Raen*. Bring *Bruges* on with the *Gallows-heads*, then you are off the W. end of the *Raen*, where you will have 3 Fa. and good Shoalings.

N.B. The *Gallows-heads* are high Sand Hills on the Shore to the E. of the *Blankenberg*, where formerly there was a Gibbet or Gallows.

The Marks of this Channel are thus: Thwart the *Raen* the Channel lies thro', tho with but 2 $\frac{1}{2}$ Fa. at low Water. Bring *West Chapel* (on the *Flemish* Coast) a little to the eastward of the *Kuock*, then you are right with this Channel: And bring the Castle of *Stuys* among the *East Sand-hills* of *Cadfant*, then you will be off the E. end of the *Raen*, that is to say, the *Dry Raen*.

On the *Rafes*, which are the last of these Shoals, lie along the Island of *Walcheren* on the W. side, and are divided into the *Eastern* and *Northern Rafes*: Neither of them have above 2 $\frac{1}{2}$ Foot Water at low Water, and are flat to the eastward; being the inner side towards the Land, as also to the southward. Bring *West Chapel* on the Island *Walcheren*, which has a square Tower-Steeple, on with the Mills; then you are thwart of the Channel betwixt the said two *Rafes*, and

and which runs that way into the Sea: There you have about 2 Fa. at low Water

The *Weilings*, mention'd before, lie between the *Flemish Coast* and the *English Pole*; they are divided into two Channels, the *Main Weilings* and the *Inner Weilings*. The *Weilings*, or *Main Weilings*, lies between the *English* and the *French Pole*; and the *Inner Weilings* lies between the *French Pole* and the *Flemish Coast*.

When you are at Sea, and would go into the *Weilings*, you must stand for the *Flemish Coast*, till you come into 5 Fa. Water, especially if you are to the westward of *Ostend*: There did formerly lie a Bank off from the Shore, which you might sail within; but now there is nothing left of it but a little Flat. Bring the Steeple of *Bruges* a Cable's length to the westward of *Lefzig*, (a square Tower, and the largest thereof) then you are to the westward of all the Sand-Banks, and Poles upon the whole Coast, mention'd above. Keep those Steeples so, and run on towards the *Flemish Coast*, till you come over the *Ript* of the *English Pole*, and into soft Ground, and till you come into 5 Fa. Water: Then go away N.E. and N.E. by E. with the Flood, or N.E. and N.E. by S. with the Ebb. Reckon your Tides carefully, they run mostly E.S.E. something southerly, and W.N.W. something northerly; but the Tide scarce runs an Hour along Shore. Bring the Steeple of *Wendwyn* one or two Ship's length without *Blankenburgh* or *Seance*, and keep them there as long as you can see them, still in 5 Fa. Water. Then bring *Heist* upon *Bruges*, and *West Chapel* upon *Knack*, and you are in the Fair way to the *Weilings*: The nearer the *English Pole*, the deeper Water, except you are within the Shoalings of the said Bank it self. Note, if *Bruges* do not come to *Heist* before *West Chapel* comes to *Knack*, then you are too far to Seaward, or too near the *English Pole*; but you may bring them all together at once with the first of the Flood, and then if you get Shoalings, it is of the *English Pole*. Then sail along by the same Course, between the *English* and the *French Pole*: The *English Pole* is flat thereabouts, which you will find by sounding. When you bring the Castle of *Stuys* to *St. Lambert*, then you are past the *French Pole*.

N. B. *St. Lambert* is a high square Steeple upon *Cadfant*, to the northward of *Stuys*.

Thence you may sail East right with *Flushing*; or else observe the following Directions. *Lefzig* must not come within *Heist*, but be kept without it, till you bring the Castle of *Stuys* to the East Sand-hill of *Cadfant*; else you will run right against the inner Bank: But when the Castle of *Stuys* comes to the Sand-hill, then boldly go away E.N.E. and N.E. by E. to avoid the *French Pole*, till the Steeple of *Flushing* comes to the Northward of the *Prison-gate*, when you will be in depth enough; then go away E. by S. right with *Flushing*.

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the Coasts of Flanders and Zealand.

you have *faunt*. Then you may go right with *Flushing*, and so you will wholly avoid both the *Raen* and the *Poles*.

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If the Weather be dark, so as you cannot see *Middleburgh*, then you must run in by the Lead along the *Ript* on the N. side of it, keeping E.N.E. till you find the Shoalings, and hard Ground of the *English Pole*: So you will run between the said Pole and the *Raen*. But you must keep sounding along the hard Ground of the Bank, and steer a little more Easterly, to shun the *Rafes* which lie thwart of *Soutland*, and which are steep too: when you are gotten in somewhat farther, go away E. for *Flushing*, and you will miss all the Shoals.

To sail out of *Flushing* at the *Spleet*, first you must steer W.N.W. till *West Chapel* comes almost to the Point of the *Sand-bills*, but not without it; or till the Steeple of *Middleburgh* comes to the *Inner Sand-bill*. Then go away W.S.W. and you run right out at the *Spleet*. The *Spleet* is a fair Channel, more than a Mile and half over, and has at least $4\frac{1}{2}$ *Fa* at low Water. Between *Soutland* and *Dissbook* lies a high *Sand-bill* steep at the East-end, called the *Doorne-bill*; and another not quite so high lies to the Eastward, but somewhat long, and has a little Hollow in it, which does as it were divide the Long Sand in two: The South part is called the *Inner Sand-bill*, because there are no more such high *Sand-bills* within them, or to the Southward. When *Midduburg* Steeple comes over the said *Inner Sand-bill*, or in the said Hollow, and keeps there, you may run out at the *Spleet*, without any danger either from the *Pole* or the *Raen*: Nay, if the Wind is Easterly, you may borrow of the *English Pole*. The *Raen* is flat there, so that you may found out along by it, and along the *Spleet*, when in dark Weather you cannot see the Marks.

Note, When *Ardenberg* comes without the *Sand-bills* of *Cadfaunt*, then you are safe past the *Dry Rayen* and all the Shoals, and may boldly steer to any part where you please.

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To sail out of *Flushing* at the *Doorloy* with deep Ships, you must set sail so as to come at half Flood or at high Water to the Shoals: to this end 'tis best to go off from *Flushing*, at about an hour Flood or more, as the Winds may present. First go along by the Shore, then steer W.N.W. till *West Chapel* come within two Ship's length to the Point of the *Sand-bills*, neither nearer nor farther, lest you come upon the *Raen*: When *West Chapel* stands so, and *St. Anne's* (a flat Steeple to the Westward of *Sluys*) stands among the E. Sand-hills of *Cadfaunt*, then you may go safely out of the *Doorloy*, sailing N.W. by W. When *St. Anne* comes to the Westward of the said Sand-hills, then the Castle of *Sluys* will be behind it; keep it so, and then you may sail out N.W. by W. and go clear both of the *Raen* and the *Rafes*: But if you bring *West Chapel* without the *Sand-bills*, before *St. Anne* comes without them too, you will be then too far to the Northward, and too near the *Rafes*, or if you bring

Course, between the *English Pole* and the *French Pole*: The *English Pole* is flat thereabouts, which you will find by sounding. When you bring the Castle of *Sluys* to *St. Lambert*, then you are past the *French Pole*.

N. B. *St. Lambert* is a high square Steeple upon *Cadfant*, to the northward of *Sluys*.

Thence you may sail East right with *Flushing*; or else observe the following Directions. *Lefwig* must not come within *Heist*, but be kept without it, till you bring the Castle of *Sluys* to the East Sand-hill of *Cadfant*; else you will run right against the inner Bank: But when the Castle of *Sluys* comes to the Sand-hill, then boldly go away E.N.E. and N.E. by E. to avoid the *French Pole*, till the Steeple of *Flushing* comes to the Northward of the *Prison-gate*, when you will be in depth enough; then go away E. by S. right with *Flushing*. There is no less than 4; Fa. Water on both the *Weilings* at low Water.

The *Inner Weilings*, as above, lies thro' between the *Inner Bank* and *Cadfant*; when you come into the *Weilings* from the Westward, and are come on till the *West Chapel* comes to the *Knock*, being to go into the *Inner Weilings*, then go E. by S. and you will see the Buoy on the Point of the *Peerdmarkt*: leave the Buoy on your Starboard side, and keep *St. Lambert's Steeple* without the S. Sand-hills of *Cadfant*, till you come near to *Sluys Harbour*.

Note. The *Peerdmarkt* is a Sand that shoots off from the E. Point of the Harbour of *Sluys*, and is very steep.

Then sail on N.E. somewhat Northerly along by the Shore, to avoid a Sand called the *Crake*; and when the Castle of *Sluys* and the Steeple of *St. Lambert's* come one in another, then go away E. right with *Flushing*.

There is also another Channel which lies thro', between the *English Pole* and the *Raen*, called the *Spleet*: if you are coming from the Sea, and desire to sail in at the *Spleet*, you must edge towards the *Flemish Coast*; and when you are by your Reckoning to the Westward of *Ostend*, borrow upon it till you get hard Ground and shoaler Water, and then you may be sure you are upon the *Ript*. Having found the *Ript* in 6 to 8 Fa. according as you are either to the Eastward or Westward, edge off again Northward into the Sea, till you find it begin to shoal, and you have hard Ground; and still keep sounding the *Ript*, till you find deeper Water and hard Ground: Then run in E.N.E. edging now and then to the Southward towards the N. of the said *Ript*, till *Bruges* comes upon *Lefwig*, which is a large flat Steeple, or the *Blankenberg* bear S. then you are thwart the *Raen*, and may run into the *Spleet*: Then bring the Steeple of *Middelburg* over the *Inner Sand-hills*, between *Southland* and *Duhook*; and with that Mark run in E.N.E. till the Castle of *Sluys* comes to the Eastward of the *Sand-hills* of *Cad-*

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To fail out of *Flushing* at the *Doorloy* with deep Ships, you must set sail so as to come at half Flood or at high Water to the Shoals: to this end 'tis best to go off from *Flushing*, at about an hour Flood or more, as the Winds may present. First go along by the Shore, then steer W.N.W. till *West Chapel* come within two Ship's length to the Point of the *Sand-hills*, neither nearer nor farther, lest you come upon the *Raen*: When *West Chapel* stands so, and *St. Anne's* (a flat Steeple to the Westward of *Stuys*) stands among the E. Sand-hills of *Cadfant*, then you may go safely out of the *Doorloy*, sailing N.W. by W. When *St. Anne* comes to the Westward of the said Sand-hills, then the Castle of *Stuys* will be behind it; keep it so, and then you may sail out N.W. by W. and go clear both of the *Raen* and the *Rafes*: But if you bring *West Chapel* without the *Sand-hills*, before *St. Anne* comes without them too, you will be then too far to the Northward, and too near the *Rafes*; or if you bring *St. Anne* without the *Sand-hills* of *Cadfant*, before *West Chapel* comes to the end of the *Sand hills*, then you will be too far to the Southward, and just against the *Raen*. But when you bring *West Chapel* to the Point of the *Sand-hills*, and *St. Anne* without them both together, then you are in the best of the Channel.

When you come in from Seaward, and would find this Channel, you must run by your Lead, till *West Chapel* comes within a Mast length of the *Sconce*, and so sail in by the *Raen*, taking the Soundings till *St. Anne* comes to the said *Sand-hill* of *Cadfant*: then go S.E. by E. and you will soon come into deep Water.

Here you must observe the Tides very exactly, for the Flood comes into the *Doorloy* full S. as does the Aiter-Ebb afterwards S.S.E. and at last Southward; so that if you would enter the *Doorloy* at the first of the Flood, you must go S.E. or else you may run upon the *Raen*. Coming then from Seaward along by the *Raen*, till *St. Anne* be lost among the *Sand-hills* of *Cadfant*, you must steer S.E. till *West Chapel* come within the Point of the *Sand hills*, and then you may run boldly in with *Flushing*: In dark Weather you may keep along by the *Rafes*, sounding all the way. When you keep the Castle of *Stuys* to the Eastward of the said *Sand-hill* of *Cadfant*, you are then out of danger of the *Raen*; but when the Church of *Stuys* stands on the West side of those *Sand-hills*, then you are thwart the shoalest part of the *Raen*.

The *Bodkil* is another Channel leading into and out of *Flushing*, and lies thro' between the *Rafes* and the *Calvo*. To sail out from *Flushing* at the *Bodkil*, you must run within two Cables length along shore, between the *Geer*, the *Rafes*, and the Land; you may safely come close to the Shore (which is steep too) with the biggest Ships: The *Rafes* are flat towards the Land. To the Eastward or Southward of *Soutland* in the Fair Way, you have 5 to 6 Fa. and to the Northward and Westward 'tis deeper; and thwart of *West Chapel* 'tis 8 to 9 Fa.

Bring

Directions for Sailing on the Coasts of Flan

Bring *Buyens Church* (which is to the E. of *West Chapel*) over the Mill which is to the Westward, and keep them in one; you may then run right out of the *Botkil*, between the *N. Rafes* on the Larboard, and a Sand called *Caloo* on the Starboard side. In the *Botkil* you have $4\frac{1}{2}$ Fa. but upon *Caloo* Sand not above 3 or 4 Foot.

The *Querns* is a Flat lying N. of *Caloo* as far as *Domburg*: Between them is a Channel with 4 to 5 Fa. Water, called the *East-Gat*. Whether you sail out or in, you must bring *West Chapel* to the Northernmost Pier of *Walcheren*, which is easily known; and by that you may go out or come in. Between the *Querns* and the Land runs another Channel called the *Land Deep*, having 3 and $\frac{1}{2}$ Fa. Water. If you are coming in, and would find the *Land Deep*, you must run into $2\frac{1}{2}$ Fa. thwart of *Domburg*; keep sounding, and as near to the Shore as you please; and run by the Piers or Heads of *Walcheren*, till you come within. When you are come so far E. as *Buyens Church*, or *Souteland*, by any of these Channels, and have the Wind Easterly, so that you are oblig'd to turn up; then you may go between the *E. Rafes* and the *Geer*, which lies to the Eastward of it, and so come out by the broad Channel into the *Doorloy* and the *Spleet*, and then about S. of the *Geer* to *Flushing*.

About 3 Ls. without the Land of *Walcheren* lies the *Stone Bank*, which is a long narrow Sand lying N.E. and S.W. upon the middle of which you have not above 2 Fa. but at the N. end of it there is 3 Fa. If you would sail in or out of *Flushing* by the *Botkil*, or by the Channels of the *East-Gat*, or *Land Deep*, you must sail about this *Stone Bank* either to the Northward or Southward; and when you bring *Middleburg* to be over *Domburg*, then you are thwart it. If you would go to the Northward of it, you must bring *Middleburg* half way between *Domburg* and *East Chapel*, and so sail towards the Land: But if you would go to the Southward of the *Stone Bank*, you must bring *West Chapel* E.S.E. from you in a black Valley of the *Sand-bills*, and so sail right in. Within this *Stone Bank* is

8 to 10 Fa. *Flushing* by of this *Stone* long, and has to the Eastward Shore, having ing as aforesaid

Before the Sea.

At *Flushing* At *West Ch*

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Sailing Directions for the Channels of Ter Veer, Zi Zealand.



Several Channels run between the Islands of *Walcheren* and *Schowen*, all in the Province of *Zealand*, which assist in forming the several Islands of *Zealand*, as particularly the *Veer Gat*, the *Roman Pot*, and the *Velt*.

To go into the *Veer Gat* coming from the Northward, you must run right with *West Chapel*, keeping it S. from you till *Middleburg* come over *East Chapel*: you must not come at all to the Westward of the S. for then you will be upon the *Benjaert*; but keeping it S. as above, you will come past the *Benjaert* without danger. Then go right with *East Chapel* and *Middleburg*, till *Cortgoen* come a Capston-bar's length to the

and run thro' Eastward: Y *plat*, having ther) thos y run away to abouts, till t without the l right with t Shore you g

You have the Island of c rmost Point with a Tack

8 to 10 Fa. Upon this Course, you may also run right into *Flushing* by the *Botkil* Channel. A little from the S.W. end of this *Stone Bank* lies the *Oyster-bank*, which is not very long, and has 4 Fa. at low Water. Bring *East Chapel* a little to the Eastward of *Domburg*, you may then sail towards the Shore, having deeper Water, and to run along by it to *Flushing* as aforesaid.

The Sets of the Tides in these Places.

Before the *Weilings* a S. by W. and S.S.W. Moon makes full Sea.

At *Flushing* and *Rammekins* a S.S.W. Moon.

At *West Chapel* upon the Island of *Walcheren*, a S. Moon.

The Tide does not begin to make out till the Water has fallen at least half an hour; and the like at the Flood, it does not make up till after the Water has swell'd half an hour. Before the *Botkil* it begins to turn an hour before high Water, but it falls long before at Sea. In the *Spleet*, and on the Shoals thereabout, the Tide turns about against the Sun, and at last falls in at the Channels above-mention'd. 'Tis full Sea there at a S. Moon.

The first of the Flood which runs over the Shoals there towards the Land is at an E.S.E. Moon, or when it is about 2 hours Flood; then it begins to turn to the Southward, first S.S.W. and then past the South towards the E. until the Moon be S.S.E. and then the Flood falls towards the E. When *Blankenburg* bears about S.E. by E. from you, from thence to the Eastward the Tide turns about against the Sea; whereas from thence to the Westward the Tides do not turn about at all.

Against *Zealand* in the Fair Way, a third part of the Flood runs towards the Land, and afterwards E. by N.

Note, You may see *Zealand* from the Deck in 16 Fa. Water.

Ter Veer, Zirrickzee, and Brewer's Haven in Zealand.

and run thro' between them, then go about by the first to the Eastward: You will also see two Buoys more on the *Wool-plat*, having Tails as the other (they are seen from one another) those you must leave also on your Starboard side, and run away to the Northward of them both, E.S.E. or thereabouts, till the Steeple of *Konkirk* upon *Schowen* comes even without the Point of the Land of *Schowen*: Then you stand in right with the Point, and about it; and keeping by the Shore you go right with *Zirrickzee*.

You have yet two other Buoys in going for the Point of the Island of *Schowen*; the one on the Larboard side on the Easternmost Point of the Sand called the *Beryart*, and the other with the Tail on the Starboard side on the Point of the *Paal*.

Sailing Directions for the Channels of Ter Veer, Zealand.



Several Channels run between the Islands of *Walcheren* and *Schouwen*, all in the Province of *Zealand*, which assist in forming the several Islands of *Zealand*, as particularly the *Veer Gat*, the *Roman Pot*, and the *Velt*.

To go into the *Veer Gat* coming from the Northward, you must run right with *West Chapel*, keeping it S. from you till *Middleburg* come over *East Chapel*: you must not come at all to the Westward of the S. for then you will be upon the *Benjaert*; but keeping it S. as above, you will come past the *Benjaert* without danger. Then go right with *East Chapel* and *Middleburg*, till *Cortgoen* come a Capstun-bar's length to the Southward of *West Kirk*, (which are two Towers standing in the Funken Land off of the Land of *Catts*) and which will then bear E.S.E. from you: Keep them so, and then run right in with them, and you will see the first Buoy of the *Veer Gat*. There are 3 large Buoys in the Channel shap'd like Casks; you must leave them all on the Starboard side, but you pass by another Buoy on your Larboard side, before you come to those three. This last lies on the Point of the Pole of the Sand called the *Benjaert*, and is shap'd as the ordinary Sea Buoys are: The first Buoy in the *Veer Gat* lies in $3 \frac{1}{2}$ Fa. the Course by all the three is S.E. by E. something Southerly, and they are all in sight of one another. The second and third Buoys lie in 2 Fa. each upon the Point of a Sand called the *Maid*. Over against the third lies a Sand called the *Unrest*, which lies with a long sharp Point looking towards the said third Buoy. The Channel is not very broad here, between the two Shoals, so you must run close along by the Buoy to the Northward of it. There is not above 2 Fa. or $2 \frac{1}{2}$ between the Points of the *Unrest* and the Buoy; but thwart the two other 'tis broad and deep enough. When you are past the third Buoy, you go right away to *Ter Veer*. Over-against the Town lies a Flat called the *Scotsman*, which you must avoid, leaving it on the Starboard side.

There are several Channels likewise to go into *Zirrickzee*, as the *Roman Pot*, the *Velt*, the *New Deep*, and the *Keel*. If you would go in by the *Roman Pot*, and are past between the above-named Buoy on the Point of the Pole, and the first Buoy of the *Veer Gat*, you then bring *Domburg* to the *Hoot*, which is a white Sand-hill upon the Island of *Walcheren*, somewhat like those called the *Woolfacks* upon the Island of *Schouwen*: Keep them in one, and you will run by two Buoys more, on your Larboard side by the *Pole*, you will also see one Buoy with a Tail lying on the West Point of the *Woolplat*, over-against the third Buoy of the *Pole*, you must leave the Buoy with a Tail on your Starboard side,

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Ter Veer, Zirrickzee, and Brewer's Haven in Zealand.

and run thro' between them, then go about by the first to the Eastward: You will also see two Buoys more on the *Woolplat*, having Tails as the other (they are seen from one another) those you must leave also on your Starboard side, and run away to the Northward of them both, E.S.E. or thereabouts, till the Steeple of *Konkirk* upon *Schowen* comes even without the Point of the Land of *Schowen*: Then you stand in right with the Point, and about it; and keeping by the Shore you go right with *Zirrickzee*.

You have yet two other Buoys in going for the Point of the Island of *Schowen*; the one on the Larboard side on the Eastmost Point of the Sand called the *Beryart*, and the other with a Tail on the Starboard side, on the Point of the *Polevoot*, lying between the Island of *Schowen* and *Orefand*: You must pass between these two Buoys; all the Buoys with Tails you must leave on the Starboard side, as you go in; and those without Tails on the Larboard: The Fishermen generally venture about to the Eastward of the *Polevoot-Sand*, and leave the said Buoy with a Tail on the Larboard side; but then 'tis only by Day-light, and it is not the safest. You may borrow of this Sand by your Lead, but you must heave very quick in the Night, the Fishermen themselves run close along by the Shore of *Schowen*. Note, The Shore is very steep.

To sail to *Zirrickzee* by the *Velt*, the following Marks will direct you: There stands a Tower with a Beacon upon it, near the Southermost end of *Schowen*. Bring that Tower a Capstan Bar's length to the Southward of the Southermost end of the Beacon on the West end of *Schowen*, and you may then go in betwixt the *New Sand* and the *Benjaert*, and will have 2 Fa. to 14 Foot Water thwart the outmost Point of the *New Sand*; and when you come in by the Shore, run in by the same Directions. As for the *Keel*, you will then have 20 Foot Water by the Shore: But you must beware of the *Benjaert* (in this Course) which is very steep, for there is 3 to 5 Fa. close to it on the N. side; but thwart of the Shoal over against *Schowen* there is 6 to 7 Fa. The *New Sand* is pretty flat on the S. so that you may borrow there by your Sounding.

To go by the *New Deep*, you must observe two Light-houses a little to the Southward of the Beacons which are on the West end of *Schowen*: Bring the innermost a Hand Spike's length to the South of the outermost, then you may run in safely with them between the *Hide* and the *New Sand* in 16 to 18 Foot Water; running thus till you come near the Shore, you are then enter'd the *Keel*, which is the fourth Channel: If you bring the two Light-houses into one, and so run in, you will go over the Tail of the *Hide* in near 2 Fa.

N. B. The *Hide* is a flat Sand, and you may venture to come near it on the S. side by Sounding; but the *New Sand* is dangerous, very steep, and the Sea breaks upon it with great Force.

The following Directions are for going into *Zirrickzee* by the Channel called the *Keel*.

Upon the West end of *Schowen* are the two Beacons mention'd above; bring them into one, and run right with them, until a Spire Steeple called *Renist* come to the *Blenk*, or *Woolfack*, a white Sand-hill higher and whiter than any of the other Sand hills; go on thus till *Ter Veer* come to the *Hoot*, which is the Westermost Point of *Schowen*: Keep them so till you come near the Shore, then run under Shore, and you will have in the shoalest of the Channel 3 Fa. Water, and against the *Hoot* Point 4 to 5 Fa. between the *Hoot* and the *New Sand*, which ebbs dry at some Places of the East end. You may run along by the Shore of *Schowen* till you come thwart the Southermost Beacon; then edge off towards the *Benjaert*, to avoid a Shoal which lies off from the *Schowen*; there is a Buoy upon the near end of it, so that 'tis easily known: Some go within the Shoal from the Seaward, but 'tis hazardous. Having past the Shoal, you go away by the Shore to *Zirrickzee*.

At the other end of this Shoal is another Buoy for those who sail out that way, that they may shun the E. side of it. *Note*, Those Directions serve also when you go in by the *Volt* or the *New Deep*, after you come into the *Keel*.

There are two other Channels between the Island *Schowen* and the *Goree*; the Southermost which is for great Ships, is called *Brewer's Haven*, the Northermost for smaller Vessels is called *Kevitfen*, and there is a great dry Sand between them called the *Springer*, which is never under Water but on very high Tides. On the side of the Island *Schowen* there are 3 Sands thwart of the *Brewer's Haven* Channel; one called the *Broad Bank*, or the *Bree*, it lies at a good distance from the Land, having 7 Fa. upon it, and 19 Fa. within it: The second is nearer the Land, and has 5 Fa. upon it and 7 within it: The third is called the *Ooster Bank*, which runs in to the Eastward close by the Land, and has no more than 1 Fa. in some places. If you would go into the Channel of *Brewer's Haven*, you mu't keep to the Westward of this Sand by the following Marks, *viz.*

Bring the two Beacons at the West end of *Schowen* into one, and keep them so till the Steeple of *Renist* comes on the *Blenk* or *Woolfack*; then leaving the Beacons, keep to the Marks of the said *Blenk* and *Renist*, till a little white Spire Steeple upon the Island of the *Goree* called *Outdrop* comes on the Steeple of *Goree*, and so you may go in between the *Ooster* and the *Blenk*, a little to the Southward of the outermost Buoy, till you come within the *Ooster*, and so till you come near the second Buoy; Or (if there should be no Buoys, till the *Bommen* come a little without the *Ostesteert* or *Oortail*, being a Point of

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Schowen West of *Brewer's Haven*. The Channel that way is broad and deep, and very fit for great Ships. If you turn to Windward either out or in, you may go on either side of the Buoys, but to the Southward is the deepest Water in the *Fairway*; except that the third Buoy, which has a Tail, and lies on a Point of Sand which runs off from the *Ooster*, lies near a small Shoal, so that you must not go to the Northward of this Buoy, unless you go close by it. Having past this Buoy, the Shore of *Schowen* is all clear of Sands, and steep too, with deep Water, and you may run safely by it all the way to *Brewer's Haven*. The shoalest of this Channel is 3 Fa. to 3 Fa. 1 Foot, at least for a League beyond the Land, as you come in between the *Ooster* and the *Hides*; and farther in it is 4 to 7 Fa. and in some places 10 to 11 Fa. at low Water.

The other Channel is the *Kevitsen*. To find this, bring the Steeple of *Zirrickzee* S.E. by S. or rather a little Southerly, and you will see a Wood, showing it self near *Zirrickzee* Steeple: bring that and the said Steeple into one, and you may run right in, till you come against the Sand, or as near as you can; sounding for the Depth. Then you are as far to the Westward of a Shoal called the *Westbead* as you need to go: being thus come within the *Westbead*, against a Sand which lies on the South side, then go in East along by the *Springer*, from the end of which there also shoots off a Point, which you will find by your Lead, N.E. by N. from the middle of the *Springer*. When you are gotten beyond that, you may run directly for *Brewer's Haven*. Also bring the Steeple of *Zirrickzee* a little open to the Eastward of *Ooststeert* or *Ox-tail*; then you are clear of a Point or Sand called *Ooster-bill*, which stretches from the *Springer* towards *Brewer's Haven*. Thro' all this Channel you have 10 Foot Water in the shoalest.

The Setts of the Tides.

In the *Veer Gat* a S. Moon makes full Sea.

A: *Ter Veer* a S.S.W.

In the *Brewer's Haven Channel* a S. by W. Moon.

Before *Brewer's Haven Town* a S.S.W. Moon.

At *Zirrickzee* a S.W. Moon.

Before the Channels of *Brewer's Haven* and *Ter Veer* the Flood turns about with the Sun; so that the After flood runs in at the Channels, and then turns about to the Southward, and holds running so till the Ebb: but the latter part of the Ebb runs right out of the Channels thwart into the Sea, and the Fore-flood turns about to the Northward.

Note, It is not good to run in at the *Veer Gat* with a Southerly or S.W. Wind, before the Flood be half spent: for the latter part of the Ebb and the first of the Flood, run thwart over the *Benjaert* hard in at the *Room Pot*, or *Roman Pot* towards the Land of *Schowen*; but when the Flood is half spent, then it runs right in at the *Veer Gat*. At a S.E. Moon it is two thirds Flood.

Sands thence of the *Brewer's Haven*; one called the *Broad Bank*, or the *Bree*, it lies at a good distance from the Land, having 7 Fa. upon it, and 19 Fa. within it: The second is nearer the Land, and has 5 Fa. upon it and 7 within it: The third is called the *Ooster Bank*, which runs in to the Eastward close by the Land, and has no more than 1 Fa. in some places. If you would go into the Channel of *Brewer's Haven*, you must keep to the Westward of this Sand by the following Marks, *viz.*

Bring the two Beacons at the West end of *Schoonen* into one, and keep them so till the Steeple of *Renist* comes on the *Blenk* or *Woolfack*; then leaving the Beacons, keep to the Marks of the said *Blenk* and *Renist*, till a little white Spire Steeple upon the Island of the *Goree* called *Outdrop* comes on the Steeple of *Goree*, and so you may go in between the *Ooster* and the *Blenk*, a little to the Southward of the outermost Buoy, till you come within the *Ooster*, and so till you come near the second Buoy; Or (if there should be no Buoys, till the *Bommer* come a little without the *Ostesteert* or *Oxtail*, being a Point of

Sailing Directions for the Channel

THERE are two Channels go in between the *Goree* and the *Briel*; the Northernmost is called the *Quacks Deep*, which is for smaller Vessels; the other to the Southward is called the *Gorees Gat*, where the great Ships go in: and there is a great Flat between them called the *Hinder*, where at low Water is not above 5 to 7 Foot Water. To go in at *Gorees Gat*, you must bring the Steeple of *Goree* and the Beacon upon the Island of *Goree* in one, bearing E. and E. by S. from you. If you cannot see the Beacon, then bring the Steeple E. by S. and E.S.E. from you; and then as the Wind may serve, sail in right with it, till you come close aboard the Shore; and then go within a Stone's-cast of the Land along by it E. by N. and E. till you find the Land fall off to the Southward. Thereabout runs a little Tail of Sand off from the Shore, which you may sail within when you go out, but not as you go in; so you must edge a little from the Shore. Being past the Tail, luff up again towards the Haven of *Goree*, and you may come to an Anchor before it.

If you would go up higher to *Helvoetsluys*, then bring a Mill which is to the Westward of *Goree* a little to the Northward of *Goree* Steeple; and keeping it so, run up to *Helvoetsluys*: By this means you will shun the Flat which lies over against *Helvoetsluys* to the Southward. If when you are going up the *Goree Gat*, the Wind should be southerly, and you cannot bring the Beacon and Steeple into one, you may bring the Steeple E.S.E. or a Capston Bar's length to the Northward of the Beacon; and then run over till you come near the Shore, the nearer the better, by which you will run over the Tail of the *Hinder* in $2\frac{1}{4}$ Fa. Note, A little within the Beacon is the narrowest of the Channel, farther in 'tis wider; 'tis rising Ground on the N. side towards the *Hinder*, but the S. Shore is steep too.

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A: *Ter Veer* a S.S.W.
In the *Brewer's Haven Channel* a S. by W. Moon.
Before *Brewer's Haven Town* a S.S.W. Moon.
At *Zirrickzee* a S.W. Moon.

Before the Channels of *Brewer's Haven* and *Ter Veer* the Flood turns about with the Sun ; so that the After flood runs in at the Channels, and then turns about to the Southward, and holds running so till the Ebb : but the latter part of the Ebb runs right out of the Channels thwart into the Sea, and the Fore-flood turns about to the Northward.

Note, It is not good to run in at the *Veer Gat* with a Southerly or S.W. Wind, before the Flood be half spent : for the latter part of the Ebb and the first of the Flood, run thwart over the *Benjaert* hard in at the *Room Pot*, or *Roman Pot* towards the Land of *Schoezen* ; but when the Flood is half spent, then it runs right in at the *Veer Gat*. At a S.E. Moon it is two thirds Flood.

Directions for the Channels of Goree and the Maes.

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If you come from the Westward, and would find *Quacks Deep*, you must keep the Steeple of the *Briel* E from you, and so run as if you were going to the *Briel*, till a great Country Houfe, which stands a little within the Point of the *Quack*, comes to the southern *Sand-bills* of the Land of the *Briel*, which will then bear S.E. from you ; keep them so, and run right in, till *Ooststeert* comes to the Westermost or Southernmost *Sand bills* ; then run along by the Shore a little more Southerly, till *Goree* comes quite open to the Eastward, or within the *Sand-bills*, and then you are past the Eastermost Point of the *Hinder*, which the Pilots call the *Buyen*. Then you may go to the *Goree*, or to the Eastward of *Helvoetslays*, or where you please.

The River *Maes* opens between the Coast of *Holland* and the Land of *Vooren*, and has two Channels ; the Southernmost goes in by the Land of *Vooren* or the *Briel*, and the Northernmost by the Shore of *Holland*. Between these two Channels lies a great Sand called the *Honde Flat*, where is not above 6 to 8 Foot at low Water.

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To come in at the Southernmost Channel from the Seaward, and before you are near enough to see the Beacons, bring the Steeple of the *Briel*, which is a large square Tower, to bear E.S.E. from you, somewhat more Easterly according as you get sight of the Beacons. When you see the Beacons, bring them together, and so run right in with them : Otherwise bring the Steeple of the *Briel* a Handspike's length to the Northward of *Goffvoorn*, and so you will be certain to run right with the utmost Buoy, where you have 3 Fa. at low Water. From thence to the second and third Buoy you must steer with the Beacons ; the second Buoy lies in 13, and the third in 11 Foot Water. Thwart of this you will see the Steeple of *Goree* a little upon

the

Directions for Sailing on the Coasts

the Shore of the Land of the *Briel*. The fourth Buoy lies near upon the same Course from the third a little Southerly, still going right with the Beacons. Between these 4 Buoys is the shoalest Place in the *Maes*, being not above 10 Foot Water; but at the fourth Buoy it begins to deepen, the Buoy lying in 11 Foot from without till you come to the Buoy. The Channel is of a good breadth, so that you may turn up a good way on both sides of the Buoys, and borrow of the Shore on either side by your Lead: but right along, a little to the Southward of the Buoys, is the best of the Channel. The first Buoy lies in from the fourth N.E. by E. on the North side of the Channel on the *Honde Flat* in 11 Foot; and this you must leave on your Larboard side, and go about to the Southward of it. From the fourth to the fifth, along to the Southward of the Buoys in the Fair Way, it is 13 to 17 Foot deep, and near the fifth Buoy 5 Fath. The sixth Buoy lies E. by N. from the fifth in 11 Foot Water. On the North Shore, or *Honde Flat*, along to the Southward of it, the Channel is at the narrowest, and 5 or 6 Fa. Water: Thereabouts the S. Shore is steep too. Close to it you have 6 to $6\frac{1}{2}$ Fa. As soon as you are past the sixth Buoy, you bring *Macstrand Sluice* and the Steeple of *Vlardengen* into one; keep them so, till you get the Houle of *Lucht* on with *Ambrock*, and then you will be far enough to the Northward of the *Polder*, and be by the side of the seventh Buoy, where you come into 4 and $4\frac{1}{2}$ Fa. Water: then you may fail to the *Briel*, and take a Pilot there to any other Place where you please.

N. B. The Houle of *Lucht* stands upon the Dike between *Swaertwal* and the Head of the *Briel*. *N. B.* That all the Depths mention'd above, as well as those in the rest of the Directions for the *Maes*, are reckon'd for low Water at the lowest Ebb of the ordinary Tides.

To go in by the North Channel of the *Maes*, and S.W. from *Gravesand*, you will see two Beacons: Bring the innermost half a Handspike's length to the Southward of the outmost, which will be E. a little Southerly from you: Keep them there, and you will go right in with the outmost Buoy, which lies in $3\frac{1}{2}$ Fa. low Water.

But if you come from the Northward within the Sands, and keep the Soundings of the Shore in $3\frac{1}{2}$ or $3\frac{1}{4}$ Fa. at low Water, according as the Tides may rise, you then go right with the outmost Buoy; or if you lie still nearer the Shore in 2 Fa. then you will fall with the second Buoy. In all this Course you must go right with the Beacons, which lie in 10 to 12 Foot Water, which is the shoalest of the Channel, right against the outmost Point of the Land on the North side, but nearer the *Honde Flat* than the Point; so that you must go about to the Northward of it. You may on occasion go to the Southward, but the other is the broadest Channel.

From this North Point runs off a Tail of Sand, which you must be very careful to avoid; tho' it be but small it is steep, and there is a great Breach of the Sea upon it. Sometimes if the Winds are Westerly, the Sea is all in a breadth over the Northern Channel thwart that second Buoy, so that it does not

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If you are are past *Sche* you come be *terdam*, then *febry* and the S. Shore agai past *Scheid* Houle upon *Charlois*, wi

der, just against the Dike between *Swartwaal* and the Head of the *Briel*, called the *Lucht*: Bring that on with *Ambrock*, where is a flat Steeple a little on the Southward of *Swartwaal*, and go right in with them till you come before the *Briel*.

If you would anchor at the *Briel*, you must pass too other Buoys, leaving them both on your Larboard-side: The first is the eastmost against the *Polder*, the second is upon the *Crabb*, which lies off from *Rosenberg*, and reaches past the *Briel*. But if you are bound higher, then make use of the fore-said Marks of *Ambrock*, till you come near the Shore, and then along by it, till you come to *Heenvliet*. There runs a Tail of Sand from the E. end of *Rosenberg*, which upward bound you may go within: But if when you are past the Heads of *Swartwaal*, you cannot bring the Tower of the *Briel* to the northward of those Heads, but that you see it to the southward, then you cannot pass that way, but must go farther to the southward of it; and it will be your best way, if you are bound to *Rotterdam* or higher, to take a Pilot at the *Briel*.

A little to the eastward of *Heenvliet* goes in the *Old Maes*, where the Flood sets in very strong; therefore you must look out for a Wood on the S. Shore, a little to the eastward of the Point of the *Old Maes*: Here, if you are not acquainted, you may be in danger of running upon the *Wheat Sand*, or the *Tarwe Sand*, which is a great Flat in the Middle of the Mouth of the *Old Maes*, lying out with a long narrow Point westward into the Channel, and ebbs dry at low Water. Keep then the Steeple of *Rotterdam* to the northward of the Wood, and you will go clear of the *Wheat Sand*. If you should let the said Steeple come to the southward of the Wood, bring too immediately, or you will certainly be upon the Tail of the Sand.

To the northward of the *Wheat Sand* goes in a Channel, by which you may go up to *Dordrecht*, or *Dort*. If you would go in there, go by the Marks above, viz. of the Steeple of *Rotterdam* and the Wood, till the Steeple of the *Briel* come over a tiled Houfe upon the S. side of the E. end of *Rosenburgh*: Keep them so, and you will see the first Buoy in the *Old Maes*. Being past the *Maes*, keep the Mid Channel past *Vlardingén* to the *Five Slaes*; and from thence you may take the S. Shore, and run close by it, till you are past a small Shoal, on which is about 11 Foot at low Water, the nearer the S. Shore the deeper. This Shoal lies quite over the *Maes*. As soon as you are over this Flat, go away right towards the Head of *Scheidam*, where is the deepest Water.

If you are bound to *Delft Harbour*, then as soon as you are past *Scheidam*, keep the Soundings of the N. Shore, till you come before the Harbour: But if you would go to *Rotterdam*, then go still on the same Shore, till you bring *Overseebry* and the Houfe of *Span* into one; then edge over to the S. Shore again, and run along by it: Or as soon as you are past *Scheidam*, bring the Steeple of *Vlardingén* over the third Houfe upon the Head of *Scheidam*, till the Mill and the Head *Charlots*, with a little Wood upon it, come on together. And

half a Handpike's length to the Southward of the outmost, which will be E. a little Southerly from you: Keep them there, and you will go right in with the outmost Buoy, which lies in $3 \frac{1}{4}$ Fa. low Water.

But if you come from the Northward within the Sands, and keep the Soundings of the Shore in $3 \frac{1}{4}$ or $3 \frac{1}{2}$ Fa. at low Water, according as the Tides may rise, you then go right with the outmost Buoy; or if you lie still nearer the Shore in 2 Fa. then you will fall with the second Buoy. In all this Course you must go right with the Beacons, which lie in 10 to 12 Foot Water, which is the shoalest of the Channel, right against the outmost Point of the Land on the North side, but nearer the *Honde Flat* than the Point; so that you must go about to the Northward of it. You may on occasion go to the Southward, but the other is the broadest Channel.

From this North Point runs off a Tail of Sand, which you must be very careful to avoid; tho' it be but small it is steep, and there is a great Breach of the Sea upon it. Sometimes if the Winds are Westerly, the Sea is all in a breadth over the Northern Channel thwart that second Buoy, so that it does not look like a Channel: but you need not fear to run close along to the second Buoy; for you will have 12 Foot Water at least at half Flood quite over all.

From this Buoy to the third the Course is a little more Northerly, and you may easily see from one Buoy to the other. When you are at the third Buoy, the innermost Beacon shews to the Northward of the outmost. This third Beacon lies at the North end of the *Rassen* in 11 Foot Water, so does the second (to the Northward of which you must go about) and the Depth is all the same from the one to the other. The N. Shore is steep, opposite to the second Buoy, but flatter a little at the third. The fourth Buoy lies upon the S. end of the *Rassen*, S.S.E. from the third.

N B. The *Rassen* is a stripe of Sand on the East side of the *Honde Flat*; 'tis steep on every side, and at the same place ebbs dry at low Water.

Between the third and fourth Buoy in the Fair Way is 14 to 16 Foot Water; and this part is by the Fishermen called the *Pan*: It rises on the N.E. side, where, if you turn it up, you may borrow by your Sounding as shoal as you please. When the Steeples of *Munster* and *Gravesand* come open to the Eastward, then you are past the *Rassen*. The fifth Buoy lies in 11 or 12 Foot Water upon the East Point of the Sand called the *New Ribb*, which lies from the fourth Buoy S.E. by S. All those Buoys as you go up, you must leave on your Starboard side. A little to the Eastward of this Buoy, the two Channels, *viz.* the S. and the N. Channels come both into one.

From the fifth Buoy to the sixth, which is that against the *Polder*, it is near the same Course; but they are to be seen from one another. Thwart of this sixth Buoy, which you must leave on your Starboard side, you have 2; and near 3 Fa. Water. To the Eastward you will see a House upon the *Pol-*

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would go in there, go by the Marks above, viz. of the Steeple of Rotterdam and the Wood, till the Steeple of the Briel come over a tiled House upon the S. side of the E. end of Roseburgh: Keep them so, and you will see the first Buoy in the Old Maes. Being past the Maes, keep the Mid Channel past Vlardinghen to the Five Sluyfes; and from thence you may take the S. Shore, and run close by it, till you are past a small Shoal, on which is about 11 Foot at low Water, the nearer the S. Shore the deeper. This Shoal lies quite over the Maes. As soon as you are over this Flat, go away right towards the Head of Scheidam, where is the deepest Water.

If you are bound to Delft Harbour, then as soon as you are past Scheidam, keep the Soundings of the N. Shore, till you come before the Harbour: But if you would go to Rotterdam, then go still on the same Shore, till you bring Overseebry and the House of Span into one; then edge over to the S. Shore again, and run along by it: Or as soon as you are past Scheidam, bring the Steeple of Vlardinghen over the third House upon the Head of Scheidam, till the Mill and the Head Charlois, with a little Wood upon it, come on together. And by this Course you miss a little Shoal, which lies on your Larboard-side about half-way between Scheidam and Delft Harbour and go also to the southward of a Shoal, which lies just before the Harbour.

Upon the aforesaid Flat you have not above 7 Foot at low Water, and upon the Shoal before the Harbour but 2 to 3 Foot; and both are steep too. When the said Mill and the Head of Charlois come in one, keep them so till you come to the New Head of Rotterdam; and then run close in between the Town and the Flat, and there come to an Anchor.

The Setts of the Tides.

In Gorees Gat and before Goree, a S.W. by S. and S.S.W. Moon makes full Sea.

- Before Helvoetsluys, a S.W. by S. Moon.
- Before the Briel, a S.W. and S.W. by S. Moon.
- Before Dordrecht, a W.S.W. Moon.
- Before the Old Maes, a S.W. Moon.
- Before Rotterdam, } a S.W. by W. Moon.
- Before the Maes, }

Thwart all these Places, out of sight of Land, it is a Point, or a Point and half later before 'tis full Sea; the farther from Shore, the later.

Between Maes Deep and the Maes, in the Fair way, the first of the Flood comes out of the N. turning out by little and little N.E. by N towards the Land. Soon after the Flood makes up without Gorees Gat, it does the like in the Gorees Gat; and so before and in the Maes.

Close before the Channels by the Land, the Tide turns about to the Sun; so that when the after Flood runs into the Channels, it turns southward, and runs like the Ebb.

The after Ebb runs again thwart off to Seaward out of the Channels.

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Sailing Directions for the Coast of Holland,

THE *Texel* lies N.N.E. northerly from the *Maes*, distance 24 Ls. it is a level low Island, and all the way is a clean Coast, which you may come as near as you please in 4 to 5 Fa. also you have Towns, Churches and Steeples in sight all along on the Shore, sufficient for Marks to sail by.

Gravesand is on the N. side of the *Maes*, and is easily known by its high Spire-Steeples. A little to the northward of that is *Hey*, without any Steeple; but within and near *Hey* stands a Tower-Steeples call'd *Monster*: From *Gravesand* to *Hey* is 1 L. thence to *Scheveling* is 2 large Ls. N.E.

N. B. The Choir of the Church of *Scheveling* is higher than the Body of the Church.

A little to the southward of it is a Beacon or Light-house, and about a League within it is the *Hague*, where is a high Church, the Choir of which is higher than the rest of the Church, as at *Scheveling*; the *Hague* Steeple may be seen far above any Part or Place in the Country. From *Scheveling* to *Catwick* is 3 Ls. Here is a square Tower also: It formerly had a Steeple upon it, but it is down: And to the southward of it is a high Light-house like a Tower-Steeples. Here if you stand in near the Shore, you may see far within Land upon the *Rhine*, *Rhysburg* and *Valkenburg*, both with Spire Steeples. From *Catwick* it is 1 League and a half to *Nortwick*. Here is a Tower Steeple with a Light-house just by it; and to the northward within the Land is another Town of the same Name, with a square Tower-Steeples, and a little Beacon upon it; and another lesser Tower on the Middle of the Church. *Santford* is 3 Ls. from *Nortwick*, with a Spire-Steeples. A little from it southward is a very high Beacon on a black Sand-hill, which looks like a Steeple. To the northward of *Santford* you see *Haerlem* Church far within the Land, and as over a white Sand-hill: The Church appears in form of a †, and has an exceeding high Spire-Steeples upon it: Also there appears a smaller Spire beyond it to the northward, call'd *Breek-nejter*.

N. B. Against this Town the Coast falls in, making a large Bay.

From *Santford* it is 3 Ls. to *Wick*, where is a square Tower Steeple. Thwart of *Wick*, a little to the northward, you see *Beverwick* within the Land, a high Spire Steeple. From *Wick* is 3 Ls. to *Egmout*: here is a large Tower Steeple like a Sail, it appears on a Sand-hill. A little to the southward you

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Sailing on the Coasts of Holland.

of Holland, between the Maes and the Texel.

The next southward is call'd *Dirckoom's* Sand-hill, and the next *Blenk*. From thence they run off sloping southward, and at length to nothing, or to only a low flat Sand. Upon the E. end call'd the *Holder*, are some Sand-hills; and betwixt the *Holder* and *Kickerfdown* are some Sand-hills also, like a Dike in the Mid-way, on which stands the outmost Beacon, the great Beacon being more within the Land, E. from *Kickerfdown*.

Upon the *Texel* Island are four Churches; the westernmost is *St. John's*, with a high Spire Steeple, but the Sailors call it *Wafstyend*, and *Western*, and *Wambus*, all meaning the same. To the westward of it is another Spire call'd the *Hoorn*: The third is to the northward, call'd the *Burgh*: The last is the *Oogb*, or *Kogb*, and is the northernmost of all, but has no Steeple, being cover'd with blue Slate.

The *Fyerland* is a small Island near the N. end of the *Texel*; at a high Tide it is parted from the *Texel* by the Sea: 'Tis a little flat Island with small Hummocks, has no Church in it, and but two Houses.

The Setts of the Tides from the ordinary Observations.

The Tide to the *North Sea* runs round with the Sun, as in the former Account, particularly upon the *Broad Fourteens*, and falls but a quarter Tide right with the Coast. Nearer the Coast of *Holland* and *Zealand* both Flood and Ebb sets more towards the Land; but in the middle of the Tide it sets right along the Coast, and at last sets to Seaward N W.

You may know upon this Coast, tho you are out of sight of Land, when you are to the northward or southward of the *Maes*, by the turning about of the Tides, if the Weather is calm: To the southward the Tide turns about against the Sun, but to the northward it turns about with the Sun, till the last quarter of the Tide, and then it sets towards the Shore.

You have no help at all of the Ebb upon the Coast of *Holland* for turning to Windward towards the *Maes*, except out of sight of Land; for there runs no Ebb by the Shore, if the Wind be to the southward of the W.

Of the Nature and Depth of the Shoals off of the Coast of Holland.

Five or six Leagues N.E. from the *Texel* lies a Sand they call the *Broad Fourteens*, having a small Tail running N. from the *Texel*, and N.W. from *Vlye* to the southward; it runs along Shore as far as *Catwick*, and so on against *Scheveling*; the W. side reaching off 11 to 12 Ls. right into the Sea, from *Nort-*

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Sailing Directions for the Channels of the Texel

Within the *Texel*, and between that and the *Holland's* Shore, are three Channels call'd the Channels of the *Texel*. 1. The *Land Deep*. 2. The *Slenk*. 3. The *Spaniards Gat*.

The *Land Deep* is the easternmost, and goes in between the Shore of *North-Holland* and the *Flakes Shoal* or *South Sand*, and has 4 Buoys in it.

If you come from the southward, and would find the *Land Deep*, take the Soundings of the Shore in 4 $\frac{1}{2}$ Fa. and then keep along by the Shore, and you will come right with the utmost Buoy: But be sure you come no nearer the Shore, for fear of the Tail of a Sand call'd *Arian Berker's Creek*, which shoots off from it to the southward of *Blenk*, by the *South Sand-hill*; otherwise if you come with an open Wind, keep the great Beacon upon *Huyfdown* over *Dirckoom's Sand-hill*,

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Of the Nature and Depth of the Shoals off of the Coast of Holland.

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To the southward there lie off upon the Coast off *Holland* also, three small Shoals or Sands: They are broad and shoal near the Land, but grow sharp and deep towards the Ends. The Fishermen call the first the *Small Eight*, it begins a little to the southward of *Egmont* (by the Sea.) The second is call'd the *Witterib*, and lies thwart of *Wick*; the third, which is the southermost, is call'd the *Hard*, a little to the northward of *Santford*.

The high Steeples on the Coast of *Holland*, mention'd above, as *Inner Egmont*, *Wick*, *Santford*, and others, are seen 5 Ls. from the Land, and long before you see the Sand-hills on the Shore, that is, upon the S. end of the *Fourteens* in 14 to 15 Fa. But you see *Camperdown*, and the Sand-hills thwart of *Haerlem*, before you can see some of the Steeples. The Steeples along this Coast are most of them flat, like Towers.

Channels of the Texel, and the Texel Stream.

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Note, The Beacon is a little to the southward of *Kirkf-down*, only not so high.

The second Buoy lies in $4 \frac{1}{2}$ Fa. low Water near the *Wester Grounds*, or *South Sand*; leave it on the Larboard-side, and run along to the eastward of it between it and the Shore: It lies in N.E. and N.E. by N. 'tis all safe on either side, unless you run ashore.

But be sure to avoid a Shoal lying off from the Shore thwart of *Kickf-down*; so you must edge a little from the Shore there. When you come to the second Buoy, you will see a Mill to the northward of *Kickf-down*; and at the third Buoy the *Mill* and *Cane-Nelles House* come into one. Those two Buoys lie in 5 Fa. at low Water.

From

Directions for Sailing on the Coast

From the third to the innermost Buoy it is N.E. by E. you must go in close along to the eastward of it, to avoid the said little Tail of Sand which lies thwart off from the Shore; and then run within a Bow-shot about the Heads, and by the Shore of *Helder*: For to sail from the *Helder* towards *Wieringen Flat*, your Course is N.E. or a little easterly, as the Wind and Tide may be, otherwise go by the *Texel* in 8 to 9 Fa. till *Horn* comes to the northward of *Zuydhaftel*, which is a small Parcel of Houses to the northward of the *Sconce*; but take heed of the *Wieringen* side, for 'tis so steep there, that you may have 12 or 13 Fathom at one Cast, and be a-ground before you can heave the Lead again: Therefore when you have *Horn* and *Zuydhaftel* in one, keep them so, and run up to *Voogelsand*; and when *Eyerland* comes open without the E. Point of the *Texel*, then you are come the length of the Buoy upon the *Burgsand* lying on the S. Shore upon a Tail of it; from thence you may sail within it in 5 to 6 Fa.

From the Buoy upon *Burgsand* to the Beacon upon *Voogelsand* it is E. by N. and you may make use of the above Marks of *Horn* and *Zuydhaftel*, till you have the Beacon upon the *Texel* and the Mill of *Easter Point* in one: Then leaving the first, keep them in one, and run up to the Beacon upon the *Nefs*; and so you will keep the best of the Channel, which is 10 to 12 Fa. If the Mill should be but a little to the westward, you will be too close to the S. Shore, which is so steep that you must not come nearer it than 8 or 9 Fa. especially in turning to Windward. Being about the *Nefs*, go away S. and S. by W. towards the northern Buoy, which lies on a little Flat. If you would go up to *Amsterdam*, take a Pilot from the *North Holland* Shore.

The next Channel by the *Texel* is the *Slenk*: This lies between the *Keysars Flat* and the *South Sand*, and has six Buoys in it. If you come from Seaward, and would go in at the *Slenk*, you must bring the Steeple of *Horn*, and the Beacon upon the *Texel* into one, bearing E.N.E. northerly; sail so right in with them, and you will go in sight of the outermost Buoy, which lies from *Kicksdowen* W.N.W. westerly, and from the *Helder* W. If you come from the northward or the westward, then bring *Kicksdowen* E.S.E. from you, or the great Beacon upon *Huysdowen* a little to the northward of *Kicksdowen*, viz. between it and *Cane-Nelle's House*: Run right in with them, till you bring the Beacon upon the *Texel* and *Horn* Steeple into one; then you have the length of the outmost Buoy, which lies in $4\frac{1}{2}$ Fa. at high Water, and 2 $\frac{1}{2}$ at low Water. Keep the Steeple and Beacon thus in one; and as you cannot sail seeing the outmost Buoy, so you shall go on till you pass the third Buoy, for they lie all alike, as do the 4th and 5th. In the Middle of the Fair way, to the southward of them, is the deepest Water: The Shore on that side is also very steep, you will at one Cast of the Lead have 4 Fa. at the next but 2, but the N. side is flat going up. The fourth Buoy lies E.N.E. easterly from the third; the fourth and fifth E. by N.; the fifth and 6th E. by N. and E.N.E. The second at low Water lies at the shoalest of the *Slenk*; the rest lie at

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3 Fa. to 3 Foot: but the E. Shore is flat, and you may run along by it with your Lead, till you come within the six Buoys. The innermost Buoy of the *Stenk* makes the seventh, and lies upon the Tail of the *Keyfars Flat*: this lies from the sixth Buoy S.W. but the *Helder* S.E. There's no danger if you go from the sixth Buoy to the *Helder*, or to the Buoy upon the Tail, and so along the S. Shore, which is also very steep, or right to the *Helder*, as the Wind and Tide gives leave.

N.B. The first of the Flood runs very strong N.N.E. over the S. Ground to the *Spaniards Channel*, till half Flood; and the Ebb S.S.E. till half Ebb. The *Helder* lies from the Buoy upon the Tail E.S.E. or S.E. by E.

When you are come up near the *Helder*, run close along by it, to avoid a Tail which stretches out from the *Geest Sand*, and lies off; and you must leave the Buoy which is upon it on your Larboard side. Being past the *Helder*, go away N.E. easterly, or along by the *Texel* in 8 to 9 Fa. into the *Capeveaders Road*: then take the Directions of your Pilot, as above.

If you would sail from the *Capeveaders Road* out to Sea by the *Texel*, you must steer S.W. westerly to the *Helder*, or run along by the *Texel* in 9 to 10 Fa. till you come near the *Helder*, and then out again N.W. by W. and W.N.W. close by the Shore of the *Helder*, and so by little and little more northerly, till you bring the two Beacons of *Huyfdown* into one, or that the greatest come to the westward of the least: Then run out N.N.W. a little northerly, or westerly, according as the Wind and Tides shall be, till you come against the N. Shore in 5 to 6 Fa. then run boldly along by the Shore, till you are clear out at Sea. *Note*, when the Steeple of *St. John's*, which the Sailors call *Wambus*, bears N.E. from you a little easterly, then you have the length of the innermost Buoy of the *Spanish Channel*, which you will see on your Larboard-side. To the northward of it lie four other Buoys all along by the side of *Keyfars Flat*, near N. by W. a little northerly; all which in sailing out are left on the Larboard-side. The outmost Buoy lies N. a little westerly from the fifth upon the Point of the *Keyfars Flat*. You may go a little way to the westward of it, but not far, for the *Keyfars Flat* on the E. side is very steep to the outmost Point of it. When you are thwart of the said outmost Buoy, then the Church at *Coog* lies E.N.E. easterly from you, and the two Beacons upon *Huyfdown* are in one.

To go out at the *Land Deep*, you must keep within Bow-shot of the Shore of *Huyfdown*, and about by the Heads, and you will not fail to find the innermost Buoy, which lies near the W. Shore in the shoalest part, being 17 Foot at high Water, and 13 at low Water. The Shoal is but narrow, about two Ships length; and within it is depth enough. Thwart of the Buoy there is a Tail of Sand runs off from the Shore to the Buoy; therefore you must run close by the Buoy, leaving it on your Starboard-side. Besides this, there are three other Buoys in the *Land Deep*, which in sailing out you must leave to leeward, and go between them and the Shore. When you are

Buoy, which lies from *Kickfdowen* W.N.W. westerly, and from the *Helder* W. If you come from the northward or the westward, then bring *Kickfdowen* E.S.E. from you, or the great Beacon upon *Huyfdowen* a little to the northward of *Kickfdowen*, viz. between it and *Cane-Nelle's Houfe*: Run right in with them, till you bring the Beacon upon the *Texel* and *Horn Steeple* into one; then you have the length of the outmost Buoy, which lies in $4\frac{1}{2}$ Fa. at high Water, and $2\frac{1}{2}$ at low Water. Keep the Steeple and Beacon thus in one; and as you cannot fail seeing the outmost Buoy, so you shall go on till you pass the third Buoy, for they lie all alike, as do the 4th and 5th. In the Middle of the Fair way, to the southward of them, is the deepest Water: The Shore on that side is also very steep, you will at one Cast of the Lead have 4 Fa. at the next but 2, but the N. side is flat going up. The fourth Buoy lies E.N.E. easterly from the third; the fourth and fifth E. by N; the fifth and 6th E. by N. and E.N.E. The second at low Water lies at 20 to 21 Foot at the shoalest of the *Stenk*; the rest lie at 4 Fa. in low Water; and the sixth and last in 3 Fa. upon the Point of the Tail of the *Keyfars Flat*. Note, You must not go to the northward of the *Stenk*, but leave it on your Larboard side: And you must reckon your Tides very well; for in the *Stenk* the first of the Flood sets N.N.E. on the S. Grounds till half Flood, and the Ebb S.S.E. until half Ebb. When you are within the last Buoy, it is wide, and you may go from thence right to the *Helder* S.S.E. and so upwards, as by the Marks for the *Land Deep*; for here the two Channels meet.

The third Channel is call'd the *Spaniards Gat*, and there are six Buoys in it: This lies betwixt the *Texel* and the Sand call'd the *Keyfars Flat*. To come into this from the *North Sea*, you must bring the two Beacons of *Huyfdowen* into one, or the biggest, which is the southermost, a little to the eastward of the other; then they will bear S.S.E. from you. Keeping them so, go right in with them, and you will come in sight of the outmost Buoy; and then *Coog Church* will bear E.N.E. from you: But if you come in from the southward or westward, you must bring it no farther N. than E.N.E. but rather easterly, and then sail right in till the Beacons come together; otherwise you will be too near *Keyfars Flat*, which is on the N. side and very steep. You must also be sure to go to the westward of the outmost Buoy, there it is broadest.

From the outmost Buoy to the second the Course is S.S.W. From thence by all the rest to the sixth it is S. by W. and S. easterly. The sixth Buoy is call'd the *Buoy of the Beacon and Steeple*, because it lies right with *Horn Steeple* and the Beacon upon the *Texel*. All the Buoys lie on the W. Shore in a Line: You may for need go to the westward of them, but not far; for the Shore is so steep, that in a Ship's length you come from

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out are left on the Larboard-side. The outmost Buoy lies N. a little westerly from the fifth upon the Point of the *Keyfars Flat*. You may go a little way to the westward of it, but not far, for the *Keyfars Flat* on the E. side is very steep to the outmost Point of it. When you are thwart of the said outmost Buoy, then the Church at *Coog* lies E.N.E. easterly from you, and the two Beacons upon *Huyfdown* are in one.

To go out at the *Land Deep*, you must keep within Bow-shot of the Shore of *Huyfdown*, and about by the Heads, and you will not fail to find the innermost Buoy, which lies near the W. Shore in the shoalest part, being 17 Foot at high Water, and 13 at low Water. The Shoal is but narrow, about two Ships length; and within it is depth enough. Thwart of the Buoy there is a Tail of Sand runs off from the Shore to the Buoy; therefore you must run close by the Buoy, leaving it on your Starboard-side. Besides this, there are three other Buoys in the *Land Deep*, which in sailing out you must leave to leeward, and go between them and the Shore. When you are past the outmost, you are clear of the Shoals, and may go where you please.

To go out of the *Slenk* you must run along to the southward of the innermost Buoy on the S.E. of the *Keyfars Flat*, leaving it on your Starboard-side: Then run out W. and W. by S. to the second and third Buoy, and from the third to the fourth and fifth, W.S.W. The outmost lies more southerly.

The Setts of the Tides.

Upon the *Wieringen Flat*, a S.E. Moon makes a full Sea.

In *Capevearders Road*, an E.S.E. Moon.

Without the *Grounds*, or Shoals of the *Texel*, an E. Moon.

In the Entrance of the *Texel*, an E. by S. Moon.

The Flood makes a good while longer in, and the Ebb longer out.

It begins to flow without and on the Shoals at a S. Moon, a little to the westward.

The first of the Flood and the after Ebb sets out of the *Texel* N.N.E. thwart over the Grounds and Channels, and right out at the *Spaniards Channel*, till Flood. On the contrary, the first of the Ebb with the after Flood sets right in at the *Spaniards Channel* S.S.E. over the S. Grounds, and thwart over the *Slenk* and other Channels, till half Ebb.

A little before half Flood it begins to run right in at these Channels, and a little before half Ebb it sets right out.

N. B. It is of great Concern to keep an exact Reckoning of the Tides in sailing into these Channels, either inward or outward.

Sailing Directions for the Zuyder or South- Channel of A



IF you are going to Sea from *Amsterdam*, with any Vessel drawing 10 Foot or more, you must keep the Middle of the Channel in sailing to *Tyoort*, and thence over the *Pampus*: Then keep *Marken* Church without the Land of *Udam*, till the Steeple of *Zuyderwoum* comes past *Konningherbeurt*, which are the Houses betwixt *Schuytbocks* Harbour, (that is, *Udam*) and *Durgerdam*: Run in then E. towards Land, till the new Church of *Amsterdam* come about *Durgerdam*; keep it so till the Church of *Wecsp* comes behind the Castle at *Muyden*, rather nearer the Church than the Castle. Keep *Wecsp* so, till *Edam* come without the E. end of *Marken*. In this Fair way you have one Foot more Water than if you sail'd thro'.

To avoid the Sand of *Muyden*, bring the Houses of *Tyoort* to the southward of *Heyligher-see* at *Amsterdam*, they are good long Marks. When *Monnik-dam* is at the W. of the *Schuytbocks* Harbour, and the House at *Muyden* between *Wecsp* and the Church of *Muyden*, then are you thwart of *Muyden* Sand: And to keep the Steeple of *Diemen* over the Point of *Tyoort*, as long as you can see it, is the long Mark to sail over the *Pampus*.

When you are thwart the E. end of *Marken*, sail then N.E. easterly towards the Fall of *Ork*, distance 7 Ls. Within 1 L. of *Ork* is a hard Sand call'd *Houtrib*, lying thwart over the Fair way S.E. and N.W. There is no more Water there than upon the Flat of *Wierengen* off of *Friesland*, or than right thro'. When *Enchusen* is N.W. and N.W. by W. from you, then you are upon the *Houtrib*. You may see the Light upon *Ork* before you come against the Sand. When ever *Ork*, or the Light upon it, bears more northerly than N.E. from you, and you have got Shoalings, 'tis certainly on the *Houtrib*; and keeping so, you will avoid the *Enchusen* Sand.

When you come from the southward, you are not near the *Enchusen* Sand, before the Church upon *Ork* come without the little Village there; and then *Ork* is E. by S. and E.S.E. from you. If then you go away N.W. by W. or W.N.W. you will run close by the side of the Sand; and if you bring the Church upon *Ork* to bear S.S.E. from you thro' the Houses, then you may go boldly on N.W. by W. or keep *Medenblick* upon the Point of the *Ven*, and meet with neither Sand or Shoal. Likewise coming from the northwards, bring *Ork* not more easterly than E.S.E. from you, and you shall avoid *Enchusen* Sand.

To the middle between the Buoys of the *Cripple* and the *Hoffede* the Course is N.W. by W. from *Ork*: With that Course you may run in to the southmost Buoy upon *Wier-*

for Sailing on the Coasts of Holland.

der or South-Sea, the Fly and Fly Stream, and the Channel of Ameland.

dam, with any you must keep to *Tyoort*, and keep *Marken* till the Steeple which are the is, *Udam*) and d, till the new am; keep it fo little at *Muyden*, ep *Weesp* fo, till In this Fair way Pd thro'.

Houses of *Tyoort* dam, they are the W. of the *Muyden* between e you thwart of *Diemen* over the s the long Mark

n, sail then N.E. Es. Within 1 L. thwart over the Water there than d, or than right by W. from you, e the Light upon in ever *Ork*, or N.E. from you, on the *Houtrib*; Sand.

are not near the *Ork* come without by S. and E.S.E. or W.N.W. you if you bring the thro' the Houses, keep *Medenblick* neither Sand or s, bring *Ork* not shall avoid *En-*

Cripple and the n *Ork*: With uoy upon *Wier-*

From the Buoy on the *Creyl* to the Buoy on the *Frees Plat* the Courie is N.E. When the Steeple of *Twifch* comes a little to the northward of *Medinbleck*, keep them fo as long as you can see them, and you'll find no Shoal between the *Flat* and the *Creyl*; but between the Buoy on the *Creyl* and that on the *Frees Plat* on the W. Shore along the Reach, lies a hard Sand call'd *Monick Sand*, which you may be foul of if you go too far over to the westward.

When you are about the *Creyl*, go away N. by E. (if you draw but little Water) over the *Broad Sand*, right to the Buoy upon *West Worcum Sand*; but with large Vessels keep the Fair way. To find the deepest part of the *Flat*, bring *Pendragen*, a little square Steeple which is to the westward of *Worcum*, to the westward of a little Village which is also to the westward of *Worcum*; and sail fo with it, and you will run right with the Buoy upon the *Frees Plat*: And when *Warnis* and *Mirnes* come into one to the northward of *Staveren*, you have the length of the Buoy on the W. side of the *Plat*: Then run along to the westward of it, becausè there the Water is deepest. When you come to the northward, you may go within the *Frees Plat* Buoy on the E. Shore.

When you are past the *Frees Plat* Buoy, go on N.N.E. till *Pendragen* come between the little Village and *Voor Wolde*: If then the Cliff lies thro' *Staveren*, you are in the deepest Water. Then run a little more northerly to the Buoy in the *Bight* or *Bocht*, which lies in 16 Foot in the Fair way, and go a little to the westward of it; but to the eastward of it, is deepest; and the farther in towards *Friesland*, the deeper. The Marks of the Buoy on the *Bight* is the little square Steeple of *Mirnes* to the southward of *Malqueren*; bring the Steeple to bear within *Malqueren*, and keep it fo till you come in the Fair way of the Buoy of *West Worcum*. Note, This is a good Mark when the Buoys are taken away. The old thwart Marks of this Buoy on the *Bight*, are *Mirnes*, *Malqueren*, *Honclum*, or *Hutlopen*, and a little long Village: When they stand in four Parts between the Buoys on the *Bight* and on the *Frees Plat*, it is the shoalest of the Flat; when the former is on your Broadside, then go on N. by W. westerly to the Buoy of *West Worcum*, which is on the E. Shore in 16 Foot Water, upon these Marks, viz. a little Spire-Steeple call'd *Harich*, far within the Land, coming over a little Village on the N. of *Hutlopen* call'd *Dertswiek*, the depth thwart of it is 3 Fa.

The old Marks are two Villages near *Mackum* at the Water-side, and N.E. from it; and to bring these a little from one another, and two little Steeples to the northward of *Bolkwart*,

the Light upon it, bears more northerly than N.E. from you, and you have got Shoalings, 'tis certainly on the *Houtrib*; and keeping so, you will avoid the *Enchuyfen Sand*.

When you come from the southward, you are not near the *Enchuyfen Sand*, before the Church upon *Ork* come without the little Village there; and then *Ork* is E. by S. and E.S.E. from you. If then you go away N.W. by W. or W.N.W. you will run close by the side of the Sand; and if you bring the Church upon *Ork* to bear S.S.E. from you thro' the Houles, then you may go boldly on N.W. by W. or keep *Medenbleck* upon the Point of the *Ven*, and meet with neither Sand or Shoal. Likewise coming from the northwards, bring *Ork* not more easterly than E.S.E. from you, and you shall avoid *Enchuyfen Sand*.

To the middle between the Buoys of the *Cripple* and the *Hoffede* the Course is N.W. by W. from *Ork*: With that Course you may run in to the southmost Buoy upon *Wieringen Flat*. You may, if you turn it, bring *Wieringen* or *Medenbleck*: a little within the Point of the *Ven*: But when it is without, you are in the Fair way. There lies a little Flat of hard Sand between *Ork* and the Buoy upon *Hoffede* N.E. easterly from the Steeple of *Enchuyfen*; it lies towards the end of the *Enchuyfen Sand*, where it is not deeper than upon the *Frees Flat*. The Way by the W. of it is call'd the *Cattegat*; and by that way you will be the sooner clear of the *Enchuyfen Sand* or *High Horn*. But to the eastward is the deepest Water, the other therefore is for Vessels that draw but little Water.

The Spire-Steeple of *Grootbroeck* and *Hem* brought one against the other, are the thwart Marks of the Buoys of the *Cripple* and *Hoffede*; also *Wainis*, a low Spire-Steeple in *Friesland*, brought to the S. side of the Cliff of *Stavern*. Then you have the length of those Buoys which lie in 3 Fa. Water, one on the E. upon the Tail of *Hoffede*, the other on the Tail of the *Cripple*, on the W. Shore in the Fair way, 2 Foot less than 5 Fa. soft Ground. When the Steeple of *Medenbleck* comes to the broad part of the Houle of *Medenbleck*, then you are past the *Cripple Sand*; then go N.W. and N.W. by N. to the Buoy of the *Cryl*, as Wind and Tide may be: The Fair way there is scarce 5 Fa.

Thwart of the *Cryl*, a little within it on the N. Shore, and towards the Buoy upon the *Hoffede*, lies a hard Sand or Bank call'd the *South Cryl*, on which is but 2 Fa. at low Water; but between that and the N. Shore it is 3 Fa. and soft Ground; and to the southward or westward of it 'tis $4\frac{1}{2}$ Fa. When a little square Steeple call'd *Mirnes* in *Friesland* comes over a long Country Houle to the southward of the Cliff of *Stavern*, then you are thwart this Bank. The Marks of the Buoy upon the *Cryl* is the Spire-Steeple over the Corn-mill to the westward of *Medenbleck*; and the little square Steeple of *Maerns* to the S.E. side of the Cliff is the right Fair way, there is $4\frac{1}{2}$ to 5 Fa. soft Ground; the Buoy lies in 4 Fa. If need be, you may run a Cable's length to the eastward of it.

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... Steeple of *Sturms* to the northward of *Malqueren* ; bring the
Steeple to bear within *Malqueren*, and keep it so till you come
in the Fair way of the Buoy of *West Worcum*. Note, This
is a good Mark when the Buoys are taken away. The old
thwart Marks of this Buoy on the *Bight*, are *Mirnes*, *Mal-*
queren, *Hemelum*, or *Hinlopen*, and a little long Village :
When they stand in four Parts between the Buoys on the *Bight*
and on the *Frees Plat*, it is the shoalest of the Flat ; when
the former is on your Broadside, then go on N. by W. westerly
to the Buoy of *West Worcum*, which is on the E. Shore in
16 Foot Water, upon these Marks, viz. a little Spire-Steeple
call'd *Harick*, far within the Land, coming over a little Vil-
lage on the N. of *Hinlopen* call'd *Dortswick*, the depth thwart
of it is 3 Fa.

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The old Marks are two Villages near *Mackum* at the Water-
side, and N.E. from it ; and to bring these a little from one
another, and two little Steeples to the northward of *Bolswart*,
as near together as the other are asunder : One is call'd
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The thwart Marks are, to bring a high House on the E. end
of *Coudom* near to the S. end of *Hinlopen* : From thence to
the Buoy upon *Tghelboeck* the Courte is N. The Marks are,
a little Spire-Steeple with the first long Village to the north-
ward of *Worcum* call'd *Geest* : When that Steeple comes in the
innermost Swamp of the long Village, then you are thwart
the Buoy.

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The longest Marks are, the Spire Steeple of *Pingom* over
the square Steeple of *Coorenwaert* at the Water-side, and *Pen-*
dragen over the little Houe to the northward of the Village
with the Swamp ; or when the Mill of *Staveren* comes be-
tween the Town and the Block-houfe. These are all good
longst Marks of the Buoy *Tghelboeck*. From thence to the
middle Ground the Courte is N the depth of the middle
Ground 7 Fa. in the Fair way : Between *Worcum* and *Tghel-*
boeck it is 4 Fa. foit Ground ; the E. Shore is flat, and the W.
Shore steep.

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The Buoy of the middle Ground lies upon those Marks ; the
two Spire-Steeple *Arund* and *Pingom* brought into one about
N.E. from you, or *Bolswaert* right with *Mackham* ; good
thwart Marks.

The longest Marks are *Kingswart* (which is also call'd the
Runner) brought behind the Church of *Suruck*, which is near
the Water-side, upon a Point that runs out about N.E. by N.
from the Buoy ; then you are right in the Fair way : Or when
the Tower-Steeple of *Wynum* to the northward of *Harlingen*
comes between *Midlum* and the E. end of *Harlingen*, then
you are right with the Buoy of the middle Ground, and are
nearest to that which *Wynum* is nearest to. The W. Shore is
steep, the E. Shore a little flat ; you may run over it in 3 Fa.
and come into 5 Fa. towards *Friesland*. From the middle
Ground outwards to the *Fly* there are no Tails of Sand on the
West Shore.

Being then past the Buoy on the middle Ground, go on
N.N.W. to the Buoy upon *Swambalgh*, which lies on the E.
Shore

Directions for Sailing on the Coasts of

Shore in 3 Fa. The thwart Marks are *Bolſwaert* over a little low Houſe to the ſouthward of *Coorenwaert*. When you go over between the Buoy on the middle Ground and *Swanebalgh* on the E. Shore, ſtand no farther eaſterly than into 3 Fa. and then you will come again into 4 to 5 Fa. You might, outward bound, fail behind the Shoals of *Swanebalgh*, or homeward bound, behind the Shoals of the middle Ground. On the W. Shore you will find 4 Fa. or $3\frac{1}{2}$ over-againſt the Buoy upon *Swanebalgh*. and good Ground to anchor in.

From this Buoy to the Buoy upon *Schyteſand* the Courſe is N.W. northerly: the thwart Mark is *Winaem*, brought over the highest part of *Harlingen*: the longest Mark is *Bolſwaert*, brought to the Northwards of the *Shuys*, which lieth to the Northwards of *Woens*. This Buoy lies to the northward on the E. Shore in 6 Fa. upon a Tail or Point; outward bound you may fail within it, and have 7 to 8 Fa. and you may keep along the Weſt Shore in 4 Fa. indifferent flat, the Eaſt Shore ſteep; but a little without the Buoy 'tis flat as far as *Keeſhoeck*, and you may found it all along to the *Shot*. You may alſo go within the Weſt Shore over againſt *Schyteſand*, or to the Southward of it, in 3 Fa. to $3\frac{1}{2}$ into a dead Swatch behind the Tail of Sand called the Point of *Waert*; and keeping in 4 Fa. on the Weſt Shore, you go clear of it: This is in ſailing up. Alſo if you go up with the firſt of the Flood, keep the E. Shore, to avoid being driven into a dead Swatch behind the *Waert* before you are aware. There is a Beacon upon the Point of the *Waert*, and to the Northward and Weſtward two more, called the Beacons of *Claeſvomen*; and to the Southward of the *Waert* is a Beacon upon *Dominicus Plat*, which the Pilots call *Mynſen Plat*.

The Marks for this long Paſſage are *Mackum*, brought to a Mill at the Water-ſide, and a Village called *Idſegbauiſen*, with a little Tower Steeple to the Southward of *Mackum*. When *Pendragen* comes between *Mackum* and the Village, you go clear of the ſaid Tail or dead Swatch; but if it come neareſt to *Mackum*, then you are too much upon the E. Shore.

From *Schyteſand* to the Buoy upon *Keeſhoeck*, you muſt go W.N.W. or N.W. by W. as the Wind and Tide may be: For the Tide in this long Paſſage runs little more than half Tides, which you muſt well obſerve along the Deep. The laſt half of the Flood, and the firſt half of the Ebb ſets over to the Weſtward; and the firſt half of the Flood and the laſt half of the Ebb to the Eaſtward.

The Marks of the Buoy upon *Keeſhoeck* are, *Franiker* Steeple between the Mill and the Town of *Harlingen*, or to the Maſtheads of the Ships in the Harbour: This Buoy is on the Eaſt Shore. The Fair Way, and thwart it, is 8 to 10 Fa. Between it and *Schyteſand*, or between the Beacons of *Claeſvomen* and the Point of the *Waert*, there is almoſt in the middle of the Fair Way a little narrow Plat, which lies along the Reach neareſt the Weſt Shore; it has $3\frac{1}{2}$ to 4 Fa. and you may be over it in two or three Caſts of the Lead.

Weſtward from *Keeſhoeck* lies the old *Fly*, firſt S.S.W. then S.W. to the Buoy on the *Nefs* in the *Texel Stream*. The laſt half of the Flood and the firſt half of the Ebb ſets very ſtrong

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The Island of *Fly* is 3 Ls. long, and very easy to be known: To the Westward it is full of little low Hummocks, and upon the E. end are several high white Sandhills. At the West end is a Church, with a Mill to the Eastward of it; from the end there shoots off a Rift a good way into the Sea; and to the Westward of the Rift goes a Channel between *Flyland* and *Eyerland*, called the *Westergat*, or *Westfield Deep*: But this is for small Vessels only, there not being above 8 to 10 Foot Water. At the E. end is a Mill with a *Cape* or *Beacon*, which are Marks to avoid the Grounds before the *Fly*. Note, The E. end of *Flyland* and the W. end of *Texel* lie 3 Ls. asunder.

Schilling lies E. from the *Fly*, and is about 3 Ls. long, with two Churches upon it. At the W. end is a high Tower called *Brandaries*, with a Mill by it. About the middle is a Spire Steeple called *Midlands*, and the *Hoorn* is a Mill. At the E. lies some little Hills or Downs; at the W. end is a Light-house, and two Capes or Beacons: The biggest is a Mark for the E. Channel, and the least for the W.

Stortelmeck Channel.

To sail into the Channel of the *Fly*, which some call *Stortelmeck*, bring the Beacon at the end of the *Fly* and the Light-houses together, bearing from you S S E. easterly: keep them so, and you come right with the first Buoy lying in 5 Fa. on the outmost long Bank: This Bank on the North side is flat, so that coming from the North, and keeping in 5 or 6 Fath. you will fall in with the outmost Buoy. If you are put to it, you may run over the end of the *Long Bank* in 3 Fa. towards the Shore, but not far to the Eastward of the second Buoy, for a good way to the westward there is a Point of a small Tail of Sand runs right out S. near the Buoy: on it there is but 11 Foot Water: Between this Tail and the long Bank, lies a *Swatch* in the Ground to the Eastward, where is 5 Fa. Water. Some coming over the end of the *Long Bank*, and finding deep Water, have thought themselves in the *Stortelmeck*; and to luffing, have run into the said *Chop* or *Swatch* between the two Tails: But if they have the Wind Westerly, they are in great danger, unless they come about, and run out as they come in. If you come from the W. along by the *Fly* in 4 to 5 fa. and by Day-light, you will not fail to see the outmost Buoy if in the Night, and near *Stortelmeck*, bring the Light-houses S.S.E. and run to nearer the Shore, and then you go to the westward of the outmost Buoy. Within *Stortelmeck* there lie 7 black Buoys and a white one: Going in, you leave all the black on the Larboard side, the white one on the Starboard, and run along to the Southward, leaving all the other white Buoys both in *Booms Channel*, the *Jetting*, and the *Fly* Streams, on the same side. In coming out, keep a little off from the Shore, for there is a Shoal right against the first Buoy of the seven.

The second Buoy, called the outmost *Droog Drie*, lies in 11 Foot; upon the shoalest of the Channel S. there is the same Depth, but a little farther is 16 Foot.

The third, called *Innermost Droog Drie*, lies in 16 Foot in

clear of the Lud Mill or dead Swath; but if it come nearest to *Ma kum*, then you are too much upon the E. Shore.

From *Schytesand* to the Buoy upon *Keesboeck*, you must go W.N.W. or N.W. by W. as the Wind and Tide may be: For the Tide in this long Passage runs little more than half Tides, which you must well observe along the Deep. The last half of the Flood, and the first half of the Ebb sets over to the Westward; and the first half of the Flood and the last half of the Ebb to the Eastward.

The Marks of the Buoy upon *Keesboeck* are, *Franiker Steeple* between the Mill and the Town of *Harlingen*, or to the Mastheads of the Ships in the Harbour: This Buoy is on the East Shore. The Fair Way, and thwart it, is 8 to 10 Fa. Between it and *Schytesand*, or between the Beacons of *Clafvoomen* and the Point of the *Waert*, there is almost in the middle of the Fair Way a little narrow Plat, which lies along the Reach nearest the West Shore; it has $3\frac{1}{2}$ to 4 Fa. and you may be over it in two or three Casts of the Lead.

Westward from *Keesboeck* lies the old *Fly*, first S.S.W. then S.W. to the Buoy on the *Nefs* in the *Texel Stream*. The last half of the Flood and the first half of the Ebb sets very strong into this Channel. In going up you may go within the Buoy in 4 Fa. the Marks are, the Steeple of *Franiker* brought to the Southward of the Steeple of *Harlingen*; then go outward over the *Schieringshals*; the W. side is steep, 8 Fa. close to the Shore. In the Fair Way, between the Buoys, and thwart the Buoy upon the Elbow, is 10 to 11 Fa.

From *Keesboeck* to *Woolshoock* you go first N.W. then W.N.W. to the Buoy between them, call'd the *Schor Tuu*, or the Buoy on the *Elbow*; and from thence to the Buoy upon *Woolshoock* N. somewhat Easterly: it lies in 4 Fa. on the E. Shore. From thence to the Buoy upon *Schieringshals* your Course is N.N.W. and N.W. by N. according as the Wind and Tides are. To the N.E. of the Buoy upon *Woolshoock*, is a broad Bight reaching S.E. far into the Grounds, called the *Inschot*; there is 7 Fa. at the going in. The first of the Flood sets from *Schieringshals* very strong in there. On the contrary, the first shoot of the Ebb runs very strong out of it upon the Tail of *Schieringshals*, and has cauled many Ships to be lost. This Tail shoots off from the W. Shore, there is a white Buoy upon it in 3 to 4 Fa. Coming from without, you may go within it in 6 Fa. the right depth between *Woolshoock* and *Schieringshals* in 9 Fa.

From *Schieringshals* to *Longsand* is N.W. and N.W. by N. between them both on the W. Shore is shoal Water; this is the best Road in all *Fly Stream*, and there runs but little Tide; in the Fair Way you have 8 to 10 Fa. In turning up, you may go within the *Longsand* Buoy upon the E. Shore, keeping in 7 to 8 Fa. and then you will not be too near either the *Schieringshals* or the *Longsand*. When the Eastermost House upon the *Grind* comes a little to the Northward of the Westermost, you have then the length of the Buoy upon *Longsand*. From *Longsand* to the *Stoot* you go N.N.W. and in the Fair Way there is 10 Fa. or you may run along by the Beacons upon *Crakefand*, till you come into the *Stoot*.

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The second Buoy, called the outmost *Droog Drie*, lies in 11 Foot; upon the shoalest of the Channel S. there is the same Depth, but a little farther is 16 Foot.

The third, called *Innermost Droog Drie*, lies in 16 Foot in the Fair way: between both is 3 Fa.

The fourth is called *Heyckboeck*: Between the 3 Buoys and this is 5 Fa. Over-against this Buoy lies the white Buoy on the *Strand*; near it runs a little Tail of a Sand from the Shore, which you may run over. When you are going out to this white Buoy, which is the third from without, it stretches N. N.E. from the 4th to the 5th almost East

The 5th Buoy is called the *Outmost Corner Buoy*.

The 6th the *Middlemost Corner Buoy*.

The 7th the *Inmost Corner Buoy*.

Between the outmost and middlemost there runs a Tail of Sand from the Shore, which you may fail over from without; it reaches almost to the Buoy; there the Stream breaks thro' the Wall, and scours the Tail over to the N. Shore. From the innermost Buoy, run along by the Strand of the *Fly*, or Southward of the Buoy upon the Plat.

Easter Booms-Gat.

The *Easter Boom-Gat* is very much alter'd. The *Schorr Ground*, or *Peter's Ground*, is grown near the Strand of the *Schelling*: Before it lies a Sand, between *Peters-Ground* and the Shore; it is about half a Ship's length broad, and two Ships length long: it has 5 or 6 Foot Water, and between it and the Strand 7 to 8 Foot, but between it and the *Schorr* 11 Foot to 2 Fa. Great Ships might easily go in or out here, if a Buoy were laid on the Point of the *Schorr* to shew the Entrance; but there being no such Marks, 'tis dangerous. Coming from the E. and having Mid-Land Church upon the *Schelling* E.S.E. from you, then you are near this Sand.

Wester.

Wester-Boom Gat or Channel.

To go into this Channel coming from the W. bring the Beacon of *Brandaries* on the W. end of the Island of *Schelling*, and the Tower there, both in one, E. and E. by S from you, keep them so, and run by the outmost Buoy in 6 Fa. till you come to the second Buoy: Then bring the Tower a little to the Southward of the Beacon, and then you will run between a white and black Buoy, where is 17 Foot at low Water in the shoalest. From thence in 6 or 7 Fa. you are in the Fair Way of the *Boom Channel*; the N. side is the deepest, but the Channel is so broad and fair, that you may turn it up; and if it be calm, the Current will set you right in of it self.

To sail into the *Jetting* thro' the *Robbogat* near the *Roslyne Plat*, you must run towards the Buoy of the *Long Sand* between the black and white Buoy, leaving the black on the Larboard, till you come to the Beacons on the *Nakens*; you will see plainly from Buoy to Buoy: then go out along by the said Beacons E.S.E. till *Brandaries* comes near to the *Grind*, tho not right with it: keep them there, and run on Southwards to the first Buoy on the Tail of *Hendrick Jaerts Plat*: then leaving them on the Larboard-side, run on S.S.E. to the last Buoy, which lies on the South Point of the Plat.

Over against those Beacons on the *Nakens* lie two white Beacons on the S. Wall: The most Easterly is on the Tail or falling off; you may go by to the Southward. The Road where the Ships bound to *Harlingen* stop to lighten, lies between two black Buoys by the W. Coast.

N. B. All the Depths above-nam'd at *Stortelmebeck* and *Booms-Gat*, is at low Water; it is three Foot deeper at half Flood, for it flows there at a common Tide but $5\frac{1}{2}$ to 6 Foot.

Ameland Channel.

Ameland is an Island 2 Ls. to the Eastward of *Schelling*, lying E.N.E. and W.S.W. Upon the W. end of it is a Beacon, and a great Tower Steeple called *Hoelm*: The Roof of the Church is broken off, but the back Front has the Roof upon it, and appears above the Walls. To the Eastward of this Church is a Mill with a Houle, to the Westward of that also a square Tower: About the place where *Midland Church* stood, are 3 or 4 white low Sandhills flat on the top, and long towards the E. it is craggy Land with white among it. From the W. end runs off a Rist almost 3 Ls. into the Sea, called *Born Rist*; 'tis very steep on the outside: you must not come nearer it than in 12 Fa. If you come from the Eastward you must not go within it, but in 7 Fa. you go close aboard it.

To go into *Ameland* from the Seaward, bring the Beacon on the E. end of *Schelling* right over the Steeple of *Hoorn*, bearing S S.W. from you westerly; go in so till the Beacon on *Ameland*, and the Steeple of *Hoelm* come one over the other:

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The Coasts of Holland and Germany.

of *Born Rift*; run along to the Southward of it, keeping the Beacon and Steeple one over the other, till you pass the second Buoy, which lies thwart the W. end of *Kamperland*. In the Fair Way between those two Buoys you have 5 to 6 Fa. Water. Being past the second Buoy, bring the Steeple a little to the Northward of the Buoy, and go on E.N.E. towards the third Buoy upon *Gerritsbonden*, to avoid the *Plat* which lies off from the S. side towards *Born Rift*, on which lies two white Buoys, the first against the said third black Buoy, and the other against the fourth black Buoy, which lies from the third about S.E. Run thro' between the black Buoy and the white, leaving all the black on your Larboard side: the *Plat* on the N. side is indifferent flat, you may run by it upon the Lead. But be careful in shifting your Tides, especially the first Quarter Ebb, which runs very strong in the Channel N.N.W. over *Born Rift* into the Sea. Between the second and third Buoy in the Fair Way is 8 to 9 Fa. between the third and the said *Plat* 7 Fa. Being past the fourth Buoy, both sides are very steep, and the Fair Way is 8 to 12 Fa. go in then S.S.E. till the Steeple of *Hoelm* come over the S. Point of *Ameland*, where the Boats lie; and then you are in the Bight. The S. side is flat, and good anchoring in 5 to 6 Fa. the N. side is very steep.

To sail farther into *Horsfen*, go away from the Bight E.N.E. along by the S. side in 5 to 6 Fa. till *Heynoom's* Chamber, which is a red tiled House, come a little to the N. Eastward of *Hoelm* Church: then you are on good Ground, well shelter'd from all Winds, and have 5 to 6 Fa. Water, and little Tide. In the Fair Way it is 12 Fa. the N. Shore very steep.

N. B. All these Depths, as also of the *Fly*, are to be understood of Low Water.

Of the Sets of the Tides.

At *Amsterdam* a N.E. and S.W. Moon makes full Sea.

At *Hoorn*, *Enchusen* and *Ork*, a N. and S. Moon.

Between *Cripple Sand* and *Cryel*, a N. by W. and S. by E. Moon.

Upon the *Frees* and *Wierengen Flat*, N. W. and S. E.

In the *Fly* and *Ameland-Gat*, S.E. and N.W.

Before the *Fly* the Flood sets to the Eastward, thwart over the Ground, almost till half Flood, before it sets into the *Booms Gat*.

On the contrary, the Ebb falls to the Westward, thwart over the Grounds, till almost half Ebb, before it sets right out at the Channel.

The last Quarter Flood turns about with the first Quarter Ebb, and sets along *Flyland* out of the *Stortelmeck*; but the first Quarter Flood runs right in there.

Of the Soundings about these Places, and in what Depth the Land may be seen.

Ameland is an Island 2 Ls. to the Eastward of *Schelling*, lying E.N.E. and W.S.W. Upon the W. end of it is a Beacon, and a great Tower Steeple called *Hoelm*: The Roof of the Church is broken off, but the back Front has the Roof upon it, and appears above the Walls. To the Eastward of this Church is a Mill with a Houle, to the Westward of that also a square Tower: About the place where *Midland* Church stood, are 3 or 4 white low Sandhills flat on the top, and long towards the E. it is craggy Land with white among it. From the W. end runs off a Rift almost 3 Ls. into the Sea, called *Born Rift*; 'tis very steep on the outside: you must not come nearer it than in 12 Fa. If you come from the Eastward you must not go within it, but in 7 Fa. you go close aboard it.

To go into *Ameland* from the Seaward, bring the Beacon on the E. end of *Schelling* right over the Steeple of *Hoorn*, bearing S S.W. from you westerly; go in so till the Beacon on *Ameland*, and the Steeple of *Hoelm* come one over the other: then leaving the first Mark, sail in upon the second, and you will fall with the utmost Buoy, lying within the outmost Point of *Born Rift*.

Coming from the Westward, run along by the Strand of *Schelling* in 5 to 5½ Fa. at low Water, and you will go right with the outmost Buoy; and then the Church and Steeple on *Ameland* will come one over the other, bearing E. southerly.

Coming along by *Schelling* in 4 Fa. you will avoid *Koggedreeps Ground*. Over-against it lies the first Buoy on the S. side

Sailing Directions for the Coasts of Germany, from the Channel of Ameland,



AST of *Ameland* a little Northerly, lies the Island of *Schieermoncoo*, distance 3 Ls. it is a small low Land stretching E. and W. about 2 Ls. there are two Beacons placed on the W. end of it, where there is also a white Sand-hill. There are other Sand-hills, but they are rather blackish or grey Hummocks. The Island is highest at the E. end, where also the Shore is flat and sandy, with some small Sand-hills.

But if you would go in here, bring the two Beacons into one; you will see a Buoy which is placed without the Channel in 7 Fa. Water: There are two or three Buoys within in the Channel, you must leave them all on the Starboard side, keeping to the Eastward of them; and when you are in the Channel, you will see other Beacons on the W. Shore, guiding to *Ostmerboom*, where is good anchoring. The Entrance and Channel here shift often, so that you will do well always to take a Pilot.

East from *Schieermoncoo*, distance 4 Ls. is the Island of *Rottum*, and between them a small Island called the *Bosfels*: 'tis a

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Directions for Sailing on the Coast

flows it, and divides it into three parts. There is a Sand shooting out a great way into the Sea from the W. side of the Island, called *Borcum Riff*: it is broader next the Island than at the W. end, where it is flat and very narrow. Keep the Beacons upon *Rottum*, bearing S.E. and you will run over the Tail of the *Riff*: it has $2\frac{1}{2}$ Fa. at low Water; it shoots with a Breast inward, and is very steep on the side.

Keeping the same Beacons in the same Bearings, you go directly into the Channel of the *Embs* to the first Buoy: then you will see the Tower of *Borcum* E. Southerly, and the West end of *Rottum* S.E. by S. The said first Buoy is white, with a Flag on it, that it may be more visible: It lies on the Tail of the *Gelt Sacks Plat*, and has 6 Fa. at low Water.

Hence to the next Buoy up the *Embs* the Course is S E. by S. This is a black Buoy, and lies in 7 Fa. Water: Keep this Buoy on your Starboard, and the white on the Larboard-side sailing up. Being up with the second Buoy, *Borcum* Tower bearing E. and *Rottum* Beacons S.E. by E. then the Course to all the four Buoys is E. by S. Coming in thus from the W. when you are near the *Lauwers*, keep along there in 5 Fa. and then go on due E. that Course carries you clear of the *Gelt Sacks Plat*, in 3 to 8 Fa. till you come to the fourth black Buoy, where you have 4 Fa.

From this fourth Buoy to another which lies in the Turning of *Rottum*, the Course is E.S.E. From thence to the sixth Buoy, and to the *Huybert's* Buoy, the Course is E. by S. All these Buoys lie in 6 to 7 Fa. a clear spacious Channel; and in the Fair Way it is 12 to 14 Fa. Water.

From the outmost to the innermost *Huybert's* Buoy, the Course is E.S.E. These Buoys lie in 6 Fa. From this last Buoy to *Steven Jans's* Buoy, the Course is S.E. As you pass this Buoy, there is a small Tail of a Sand called *Miewen's* Tail, which shoots from the *Wolds* at the S. end of *Borcum*. Leave *Borcum* a little on your Larboard side, and you run by it in 5 Fa. at low Water, so that there is no Danger.

W. from *Steven Jans's* Buoy are 5 Beacons; and S. of them lies a Channel called the *Watt*, which goes in S. by W. There you meet with a Riff called the *Raufel*: Keep the Tower of *Borcum* on the W. of two little rising Grounds at the S. end of *Borcum*, called the *Wolds*; and you go by the *Watt* Channel clear of the *Raufel*, where you have 8 to 9 Fa. Water.

The next is *Doeck* Buoy, the Course S.E. and Southward of it is *Ruyte* Beacon: the Flood sets very strong into *Doeckgat* behind this Buoy, and you must take care of the Inraft.

From hence the Course is S.S.E. to *Camper* Buoy, and thence S.E. to *Emshorn* Buoy: they both lie in 5 Fa. but you have 7 to 8 Fa. in the Fair Way. Bring the *Closterdam* Church in one with *Hokwick*, bearing from you S.W. then you are a-breast of the *Emshorn* Buoy: from thence on the S.W. Shore you have 5 Beacons. Go away S.S.W. by them all to the *Groningers Dyke*, and bring the Church of *Wyrde* and the *Closterdam* in one, near the Shore of *Delft Zyl*. Thus you go clear of two Sands called the *Hont* and *Pape*, which lie on the E. side of the Channel; or you may keep close to the E. Shore in

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High Horn, which is a good Road for a S.W. Wind in 5 to 7 Fa. From hence you must take the Flood to go up; then steer to the Northward a little, to avoid the Tail of the *Brewers Plat*.

From the second Buoy, the *Juyster Riff*, which was so steep before, is flat, with good Shoalings; you may run along by it in 5 to 6 Fa. Being a little to the Eastward of the second Buoy, the third Buoy bears S.E. and there the Channel is broadest.

There is a Flat on the S. side of this Channel, called the *King's Plat*: steering from the E. end of *Borcum* S.E. you run directly on it; but bring the Buoy and Beacon which stand on the Tail of it, on the Starboard side, and you go clear. There are longer Marks, but this is sufficient.

From this Buoy on the *King's Plat* to the Buoy at *West Balgh*, the Course is S.E. till two Beacons on the Strand come in one, the Buoy bearing S.S.W. from you. Then to a second Buoy at *West Balgh* the Course is S.W. and by the same Mark, keeping on, you will run quite thro' the *Balgh*, and so come fair out into the great Channel of the *Wester Embs*; only remember, near the upper end keep S.W. half West.

In the way of this Course, between the Beacon called the *Hoogh Horn*, and the Buoy on the *King's Plat*, on the E. side of the Channel, is a very good Road, called the *Momer Balgh*, for small Ships, bound either in or out. You go in N.E. and then steer N. to the anchoring Place; there is $\frac{1}{2}$ Fa. Water in the Road, and good Ground.

There are two more small Roads, one within the *Balgh* by the *Hoogh Horn*, which lies or goes in due S. and the other at the end of *Juyst Riff*, between two Points, where is $\frac{3}{4}$ Fa. and good Riding. East from this Island of *Juyst*, and all along at a like distance from the Shore, lie a continued Range of Islands, with Sands and Flats about them innumerable; also with small Channels between them; most of which Channels being uncertain by reason of the often shifting of the Sands, are of small importance to Navigation: Nor are they so noticed by the Governments to which they belong, as to have any Buoys or Beacons plac'd upon them.

These Islands are, (1.) The *Buys*, the smallest Island on the whole Coast, distance from *Juyst* 1 League. The Channel between this and the *Juyst* is call'd the *Buys Deep*; it was formerly set with Buoys by the Council of *Emden*, but the Channel shifted to often, and was of so little importance, that they are taken away: The Island is known by two Hummocks, the highest is to the E.

2. *Norderny*, E. from *Buys*, distance $\frac{1}{2}$ a L. and 5 Miles in length: The Channel between is call'd *Norder Deep*: The Island is known by a white Sand-hill near the E. end, and a square Tower on the W. end.

3. *Baltrum*, E. from *Norderny*, distance 1 L. and 6 Miles long. Between this and *Norderny* goes in a narrow uncertain Gut call'd *Wichtery*; sometimes it has 2 Fa. sometimes not one, and sometimes almost choak'd up. There is no Mark to know the Island by, but some low Sand-hills at the W. end, and one high one at the E. end.

W. from *seven Fans's* Buoy are 5 Beacons; and S. of them lies a Channel called the *Watt*, which goes in S. by W. There you meet with a Riff called the *Ranfel*: Keep the Tower of *Borcum* on the W. of two little rising Grounds at the S. end of *Borcum*, called the *Wolds*; and you go by the *Watt* Channel clear of the *Ranfel*, where you have 8 to 9 Fa. Water.

The next is *Doeck* Buoy, the Courfe S. E. and Southward of it is *Ruyte* Beacon: the Flood sets very strong into *Doeckgat* behind this Buoy, and you must take care of the Indraft.

From hence the Courfe is S. S. E. to *Camper* Buoy, and thence S. E. to *Emshorn* Buoy: they both lie in 5 Fa. but you have 7 to 8 Fa. in the Fair Way. Bring the *Closterdam* Church in one with *Halszack*, bearing from you S. W. then you are abreast of the *Fushorn* Buoy: from thence on the S. W. Shore you have 5 Beacons. Go away S. S. W. by them all to the *Groningers Dyke*, and bring the Church of *Wyrd* and the *Closterdam* in one, near the Shore of *Delft Zyl*. Thus you go clear of two Sands called the *Hont* and *Pape*, which lie on the E. side of the Channel; or you may keep close to the E. Shore in 6 Fa. within those Sands: But the W. Shore is much the best, and carries you directly within the *Hont* and the *Pape*: Keep therefore by the Beacons on the W. Shore, and you come to *Otterdam*. In this Courfe you pass by the Country of *Groningen*; the Reach lies S. S. E. and S. by W. and in the Bending S. S. E. and then again S. E.

Here you may take a Pilot to the City of *Emden*, which lies on the E. Shore of the River, and where you have very good Riding.

N. B. As you sail up the West *Embs*, you leave all the Buoys on the Starboard side, except the white Buoy with the Flag upon it.

N. B. The Tide flows before the Town of *Emden* S. and S. by W. and N. and N. by E.

E. N. E. from *Borcum*, distant one League and a half, is a little low Island called *Juyff* it is higher at both ends than in the middle: the Church has a Spire at the East end of it, but cannot be seen, but when you are thwart of a low Valley in the middle of the Island. Between this Island and *Borcum* goes in the Channel called the *Easter Embs* to the southward of a certain Riff, which runs out from the W. end of the Island, and shoots out 2 Ls and a half into the Sea due West.

To go into this Channel, you must bring the Tower of *Borcum* with a new Beacon, (set up a few years since on purpose to direct this Courfe) due S. and having first come over *Borcum* Flat or Ground in 5 Fa. as before, then you are abreast of the first Buoy of this Channel in 5 Fa. Thence the Courfe is E. by N. to the second, and E. S. E. to the third. The Buoys lie in 5 Fa. and you have 5 to 10 Fa. in the Fair Way.

Between the first and second Buoys the side of *Juyffer Riff* is so exceeding steep and rising, that there is no sounding it; but farther up 'tis flatter, and the third Buoy lies on the Tail of the *Brewers Plut* on the East end of *Borcum*. From the third Buoy the Courfe is E. S. E. to the *Hoogh Horn*, or

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Governments to which they belong, as to have any Buoy or Beacons plac'd upon them.

These Islands are, (1.) The *Buys*, the smallest Island on the whole Coast, distance from *Juyst* 1 League. The Channel between this and the *Juyst* is call'd the *Buys Deep*; but was formerly set with Buoy's by the Council of *Emden*; but the Channel shifted so often, and was of so little importance, that they are taken away: The Island is known by two Hummocks, the highest is to the E.

2. *Norderny*, E. from *Buys*, distance $\frac{1}{2}$ a L. and 5 Miles in length: The Channel between is call'd *Norder Deep*: The Island is known by a white Sand-hill near the E. end, and a square Tower on the W. end.

3. *Baltrum*, E. from *Norderny*, distance 1 L. and 6 Miles long. Between this and *Norderny* goes in a narrow uncertain Gut call'd *Wichtery*; sometimes it has 2 Fa. sometimes not one, and sometimes almost choak'd up. There is no Mark to know the Island by, but some low Sand-hills at the W. end, and one high one at the E. end.

4. *Langerough*, E. from *Baltrum*, distance 1 L. 9 Miles in length: It has a fair Strand on the N. side, and some Sand-hills flat a top, at distance from one another, all along from the W. end to the middle of it. Between these two Islands goes in a Channel call'd *Acumy*; it has some Buoy's on it, but 'tis not to be trusted, for the Channel shifts so often, that 'tis of no use but to the Fishermen, who run thro' every day, and know it well.

5. *Spikerough*, E. from *Langerough* 1 Mile, and about 3 Miles long; there was formerly another little Island close to it, call'd *Luttick*, or little *Spikerough*, but 'tis wash'd away by the Sea. There is nothing worth notice on this Island

6. *Wrangrough*, E. from *Spikerough* 5 Miles, and 3 Miles in length: There are small Channels between these, as the *Ox-balgh* and the *Harrel*, but like all the rest uncertain and shifting, so of no use for Ships of Burden.

Off from this Island opens the Channel of the *Weser*, divided into two by a large Sand call'd the *Red Sand*, stretching from E.S.E. to W.N.W. 3 long Ls. Ships coasting from the W. take in Pilots from the *Wrangrough*, or from the Shore. Ships coming from the N. take them at *Helygeland* or *Holy Island*, as they do also for the *Elbe*.

Having thus brought you to the Mouth of the *Weser*, and deliver'd you safe into the Hands of the skilful Pilots to carry you up to *Bremen*, I go on with Ships bound into the *Elbe* or *Elve* for *Hamburg*, or other Places in that River.

To the eastward of the *Weser* lie the *South Grounds* of the *Elbe*: There are certain large Flats or Sands, lying off W. from the Land, between the Rivers *Elbe* and *Weser*, stretching into the Sea 4 or 5 Ls. and more. There are two deep *Baighs* or Creeks in these Flats, call'd the *Tills*, that is, the *Western* and the *Eastern Till*.

As you go from the *Weser* eastward, if you are driven toward the *South Ground* you may run along by it in 4 to 6 Fa. but not nearer, the Sand being steep. When, going on thus, you come

to 8 to 12 Fa. soft Ground, you are then certainly thwart the *Wesfer Till*, and may run into it for Shelter; 'tis a good Road, and safe for all Winds lying so between the Sands: You may steer in E.S.E. by the N. Shore of it, which is all clear and deep, and has 12 to 13 Fa. Water.

The *Easter Till* lies N.E. from the Entrance to the *Wesfer Till*, it lies between the Sands like the other, and has good Depth and Shelter from any Winds. You go in E.S.E. More N.E. and still running by the Soundings of the *South Grounds*, is the *Hound Balgh*, where lies a Steep, with a Buoy on it call'd the *Scherborn*. Here also Ships run in for Harbour between the Sands.

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Sailing Directions for Helighland, or Holy



OLT Island lies due N. from the outmost Buoy of the *Wesfer*, distance $8\frac{1}{2}$ Ls. and from the *Born Riff*, between the *Schelling* and *Ameland* N.E. by E. and S.W. by W. distance 32 Ls.

When first you make the Island from the W. it shews a high reddish Point and flat on the Top: You may run boldly up to it, and anchor close under the *Scholwers Point*, which is on the S.E. side, in 5 to 9 Fa. When you are near the S. Point, you will see the *Monk*, a Rock which appears high above Water, almost as high as the Island; and a Mile S.S.E. from the *Monk* is a lunk Rock which is dangerous; keep in 8 to 9 Fa. Water, and you are clear without it. When the Island includes the *Monk*, then you are thwart it; and when the *Monk* is seen without the Land, you are in the best of the Road, and have 10 to 11 Fa. good clean Ground, shelter'd from W.S.W. Winds, also from N.W. and northerly Winds, but open to the E. and S.E.

There is a long Riff runs out from the N. side of the Island almost a League into the Sea; so that you must come no nearer that side than 9 to 10 Fa. When you are on that side, and the Island bears S. or S. by E. you may run to the *Scholwers Point*, where you have 8 Fa. 2 Ls. from the Shore, and a flat Point.

From the *Monk Point* there is a small Riff, but there is three Fathom over it, so that you have no danger on that side, except that in the Road there are several lost Anchors and Wrecks of lost Ships lying under Water: There is a Haven for small Ships also, call'd the *South Haven*, which lies within the Bank which runs from the S. end of *Scholwers Point*.

This Island equally regards the *Wesfer*, the *Elbe*, and the *Eyder* or *Hever*; and here are Pilots always ready for all those Rivers, and most of the Ships bound up those Streams call here for them.

The *Eyder* lies N. from the *Elbe*, distance 6 Ls. The Land or Coast of *Ditmarsh* or *Holfstein* between the two Rivers is full of Shoals and Flats lying far out, which renders

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Here begins the Mouth or Channel of the *Elbe*; and this is call'd the *outmoſt Buoy of the Elbe*. The Road of *Holy Iſland* and this Buoy lie S.E. by S. and N.W. by N. diſtance 8 Ls. As theſe Sands are call'd the *South Grounds*, becauſe they lie on the S. ſide of the Channel of the *Elbe*; ſo on the N. ſide lie other large Sands, ſtretching alſo far into the Sea, and theſe are call'd the *North Grounds*. The S. end of theſe Sands is call'd the *Vogel Sand*, which runs with a long narrow Tail from the outmoſt Buoy of the *Elbe* W. by N. into the Sea almoſt 3 Ls. and from the Land on the N. ſide of the *Elbe* near 6 Ls. But you may run over the Tail of this *Vogel Sand* in 5 Fa. at low Water, any where without the outmoſt Buoy of the *Elbe*, as above.

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From *Holy Land* to the *Small Deep* the Courſe is N.E. by N. till *Pielworm* bears E. by S. and the S. end of *Ameren* N. Then go on ſounding, and you will not miſs the Paſſage. You may take Pilots alſo at the Iſle of *Ameren*, or *Pielworm*, for all this Coaſt, which is all ſo full of Deeps and Flats, that it would take a Volume to deſcribe them; and after it was done, no Mariner would venture among them without ſkilful Pilots, who are always to be had upon eaſy Terms.

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N.N.E. from *Ameren* is the Iſland of *Silt*, diſtance near 3 Ls. and is 4 Ls. in length: And in the ſame Point from *Silt* is the Iſland *Rem*. Between theſe three lie ſeveral Deeps or Channels, which run in for *Butſtoot*, *Tonderen*, and other Places on that Coaſt, among abundance of Flats and Sands; at all which Iſlands, upon making Signals, you may have Pilots to carry you in. On the S.E. Shore of the *Silt* lies the Harbour of *Liſt*; 'tis N. from the *Silte Deep*, diſtance 8 Ls. you run in by the N. end of the Iſland; the Mark is a little Iſland without the Point, which you will ſee in 6 to 7 Fa. and lies between the *Silt* and the *Rem* a little to the eaſtward: on which Iſland is a Houſe call'd *ſeurtmans-houſe*, which bring a little without the Point of *Liſt*. Keep it ſo till you are within the Point, running in E. by S. and S.S.E. then edge to the S. about the Point, and anchor before the *Vucht-houſe*, in 9 to 10 Fa. leaving a Sand call'd *Haef Sand* on the Larboard-ſide. If you come from the northward, edge from the Shore till the *Red Cliff* comes without the *Sand-hills*; then you may go over the Sand with Ships of ſmall Draught.

Here you may take Pilots for *Tonderen*, or *Huſum*, or any of the Places on the Coaſt of *Juitland*; ſo there is no Occaſion for farther Directions.

The Iſland *Rem* is 3 Ls. in length, a very flat low Shore, ſo that you can hardly ſee it in 7 Fa. the Channel of *Liſt* lies between them.

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West of the Iſland *Silt* is a long Bank of Sand, ſtretching 2 Ls. in length: You have 13 Fa. Water in the Paſſage between it and the Iſland, the *Holy Iſland* bearing the S.

Island almost a League into the Sea; so that you must come no nearer that side than 9 to 10 Fa. When you are on that side, and the Island bears S. or S. by E. you may run to the *Scholwers Point*, where you have 8 Fa. 2 Ls. from the Shore, and a flat Point.

From the *Monk Point* there is a small Riff, but there is three Fathom over it, so that you have no danger on that side, except that in the Road there are several lost Anchors and Wrecks of lost Ships lying under Water: There is a Haven for small Ships also, call'd the *South Haven*, which lies within the Bank which runs from the S. end of *Scholwers Point*.

This Island equally regards the *Weser*, the *Elbe*, and the *Eyder* or *Hever*; and here are Pilots always ready for all those Rivers, and most of the Ships bound up those Streams call here for them.

The *Eyder* lies N. from the *Elbe*, distance 6 Ls. The Land or Coast of *Ditmarsh* or *Holstein* between the two Rivers, is full of Shoals and Flats lying far out, which renders the Entrance very difficult. This was the Reason why in the late Siege of *Tonningen* on the *Eyder*, some *English* Ships hired by the Duke of *Holstein's* Agents to carry Provisions for the Relief of that Place, were lost in the Mouth of the *Eyder*; the *Danes* having caused the Buoys to be removed, and forbidden the Pilots at *Holy Island* to serve them on pain of Death.

On the N. beyond the *Eyder*, being the W. Shore of the Land of *Eyder Stee*, is a broad Sand call'd the *New Ground*; and on the S. Shore within the *Eyder* a long Sand call'd the *New Ground Breerug*. All the Mouth of the River is also full of Shoals, such as the *Blawoort*, the *Hound*, the *Iron Henrick*, the *Heck Sand*, and several others. Every where the Buoys and Beacons are placed for Directions, and the Pilots as above are thorowly acquainted with them.

Due N. from the Mouth of the *Elbe*, and also of the *Eyder*, goes in the *Hever*, distance from the steep Buoy on the *Schorron* in the *Elbe* 10 Ls. and from the Tail of the *Hound* in the *Eyder* 5 Ls. The Course to this Entrance from the *Helighland* is N.E. easterly, till you come into 6 or 7 Fa. bringing the Spire-Steeple of *Pielworm* to bear N.E. by N. and to the S. southward of the southmost House on the Isle of *Nubol*.

To sail into the *Hever* is so difficult, that notwithstanding all possible Directions the Ships bound up to *Husum* take Pilots either at *Helighland* as before, or at the Islands *Pielworm* or *Nubol*: The Entrance, I say, is difficult; but when you are past the Sands, and gotten into the Fair way, the Channel is clear and deep up to *Husum-bridge*, and you may anchor where you please.

North from the *Hever* is the Island of *Ameren*, and the Passages call'd the *Deeps*, distinguish'd by the *Small Deep*, the *Red Deep*, the *Silber Deep*, and the *New Deep*; these are Channels all leading into the Bays on the Coast of *Juitland* within the *Vocren*.

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lies between the *Silt* and the *Rem* a little to the eastward :
on which Island is a Houle call'd *Jeurtmans-houfe*, which
bring a little without the Point of *Lift*. Keep it so till you
are within the Point, running in E. by S. and S.S.E. then edge
to the S. about the Point, and anchor before the *Vuchz-houfe*, in
9 to 10 Fa. leaving a Sand call'd *Haef Sand* on the Larboard-
side. If you come from the northward, edge from the Shore
till the *Red Cliff* comes without the *Sand-hills*; then you
may go over the Sand with Ships of small Draft.

Here you may take Pilots for *Toudercu*, or *Hufum*, or any
of the Places on the Coast of *Juitland*; so there is no Occa-
sion for farther Directions.

The Island *Rem* is 3 Ls. in length, a very flat low Shore, so
that you can hardly see it in 7 Fa. the Channel of *Lisi* lies be-
tween them.

West of the Island *Silt* is a long Bank of Sand, stretching
2 Ls. in length: You have 13 Fa. Water in the Passage be-
tween it and the Island, the *Holy Island* bearing due S.

From the Channel of *Lift* to the Channel of *Rypen*, call'd
Rypen Deep, the Course is N. by E. distance 7 Ls. From *Holy*
Land the Course is N. westerly. This Channel is very dange-
rous in foul Weather, the Coast being flat far off to Sea: Make
Signals therefore to the Island *Manu* for Pilots, who will come
readily off, and you may ride within the *Gore Sand* till they
come to you. Here the *Rypen* Ships outward-bound ride for a
Wind, as others do at the *Texel* or the *Downs*: There is good
riding also within the Island *Manu* in 6 to 7 Fa.

N. B. You cannot go up to *Rypen* at all with great Ships.

North of *Manu*, the *Rypen Deep* being between, is the Island
Phanu, in length almost 4 Ls. N.N.W. and S.S.E. North
from that lies a Shoal call'd *Wisdike*, and still N. a Hill call'd
Luyberg. Between these goes in the *Grawe Deep*, which
goes in to *Hartingen*, and higher to *Woerd*, 9 Ls. beyond
Hartingen within the Land: But for this River, which is both
narrow and crooked, you have Pilots at *Phanu*.

From *Phanu* to *Schelling-kroeg* the Course is N.W. distance
4 Ls. Between is *Souther-Zyt*, a small Creek, having 1; Fa.
Water. *Schelling-kroeg* is a good Road for all Winds, as also
is *Kingsborough in the Kettle*. If you come from the north-
ward, and are bound into any of these difficult Creeks, you
may run into this *Kroeg*, and ride for a Wind; it is so wide,
you may turn in if the Winds are against you. It flows not
above 6 Foot in any of these Parts.

N. P. The farther northward on this Coast, the less Tide;
what Tide there is, flows S.S.W. and N.N.E.

Between the *Souther-Zyt* and *Wester-Zyt* lies a Point call'd
the *Horn*: The Coast to the southward of it lies E.S.E. towards
the *Grawe Deep*, and to the northward of the *Horn* the
Coast

Directions for Sailing on the Coasts of C

Coast lies N. and S. towards the *Wester-Zyt*. From this Point runs out a long narrow Bank call'd the *Reef Horn*, or the *Horn Riff*: Some call it the *Devil's Horn*; 'tis indeed in the Shape of a Horn, and runs sharp out into the Sea 7 to 8 Ls. in length, till it comes to a Point: 'Tis generally $2\frac{1}{2}$ to 3 Fa. but near the Land 'tis $3\frac{1}{2}$ Fa. deep. It is a dangerous Shoal. because it is so steep, that at one Cast of the Lead you shall have 22 Fa. at the next 15, and at the next 3 Fa. and then you are upon it.

North of this *Horn Riff* is another Shoal or Riff call'd the *Owl*; it begins at the Shore, and runs off parallel with the *Horn*, and very steep also: If you are on the N. of it, come no nearer than 7 Fa. The *Owl* narrows at both ends, as the *Horn* does at the W. end: There is a good Channel between the *Owl* and the *Reef Horn*.

Some Navigators intimate that the *Great Dogger Bank* begins from this *Reef Horn*. because when they sail early in the Morning out of *Kincopper Deep*, and run S.W. tho they have the Wind hard at N.E. yet till four in the Afternoon they shall have but 9 Fa. Water; by which they say the joining of the two Banks is demonstrated.

North of the *Horn Point*, distance 4 Ls. lies a high Hill call'd *Blawen Balgh* or Creek, which looks black and steep. To the northward of *Blawenberg* are several white Sand-hills: All along to the Haven of *Numet* the Land is a smooth fair Strand for 7 Ls. together.

From *Kincopper Deep*, or the Haven of *Numet*, which is the same, to *Bovenberghen*, the Course is due N. distance 10 Ls. the Coast is all a clear Strand with small white Sand-hills. All along this Coast you see the blue double Hills call'd the *Holmes* within Land a great way. There are several Banks out at Sea in this Course, but they have all 7 to 9 Fa. some deeper.

At *Bovenberghen* is a smooth long Hill, and on the middle a Church on a rising Ground, with a square Tower: When you are thwart it, the Land appears in three; the middlemost with the Church is the highest. The Land here may be seen in 13 to 14 Fa. off at Sea. Grofs red Sand, with small Stones.

N.N.E. from *Bovenberghen* lie the *Holmes*, distance 10 Ls. a high Point of Land steep down on the N.E. side, having a Church upon the highest part of it. About 5 Ls. from the Shore is a Bank with 9 to 10 Fa. but 'tis but narrow: The Land shews at a distance with Hummocks, and several Steeples, all square flat Towers, no Spire:

Between these two the great *Futish Riff* spreads it self, and runs out W. into the Sea: it lies deep in the Water like the *Broad Fourteens*, having 12 to 13 Fa. Water on it: it bears from the *Naze* of *Norway* S.E. by S. distant 24 Ls. On the N. side of it is a gruff Sand, and on the S. small peble Stones. W.N.W. from the Shore you have 16 Fa. at 8 Ls. distance, and at 10 Ls. 20 Fa. the same Ground as before; and S.W. by W. the like distance in 25 Fa. black and red Sand.

N.E. easterly from the Land, distance $1\frac{1}{2}$ L. between the *Holms* and the *East-head*, distant from the latter 2 Ls. lies a stony Bank very dangerous, and where several Ships have been cast away: it has but 2 Fa. at half Tide: and from the

There is a Light Point of the *Schaw* Light-house and the *Schaw Riff*, which a League into the Sea ward, you must come of the *Schaw* being the Coast from the within the Sounding Wind be S.W. you see the Light on the Sea; you are on the N. contrary, you are on the half way between, you anchor very safely on is a small Channel between the Water.

Coming out of the up no Ground at 10 to the *Schaw Riff* bottom being rocky. Westward, you must *Belt* sets so hard to carry you away un E. or N.E. for any time off of the *Schaw Riff* ry'd by the Violence way in 8 hours: 'Tis

Being about the small *Holms* on the go on S.W. till the you may sail between but between the *Holms* dist. 4 Ls. The *Gr Lefou*, and to the *S* not come near the *H* Necessity you may

S. by W. from the Town lies 4 Ls. up to carry Ships up, I

From the Entrance 19 $\frac{1}{2}$ Ls. the Course *Anout*, like *Helyge* Point of Passage for of *Jutland*, to *Lu* the Coast of *Norw* Fair Way to them may be taken, according side of the Isle of *A* the whole Coast in cult, that no Strangers Pilots; whom you *Jutland*, and the as far as *Lubeck*. The ber of small Islands much used by great

There is a Light-house or Fire Beacon upon the Eastermost Point of the *Schaw*: Bring the Church S.W. by W. and the Light-house and the Steeple in one; then you are thwart the *Schaw Riff*, which is a Sand running E.N.E. from the *Schaw* a League into the Sea. If you are bound about from the Southward, you must come no nearer than 12 or 14 Fa. the S. side of the *Schaw* being very steep; and if you are bound along the Coast from the W. keep the Lead going. You may keep within the Soundings of the Land from 8 to 3 Fa. and if the Wind be S.W. you may go about the *Riff* in that Depth. Bring the Light on the E. side of the Houles of the *Schaw*, then you are on the N.W. side of the *Schaw Riff*; and so on the contrary, you are on the S.E. side: and when the Light comes half way between, you are at the Point of the *Riff*. You may anchor very safely on either side the *Riff* in 7 to 8 Fa. and there is a small Channel between the *Riff* and the Shore, with 2 $\frac{1}{2}$ Fa. Water.

Coming out of the *Sound*, heave your Lead; if you bring up no Ground at 18 to 22 Fa. 'tis a Mark of the Fair Way to the *Schaw Riff*, and of your being near it, the Bottom being rocky. As you go about the *Schaw* from the Westward, you must observe that the Tide coming out of the *Belt* sets so hard towards the Coast of *Norway*, that it will carry you away unawares, especially if the Winds have been E. or N.E. for any time. May 22. 1605. a Ship being becalm'd off of the *Schaw Riff*, (as several Pilot Books affirm) was carry'd by the Violence of the Current N.E. to the Coast of *Norway* in 8 hours: 'Tis true, this is not often.

Being about the *Schaw*, and bound for the *Belt*, leave the small *Holms* on the Starboard, being 4 Ls. from the *Schaw*, and go on S.W. till thwart *Zeabuy*. The *Holms* are small Islands; you may sail between them and the Main to *Zeabuy* in 3 Fa. but between the *Holms* and the N. end of *Lefou* is 10 Fa. dist. 4 Ls. The Grounds are all uneven between *Zeabuy* and *Lefou*, and to the Southward of the first: Great Vessels should not come near the Land on any of those places; but in case of Necessity you may run thro' between the *Holms*.

S. by W. from *Zeabuy* lies *Aleburger*, distant 9 Ls. the Town lies 4 Ls. up the River; and as Pilots are always ready to carry Ships up, I need not describe the Port.

From the Entrance into *Aleburger* to the Island of *Hasselin*, is 19 $\frac{1}{2}$ Ls. the Course is S.E. by E. This Island, or the Island of *Anout*, like *Helygeland*, to the *Elbe*, *Weser* and *Eyder*, is in the Point of Passage for the Great *Belt*, the Little *Belt*, the Coast of *Jutland*, to *Lubeck*, the Coast of *Sweden*, to *Falsterborn*, the Coast of *Norway*, or the *Sound*, being as it were in the Fair Way to them all: and therefore at either of these Pilots may be taken, according as your Course is directed. The N. side of the Isle of *Hasselin* is very foul, and dangerous; and the whole Coast in the *Belt*, and among the Islands is so difficult, that no Stranger should offer to put in any where without Pilots; whom you take at *Hasselin* for all the East Coast of *Jutland*, and the Passages of the Greater and Lesser *Belt*, as far as *Lubeck*. There are in the way an innumerable Number of small Islands and Rocks, Deeps and Creeks, but not much used by great Ships, tho' they may be that you may

the Church is the highest. The Land here may be seen in 13 to 14 Fa. off at Sea. Gross red Sand, with small Stones.

N.N.E. from *Bovenberghen* lie the *Holmes*, distance 10 Ls. a high Point of Land steep down on the N.E. side, having a Church upon the highest part of it. About 5 Ls. from the Shore is a Bank with 9 to 10 Fa. but 'tis but narrow: The Land shews at a distance with Hummocks, and several Steeples, all square flat Towers, no Spire:

Between these two the great *Fuitish Riff* spreads it self, and runs out W. into the Sea: it lies deep in the Water like the *Broad Fourteens*, having 12 to 13 Fa. Water on it: it bears from the *Naze of Norway* S.E. by S. distant 24 Ls. On the N. side of it is a gruff Sand, and on the S. small peble Stones. W.N.W. from the Shore you have 16 Fa. at 8 Ls. distance, and at 10 Ls. 20 Fa. the same Ground as before; and S.W. by W. the like distance in 25 Fa. black and red Sand.

N.E. easterly from the Land, distance $1\frac{1}{2}$ L. between the *Holms* and the *East-head*, distant from the latter 2 Ls. lies a stony Bank very dangerous, and where several Ships have been cast away; it has but 2 Fa. at half Tide: and from the *Easthead*, which lies to the eastward of the *Holms* 4 Ls. runs a Riff right out into the Sea near 1 Leag. there is 7 Fa. near it; and N.E. from the *Holms* dist. 9 to 10 Ls. is *Robkuyt*: between these there is a Bay, in which you will see five Churches with square Towers, and double Land, looking blueish; they lie nearest to *Robkuyt*; the Shore is a flat clear Sand.

Robkuyt, or *Robsnote*, is a high white Cliff, the Hill round, with a high Spire on it; and to the Eastward the Land falls in, making a deep Bay towards *Hartbals*: The Shore is flat, and you have but 9 Fa. at 4 Ls. off, a Bank lying parallel with the Shore. The Course to *Hartbals* is N.E. by E. distant 4 Ls. there is a square Steeple in the Midway, and double Land, viz. the high Lands of *Laeclow* over the high Land of *Hartbals*.

Thwart of *Hartbals* is a stony Shoal about a Mile from the Shore, which has been fatal to several Ships. From hence to the *Schaw* the Course is E.N.E. distant 8 Ls. the Shore all full of Hummocks and Sand-hills; and the high Lands of *Laeclow* are seen all the way.

Within the Point of the *Schaw* is the Church of the old *Schaw*, or *Schagen*. having a square Tower: when the Tower bears S.S.E. you should edge a little from the Land, to avoid a little Sand which runs off Shore about half a Mile: all the rest is a bold Shore; from *Hartbals* you have 4 to 5 Fa. as near as you please.

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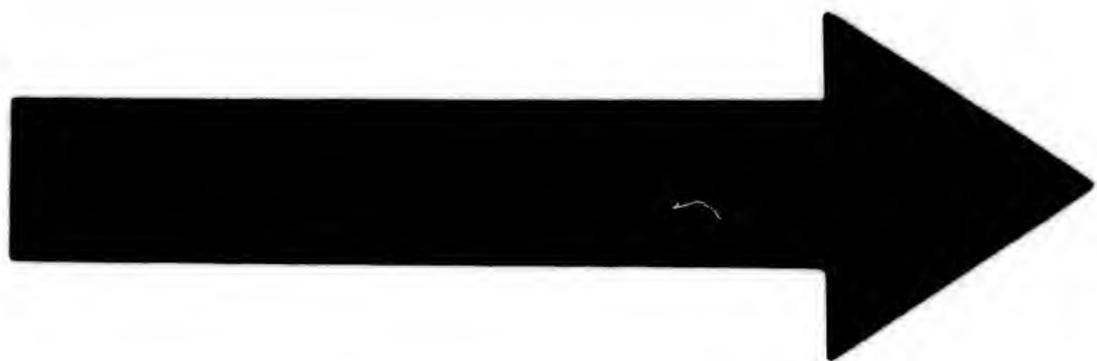
S. by W. from *Zeabny* lies *Aleburger*, distant 9 Ls. the Town lies 4 Ls. up the River ; and as Pilots are always ready to carry Ships up, I need not describe the Port.

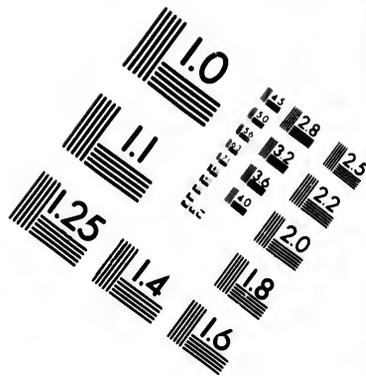
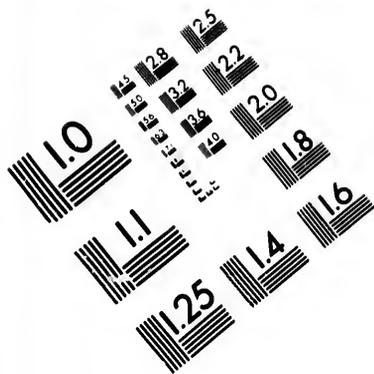
From the Entrance into *Aleburger* to the Island of *Hasselin*, is 19 $\frac{1}{2}$ Ls. the Course is S.E. by E. This Island, or the Island of *Anout*, like *Helygeland*, to the *Elbe*, *Weser* and *Eyder*, is in the Point of Passage for the Great *Belt*, the Little *Belt*, the Coast of *Jutland*, to *Lubeck*, the Coast of *Sweden*, to *Falsterborn*, the Coast of *Norway*, or the *Sound*, being as it were in the Fair Way to them all : and therefore at either of these Pilots may be taken, according as your Course is directed. The N. side of the Isle of *Hasselin* is very foul, and dangerous ; and the whole Coast in the *Belt*, and among the Islands is so difficult, that no Stranger should offer to put in any where without Pilots ; whom you take at *Hasselin* for all the East Coast of *Jutland*, and the Passages of the *Greater* and *Lesser Belt*, as far as *Lubeck*. There are in the way an innumerable Number of small Islands and Rocks, Deeps and Creeks, but not much used by great Ships, tho they may pass that way too.

The Islands of *Zealand*, *Funen* and *Laland*, are also full of those smaller Ports, as is the Coast of *Sleswick* and *Holstein* : but the prudent Mariner will take Pilots, either here or at *Rosness* and *Callenberg*, and so from place to place ; till passing the *Belt* or the *Sound*, he opens with *Lubeck*, and comes into the *Baltick Sea* again, for which we shall give Sailing Directions in its Order.

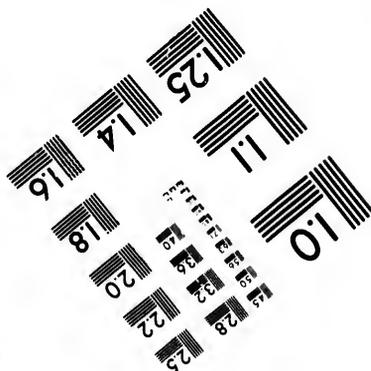
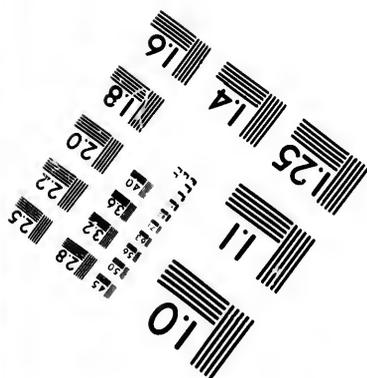
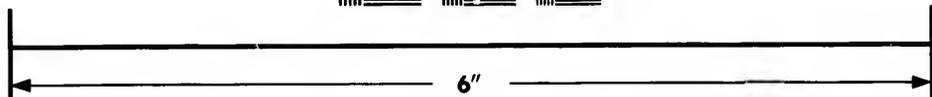
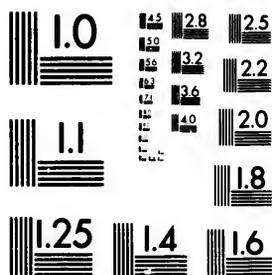
N. B. The several Countries bounding on these Passages, with the Islands mention'd above, make in general the Coast of *Denmark*, and the whole is usually called so : The Particulars are so many, they are not to be number'd or describ'd. 'Tis true, the Pilot-Books pretend to it ; but as they scarce take notice of half the Places, and even those they do little more than name ; and as no Ships of any value venture to pass here without Pilots, except those belonging to the Inhabitants and Coasters, who are always running among them with Corn and Provisions, and are as it were at home : on this account 'tis sufficient to say, that all Strangers bound among these Islands, or thro' those Passages, not being supposed to go without Pilots, the Places need not be farther described here.

Sailing





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Sailing Directions for so much of the Coast of Sweden as
Account of Norway begins, to Gottenburgh, and
Point.



Maelstrand, or *Masterland*, is an Island to the Southward of the Rocks called the *Pater Nosters*, mention'd in our Directions for *Norway*, distance 2 Ls. If you come from the *Schæw*, the Course is N.E. till you make the Hill *Britto* E.N.E. then run in with it, leaving the *Pater Nosters* on the Larboard side: then go away E. by N. and E.N.E. till you make *Maelstrand*, where you will see a large Stone Beacon, with a Mast and a Barrel, for Direction of Sailers: you may have a Pilot to carry you in, for there are two several Channels.

About 4 Ls. S. from hence is *Calf Sound*, and 4 Ls. S. of *Calf Sound* is the Island of *Wingo*. Take a Pilot for *Calf Sound*, for it is full of dangerous Rocks: and at *Wingo* you must take a Pilot for *Gottenburgh* one way, and for *Babus* the other way; for both the Channels go in by this Island.

Maelfound lies 3 Ls. to the southward of *Wingo*; it is a rough rocky Island, lying before the Harbour of *Congsback*. There is a good Road under the Island, and you may sail round it safe enough; but if you would go into *Congsback*, take a Pilot here, for there are many Rocks, some above some under Water. The great Rock called the *Nyding* lies but one League from *Maelfound*, 'tis a foul and dangerous Place: The Rock is half a League long, with a Riff of sharp Stones lying from the N. end of it almost a League more N. and N.N.W. having but 4 to 8 Foot Water on it: The S. end is narrower, and has a Tail of Rocks running out S.E. near 2 Ls. with but 3 to 5 Foot Water: so that we may well say, 'tis a dangerous Place. There is a Light, or Fire-Beacon kept upon it, to warn Sailers of the Danger: yet there is good anchoring about 1 1/2 L. from it.

From hence to *Wersbergen* is 5 Ls. S.E. by S. in a Bay, and due S. *Monsterfound* being on a River which runs into that Bay; and before the Bay lies an Island called *Giddero*. There are several little Towns in this River and Bay, where Vessels go in to load; but a Stranger should take a Pilot at *Giddero*.

South of this Bay lies *Valkenberg* River; on the N. Bank of it is an Island called *Morustong*, and S. of that another called *Taylorz*, distance 3 Ls. There is a high white Hill here called

Young Kol, and the *Koll*. Between several small Islands, distant from *sted*, also *Bacsted*, Anchoring.

In the middle to these places Island. The king the E. P.

This Point from the Isle Course from a Fair Way you and deeper to Depth. There is a Bank called by S. dist. 8 M which is the depth. 11 Ls. 3 bed in its place.

The Entrance of the Coast of *Zea* it either from Riff near *Fj* except *Lapfi* *wnburg* Call of it. But if out of the *Swedish* Shore *Swyn* *Boden* Shore 2 Eng *Hielmes* *Fla* *Elfneure*, and the *Lapfi*

If you are directions, take *English* Adm

Directions for Sailing in or out of the Sound or East
Steden Point, and Falsterb

If you are bound from *Elfneure* into *Copenhagen*, half way bet

Sailing on the Coasts of Sweden.

of Sweden as lies from Maelstrand, where the
Cottsburgh, and forward East to Falsterborn

Young Kol, and by some mistaken for the great Point called
the *Koll*. Beyond this is a great Bay, in which there are
several small Ports and Rivers, where Ships load, as *Holme-
sted*, distant from *Tnylaw* 3 Ls. S. *Labolin* 2 Ls. from *Holme-
sted*, also *Baalsted* and *Engelholm*. At this last there is good
Anchoring.

In the middle of this Bay is the Island *Swedero*. To run in
to these places, and within this Island, take a Pilot from this
Island. The *Koll* lies S.W. and S.W. by W. distant 3 Ls. ma-
king the E. Point of the Bay.

This Point of the *Koll* is the great Mark by which Ships steer
from the Isle of *Anout* and the *Schaw* to the *Sound*. The
Course from *Anout* to the *Koll* is S.S.E. distant 10 Ls. In the
Fair Way you have 20 to 24 Fa. 'tis shoaler on the W. side,
and deeper to the E. to you know the Course by the
Depth. There is but one dangerous place between, and that
is a Bank called *Lewis's Ground*; it lies from *Anout Riff* S.E.
by S. dist. 8 Ls. and from the *Koll* W. by N. 5 Ls. *Hasselin*,
which is the other Island in this Course, lies S.W. from *Anout*,
dist. 11 Ls. and W. by S. from the *Koll* dist. 9 Ls. 'tis describ-
ed in its place.

The Entrance into the Sound is between the *Koll* and the
Coast of *Zealand*; the last is all clear, you may sail along by
it either from *Anout* or *Hasselin* in 6 to 7 Fa. except a small
Riff near *Fishers Village*, and there is 4 Fa. over that; and
except *Lapsand*, which is a Riff that stretches off from *Cro-
nuburg* Castle N.W. but keep in 7 to 8 Fa. and you go clear
of it. But if you come from the *Koll* into the *Sound*, you are
out of the fear of *Lapsand*: Then you must give a Birth to the
Swedish Shore, to avoid a long Ledge of Rocks called the
Swyn Boden, they lie 3 Ls. in length, and distant from the
Shore 2 English Miles: The shoalest of them is just thwart of
Hielmes Flat; bring *Ween Island* open with the Castle of
Elfneure, and you go clear both of the *Swyn Boden* Rocks
and the *Lapsand* too.

If you are bound for *Copenhagen*, observe the following Di-
rections, taken by an English Survey, and by Order of the
English Admirals when in the *Baltick* with his Majesty's Fleet.

Sound or East Sea, from the Kol up as high as
t, and Falsterborn Riff.

half way between the single House and the End of the

about 1 $\frac{1}{2}$ L. from it.

From hence to *Hersbergen* is 5 Ls. S.E. by S. in a Bay, and due S. *Mousterfound* being on a River which runs into that Bay; and before the Bay lies an Island called *Giddero*. There are several little Towns in this River and Bay, where Vessels go in to load; but a Stranger should take a Pilot at *Giddero*.

South of this Bay lies *Valkenberg* River; on the N. Bank of it is an Island called *Morustong*, and S. of that another called *Taylor*, distance 3 Ls. There is a high white Hill here called

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Directions for Sailing in or out of the Sound or Falster Steden Point, and Falster



If you are bound from *Elfeneure* into *Copenhagen*, you must keep the Lead going, giving the Main a Birth: When you come up as high as the N. end of *the Middle*, the Mark for going in is, the highest Steeple of the City, open a little to the eastward of the great Church joining to *Tycho Brahe's Tower*, or in one with it, and it will then bear S.W. Or steer in with the northermost *Wooden Fort*, giving it a Birth when you come near it. If you anchor in the Road, bring the northmost Fort to bear W.N.W. and the other S. by W. or S. half W. in 7 or 8 Fa. there you'll have very good Ground: But if you are bound up, there's a large white House, that stands near the End of a great Wood to the northward of *Copenhagen*, which appears as if it were in the Wood. As you sail up towards the *Casper*, bring the said white House, or the swelling of the Wood-end, on the northmost wooden Fort, or a little open to the northward, which will then bear N.N.W. half W. This Mark will carry you into the best of the Channel, as far as the *Casper Buoy*. When you are a-breast of the S. end of *the Middle*, you'll have the two highest Steeples at *Copenhagen* in one, or but a very small distance open, and will then bear W. by N. three quarters N. and a Church which stands inland to the southward of *Copenhagen Wood*, a Sail's breadth open without, or to the northward of the northermost *Wooden Fort*: There's a Bank almost Mid-Channel W. half S. from the S. end of the *Middle*, on which there is but 17 or 18 Foot Water. If you are in a great Ship, you must keep to the eastward of it, for it is nearest the W. Shore: bring the said white House near the Wood, two Sails breadth to the westward of the northmost *Wooden Fort*, and the Spire of the Exchange, and a Windmill that stands on the Works of the City in one, or the Spire a little open to the southward, which will then bear W.N.W. one quarter W. and that Course will carry you right on it. But in coming from *Elfeneure* and bound up, if you will sail thro' the outer Channel or *Flemish Deep*, you must keep the great Tree that stands at the N. end of the Town of *Draco*,

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Then you must give a Birth to the *Swedish Shore*, to avoid a long Ledge of Rocks called the *Sweyn Boden*, they lie 3 *Les.* in length, and distant from the Shore 2 *English Miles*: The shoalest of them is just thwart of *Hielmes Flat*; bring *Ween Island* open with the Castle of *Elfeneure*, and you go clear both of the *Sweyn Boden Rocks* and the *Lappand* too.

If you are bound for *Copenhagen*, observe the following Directions, taken by an *English Survey*, and by Order of the *English Admirals* when in the *Baltick* with his Majesty's Fleet.

Sound or East Sea, from the Kol up as high as Falsterborn Riff.

half way between the single House and the End of the Town, till you come up as high as the S. End of the *Middle*; and then sail by the former Marks, till you come up as high as the *Casper Buoy*. You must have a very great Regard to *Southbolme*, for there are several Hooks and Over-falls lying off it. When the Tree or Two Trees near *Draco* (not *Draco Wood*) is in one with the House, and bears S.S.W. one quarter W. and *Southbolme long Barn* E. half N. you'll have but 11 Foot Water, and a Cable's length to the westward 6 or 7 Fathom.

To know when you are a-breast of the *Casper Buoy*, you must bring *Thornby Church* open with the W. end of *Castroup Town*, which will then bear W. one quarter S. Then for a leading Mark to keep clear of the *Casper Sand*, you must bring *Draco Tree* open to the westward of the single House; and steering S. and S. by W. you go fairly to *Draco Buoy*, which lies from *Draco Town* S. three quarters W. 2 or 3 Miles off. The Mark for that Buoy is the said Tree over the W. end of *Draco*, which will then bear N. half W. Coming over the Grounds in the best of that Channel, you'll have at most but 26 or 27 Foot Water. From *Draco Buoy* to *Steden Point* is S.W. half S. distance 5 $\frac{1}{2}$ or 6 Leagues; and from the said Buoy to the Bank call'd *Brack Ground* S.E. 5 or 6 Miles. The Mark for the said Bank is *Copenhagen* high Spire over the E. end of *Draco Town*, and the King's *Country House* on *Draco Wood*, or open with the W. end of the said Wood, which will bear then N.W. by N. and the high Spire-Steeple when over *Draco* N.N.W. one quarter W. On this Bank there is but 10 or 11 Foot Water; it is a Mile long or more; *Steden Point* bears off it S.W. and *Falsterborn Church* S.S.E.

If you are passing the Sound, intending to go about *Falsterborn* towards the *Baltick*, come no nearer the Riff than 5 Fa. or 4 $\frac{1}{2}$; keep in these Soundings till you bring the two Churches at *Falsterborn* in one, bearing N.E. from you; then you may bear away to the eastward, in 6 Fa. till you bring the Church on the Point N. or N. by W. from you:
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Directions for Sailing on the C

Then you are quite past the Riff, and may borrow on the Main as you please.

If you are bound in to *Landfroom*, which lies against *Ween Island*, go in between the two Beacons, which stand upon two Points of Sand stretching off into the Sea on each side of *Landfroom*. Being come from the northward, and got about the Point that lies on the N. side of the Harbour, you will see a little Church on the N. side, close to the Sea, and a little farther into the Land a large Country Seat; bring them into one, and you go in right with the Point, and anchor in 3 Fa. under the Castle.

If you are bound to *Elboge* or *Mahnoc*, take your Course

Sailing Directions for the Coast of Mecklenburg, from forward to the Ports of Dantzick and Konings on to Wybourgh on the Coast of Finland.

FROM *Lubeck Bank* to *Wisnar Deep* the Course is N.E. by E. and E.N.E. distance 7 Ls. *Wisnar Deep* is a good Channel, and Water enough for Ships of any burden.

To sail into *Wisnar*, 'tis usual to take a Pilot at the Mouth of the Port; so no Directions are wanting, other than this, that you make Signals for a Pilot before you enter the first Opening of the *Sound* or *Deep*.

From *Wisnar* to *Gester Riff* it is N.E. 12 Ls. From the Isle of *Femeren* to *Wisnar* the Course is S.S.E. distance 7 Ls.

From *Wisnar* to *Rostock* the Course is E.N.E. distance 8 Ls. *Rostock* lies near S. from *Gester Sand* or *Riff*.

To the eastward of *Rostock* there is a high Land call'd *Robbeness*, and between them runs off a large Riff from the Land towards *Gester Riff*. The deepest Water between *Robbeness Shoal* and *Gester Riff* is 12 or 13 Fa. On that side next *Gester Riff* it is steep too, but on that side towards the Shore are good Soundings.

From *Rostock* to the entrance into *Straelfond* call'd the *Sund* is 7 Ls. and to the western Point of the Island of *Dornbusch* close to *Rugen* it is 1 L. more.

The westernmost part of the Isle of *Rugen* is *Dornbusch Point*. South of this Point goes in the *Jette*, distant 2 Ls. This is the *Sound* which goes up to *Straelfond*. The Land here is steep and high, yet there is good anchoring for E.N.E. and S.E. Winds in 3 and 4 Fa. 'Tis a clean even hard Sand, and of equal depth. Bring the Church over the Point, and the Point N.N.E. and anchor where you please.

This is one of the four Points of *Rugen*; the other three are *Whitmond*, *Jasmond*, and *Peert*. If you would go in for *Straelfond*, or thro' the *Jette*, take a Pilot at this Point. From hence to *Bornbolme* is 18 Ls. E.N.E. and to *Falsterborn* 14 Ls. N.N.W.

Whitmond is 4 Ls. N.N.E. from *Dornbusch*; *Jasmond* 3 Ls. E.S.E. from *Whitmond*, and *Peert* 4 to 5 Ls. S.S.W. from *Jasmond*: If you would go into any of these Roads for Shelter,

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ow on the from the Island of *Ween* S.E. by S. and you will see the Steeple of *Malmoe* before you : You have 7 to 8 Fa. in the Fair Way, till you are thwart of *Southolme* ; then it is 5 to 6 Fa. You may anchor any where before the Town in 3 to 5 Fa.

N. 15. Here is no Harbour for great Ships, or Shelter from N.W. Winds, which blow right in.

There is no Place of any note between *Malmoe* and *Falsterborn Point*, but they go this way from *Elboge* S. by *Southolme* to *Steden Point* on the Island of *Meun* : *Southolme* is all foul and dangerous.

ecklenburg, from Lubeck to the Isle of Rugen, and
 and Koningsberg ; with the Gulph of Riga, and
 Finland.

From *Garthead* the Coast bears more E. to *Rosehead*, distance 21 Ls. no Place of note between. The small Places of *Lyda*, *Stolp*, *Sernevise*, &c. afford Pilots, but no great Ships go in there. From *Rosehead* a long Point of Land runs S.E. into the Sea, the eastmost end of it is call'd the *Heel*. This Land makes the W. side of the *Gulph of Dantzick* ; it is 8 to 9 Ls. distance, the Shore very steep, 24 and 30 Fa. close to it. North of the *Heel Point* is a Flat, which stretches off from the Land ; but on either side you may anchor in 22 Fa. and within a L. from the Land you have 40 to 60 Fa.

From the *Heel* you enter the Gulph of *Dantzick* ; your Course to the *Wessel* is S. by W. You may anchor before the Port in 10 to 12 Fa. distance from the *Heel* 5 Ls. there take a Pilot to go into *Dantzick*, for the Land-Freshes make the Entrance uncertain.

E. by N. from *Dantzick* lies *Koningsberg Deep*, 13 to 14 Ls. a fair white Strand all the way. At the Entrance to the *Deep* are two Beacons. Here make a Waaff for a Pilot, for the Sands are shifting, as at *Dantzick*, by the Freshes and the Ice ; but you may anchor in the Road, *Locksteed Point* bearing N.E. in 8 to 10 Fa. The Pilots here carry you up to *Pillau*, and there you take Pilots again for the *Haaft*, into either the *Pregel* to *Koningsburgh*, or back W. thro' the *Frisch Haaft* to the *Wessel*, and up to *Elbing*.

N. by W. from the *Deep* is *Brusterwort Point*, distance 3 Ls. nothing of note between, but *Locksteed Castle*, a Sea Mark. From the Point to *Memel Deep* is 16 Ls. the Course N.E. by N. All this Coast quite from *Pomeren* is a fair Strand, and very safe. Here is another *Great Haaft* ; take a Pilot in : But when you are in, 'tis every where deep Water ; you may ride where you please, it goes away W. as the other.

There is nothing remarkable upon all the Coast of *Cowland*, from *Memel Deep* to *Der Winda* : The Course is N. by E. 14 Ls. to *Lybau*, and N.N.E. to *Winda* 17 Ls. The Coast is fair, and good anchoring almost any where. You may stand in for the Shore as you please in 4 to 5 Fa. or keep off in 9 to 10 Fa. The Land is generally full of Hummocks, and

are good Soundings.

From *Rosbeck* to the entrance into *Straelfond* call'd the *Jette* is 7 Ls. and to the western Point of the Island of *Dornbusch* close to *Rugen* it is 1 L. more.

The westernmost part of the Isle of *Rugen* is *Dornbusch Point*. South of this Point goes in the *Jette*, distant 2 Ls. This is the *Sound* which goes up to *Straelfond*. The Land here is steep and high, yet there is good anchoring for E.N.E. and S.E. Winds in 3 and 4 Fa. 'Tis a clean even hard Sand, and of equal depth. Bring the Church over the Point, and the Point N.N.E. and anchor where you please.

This is one of the four Points of *Rugen*; the other three are *Whitmond*, *Jasmond*, and *Peert*. If you would go in for *Straelfond*, or thro' the *Jette*, take a Pilot at this Point. From hence to *Bornbolme* is 18 Ls. E.N.E. and to *Falsterborn* 14 Ls. N.N.W.

Whitmond is 4 Ls. N.N.E. from *Dornbusch*; *Jasmond* 3 Ls. E.S.E. from *Whitmond*, and *Peert* 4 to 5 Ls. S.S.W. from *Jasmond*: If you would go into any of these Roads for Shelter, make a Waaff and fire a Gun, the Pilots will come immediately off, and you will find them necessary, for the Ground is very uncertain and uneven.

To the southward of *Peert* goes in the *New Deep*, which carries you up to *Stetin*. You may get a Pilot at the *Peert* to carry you over the Bar. At the N. entrance of the *New Deep*, being over the Bar, you have 4 to 5 Fa. go S.E. to the Entrance of *Peen*, and take another Pilot at *Roeden* to carry you up the *Haast* to *Stetin*.

Here are several Channels which are very helpful to the Navigation and Commerce of these Parts. 1. The *Swin*, which lies E. from *New Deep* 8 Ls. and runs into the *Haast*, opposite to the Mouth of the *Oder* which comes down from *Stetin*.

2. *Cammin*, which is 5 Ls. to the eastward of the *Swin*, and is but a Sound, tho' looking like a River.

N. B. These two, as also the *Peen*, go into the *Great Haast*.

The Coast of *Pomeren* begins at the Mouth of *Cammin Sound*, and from the *New Deep* it lies E. to *Colberg*, distance 17 Leagues.

Here lies a Bank 5 Ls. from the Land, having 7 Fa. Water. When the Point of *Jasmond* bears W.N.W. *Peert* W.S.W. and *Rough Island* S. then you are upon this Bank. Between *Jasmond* and the Bank there is 12 to 15 Fa. but on the Coast not above 4 to 7 Fa. a great way off at Sea.

If you are bound to *Colbergen*, take a Pilot, the Entrance being difficult. From thence the Course is E.N.E. 3 Ls. to *Coslin*, and thence to *Garshood* N.E. and N.E. by E. 9 Ls. Between them is *Rugenwald*, on the River *Wipper*: If you would go in there, you must take a Pilot also.

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Ls. a fair white Strand all the way. At the Entrance to the *Deep* are two Beacons. Here make a Waaff for a Pilot, for the Sands are shifting, as at *Dantzick*, by the *Frelhes* and the Ice ; but you may anchor in the Road, *Locksteed Point* bearing N.E. in 8 to 10 Fa. The Pilots here carry you up to *Pil-lan*, and there you take Pilots again for the *Haast*, into either the *Pregel* to *Koningsburgh*, or back W. thro' the *Frisch Haast* to the *Wessel*, and up to *Elbing*.

N. by W. from the *Deep* is *Brusterwort Point*, distance 3 Ls. nothing of note between, but *Locksteed Castle*, a Sea Mark. From the Point to *Memel Deep* is 16 Ls. the Course N.E. by N. All this Coast quite from *Pomeren* is a fair Strand, and very safe. Here is another *Great Haast* ; take a Pilot in : But when you are in, 'tis every where deep Water ; you may ride where you please, it goes away W. as the other.

There is nothing remarkable upon all the Coast of *Courland*, from *Memel Deep* to *Der Winda* : The Course is N. by E. 14 Ls. to *Lybau*, and N.N.E. to *Winda* 17 Ls. The Coast is fair, and good anchoring almost any where. You may stand in for the Shore as you please in 4 to 5 Fa. or keep off in 9 to 12 and 18 Fa. The Land is generally full of Hummocks, and over-grown with Trees.

From *Der Winda*, to the Point of *Domefness*, or *Domenefs*, is 17 Ls. the Course N.E. by N. till you are off of *Luferoort Point* 4 Ls. and then E.N.E. There is a Shoal off of *Luferoort*, but you go over it in 4 to 6 Fa. The Land is fair and high, as before, and full of Trees. *Domenefs Point* makes the W. Land of the *Gulph of Riga*.

Domenefs Point is opposite to *Oesel Island*, distance 6 Ls. the Island bearing N.W. by W. from it. The Channel is broad between and deep, having 12 to 16 Fa. Water, but a very uneven Bottom, and there are Dangers to be carefully avoided on the N. or Larboard-side, for all the Shore of the Island *Oesel* is cover'd with Riffs and Shoals. First there is a great Riff runs off S. by W. and S.S.W. into the Sea, at least 3 Ls. 'tis very dangerous, in some Places above Water, some 2 to 3 Fa. under Water, very uneven ; and to the W. are many uneven Grounds and Overfalls, so that 'tis a terrible Coast in bad Weather.

If you come out of the Sea, and are bound for *Riga*, make first the Coast of *Courland* about *Der Winda*, or the Point of *Luferoort*, and sail with the Shore, as above, in 5 to 7 Fa. till you are to the E. of *Luferoort Shoal* : Then keep no farther off to Sea than till the E. Point of *Doemburgh* bears E.S.E. from you ; and keep that Course till the E. side of the S. Point of the Island *Oesel* bears N.N.E.

The Channel is deep, tho the Bottom uneven off of *Domenefs* ; and when that and the S. Point of *Oesel* bears N.W. and S.E. then in the Fair way, you will have 18 Fa. and then opening the *Gulph of Riga*, you come into 20 to 24 Fa.

There is also a Riff at the Point of *Domenefs*, which runs out 1 $\frac{1}{2}$ L. give ita Birth, and you may run by it from the W. with your Lead in 6 to 7, and to 10 Fa. as Wind and Weather

ther presents. When the Point bears S.S.W. then you are on the W. side of it; when it bears S.W. by S. then you are thwart the Point of the Riff; and when it bears S.W. by W. then you are clear about it, and may stand away for *Riga* S.E. The Point of *Domefuefs* and *Riga* lie S.E. and N.W. distance 20 Ls.

On your Starboard-side in this Course lies *Kowerwick Bay*, and a Point with a small Riff before it; but you may run by it in 6 to 7 Fa. neither have you any need to stand so far into the Bay, unless forced in by N.E. Winds; and even then you may anchor any where with safety in very good Ground, and what depth you please, from 6 to 22 Fa.

Coming from *Riga*, the same Directions revers'd will be your Guide. To avoid the Riff of *Domefuefs*, if you are at anchor under it, keep away N.N.E. and N.E. by N. and you run along by it; come no nearer than in 9 to 10 Fa.

E. by N. easterly from *Domefuefs*, distance 8 Ls. and N. by W. westerly from *Riga*, lies *Round* or *Rumen Island*, distance 14 Ls; you may run round it any where, only observe to come no nearer than 6 Fa. All the W. side in particular is foul rocky Ground; there is a little Flat half a League S.S.E. from the S. Point, where there is but one Fa. Water: Take the Soundings of the Shore in 6 Fa. and you run within it; or keep in 8 to 9 Fa. and you are clear without it: Being past it, either toward *Riga* or the *Nefs*, you have 23 to 24 Fa. in the Fair way.

The Port of *Riga*, that is to say, the River *Dwina*, is what they call *Pilots Water*: that is, the Land-freshes and Drifts of Ice in the River are so great, and the Stream so strong, that the Sands and Shoals are always shifting and uncertain.

From *Riga* the Course is N.N.E. and N.E. by N. to *Pernau*, distance 25 Ls. There is a small Port between call'd *Lemfale*, or *Saks*, within a River: Take a Pilot if you would go in there, as also at *Pernau*.

Abundance of Islands, great as well as small, lie in the Mouth of the Gulph of *Riga*; they must be taken notice of, this being a Port of much Business.

The Island *Kya* lies off of *Riga* N. by E. distance 15 Leagues, and from *Round Island* E. by N. 7 Ls. and the same distance from *Saks* N.W. by W; 'tis 2 Ls. long, and all foul about it: The Fair way between it and the Coast of *Livonia* has 8 to 9 Fathoms.

Amircock is a small Island under *Oesel*, it lies N.E. from *Domefuefs*, distance 7 Ls. and N.W. from *Round Island* 8 Ls. all foul sharp stony Ground abound it, with great Overfalls and sudden uneven Ground, 3, 4 to 5 Fa. at once. It lies to the S. Point of *Oesel* E.N.E. northerly, and W.S.W. southerly, dist. 5 Ls. yet between both is a good Road for easterly Winds. Under the S. Point of *Oesel*, the white Church bearing W. by S. from you, you may anchor in 7 Fa. good soft Clay; you may run along here in 7 Fa. almost close to the Shore. The E. Coast of *Oesel* is flat 3 to 5 Fa.

From the S. Point of *Oesel* to *Arentsberg*, against *Ambrook*, is a fair Channel of 7 Fa. Clay Ground: Keep to the *Ambrook* side of the Channel two thirds, the *Oesel* side being foul

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Islands about 1 L. asunder N. and S: you may go round them, and anchor any where about them. There are two Shoals in this Sound, called *East and West Grass Grounds*: they that pass the *Moon Sound*, should be careful of them. Between *Grassholm* and *Oesfel* are several Islands.

Here you go into the *Moon Sound* from the North, or from the East. It is a great double Channel between *Oesfel* and the Main: the Fair Way lies from *West Grass Ground* S. by E. to the Shore of *Oesfel*, 6 to 7 Ls. From *Grassholm* to the Passage of the *Moon Sound* lie 4 small Islands, each a League asunder S.E. leave them not above a Cable's length to the Starboard side; and you are then in the Fair Way of the *Moon Sound*. There are two other Channels to the N.E. ward, one goes by an Island to the Castle of *Moon Sound*, but 'tis unsafe and uncertain; the other lies to the Southward of the same Island: There is also another Channel, but 'tis narrow, and sometimes has only two to three Fa. The best Channel is that above by the side of *Oesfel*, where you have 3 to 4 Fa. at least, and afterwards 6 to 7.

At this E. end of *Oesfel* is a foul Riff called *Pater Noster*; this Point lies off from *Pernau*, call'd by the Sailors *Parna*, 8 Ls. NE. Between the Island *Kyn* and the Land, N.W. of *Pernau*, lie the Islands of *Manuo* and *Sorgholm*. To sail into *Pernau*, you must take a Pilot.

Otgenholm is an Island N. by E. from *Moon Sound Point* 3 Ls. 'tis bold, and you may sail round it, and anchor near it safe from N. and N.W. Winds. From this Island to *Nargen* the Course is E. by N. distant 8 Ls. between them is a Sound called the *Roge*, making two Points, the *Little* and the *Great Roge*; the first to the S. and the other to the N. of the *Sound*.

At the Island of *Nargen* take a Pilot to carry you into *Revel*, or to the *Wolf*, to avoid the *Revel Stone*; *Wolf* is E. from *Nargen* 4 Ls. the *Revel Stone* is between both, (just as the *Eddystone* lies at *Plymouth* from the *Ramhead*) 'tis a great Rock about 4 Foot under Water: Come no nearer to it than 12 Fa. It lies from the *Wolf* N.N.W. and N.W. by N. and from *Nargen* N.E. by N. distant from either about 2 Ls.

Between the *Nargen* and the *Wolf* is a broad rocky Shoal; bring the S. Point of *Nargen* S.W. or S.W. by S. and the N. Point W.N.W. and go between *Wolf Island* and the Main, and you are clear of it. From *Nargen* to the Island of *Wranger* the Course lies due E. dist. 7 Ls. and from the *Wolf* E. by S. 3 Ls. You may ride very safe on both sides of it, shelter'd from all Winds but the S. and S.W. which seldom blow there. S.E. from it lies *Little Wranger* which is as dangerous as the other is safe; yet on the S.W. side there is good anchoring enough for E. and N.E. Winds: Due N. from *Great Wranger* is a bare Rock called the *Cockscarr*, with a Tower or Warder on it; 'tis above Water, and you may go round it, so 'tis not so dangerous as the *Revel Stone*.

From the *Wranger* to the Road of *Narva* is 44 Ls. the Course generally E.S.E. and S.E. There is nothing of Note on the Shore of *Eastland*, or *Easthonia*, all the way, except three little Islands near *Kock Harbour*; but, on the other side

Mouth of the Gulf of *Riga*; they must be taken notice of, this being a Port of much Business.

The Island *Kyn* lies off of *Riga* N. by E. distance 15 Leagues, and from *Round Island* E. by N. 7 Ls. and the same distance from *Sales* N.W. by W; 'tis 2 Ls. long, and all foul about it: The Fair way between it and the Coast of *Livonia* has 8 to 9 Fathoms.

Ambrook is a small Island under *Oesfel*, it lies N.E. from *Domesfrefs*, distance 7 Ls. and N.W. from *Round Island* 8 Ls. all foul sharp Rocky Ground about it, with great Overfalls and sudden uneven Ground, 3, 4 to 5 Fa. at once. It lies to the S. Point of *Oesfel* E.N.E. northerly, and W.S.W. southerly, dist. 5 Ls. yet between both is a good Road for easterly Winds. Under the S. Point of *Oesfel*, the white Church bearing W. by S. from you, you may anchor in 7 Fa. good soft Clay; you may run along here in 7 Fa. almost close to the Shore. The E. Coast of *Oesfel* is flat 3 to 5 Fa.

From the S. Point of *Oesfel* to *Arentsberg*, against *Ambrook*, is a fair Channel of 7 Fa. Clay Ground: Keep to the *Ambrook* side of the Channel two thirds, the *Oesfel* side being foul. *Arentsberg* is a Town on the *Oesfel*, at the Mouth of a Sound or Opening N.N.W. from *Ambrook* 4 Ls.

The Island of *Oesfel* is almost Triangular, the three Points extending far into the Sea; one S.S.W. one due W. and one E. by S. The S. Point is described, and is called *Swalveroort*; the W. Point is called *Houndfort*, and the E. Point *Pater Nefter*. From the W. to the E. Point is 15 Ls. but all foul, and the N.E. part unnavigable: The W. Coast is full of Bays and Creeks, stretching from S.S.E. to N.N.W. 12 Ls. Between them are two places, *H'yek* and *Reck*, where Ships load Corn and Flax.

North East of *Oesfel* is the Island of *Dagerort*, of the like Triangular Form, but not near so large: the two Points are distant 8 Ls. Upon this Island is a great high Steeple, or Tower, built at the Charge of the Magistrates of *Revel*, to give Notice to Ships bound to their Port to keep off: 'tis seen a great way to Sea on every side. The W. Point of this Island is called *Dagerort* after the name of the whole, and because of the Tower which stands there. The N. Point is called *Syburg Nefs*, distance between is 7 Ls. E.N.E. Between them, almost midway, is a long flat Shoal running out into the Sea 5 Ls. at least N.W. but there is from 3 to 7 Fa. upon it, and then deepning till it is lost.

Three Ls. N. and N.E. from the high Tower is a great sunk Rock very dangerous, on which you have but 10 Foot Water: A Ship drawing 11 Foot strook upon it, and went off again, and immediately founding, found 5 Fa. Water: the Tower was then S. and S.W. from them.

Syburgnests, the N.N.E. Point of *Dagerort*, parts into two smaller Points, with a Riff from each Point, and a fair Strand between, where is good anchoring, clean hard Sand, 4 to 6 Fa. Water: and a little to the Westward of the Westermost Point is a very small Shoal, with but 2 Fa. Water. From this *Nefs* to *Otgensholm* the Course is E. by N. distant 7 Ls. and to *Grasholm* S.S.E. 4 Ls. *Grasholm* and *Oxholm* are two small

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than 12 Fa. It lies from the *Wolf* N.N.W. and N.W. by N.
and from *Nargen* N.E. by N. distant from either about 2 Ls.

Between the *Nargen* and the *Wolf* is a broad rocky Shoal ;
bring the S. Point of *Nargen* S.W. or S.W. by S. and the N.
Point W.N.W. and go between *Wolf Island* and the Main, and
you are clear of it. From *Nargen* to the Island of *Wranger*
the Course lies due E. dist. 7 Ls. and from the *Wolf* E. by S.
3 Ls. You may ride very safe on both sides of it, shelter'd
from all Winds but the S. and S.W. which seldom blow there.
S.E. from it lies *Little Wranger* which is as dangerous as the
other is safe ; yet on the S.W. side there is good anchoring e-
nough for E. and N.E. Winds : Due N. from *Great Wranger* is
a bare Rock called the *Cockscarr*, with a Tower or Warder
on it ; 'tis above Water, and you may go round it, so 'tis not
so dangerous as the *Revel Stone*.

From the *Wranger* to the Road of *Narva* is 44 Ls. the
Course generally E.S.E. and S.E. There is nothing of Note
on the Shore of *Eastland*, or *Eastbonia*, all the way, except
three little Islands near *Kock Harbour* ; but on the other side
of the Sea N. are several Shoals and Islands.

Between *Monkwick Point* and *Wranger* those three Islands
lie about half a League from the Shore, very rocky and foul,
tho the whole Strand besides is perfectly clear.

The Islands and Shoals which lie off to Seaward are
Eckholm, *Higland*, the *Chalk Grounds*, the *Hoffs*, Great
and Little *Tutters*, and the Island *with a Mast*. You may
keep between all these Islands and the Shore on a clean Strand :
From *Wranger* to *Eckholm* is all clear : 14 Ls. E. by S. from *Eck-*
holm make *Telsbrough Castle*, the Course is E. 5 Ls. there is a
little Shoal in the Fair Way 2 Ls. S.E. from *Great Tutters*, but
there is 5 Fa. upon it.

Some Mariners chuse to go from *Wranger* to the northward
of all these Islands and Shoals for *Narva*, by the Island
with a Mast on it, and so to *Higland* : From the S.W. end
of *Higland* Island to *Narva* is 15 Ls. and this way 'tis al-
most 50 Ls. from *Wranger* to *Narva*.

The Town of *Narva* lies upon a River, 2 Ls. within the
Point. Take a Pilot at *Higland*, if you come without the
Islands, or at *Telsburg* if you come by the Coast.

From the Road of *Narva* the next Point of Land is *Ruffba-*
ken N. by W. dist. 5 Ls. and from thence to *Rhodell Island*, in
the Mouth of the Harbour of *Wybourg*, is N.E. by N. dist. 23
Ls. Between these two are several Bays and some Rivers, not
yet fully surveyed.

N. B. This Part is called the bottom of the Gulf of *Fin-*
land ; all our Pilot-Books are deficient here. this Part
being quite alter'd since any Survey was made : for the
great River *Neva*, formerly of little use, is now be-
come noted for Business and Navigation. The Castle of
Cronsfloot at the Entrance has been built, and the Island
fortify'd, and the Entrance of the River buoy'd and
beacon'd up to *Petersburgh*, a Port and City not then
known

Directions for Sailing on the Coasts

known or heard of, but now the greatest Port of Trade in the *Baltick*: a Plan of which River and City is hereto annex'd.

Being arriv'd from *Narva* Port being

The Fort of *Schansterny* is demolish'd, the Royal Fortrefs of *St. Peters* rais'd on an Island in the River, and the City of *Petersburgh* built on all the Shores about it. As for sailing into this Imperial Port, the careful Mariner will not fail to call for a Pilot; and the late Czar appointed a sufficient Number to be always ready at *Crown-Castle* for that purpose.

N. B. den, E. as veys

Sailing Directions for the Coast of Sweden, from Falsterborn to the Gulph of Finland exclusive; also the Isthmus



If you are bound from the Sound along the Coast of Sweden, the next place from *Falsterborn Point* is *Trelborg*, or *Elburg*; the Course E. by N. distance 3 Ls. There is no Haven for great Ships, but you may anchor before the Town in 3 to 4 Fa.

E. from *Trelborg* is *Ysted*, distance 8 Ls. There is a Shoal lies off the Coast most part of the first 3 Ls. therefore be careful to keep off in 8 to 9 Fa. at least: afterwards you may come into 4 Fa. a bold Shore. If you would go in at *Ysted*, make a Whaaff for a Pilot; it is a good River, and a Place of Trade.

From *Ysted*, *Goesbeer Point* bears S.E. by E. distance 3 Ls. there is a great Shoal runs off from this Point near 2 Ls. but you may run over it in 6 to 10 Fa. When you pass it in 10 Fa. the Island of *Borubolm* bears E. by S. or E.S.E. from you distance 4 Ls. and the Point of *Sandhammer* will then lie due N. or N. by E. distance 2 Ls. From *Ysted* the Island of *Borubolm* bears S.E. by E. distance 9 Ls. and from *Falsterborn* E. by S. dist. 22 Ls.

From *Sandhammer* to *Albuys* is 8 Ls. the Course is 2 Ls. N.N. E. and 6 Ls. due N. *Albuys* stands upon a River, or rather several Rivers which come in there; and this makes the Depths uncertain and hazardous; for sometimes here is 10 or 11 Fa. Water, and at other times not above 3 to 4, which is occasion'd by the great Freshes that come down those Rivers from the Mountains. There are also abundance of Rocks in the several Channels, so that it is necessary to take a Pilot: The Town of *Christiansstadt* also is up one of those Rivers.

E. of this River lies the Island of *Hanno*, distance 4 Ls. there is good Riding under this Island, and especially within it, where you have 6 to 8 Fa. shelter'd from southerly and westerly Winds. Within *Hanno* goes in a Sound to *Carlshaven* and *Selsborg*, but there is not Water for great Ships.

S.E. from *Hanno* lies an Island, called by way of Eminence *the Rock*: it is indeed only one great Rock, with some smaller Rocks adjoining; but 'tis seen very far to Sea. This Rock lies from *Albuys* E. by S. distance 13 Ls. and from *Borubolm* N.E. northerly 16 Ls. and from *Sandhammer* Point E.N.E. northerly 16 Ls. and from the Island of *Oceland* 10 Ls. There is no anchoring near them, but there is Depth enough to sail a-

In the Part end of *Oceland* *Outlookers*, it may be seen land, quite

Island; yet clean, so that from *Oceland* so from another it is surrounded where some called the *Island*

This Sound there are many *Silbuy*, *Urd* you are bound for here are Water, and

The like is than the other There is no where the frightful Rocks also.

From *Silbuy* by W. all the ble but by *Island* *Barfound*, and to *New* is 9 Ls. the N. end of W. not more

If you are must take a *Gotbland*, a Fair Way to Fa. but no St When yo

Trade Being arriv'd at *Rbodet Island*, whether from *High Island* or
 City is from *Narva*, take a Pilot to carry you up to *Wybourg*, the
 Port being difficult, tho very good.

ortrefs N. B. Being now to give Directions for the Coast of *Swede-*
 and the den, we must go back to the *Sound*, and come forward
 out it. E. as we have done for the *German Coast*; all the Sur-
 Mari-veys formerly taken going that way.
 zar ap-
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en, from *Falsterborn Point* to *Wyborg*, at the *Bot-*
ve; also the *Islands of Oeland, Gothland, &c.*

coast of In the Passage out of the Channel of *Calmar*, between the N.
 point is end of *Oeland* and the Main, likes another great Rock like the
 distance *Outlookers*, but very much higher; 'tis called *Swedes Jeoffer*:
 at you it may be seen off at Sea a great way to the Eastward of *Oe-*
 land, quite over the Island, and looks like a Hill upon the
 al lies Island; yet it is not proportion'd in compass, and it is all
 eful to clean, so that you may anchor near it in 18 to 20 Fa. N.W.
 e into from *Oeland*, distance 8 Ls. is the Channel of *Idefound*, called
 Whaaff so from another great Rock in the Sea named *Ideboe* or *Idboe*:
 it is surrounded with other Rocks, but especially on the N. side,
 e 3 Ls. where some appear above, and some lie under Water: they are
 s. but called the *Idebanks*.

in 10 This Sound is also called the Channel of *Westerwyk*; but
 n you there are many Islands, Harbours and Loading-places in it, as
 ic due *Silbuy, Vroowenburg, Flourby, Stixholm, and Schelfuyr*. If
Born- you are bound in to any of those places, take a Pilot at *Oeland*;
orn E. for here are abundance of Rocks, some above and some under
 Water, and no Stranger can find the Channel.

. N.N. The like isto be said of *Barfound*, which is still more difficult
 r feve- than the other, having several Rivers and Sounds within it:
 thsun- There is n^o a place in the whole *Baltick* more difficult, or
 a. Wa- where the Channels run in among such an infinite Number of
 n'd by frightful Rocks; and that in the Rivers the Depth is uncertain
 Moun- also.

Chan- From *Silbuy* in *Westerwyk* Channel to *Schelfuyr* is 7 Ls. N.
 own of by W. all the way among a Labyrinth of Rocks, not practica-
 . there ble but by Pilots: likewise from *Westerwyk* Channel to *Bar-*
 ain it, *found*, among the same Rocks. You may sail from *Silbuy* into
 l west- *Barfound*, and quite up to *South Koppen*, to *North Koppen*,
 en and and to *New Koppen*. From *Westerwyk* Channel to *Barfound*
 is 9 Ls. the Courfe uncertain because of the Rocks: and from
 the N. end of *Oeland* to *Barfound*, is 15 Ls. the Courfe N. by
 W. not more northerly, for fear of the *Idebanks*.

inence If you are bound in for *South Koppen* or *North Koppen*, you
 smaller must take a Pilot; and you had best do it at *Oeland*, or at
 Rock *Gothland*, according to the place you come from. In the
 rnholm Fair Way to them is very deep Water, sometimes 18, 20, to 30
 E. nor- Fa. but no Stranger can stir without a Pilot.
 here is

fail a- When you are pass'd these difficult Bays and Sounds, the

7. and 8 Ls. due N. *Albus* stands upon a River, or rather several Rivers which come in there; and this makes the Depths uncertain and hazardous; for sometimes here is 10 or 11 Fa. Water, and at other times not above 3 to 4, which is occasion'd by the great Freshes that come down those Rivers from the Mountains. There are also abundance of Rocks in the several Channels, so that it is necessary to take a Pilot: The Town of *Christianstadt* also is up one of those Rivers.

E of this River lies the Island of *Hanno*, distance 4 Ls. there is good Riding under this Island, and especially within it, where you have 6 to 8 Fa. shelter'd from southerly and westerly Winds. Within *Hanno* goes in a Sound to *Carlshaven* and *Selsborg*, but there is not Water for great Ships.

S.E. from *Hanno* lies an Island, called by way of Eminence *the Rock*: it is indeed only one great Rock, with some smaller Rocks adjoining; but 'tis seen very far to Sea. This Rock lies from *Albuys* E. by S. distance 13 Ls. and from *Bornholm* N.E. northerly 16 Ls. and from *Sandhammer* Point E.N.E. northerly 16 Ls. and from the Island of *Oeland* 10 Ls. There is no anchoring near them, but there is Depth enough to sail about them any where.

N. by E. of this Rock distance 3 Ls. is the famous Haven of *Carlsroon*, which is the Arsenal of *Sweden*: the Channel is deep enough for the biggest Ship in the World, but the Entrance so difficult, that you must take a Pilot: It is fully described in the Plan hereto annex'd, drawn after the newest and most exact Survey.

North from the Rock are other well known Rocks, called the *Utklippers*, or *Outlyers*, or *Outlookers*: they are not so craggy as the *Rock*, but much larger, and many together. There are 2 or 3 other Rocks to the Seaward, but to the Land side they are almost all Rocks quite to the Main; so that there is no sailing within them.

Between those Rocks and the South end of *Oeland*, goes in the Channel of *Calmar*, or *Calmar Sound*, which is at the Entrance about 4 Ls. broad, measuring from the S. end of the Island, to the Point off of *Christianople*.

There are several Places of Trade within this Sound besides *Christianople* and *Calmar*; but it is a frightful Channel for a Stranger, by the appearance of such terrible Rocks on both sides; tho when it is known, the Channel has Water enough: but if you are bound in take a Pilot at *Oeland*.

The Island of *Oeland* is also full of difficult Harbours and Roads on the side next the Channel. *Oeland* is a long narrow Slip of Land, lying N.N.E. and S.S.W. parallel with the Coast of *Sweden*; it is 24 Ls. long, and but $1\frac{1}{2}$ L. broad, in some places less: there are 18 square Towers built upon it, very useful to the Pilots for Sea-marks. The E. Coast is clean and bold, but the W. Coast is full of Rocks and Dangers; and therefore a Pilot is necessary.

From the S. end of *Oeland* to the S. end of *Gotbland*, the distance is 24 Ls. the Course N.E. by E. but the Fair Way between lies N.E. by N.

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than the other, having several Rivers and Sounds within it: There is not a place in the whole *Baltick* more difficult, or where the Channels run in among such an infinite Number of frightful Rocks; and that in the Rivers the Depth is uncertain also.

From *Silbuy* in *Westerwyk* Channel to *Schelfstuyr* is 7 Ls. N. by W. all the way among a Labyrinth of Rocks, not practicable but by Pilots: likewise from *Westerwyk* Channel to *Barfoud*, among the same Rocks. You may sail from *Silbuy* into *Barfoud*, and quite up to *South Koppen*, to *North Koppen*, and to *New Koppen*. From *Westerwyk* Channel to *Barfoud* is 9 Ls. the Course uncertain because of the Rocks: and from the N. end of *Oeland* to *Barfoud*, is 15 Ls. the Course N. by W. not more northerly, for fear of the *Idebanks*.

If you are bound in for *South Koppen* or *North Koppen*, you must take a Pilot; and you had best do it at *Oeland*, or at *Gotbland*, according to the place you come from. In the Fair Way to them is very deep Water, sometimes 18, 20, to 30 Fa. but no Stranger can stir without a Pilot.

When you are pass'd these difficult Bays and Sounds, the next Point is *Landsoort*; it is 7 Ls. E. by N. from *Havering*, an Island at the Entrance into the Channel of *New Koppen*, the last of the Channels above-named. Between them is *Telghen Sound*, being the Mouth of a very great Lake, the greatest in *Sweden*: at the Mouth of it is *Troså*, with a small Haven farther up the River *Telghen*.

Between this Sound and *Landsoort* lies a great Rock in the Sea called *Hartso*; and E.N.E. from that are a Cluster of Rocks called the *Heyrbams*: these are foul far off, but there is no need to come near them.

Landsoort is a high Point of an Island, which makes the W. Point of the *Leith* or Channel of *Stockholm*: It lies W. by N. from the *Dantzick Gat* Point, and from *Oeland* N.N.E. distance 24 Ls. but the Fair Way from *Oeland* lies N. by E.

Here they usually take a Pilot for *Stockholm*; for the chief entrance goes in close by the Point, between the Rock call'd *Karwasen* and the Shore; about a Mile and half from the Shore is a fair Channel. I do not describe these Rocks, nor any other in this River or Channel, which is perhaps the best and yet the most nice and difficult in the World; because the careful Mariner will always take a Pilot for such an extraordinary Place.

Due S. from the Entrance into the Channel of *Stockholm*, is the Island of *Gotbland*, distance 28 Ls. There is a Stone Riff runs due S. from the S. end of it 2 Ls. into the Sea; and N. by W. from the same Point are the *Great* and *Little Karels*, two Rocks lying at half a League distance from the Shore, and the same distance from one another: There is good anchoring on either side the *Lesser Karel*, in 8 to 10 Fa. but the *Great Karel* is foul, you must come no nearer to it than 11 or 12 Fa. Between them you have 13 to 14 Fa. Between them and the Point is *Boswick*: But there is a foul Riff on the N. side of the Entrance; keep off it in 8 Fa. at least.

N. by E.

Directions for Sailing on the C

N. by E. of the *Karels* are *Westergoe*, and the Isle of *Reefholm*. *Westergoe* is a small Haven, and goes in about half a League S. of the great N.W. Point of the Island. Two Ls. farther N. is *Wisby*; which has been much larger than it is, the Rains lying off like Rocks in the Sea. At the N. Point of the Island is a little uninhabited Island call'd *Fare*; it lies from *Wisby* N.E. by E. distance 10 Ls.

N.E. by N. from this Island lies *Gotbland*, distance 9 Ls. 'tis a small Island, and there is good anchoring on the N.W. and S.E. sides of it, but all Shoals and Riffs, at the N.E. and S.W. ends. On the E. side of *Gotbland* are several good Havens and Roads, as under *Houbrough Tower*, *Slett Haven*, which is a very good Port, *Easter Garn*, *NyGarn*, *Sandwick*, *Narwick*, near *Holm*, and *Heligholm*: You may have Pilots to direct where to ride, and it is not safe to venture without.

From *Stockholm* northward lies the great *Boden Sea*, or *North Boden*, as the *Swedes* call it; we call it the *Bothnick Gulph*, from its Situation on the E. side of the Country of *Bohnia* in *Sweden*.

We have no Survey of the Coast in this Gulph, notwithstanding there are many good Ports and Havens in it on both sides, and several large Rivers empty themselves into it, and notwithstanding it lies near 400 Miles in length: But as there is no Navigation for great Ships, the depths being uncertain, and the Entrance as it were block'd up with Islands and Rocks; so our Pilots have not given any Charts of the Coast, as being of no use to us who never sail thither.

From the Shore of *Sweden* towards the Isle of *Aaland* lie many Islands and Rocks, and between them is the chief Passage into the *Bothnick Gulph*. This Passage is call'd *Aaland Haest*; small Vessels go in and out there: But the Course of our Navigation lying over on the S. side of those Islands towards *Finland*, our Survey follows the same way.

No Stranger will pretend to sail from one Place to another on this Coast without a Pilot, so that we need not attempt to give Directions; nor would it be practicable among an hundred Thousand Islands, which another Writer says is not half the number: We shall therefore only describe the Course in short.

We suppose a Ship bound from *Stockholm* to *Abo*, and along the Coast of *Finland* to *H'ybourg*: The Master to be sure takes a Pilot to bring him into the Sea from the Coast of *Sweden*.

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*Sailing Directions for the Coast of Norway, from the
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M *Alstrand* lies to the S. of the Rocks call'd the *Pater Nosters*. From *Farder Island* hither, the Shore is bold, and good anchoring in 35 to 40 Fa. From the *Pater Nosters* to *Harmen-head* is 5 Ls. and thence to *South Wixholm* 6 Ls. The Course is N. and N. by W. Between *Harmen Sound* and *Machstrand* comes in a great Bay, the Opening is call'd the *Kee Sound* navigable for

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Sailing on the Coasts of Norway.

Near the Entrance into the *Haust* of *Aaland* is an Island call'd *Erk*: From hence the Courſe lies E. to the Iſle of *Utoy*, diſtance 9 Ls. From thence the Courſe is N. by E. 4 Ls. by a great nameleſs Iſland; and then ſteering on E. you come to the Channel of *Abo*.

Or from *Erk* Iſland is another Channel call'd *Corp Sound*, from an Iſland call'd *Corp*. The Pilots take either of theſe Channels, according as the Place from whence they come requires. There is alſo a Channel this way thro' the *Leith* of *Abo* into the *Botnick Gulph*, leaving the Iſland of *Utoy* on the Starboard-side. The Courſe from *Utoy* to the Channel of *Abo* is N. and N. by E.

From *Abo* the Courſe is E. and E. by S. thro' another Channel to *Rough Iſland*, and to the weſtward to the Channel of *Lays*. Thwart of the Channel of *Lays* you may ſee the Hills about *Revel* in *Lieſland*. The outmoſt Rocks of this Channel are E. from *Utoy*, diſtance 20 Ls. all the way full of Rocks, Iſlands, and broken Lands, ſo that no Ships dare go among them.

From this Channel to the Channel of *Elſingvos* is 16 Ls. the Courſe E. by N. The Pilots themſelves have ſometimes difficulty enough to get out from among thoſe *Scars*, as they call them, if a Storm happens but to have carried away ſome of the Warders or Marks.

From the Channel of *Elſingvos* 'tis 11 Ls. to *Pelting Sound*, the Courſe E.S.E. This Channel is ſhelter'd by ſo many Rocks on each ſide, that they are like a Wall, ſheltering you from all Winds: They ſhoot away from the *Sound* off to Sea ſouthward, and are there call'd the *Pelting Scars*.

From thence it is 5 Ls. to *Putsfagre*; this is a great Rock in the Sea, not a Port or Sound.

N. B. From the *Putsfagre* Rock you may ſee the Iſland of *Higbland* off of *Narva*, diſtance 6 Ls.

Five Ls. to the eaſtward of *Putsfagre* are a Cluster of ſunk Rocks, call'd *Epels Scaren*, that is, the *Epels Rocks*. From theſe Rocks to *Goe Scars* is 9 Ls. the Courſe ſtil: 2. northerly; and 7 Ls. from thence is *Rbodol*, at the Mouth of the *Sound* going into *Wybourg*, and where our Survey of the S. Coaſt of the *Baltick* ended. And thus the two Coaſts are brought together, and the Account of the *Baltick* cloſed.

Way, from the Rocks of Maelstrand to the Naze, the North as far as Bergen.

Thwart of *Oxford* you ſee the *Drommel-hills* W.N.W. from you, and on the E. of the *Drom Sound* is the Haven of *Oxford*: Take a Pilot in there, becauſe of many ſunk Rocks; when you are in, there is good anchoring in 20 to 25 Fa.

When the *Drommels* are N.W. and N.W. by N. from you, then you are thwart of *Mardow*, and to the eaſtward of *Mardow* lies in the *Drom Sound*, diſtance 1 Ls. Here alſo are ſeveral

number: We shall therefore only describe the Course in short.
We suppose a Ship bound from *Stockholm* to *Abo*, and along the Coast of *Finland* to *W'bourg*: The Master to be sure takes a Pilot to bring him into the Sea from the Coast of *Sweden*.

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Sailing Directions for the Coast of Norway, from t and forward to the North a

 *M* *Aelstrand* lies to the S. of the Rocks call'd the *Pater Nosters*. From *Farder Island* hither, the Shore is bold, and good anchoring in 35 to 40 Fa. From the *Pater Nosters* to *Harmen-head* is 5 Ls. and thence to *South Wixholm* 6 Ls. The Course is N. and N. by W. Between *Harmen Sound* and *Maclstrand* comes in a great River; the Opening is call'd the *Keer Sound* navigable far in: But you must take Pilots.

The *Wixholms* are two Islands *North* and *South*, lying far within Land in a great Sound. From the *South Wixholm* to *Acker Sound* is 6 Ls. N.W. by W. Thence 5 Ls. N.W. to *Ottrum*, which is another Sound.

W. by N. from *Acker Sound* is the *Sisters Island*, distance 4 Ls. Behind the *Sisters* lies *Grafwick*, a Port for loading small Fir-Ware, as also at *Shipbill*; but you must take a Pilot to go in.

N.W. by N. from the *Sisters* is the Island of *Bast*, distance 5 Ls. To the E. of the *Sisters* is the Haven of *Elsang*. Take a Pilot at the *Sisters* to go in there.

From the *Bast* to the *Point Roge* the Course is N.N.E. distance 5 Ls. there is a plain Strand on the E. side of the Point, with good anchoring; if you are bound to the *Soen Water*, or *Copperwick*, (that is, to *Dram*) take a Pilot at the Point: From *Farder* to *Laerwick* is 4 Ls. the Course W.S.W. and to the *Bast* is 5 Ls. N. by W: *Laerwick* is a large Sound, having many Buoys and Creeks, where they load Fir-Timber and Deals: You may have Pilots at *Point Roge*, or at *Farder*, which is frequent in a Place so difficult.

The *Nefs* is a Land behind the easternmost Point of *Long Sound*; there is a good Haven, and easy to run in: So you need no Pilot there.

Long Sound is one of the best Harbours of all *Norway*: it lies a long League from *Joffers Island* N.N.E: Before it, there lies a high round Rock, whereon there is a *Warder*, or Mark Tree: *King's Haven* is the southermost Channel of that Sound: You take Pilots at *Joffers Island*, to carry you to all the Harbours in *Long Sound*, which are very many. Among these are *East Kiel*, *West Kiel*, *Abbeford*, *Saudford*, *Longen*, and *Oxford*, and many more, all Loading-places, tho' but small Towns

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in flort. these Rocks to *Goë Scars* is 9 Ls. the Course still E. northerly; and 7 Ls. from thence is *Rhodet*, at the Mouth of the *Sound* going into *Wybourg*, and where our Survey of the S. Coast of the *Baltick* ended. And thus the two Coasts are brought together, and the Account of the *Baltick* closed.

Norway, from the Rocks of Maelstrand to the Naze, to the North as far as Bergen.

Thwart of *Oxford* you see the *Drommel-bills* W.N.W. from you, and on the E. of the *Drom Sound* is the Haven of *Oxford*: Take a Pilot in there, because of many sink Rocks; when you are in, there is good anchoring in 20 to 25 Fa.

When the *Drommels* are N.W. and N.W. by N. from you, then you are thwart of *Mardow*, and to the eastward of *Mardow* goes in the *Drom Sound*, distance $1\frac{1}{2}$ L. Here also are several Channels to run in, and you will find it absolutely necessary to take a Pilot.

N. B. The *Warders* mention'd so often in the Pilot Books to be seen on these Coasts, are certain great old single Fir Trees, or, for want of such, large Poles, left upon Hills and other rising Grounds, as Marks to know the Land and the Sounds or Harbours by, as the Steeples and Towers are in other Places.

N. B. Note also, That the Word *Sound* is used on this Coast for any Opening of a River, or any Gulph or deep Inlet of the Sea; the same as are *Deeps* on the Coast of the *Eyder*, the *Elbe*, the *Weser*, &c. and the *Gulphs* on the Coasts of *France*, *Spain*, *Italy*, &c.

Kirk Sound is one of those; 'tis the Opening or Mouth of a River; 'tis eastwards from *Mardow*, and half a League from it due E. is the Haven of *Heffness*, near which are two *Warders*. Thwart of the *Warders* you have from 50 to 70 Fa. Water, but in the Haven 30 to 35 Fa. This is all a Place of great Business, and frequented by a world of Ships for loading *Mardow* Timber, Deals, &c. Here are several large Sounds between *Kirk Sound* and the *Naes*, for all which Pilots are necessary, such as *Hammer Sound*, *Old Hill Sound*, *Wolf Sound*, *Keperwick*, *Fleckery*, *Holy Sound*, and *Scar Sound*, most of them loading Places.

From the *Naes*, which is the Southermost part of *Norway* in the *North Sea*, the Coast lies at first Westward by the Land of *Lceft*; but Eastward it stretches without the Rocks, till you are past the Island of *Fleckery* E.N.E. and from *Fleckery* N.E. to the *Long Sound* mention'd above, distance in all 26 Ls. The Land is full of steep and stony Hills, and the Sea of frightful Rocks and dangerous places; but among them there are abundance

Directions for Sailing on the Coast

dance of good Harbours, very safe anchoring, and Roads shelter'd from all Winds, with deep Water to the very Shore side; which makes it, as 'tis full of Trade, very convenient for lading Ships in almost every Creek, but no stirring without a Pilot.

The first Haven to the eastward of the *Naze* is the *Cow* and *Calf*, called so from two high Mountains, one bigger, the other less, within the Port. Here if you make a Signal, the Pilots come off immediately.

N. B. The Tides keep no certain Course along this Coast; sometimes there is a strong Current West, so hard that a Ship shall scarce be able to stem it with a fresh Gale from the S.W. This is ordinarily in the Spring; the nearer the Land, the fiercer it runs: Yet with all this Current here is little or no swell of a Tide.

N. B. This is the same Current mention'd before, which sets out from the *Belt*, and shoots out from the *Schæw* to the Coast of *Norway* N.E. and then turns along the Coast towards the North.

W. from the *Naze* are the two Sounds or Havens of *N. w* and *Old Siloe*: the Entrance into the first is called the *East Gat*, and the other the *West Gat*. If you are bound up to either of them take a Pilot with you.

W.N.W. from the *Naze* the Coast lies by the Land of *Leest* to *Hittero*, distance 5 Ls. To the S. of *Hittero* is the Entrance into *Witford* N.E. and to the northward into *Berg-sound* E.N.E.

N. from the Island of *Hittero* is *Soggendal*, distance 2 Ls. and N. from that is *Ekesound*, distance 1 L. and N. from that is *Sirowack* distance 2 Ls. 'tis a Haven far in. Thwart of it is a great Rock sunk 2 Fa. therefore a Pilot is necessary.

Six Ls. from *Sirowack* is *Jedderland*: you go first N.W. by N. 2 Ls. to *Point Walbert*, and then N. 4 Ls. to *Jedderland*; 'tis a good Coast and clear, except a small Riff of Sand to the N.W. of the Rock called the *Veetstone*. This *Veetstone* lies 2 Ls. from the Shore, distance from *Point Walbert* 5 Ls. N.W. Between them and the Land, to the S. of the *Veet Rock*, is a Ledge of low Rocks, called the *Rut*: keep something West till the *Veet Rock* appears a little longish, not round; then you go clear of the *Rut Rocks*.

N. from the *Veet* lies the Island of *Wittings-Eye*, distance 2 Ls. and N.N.E. another called *Sibrichstone*, distance 4 Ls.

Within the *Veet* lies the *Stavanger Sound*: you go in N.E. between the *Veet Rock* and the Main, leaving the *Rut Rocks* on the Starboard side. The *Veet Rock* is a Guide into the *Stavanger*, and into the *Tongeness Sound*, as also into *Doeswick*; and into *Scuteness Sound*, and to all the Sounds on that side: and Pilots are taken in at *Tongeness Point* for all those Places.

From the *Veet* to *Scuteness* is 5 Ls. the Course N.N.W. and from *Scuteness* W. by N. distance 4 Ls. lie the Rocks called the *Outseers*, or *Wifers*, in *English* the *Outlookers*, because they are seen a great way off, and are of use to be lookt out for.

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Between *Wybrants Eye* and the Main, the Channel is not above a Ship's length broad: But it is deep, and you may safely pass; only observing, that on the E. side of the Passage there is a little sunk Rock: Keep close to the Island, and you may avoid it.

When you are clear of *Wybrants Eye*, and would sail over to *Bommel* by the *Blocks*, the Course is N.W. by N. and N.N.W. distance 5 Ls. On the W. side 'tis all broken Land, Islands and Rocks, only about the middle of the Passage there is a clear Channel, either forward to the N. or W. by N. into the Sea.

The *Blocks* are two Rocks lying even with the Water; go within them both, leaving them on the Larboard-side (sailing to the northward) and run close along the E. Shore, between the *Blocks* and the *Long-holm*, which is an Island lying in a Bay near the Shore.

The next great Island to the northward of *Scuteness* is the *Bommel*; and the southmost Point of the Island is call'd *Bommel-head*: it is a high steep Point; and to the southward of it is *Bommel Sound* going N.N.E. and S.S.W. 'tis a large Channel running out into the Sea. *Bommel* is all low plain Land, except the S. Point, and appears almost perpendicular: It may be known by a high round Hill call'd *Sack*, which appears like a Sugar-loaf, or a Man's Hat.

To sail into *Bommel Sound* from the Sea, bring *Bommel-head* E.N.E. northerly from you, and sail in for it, and as you come near it, leave most of the little Islands on the Starboard-side, and run clear by it to the northward.

Being turn'd about *Bommel* to the eastward, you will find a Harbour call'd *Bommel Harbour*: There is a Rock just before it; and between the Rock and the N. Point of the Harbour is a sunk Rock: Therefore to go in, keep between the S. Point and the said Rock: And as soon as you are in, you may anchor where you please; it is a good Harbour for all Winds.

About two Ls. to the northward of *Bommel Harbour* there is a great Sound call'd also the *Bommel*; it is the Mouth of two or three small Rivers which fall all into the Sea together. Against it on the W. side of the Channel, lies *Munster Haven*, 'tis a good Harbour for southerly Winds. You may anchor here in 10 or 12 Fa. thwart of a little white Church.

Northward of *Munster Haven* is *Bule Harbour*, distance one Mile; here is good anchoring for southerly Winds: And N. of that is *Volgar Road*. There is a little Island just before it, where you may anchor on any side of it, as the Wind is; for you may sail round, or go in or out on which side you please.

To the northward of *Volgar Road*, distance 2 Ls. there is an Island call'd *Bremer Holm*; between them is a sunk Rock: Keep the Island in the Entrance of *Volgar River*, a little open with the Point of Land on the N. side, and you go clear. Here the Channel parts in two; the eastermost is call'd the *Old Leith* or *Channel*, and the other the *New*: The *Old Leith* has not above 2 Fa. in the deepest, but on the E. side of the Entrance you may anchor safe for easterly Winds.

But the *New Leith* is broad and deep, and is a very good

to the N.W. of the Rock called the *Veetstone*. This *Veetstone* lies 2 Ls. from the Shore, distance from Point *Walbert* 5 Ls. N.W. Between them and the Land, to the S. of the *Veet Rock*, is a Ledge of low Rocks, called the *Rut*: keep something West till the *Veet Rock* appears a little longish, not round; then you go clear of the *Rut Rocks*.

N. from the *Veet* lies the Island of *Wittings-Eye*, distance 2 Ls. and N.N.E. another called *Sibrichstone*, distance 4 Ls.

Within the *Veet* lies the *Stavanger Sound*: you go in N.E. between the *Veet Rock* and the Main, leaving the *Rut Rocks* on the Starboard side. The *Veet Rock* is a Guide into the *Stavanger*, and into the *Tongenefs Sound*, as also into *Doerwick*; and into *Scutenefs Sound*, and to all the Sounds on that side: and Pilots are taken in at *Tongenefs Point* for all those Places.

From the *Veet* to *Scutenefs* is 5 Ls. the Course N.N.W. and from *Scutenefs* W. by N. distance 4 Ls. lie the Rocks called the *Outseers*, or *Wifers*, in *English* the *Outlookers*, because they are seen a great way off, and are of use to be lookt out for.

N. B. Hither the Stream above-mention'd holds still; and tho the Water does rise and fall, yet 'tis not at certain times: but from *Stadeland* N. to *Dronthelm*, the Tide rises and falls by the Course of the Moon, as in *England*.

At the N. Point of *Stavanger Sound* lies an Island called the *Boek*; between it and *Scutenefs* goes in the Channel of *Bergen*. *Scutenefs* is a long narrow Island lying along the Shore: it is about 4 Ls. in length; there are small Rocks and foul Grounds at the S. end of it: but to keep clear of them, as you come out of the Sea, keep the Point of the *Boek* a little open with the South end of *Scutenefs*, and that will carry you clear to the Southward.

Between *Boek Harbour* and *Copperwick*, on the East side of the Channel, is a great Sound, which in coming from the Southward shews broader than the Channel it self: but to avoid mistaking it for the Channel, keep the W. Shore aboard, till you are against *Copperwick*; and then you are past the *Sound*: About $1\frac{1}{2}$ L. from *Boek Island* is *Copperwick Bay*: There is a small funk Rock at the Entrance called the *Copper Nail*, but there is always a great Pole upon it, to know it by. About 2 Ls. from *Boek Island* to the northward in *Bergen Channel*, is *Great Warder-Road*, called so from 4 great Warders that are on *Scutenefs*. Here is a good Road, you may anchor in 6 to 12 Fa. secure from southerly Winds.

Half a L. to the northward of *Great Warder-Road* is *Notou*, with a white Church and some Houses near it; there is good anchoring for either northerly or southerly Winds; also there is a Road within half a L. of the N. end of *Scutenefs*, where you may anchor in good Ground and 10 Fa.

There is a little Island at the N. end of *Scutenefs*, called *Hybrants Eye*; where under a Rock there is good anchoring for all Winds, in any Depth you please.

is a great Sound call'd and the *Bommel*; it is the Mouth of two or three small Rivers which fall all into the Sea together. Against it on the W. side of the Channel, lies *Munster Haven*; 'tis a good Harbour for southerly Winds. You may anchor here in 10 or 12 Fa. thwart of a little white Church.

Northward of *Munster Haven* is *Bule Harbour*, distance one Mile; here is good anchoring for southerly Winds: And N. of that is *Volgar Road*. There is a little Island just before it, where you may anchor on any side of it, as the Wind is; for you may fail round, or go in or out on which side you please.

To the northward of *Volgar Road*, distance 2 Ls. there is an Island call'd *Bremer Holm*; between them is a sunk Rock: Keep the Island in the Entrance of *Volgar River*, a little open with the Point of Land on the N. side, and you go clear. Here the Channel parts in two; the eastermost is call'd the *Old Leith* or *Channel*, and the other the *New*: The *Old Leith* has not above 2 Fa. in the deepest, but on the E. side of the Entrance you may anchor safe for easterly Winds.

But the *New Leith* is broad and deep, and is a very good Channel. About the Middle of the *New Leith* there is a little Bay or Creek call'd *Rugga Holm*: Here is no anchoring, but you may lie between the Island and the N. Point, with Cables made fast to the Rings, placed on both sides for that purpose.

North of *Bommel* lies *Red-root-holm*, or *Root-holm*, distance near a League: Between them is a fair clean Channel into the Sea, W.S.W. call'd *Eoltmerford*: It is a large wide Sound. On the S. side are some sunk Rocks; but if you keep the Mid-Channel a little to the northward, you go clear.

On the S. side of this Sound, and a little from the N. Point of *Bommel* lies another sunk Rock; which tho it is 5 or 6 Fa. under Water, yet when it blows hard off the Sea, the Sea breaks very much upon it: To come in here keep *Red-holm*, or *Root-holm*, on the Larboard-side, till you come thwart of *Bommel*. You would do well to take a Pilot here, the Sounds and Channels being many, and very difficult, such as the *Rein-knap*, *Deep-sound*, *Strom-sound*, *Pape-sound*, *Bay-holm*, and several others. You may anchor on the E. side of *Bay-holm*, but take care to avoid a Ledge of Rocks that runs out from the N. end of the Island.

North from *Bay-holm* is a small Bay call'd *Crabkork*, distance $1\frac{1}{2}$ L. at the N.E. Point of the Island of *Fuyrford*. It is of use only for small Ships, and so little, that not above two or three can lie there at a time.

From *Crab-kork* to *Bock-opin* is W. by N. 4 Miles. Between them is a Sound call'd *Crab Sound*, opening S.W. by W. and W.S.W. into the Sea; there are three Hills on the main Land of *Norway*, almost like the *Drommels*, and therefore call'd by some the *North Drommels*; bring them N.E. from you, and that brings you before *Cruys Sound*. If you would go in at this Channel of *Cruysford*, either to *Watting Strom* or any other Place within the *Great Island*, or if you would go this way to *Bergen*, which may be done very well, the

Channel being all deep tho difficult, you must be sure to take Pilots at the Entrance, if you are unacquainted, for there are innumerable Rocks and Dangers. But if you keep out at Sea till you get into the Latitude of *Bergen*, then you may stand in for *Jelleford*, leaving *Aland* on your Larboard-side; and get in between it and the *Reefstone*, and so up to *Bergen*, which is in sight: As you go past the S. Point of *Aland*, there is an Island or Rock, upon which is fix'd a great Iron Ring, to which you may fasten a Cable, if you are be-

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Sailing Directions for the Coast of Norwa



FROM *Jelleford* to the South Point of the *Stadland* it is about 20 Ls. N.N.E. and N. by E. the Coast is all broken Land and Islands, but small Vessels may sail within them all. The *Norway* Barks of all Places between *Scuteness* and the *North Cape*, can sail all along within the said Rocks, except between the S. and N. Point of the *Head Land*; where they are forced to put out to Sea, there being abundance of small Rocks, and too near the Shore.

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About 7 Ls. northerly from *Harle Island*, and 11 Ls. northerly from *Jelleford*, there is a Range of Rocks that shoot 3 or 4 Ls. into the Sea, call'd *Outery*, or *Outer Rocks*: And about 4 Ls. and a half beyond, or to the northward of them, is the Island call'd the *Old*, about 3 Ls. from the Shore.

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Between the *Old* and the *Out-weers* or *Outer Rocks*, there is a good Harbour call'd *Southford*: There are two Islands lie before it, but you may sail in between them.

Old is a high Rock or Island; it has many small Rocks about it, and a Riff of Rocks stretching S.W. from it into the Sea near 2 Leagues.

There is a great Rock call'd *Kyn*, N.W. by N. from the Entrance into *Southford*, distance 7 Ls. and N. by W. from the *Old*, distance 3 Ls. It makes with two sharp Tops like a Bishop's Mitre.

E. by S. from *Kyn* there goes a great Sound far up into the Land call'd *Kyn Sound*; upon it are two Towns, call'd *Waldres* and *Easter Dale*. About 2 or 3 Ls. northward from *Kyn* lies *Orriack*, it is also a great Rock, and makes like one round Hill; and about 4 Ls. to the northward of that, is the S. Point of *Stadland*: Between them goes in a great Sound, by which you may sail to *Bergen* one way, and likewise the other way to *Scuteness*, being all within Land. And at the Entrance of this Sound, a little within the S. Point of the *Head Land*, there is a small Bay thwart of a Beacon; here you may anchor, and be shelter'd from westerly, northerly, and easterly Winds.

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Between the N. Point of *Stadland* and *Broad Sound* are the Islands of *Flozwack*; and without them, N.N.E. from the N. Point at 4 Ls. distance, is the *Island Swynoe*.

If you are bound into the *Broad Sound* to *Sudmer*, keep

Sailing on the Coasts of Norway.

be sure to calmd, to prevent the Current driving you along by *Aland* to the northward; the said Rock is all clear, and you may keep out at wind about it without danger.

There are two small Bays or Harbours on the Island of *Aland*, in which you may anchor upon Occasion: If you come from the northward, and would go into *Bergen*, you may go in thro' *Harlefjord*, which is a Channel between *Harle* Island and the Main, and goes out N.N.W. and N. by W. from *Aland* into the Sea.

Coast of Norway, from Bergen to Drontheim.

and you will have about 3 Fa. over the Stone Riff: After which you will soon have 10, 20, then 100 or 200 Fa. then keep between the Main and the Island, and you come to *Romsdale* River.

There is a great River which comes in S.E. from *Godon*, from *Sickule*, *Roxingpale*, and other loading Ports.

To the northward of *Broad Sound* lie 5 large Islands; the first is *Luycke*, a high Island; the second is like it, between these go in *Luycke Sound*: the third is *Harufa*, it hath a high Hill on the middle of it, but is low at both ends: the fourth, or smallest of them, is called *Lemfo*, or the *Low*, it makes in 2 or 3 low Hummocks: the fifth is *Flemfen*, or *Roof* Island; it has but one Hummock, which is at the W. end of it, and shews in the Form of the Roof of a House; there is a Bay within the E. Point of this Island, where there is a good Road Landlocked from all Winds. On the N.E. side of this last Island is the Channel called *Noguesford*, it goes S.E. into *Romsdale* River; and the Rocks that lie between *Flemfen* and *Boe Point* are called *Romsdale Scarrs*: Among them about E. from the N. end of *Flemfen*, is the Island *Lever*; in going in or coming out you may fail on either side of it.

Boorfound is a Haven among the Rocks southward of *Boe Point*; there is good anchoring, but not safe to run in without a Pilot: the same is the Case of all the other Havens and Roads hereabouts, for the Shores are cover'd with innumerable Rocks.

Stemmeshest is the next Point of the Main Land from *Boe* N.N.E. distance 3 Ls. and lies from the N. Point of *Stadland* N.E. by N. distance 36 Ls. To sail hither, it is best to keep without in the main Sea, except you are bound for *Sudmer* or *Romsdale*. *Stemmeshest* is a high Point of Land; and if you make it coming from the S.W. out of the Sea, it appears in 2 Hummocks. Turning in by *Stemmeshest* is the Channel which lies N.E. by E. to *Drontheim*: I advise all Strangers, and all with great Ships, to take a Pilot here, for the Rocks and dangerous places are not possible to be described.

All the way from *Stemmeshest* to *Drontheim* may be called a River or Sound, for it is within a long Riff or Range of Islands, with an endless number of Rocks: It is Pilots work, and it is not possible to give a perfect Description; Pilots are to be had

Old, distance 3 Ls. It makes with two sharp Tops like a Bishop's Mitre.

E. by S. from *Kyn* there goes a great Sound far up into the Land call'd *Kyn Sound*; upon it are two Towns, call'd *Waldres* and *Easter Dale*. About 2 or 3 Ls. northward from *Kyn* lies *Orriack*, it is also a great Rock, and makes like one round Hill; and about 4 Ls. to the northward of that, is the Point of *Stadland*: Between them goes in a great Sound, by which you may sail to *Bergen* one way, and likewise the other way to *Scutenests*, being all within Land. And at the Entrance of this Sound, a little within the S. Point of the *Head Land*, there is a small Bay thwart of a Beacon; here you may anchor, and be shelter'd from westerly, northerly, and easterly Winds.

Between the N. Point of *Stadland* and *Broad Sound* are the Islands of *Flowack*; and without them, N.N.E. from the N. Point at 4 Ls. distance, is the *Island Swynoe*.

If you are bound into the *Broad Sound* to *Sudmer*, keep without the Islands of *Flowack*, about the northmost of them, which is call'd *Hoffen*; and go E. by S. 2 or 3 Ls. from it, then you will see on the Larboard-Bow an Island call'd *Godou*; go in there, and take a Pilot for *Sudmer*.

But if you are bound to *Romsdale* River, go by the Island of *Luycke*, where you have 10 to 18 Fa. Water in the Fair Way; only mind that when you are past the said Island *Luycke*, there is a Stone Riff runs cross the Channel almost to the high Head of *Horrel*; there edge off from the Island that is on your Larboard-side, and run close by the high Head of *Horrel*,

Sailing Directions for the Coasts of Norway and Cape.

IF you are bound about the *North Cape*, and take your Departure from the North Point of *Stadland*, it is from thence to the Island *Trenough* 77 Ls. N.E. by N. quite without all the Islands and Head Lands; and from the said *North Point* to the Island *Rust* it is N.N.E. easterly 92 Ls. Also from the foresaid *North Point* to the Island *Loefort*, it is N.N.E. 15 Ls.

To sail from the *Stadland* to the *North Cape* it is certainly best to keep without all the said Islands, lest meeting with the Wind at W. or W.N.W. you be embay'd in *Drontheim River*: but if you are bound from *Drontheim* to the northward, you have the *Momendale* Island about 10 Ls. to the northward of *Drontheim*: and about 12 Ls. N.W. by W. from that are the Islands of *Holy Land*, and from that about 10 Ls. N.N.W. or N.W. by N. is the Island *Trenough*; from whence about 15 Ls. northerly are the Islands *Rust* and *Wero*; between which and the *Loefort* is the famous *Whirlpool*, called by some *the Navel of the Sea*, and by others the *Macl Strom*: you may anchor under the West Point of the *Loefort*, or you may sail all

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Head of *Horrel*,

Point; there is good anchoring, but not safe to run in without a Pilot: the same is the Case of all the other Havens and Roads hereabouts, for the Shores are cover'd with innumerable Rocks.

Stemmeshest is the next Point of the Main Land from *Boe* N.N.E. distance 3 Ls. and lies from the N. Point of *Stadland* N.E. by N. distance 36 Ls. To sail hither, it is best to keep without in the main Sea, except you are bound for *Sudmer* or *Romsdale*. *Stemmeshest* is a high Point of Land; and if you make it coming from the S.W. out of the Sea, it appears in 2 Hummocks. Turning in by *Stemmeshest* is the Channel which lies N.E. by E. to *Drontheim*: I advise all Strangers, and all with great Ships, to take a Pilot here, for the Rocks and dangerous places are not possible to be described.

All the way from *Stemmeshest* to *Drontheim* may be called a River or Sound, for it is within a long Riff or Range of Islands, with an endless number of Rocks: It is Pilots work, and it is not possible to give a perfect Description; Pilots are to be had at all the Sounds which open into the Sea, particularly at *Rams Sound*, *Gryps Sound*, *Flees Sound*, and many others.

About 4 Ls. from *Domesnoft*, and on the Sea Shore, lies a little Island called *Swan Holm*; you may sail round it, there is upon it a Warder: Under this Island you may anchor, either going to the eastward or westward, in 4 or 5 Fa. clean sandy Ground.

Between *Hitteren* and *Lexe* there is a Haven called *Deep-sound*: The *Norway* Barks coming from the Southward, run in here behind *Lexe* to go to the Northward.

of Norway and Finmark, from Drontheim to the North Cape.

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along to the *North Cape* within the Islands; or you may run in at divers places between the Islands of *Wertroll Sanies* and *Tromsund*; but thwart of those Islands lie here and there some funken Rocks, very dangerous for those that are not acquainted therewith; Pilots therefore are very needful all that way.

From *Tromsund* to *Surroy* it is N.E. by E. about 16 Ls. At the E. end of the Island of *Tromsund* goes in the Channel of *Tromsund*, leaving *Fogleden* and *Tromsund Point* on the Starboard side, and *Loppen*, *Loppen Calf* and *Skysfen* on the Larboard side; and within are several Bays and Roads, where you may anchor upon occasion.

Loppen and *Loppen Calf* are two small Islands, where is a Channel runs in to the Northward of them between *Loppen* and *Surroy*, leaving *Loppen* on the Starboard-side, and *Surroy* on the Larboard side; that Sound is called the *Suyer Sound*; and within it nearer the Land, is another called *Sherver Sound*, thro' which you may sail S.E. into *Alten Bottom*; for sailing in there you must have a Pilot.

Note,

Directions for Sailing on the Coasts of L

Note, In going into *Suyr Sound*, coming out of the Sea, there are some Rocks called *Huyguen's Rocks*; they lie about 10 Ls. N.E. by N. from *Tromsund*, and W.N.W. about 5 Ls. from the West-end of the *Surroy*. One *John Huyguens*, a *Dutchman*, struck upon them in the Year 1595, and hence they are called *Huyguen's Rocks*; it is suppos'd there are more thereabouts, not yet discover'd.

About 5 Ls. eastward from *Surroy* lies a small Island called *Jugen*, and between them lie many other small Islands or large Rocks; the first is *Ship Holm*, and further in, to the Southward, is *Rcef Holm*; you may sail in between *Surroy* and *Jugen* on either side of the said small Islands: and standing in S.E. or S.E. by E. there is a good Harbour within an Island called *Hammerfast*; also between *Jugen* and the Island *Maggeroe* lies *Holmsly*; it is a small Island but you may sail round about it: There is on

the N. side of it a good River, also another Bay or have a good Road

The N. Cape is to the S. and a little to the S. *Stappen*; but by *ters*.

To the southward is a good Haven called *the S. Point of M*; there is a good Road thro' *Suyr Sound* *Idlen* and *Hammer* to Sea again betwe

Sailing Directions for the Coast of Lapland, from the Nor



THE *North Kin* lies about 11 Ls. E by S. from the *North Cape*; it is a Point of the main Land: between them appears a great open Sea: From the *North Kin* to *Tannebay* is about 11 Ls. E.S.E. a clean Coast. without Rocks or foul Ground; high steep craggy Land. *Tannebay* is the Mouth of a great deep River 2 Ls. broad; it goes in at first S. and then parting in two, or rather three parts, the main River turns more to the Westward: if you would go in there, take a Fisherman at *O-mega* for a T lot.

The Point of *Matkorf* lies a little to the Eastward of *Tannebay*; but the next place of Note is *Ward-Huis* S.E. by E. and S.E. about 16 Ls. between, but nearest to *Ward-House* is a high Hummock upon the high Land like a Castle, by which the Land may be known.

Ward-House is a large Island with 2 or 3 small ones on the N. side of it; but the large one only is inhabited: It is about 21 Miles long, lies a Mile from the Main, with very deep Water between.

There is on each side the Island N. and S. a deep Bay; they come so near to one another in the middle of the Island, that they almost part it in two; not above a Stone's-cast of Land being between. There is a Castle with a small Town near the Sea side on the E. side of the S. Bay: There is good Riding in the S. Bay, but better between the Island and the Main. You may safely run quite thro' between the Island and the Main, only run somewhat nearest to the Rock call'd *Diesholm*, where the Gallows is, because there the Island is foul.

About a Gunshot N. lie the other 2 Islands very near together, not a Mile long, but very high and rocky, with 2 or 3 Rocks by them above Water.

From *Ward-house* the next Land S.E. is *Keger Point*, being the N.W. end of *Fisher's Island*, its distance 10 Ls. Between them lies a Bay where several Sounds and Rivers go in, amongst which is the great River *Pitsung*, commodious for great Ships; there being a good Road a little within the River.

to the Town of *L* Country.

To sail into the S. end of *Fisher's* the high Land of *L* wide; and when you are in *Island Kilduyn* and Bay, between *Lau* fore the River, make for it is very difficult

South of the River 1 1/2 L. between both there is a Harbour you go by a round within, it edges to so that you cannot depth you please; sometimes ouzy and Ouze, and save a *Kilduyn* Island lies E.S.E. the Channel times narrower, but Middle, or nearest between two Points *Laplanders* Tents fore them in 12 or it is very deep.

If you would northward, run beyond; and being within there the Channel Go on S.E. till you on the E. side, as *Island*, anchor under

There is a good from so high a place keep the Cask in r

the N. side of it a Bay called *Akesford*, where you may anchor in a good River, for southerly and easterly Winds: there is also another Bay on the S.E. side, called *Knarwick*, where you have a good Road for westerly and northerly Winds.

The N. Cape is the northermost Point of the Island *Maggeroe*; and a little to the westward of it lies 3 or 4 small Islands called *Stappen*; but by *English* Sailors, *The Mother and Daughters*.

To the southward of the E. Point of *Maggeroe* there is a good Haven called *Keelwick*; and a little to the eastward of the S. Point of *Maggeroe* lies a small Island called *Altenfolen*: there is a good Road and Shelter for all Winds; you may run thro' *Suyr Sound* within *Surroy*, leaving all the Islands, except *Idlen* and *Hammerfast*, just on the Larboard side, and run out to Sea again between the *North Cape* and the *North Kin*.

from the North Cape to Tieribieri Point.

to the Town of *Kola*, which is the largest Town in all that Country.

To sail into the River *Kola*, you must go from *Laus*, or the S. end of *Fisher's Island*, towards the River S.S.E; run by the high Land of *Bodenwolack*, and the River will open very wide; and when you are at *Laus Point*, you may see the Island *Kilduyn* and the River *Kola*: The Land lies in a great Bay, between *Laus* and the River *Kola*. When you are before the River, make a Signal for a Pilot, if you would run in, for it is very difficult for a Stranger.

South of the River *Kola* is the Island of *Kilduyn*, distance 1 $\frac{1}{2}$ L. between both, but nearer the River than the Island, there is a Harbour call'd *Bliesna Salensi*. To sail in here, you go by a round reddish Hummock; and when you are within, it edges to the westward, till the Harbour seems shut, so that you cannot see the Sea, and you may anchor in what depth you please; it is all clear, white sandy Ground, but sometimes ouzy and soft: Also you may run a-shore upon the *Ouze*, and save a Ship without Anchor or Cable.

Kilduyn Island lies extended along shore 2 Ls. W.N.W. and E.S.E. the Channel between is about half a L. broad sometimes narrower, but very deep, and clear Ground. About the Middle, or nearest the E. end, is a good Road and a Bay, between two Points lying out toward the Land: There are some *Laplanders* Tents or Houses there, and you may anchor before them in 12 or 14 Fa. sandy Ground, but towards the S.E. it is very deep.

If you would anchor under *Kilduyn*, coming from the northward, run between the Island and the Main at the W. end; and being within, you will see a little round Island; there the Channel is narrowest, but broad enough to turn in: Go on S.E. till you come between the two Points, and anchor on the E. side, as before. If you come in at the E. end of the Island, anchor under the Houses, as before.

There is a good watering Place at *Kilduyn*; the Water runs from so high a place, and with such a descent, that you may keep the Cask in the Boat, and make the Water run in to fill it.

N. side of it; but the large one only is inhabited: It is about 21 Miles long, lies a Mile from the Main, with very deep Water between.

There is on each side the Island N. and S. a deep Bay; they come so near to one another in the middle of the Island, that they almost part it in two; not above a Stone's-cast of Land being between. There is a Castle with a small Town near the Sea side on the E. side of the S. Bay: There is good Riding in the S. Bay, but better between the Island and the Main. You may safely run quite thro' between the Island and the Main, only run somewhat nearest to the Rock call'd *Dieholm*, where the Gallows is, because there the Island is foul.

About a Gunshot N. lie the other 2 Islands very near together, not a Mile long, but very high and rocky, with 2 or 3 Rocks by them above Water.

From *Ward-house* the next Land S.E. is *Keger Point*, being the N.W. end of *Fisher's Island*, its distance 10 Ls. Between them lies a Bay where several Sounds and Rivers go in, amongst which is the great River *Pitsing*, commodious for great Ships; there being a good Road a little within the River.

N. B. There is much Salmon taken and loaden here.

There are 3 Harbours at the S.E. end of *Fisher's Island*. 1st. *Laus* on the N. side of the Point. 2^d. *Trepena* at the Point it self. 3^d. *Kawens* on the S. side of it; there is good anchoring in them all: The Island is about 11 Ls. in length, lying N.W. and S.E. If you are obliged to go into any of those Harbours, you would do well to make a Signal to a Fisherman, who will come off and pilot you in.

N. B. There are, 'tis true, no Inhabitants here, (Fishermen or others) in the Winter; but then 'tis also true, that here are no Ships to stand in need of them at that time of year, the Sea being all full of Ice.

Keger is a Haven at the N.W. end of *Fisher's Island*; a little without the N. Point of the Harbour, lie 2 or 3 Rocks; also in the midst of the Harbour's Mouth is a sunken Rock, leave that and the other Rocks on the Starboard-side, and run by the S. Shore: then edge behind the Rocks, and anchor in 7 or 8 Fa. Here is as good lying as in any Harbour on the Coast of *Lapland*: The Harbour's Mouth goes in S.W.

N. B. Altho this is commonly call'd *Fisher's Island*, yet it is not absolutely an Island, being joyned to the main by a Neck of Land: but it is so narrow and low, that the *Russians* going that way can haul their Boats over it. It is called *Fisher's Island*, because the *Danes* used to have their Fish Staples at *Keger*, upon this Island.

From hence to the River *Kola*, or *Kilduyn Island*, is about 9 or 10 Ls. S.S.E. or S.E. by S. The *Kola* is a large deep River, and is navigable for great Ships far up into the Country

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Kilduyn Island lies extended along shore 2 Ls. W.N.W. and E.S.E. the Channel between is about half a L. broad sometimes narrower, but very deep, and clear Ground. About the Middle, or nearest the E. end, is a good Road and a Bay, between two Points lying out toward the Land: There are some *Laplanders* Tents or Houses there, and you may anchor before them in 12 or 14 Fa. sandy Ground, but towards the S.E. it is very deep.

If you would anchor under *Kilduyn*, coming from the northward, run between the Island and the Main at the W. end; and being within, you will see a little round Island; there the Channel is narrowest, but broad enough to turn in: Go on S.E. till you come between the two Points, and anchor on the E. side, as before. If you come in at the E. end of the Island, anchor under the Houses, as before.

There is a good watering Place at *Kilduyn*; the Water runs from so high a place, and with such a descent, that you may keep the Cask in the Boat, and make the Water run in to fill it. At the E. end of *Kilduyn*, upon a Point call'd *Sacrifice Point*, there is a Fishers Village call'd *Kammon*.

From *Kilduyn* to *Tiry Biry* the Course is S.E. distance 6 Ls. between them is a great Bay, in which about a L. from *Kilduyn* there is a high Island call'd *Olierie*: Behind the S. end of it, under the Main, there is a good River that will hold three or four Ships very well: On the Main is a Hummock higher than the rest, and upon it are two Crosses one above another: To the northward of it is a flat Point, and thwart it lie some Rocks along shore, which are cover'd at high Water; one of them is almost even with the Water, it may be known by the Sea breaking upon it. If you would go in here to anchor behind the Rocks, get a Pilot if possible; and if none comes off to you, do not venture, but go on for *Tiry Biry* or *Kilduyn*, as the Winds present, for it is very hazardous.

Tiry Biry is a Point at the Mouth of a very large and deep River: Ships of any burden may go up, and anchor in good sandy Ground: It lies in, first South, and afterwards more westerly, the eastmost Point lies out more to Sea than the other, and makes a Bay to the eastward of it, where Ships may anchor for a N.W. Wind: This is call'd *Tiry Biry Point*.

Two Ls. to the southward of *Tiry Biry* is a great sandy Bay call'd *Waranin*; it is narrow at the Mouth, but spreads into a broad Sound within. In this Sound, as also in the River of *Tiry Biry*, there is good Salmon fishing: This Bay is clean and good anchoring. There are three little Islands without the Mouth of the Harbour, but the Road is within them.

To the eastward of *Tiry Biry* 4 or 5 Ls. is a Tide Harbour call'd *Gabriel*: You may go over on Foot at low Water, but it rises 12 Foot on the Flood: There are three little Islands in the Harbour's Mouth, the highest on the S. side, and the two lowest on the N. side. When you Sail in, run nearest the south-

Directions for Sailing from Cape

southmost; and being got in, edge to the northward behind the two northmost, and anchor on the N. side of the Harbour, where you have 7 or 8 Fa. clear Ground.

About a League to the southward of *Gabriel*, or farther, is *Salenfi*: There is a great Indraught between *Gabriel* and *Salenfi*, and the Sound runs almost two Ls. into the Land: 'Tis large enough for 500 Ships to anchor in, and all over good Ground. A little to the northward of it lie some high Rocks, you may sail round them all, but no anchoring: *Salenfi* is a fine broad Bay, there are three Islands just before it of a grey Colour, as is also the main; at the Point of the Bay are three great *Warders*, and a little to the southward on the main Land a steep Hill. This Bay is easily known by these Marks. If you would go into the Bay, the Fishermen are all Pilots.

The Island *Daelna Olinie* is 2 Ls. to the southward of *Salenfi*; it is at the N. end high, at the S. end lower: Behind it, under the main Land, is a good Road for Ships of the greatest burden. The Fishermen here also will pilot you in if there be Occasion.

There are three little black Islands between *Olinie* and *Salenfi*; there is a good Road under them in 6 or 8 Fa. About 5 Ls. to the eastward of *Olinie* is a fair Harbour call'd *Rinds*. There are four little Islands before it, and within or behind them you may anchor, but take a Pilot there also, because the Harbour is behind the Islands.

If you come from *Olinie*, and intend for *Rinde* Harbour, run clear along shore, to get right off the Islands; for the Land is so high, that in the Offing it appears above them.

A little to the southward of *Rinde* is a very great Bay: There are two little high Islands before it, and upon the northermost is a great Cross; you may sail in on either side of the Islands, or between them, and anchor in 5 to 15 Fa. sheltered from all Winds; only when it blows hard, and right upon the Shore, there comes in a rolling Sea, but nothing that can hurt you. Between *Rinde* and this Harbour there lies a long low Island close to the Shore; but you may sail between it and the main Land, without any danger; and from this Island to the *Seven Islands* is 4 Ls.

A little to the northward of the *Seven Islands* there is a fair sandy Bay call'd *Golden Bay*: It is well enough for southerly

Sailing Directions from Cape Swetenaes to An



Within the Point of *Swetenaes* goes in the River *Jockena*; and in the Entrance of it are *Six Islands*, five of which lie along the Shore in the space of about 2 Ls. and the sixth within the fifth or southmost: The three northermost lie near together, as also the three southermost. The northermost of those Islands lie due W. from the Cape. Within the southermost there is a good Road, in 5 or 6 Fa. The *Cape* is a low flat Ground: To the westward of it, and within (or to the southward of) those Islands, goes in the River *Jockena*. You have no less than four several Channels, by which you

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ing from Cape Swetenaes to Archangel.

Winds, but it is very bad lying here with a N.E. Wind, for it blows right in: You may anchor from 12 to 20 Fa.

The *Seven Islands* lie along shore in a Line, N.W. by N. and S.E. by S. The first or northmost is the greatest, that and the three next follow close upon one another, about a Mile from the Land: You may sail between them and the Land, but not within the fifth, which lies too near the Land; the two last lie a good way to the southward of the fifth; you may sail within them, you may also run between any of them except the second and third.

Between the northernmost of the *Seven Islands* and the main Land, there is a little Rock; you may anchor to the southward of it, in 4 to 7 Fa. plain sandy Ground: You may also anchor under the S. Point of the First Island, with an Anchor to Sea and a Hauler a-shore, in 19 Fa. pretty well out of the Tide.

Upon the main Land, against the N. Point of the northmost Island, are several *Laplanders* little Houses, but none upon the Islands.

To the E. of the *Seven Islands* is a great Sound, or Bay, call'd the *Skipper*: 'Tis narrow at the Entrance, but wide within: And there is a good Road in 4 to 12 Fa. clean Ground, but a N. Wind blows right in, and brings in a high Sea.

About 6 Ls. southward from the *Skipper* is *Roake Ofstro*, or *Navel Island*; it is a high Island about half a League long: Behind it is a very good Road, you may run in from the southward, but you cannot sail in from the northward: Here is Shelter for all Winds.

Eight Ls. to the eastward from the *Skipper* lies the *Black Point*; the Land is high within it, but towards the Point it grows low like *Swetenaes*. From this to the eastward the Land is all very low.

From *Black Point* the Course is S.E. by E. to *Ervankriest*, distance 4 Ls. This Point has many Crosses upon it, and under it is a good Road for southerly Winds.

From *Ervankriest* to *Kletun* it is 3 or 4 Ls. S.E. Here also are several Crosses, and here is a good Road for southerly Winds. From *Kletun* to the Point of *Swetenaes*, or the River *Jockena*, it is 2 Ls. S.S.E. a clean Strand and steep Shore.

Swetenaes to Archangel, and the White Sea.

N. of *Orlogeness* to 9 Ls. S. of it. There is a good Channel of 4 Ls. broad, and 25 to 30 Fa. Water, on the W. side of *Knock John*, all along the *Lapland Shore*, and about 2 Ls. from the Land.

In this Channel, and at *Ponnoy*, there are very strong Tides, ebbing and flowing at Spring-Tides 18 Foot. From *Ponnoy* to *Cross Island* the Course is S.W. by S. distance 9 Ls. You may anchor all along this Course in 8 or 9 Fa. and stop at Tides, tho they run very strong here.

There is a Point between *Ponnoy* and *Cross Island*, with

it and the main Land, without any danger; and from this Island to the *Seven Islands* is 4 Ls.

A little to the northward of the *Seven Islands* there is a fair sandy Bay call'd *Golden Bay*: It is well enough for southerly

Sailing Directions from Cape Swetenaes to

Within the Point of *Swetenaes* goes in the River *Jockena*; and in the Entrance of it are *Six Islands*, five of which lie along the Shore in the space of about 2 Ls. and the sixth within the fifth or southmost: The three northermost lie near together, as also the three southermost. The northermost of those Islands lie due W. from the Cape. Within the southermost there is a good Road, in 5 or 6 Fa. The *Cape* is a low flat Ground: To the westward of it, and within (or to the southward of) those Islands, goes in the River *Jockena*. You have no less than four several Channels, by which you may sail into this River; therefore if you are to go in here, you will find it proper to take a Pilot.

Between the fourth and fifth Island is a pretty good Channel: If at going in, to the southward you meet with a N.E. by E. or S.E. Wind, you may anchor behind *Swetenaes Point*, it is good clean Ground from *Swetenaes* to *Lombascho*, the Course is S.S.E. distance 12 Ls.

You may anchor under *Lombascho*, but there is no good riding, for there is foul Ground and a foul Sea: The best anchoring is between *Lombascho Point* and the southermost Island. *Lombascho* may be known by five Islands that lie along the Coast to the northward of the Point.

From *Lombascho* to *Orlogenef's* the Course is S.S.E. and S. by E. distance 11 Ls. The Coast is clean and steep, but there is no Road to anchor in between them: Indeed in good Weather, if you meet with contrary Winds, you may anchor at Sea in 25 to 30 Fa. to stop for the Tide; for in the Passage into the *White Sea*, the Flood Tide sets strong, in or out.

There is a Stone Riff runs out from *Orlogenef's Point*, about a Gun-shot into the Sea; it is so shallow, that it is a great part dry at low Water; take care to keep without it to the southward. *Orlogenef's* is known to the Seamen by the Name of the *Three Islands*: Two of them are about 2 Ls. and a half to the southward of *Orlogenef's*, and the other about 2 Ls. and a half to the southward of the first two: And about half a L. to the southward of the southermost of the said *Three Islands*, is the River *Ponnoy*.

Thwart *Ponnoy* is the narrowest of the Passage into the *White Sea*; in the Middle of which, about 3 or 4 Ls. from the Shore, is a Sand or Shoal call'd *Knock John*, very rough and stony; and in some Places, particularly off of *Orlogenef's* and the *Three Islands*, it is dry at low Water; it stretches N. and S. near 30 Ls. in length, viz. from thwart of *Swetenaes Point* to the southward of *Ponnoy*: But the worst Shoal, and most dangerous part is about 16 Ls. in length, viz. from about 7 Ls.

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From *Evankrieff* to *Kletun* it is 3 or 4 Ls. S.E. Here also are several Crosses, and here is a good Road for southerly Winds. From *Kletun* to the Point of *Swetenaes*, or the River *Jockena*, it is 2 Ls. S.S.E. a clean Strand and steep Shore.

From *Swetenaes* to Archangel, and the White Sea.

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In this Channel, and at *Ponnoy*, there are very strong Tides, ebbing and flowing at Spring-Tides 18 Foot. From *Ponnoy* to *Cross Island* the Course is S.W. by S. distance 9 Ls. You may anchor all along this Course in 8 or 9 Fa. and stop at Tides, tho they run very strong here.

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There is a Point between *Ponnoy* and *Cross Island*, with three Crosses upon it ; for which Reason it is sometimes taken for *Cross Island* : But *Cross Island* is much bigger ; also it hath two Crosses at the N. end, and at the S. three ; by which it may be known from the other.

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You may sail behind *Cross Island*, or anchor there in 6 or 7 Fa. all good clean Ground ; but the best anchoring is with the great Cross E.N.E.

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From *Ponnoy* River S.E. and S.E. by S. about 9 or 10 Ls. is the *Mesensche Gulph*, into which a great River runs that comes from *Colmagro*. There is in the Mouth of this Gulph a little Island, on the N. side of which you may anchor upon occasion. At the S. part of this Gulph it is low Land, all grown with Trees ; here you may anchor close by the Shore all along in clean Sand, from thence to *Catsuofe* or *Grey Point*.

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From *Cross Island* to *Catsuofe* is about 20 Ls. S.W. You may anchor under *Catsuofe Point* ; and on the W. side of it in 7 to 10 Fa. good lying with easterly Winds, but the Ground is not very good : And from hence to the Bar of *Archangel* the Course is S. or S. by W. distance 13 Ls. This is the Entrance into the River *Dzwina*. In this Course you first see Land to the westward of *St. Nicholas*, full of Trees, which at first sight, in a clear Day, appear as if they grew in the Sea. Sailing on to the southward you see more Land, to the eastward of that you saw first. Afterwards you will see *St. Nicholas's* Steeple ; and when that bears S. by W. or S.S.W. you are right thwart of *Archangel* Bar, and ride there till a Pilot come off to you to bring you in.

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N. B. All the Surveys to the eastward of the *White Sea*, or to the northward, to the Isle or Land (for we know not yet which it is) of *Nova Zembla*, are so uncertain, and some of them so evidently fictitious, that we cannot think it worth while to follow them, or copy any thing from them. The Trading World waits with some impatience for a perfect Survey of what is known upon that Coast, and for a more full Discovery of what is not.

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Sailing

*Sailing Directions for the Coast of France, from Dun
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WHEN you come from the *Flemish Coast* within the Banks, as has been already directed, that is, thro' *Hoolbreach Sound* at the end of the *Brakes*, which are the other Banks before *Dunkirk*, and from thence Westward, then you come against the West Point of *Gravelin Sand*, running out into the Sea: To the Eastward of the Sand is a Channel into *Gravelin*, directed by the Light-houses.

As to *Dunkirk*, the Harbour being demolish'd since the former Survey, there is no giving Directions for going into that Port by the old Marks; it must therefore be refer'd to the Pilots, till a new Survey of that Haven be made publick.

The *Flemish Banks*, of which some Account is given in the Directions for that Coast, come on this way also: the Westernmost Bank call'd the *Clift*, reaches quite thwart of *Calais* from the N.N.E. six Ls. in length; and off of that runs the *Ruyling* almost parallel, lying N.E. by N. 5 Ls. Between them is a Channel very wide and deep, having 20 to 24 Fa. Water. The third also, called the *Dike*, reaches the length of the Sand called the *Cliff*, and lies N. E. and the fourth, called the *Rattle Bank*, lies in the same manner N.E. by E. and has 4 to 5 Fa. upon it, and 18 Fa. close by it.

Between this last and the *Bree* or *Broad Bank*, lies a Channel of 18 to 19 Fa. and here, as among all or most of the rest, Ships knowing the Marks, or with skilful Pilots, may turn to Windward between the Banks either up or down, and also anchor and ride almost where they will.

For the going into *Calais*, I refer to the Pilots; for Strangers here make a Waaff for a Pilot; so I go on with the Coast. W. of *Calais* lies a foul Point called *Blacknefs*, distance 4 Ls. 'tis foul, because the Shore is full of Rocks almost all the way. From thence to the Mouth of the River *Lianne* at *Boulogne*, the Land trends to the S. distance 3 Ls. making a Bay or *Bight*, which we call *Boulogne*, or *Bullen Bay*: here is good anchoring, shelter'd from easterly Winds in 5 to 15 Fa. clean hard Sand: they call it *St. John's Road*; but to the northward of the Village the Ground is foul and stony.

S. of *St. John's Road* off of *Ambleteuse*, begins a narrow Riff, called the *Bassare*, running S.W. and S.W. by S. there is 4 to 6 Fa. upon it, but 20 to 25 very near it. Between *Bullogne* and *Estaples*, 4 Ls. from the Shore, is another Shoal called the *Vergoy*, having but 4 Fa. and N.W. from the Mouth of the River lie two other Sands distance 4 Ls. the northermost called *Le Bateur*, and the southermost *Le Quemour*; there is 8 to 9 Fa. at least upon them: and farther S. another called the *Bassurelle*, on the middle of which is but 2 Fa. Water.

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ce, from Dunkirk inclusive, to the Port of Bayward to Fontarabia, on the Border of Spain ex-

To the southward of the Cape are two high sharp Rocks but they are plain above Water. From hence to the *Seyne* Head is the same Course exactly, distance 4 Ls. $\frac{1}{2}$.

N.W. from the *Seynehead* almost a League, lies a Bank with but 2 $\frac{1}{2}$ Fa. bring *New Haven* without *Seynehead*, then you are just thwart it; but anchor within the first Mill, and stay there for a Pilot to go into *New Haven*. If you are bound to *Havre*, or up the River *Seyne* to *Caudebec*, or to the City of *Roan*, you must take a Pilot at *New Haven*.

S.W. or S.W. by S. from the *Seynehead* is the Entrance into *Caen*, distance about 2 Ls. lying on the River *Orne*: There are several Banks lying off 6 to 7 Ls. to Sea; you may go on either side of them, but the E. side is the best, which carries you into the Fosse of *Caen*, where you may anchor, and call for a Pilot to carry you up to *Caen*, which is a difficult barr'd Port, and 3 or 4 Ls. within the River.

16 Ls. from *Caen* N.W. by W. lies *Cape Barfleur*; and 2 $\frac{1}{2}$ Ls. S. from the Cape lies *La Hogue Point*: there is good anchoring in a Bay to the S. of the Point, safe from westerly and northerly Winds, and in 7 to 9 Fa. the Point bearing N.W. by N. and N.N.W. but shun the W. Shore of the Bay, unless well acquainted there.

The Islands of *St. Marques* lie off here S.E. from the *Hogue Point*, distance 7 Miles; they are foul, and have some Shoals on each side of them, so that 'tis safest to keep off. The Shore also from the *Hogue Point* is rocky and foul, particularly off of *Draagnet* and *Caperon Points*; give therefore the Shore a good Birth, at least a League, then you will go without all, except a sunk Rock, which lies near 5 Miles off Shore.

From *Cape Barfleur* W. and by S. distance 5 Ls. is *Cherburg*, a little Tide Haven. There are some foul Grounds in the way, W. of the Cape; but keep the high Land of *Cherburg* without *Cape de Wyck*, it carries you without them all. To the W. of *Cherburg* is another Tide Haven called *Foss de Omorville*: there are some Rocks lie before *Cherburg*, and on both sides this Haven. If you would go in, take a Pilot. It lies 2 Ls. E. of *Cape La Hogue*.

Due W. from *Cape la Hogue* distance 3 Ls. lies the Isle of *Alderney*: between the Island and the Cape runs the famous Channel, called *The Race of Alderney*, by the French the *Race de Blanchart*; the Island stretches in length about 4 English Miles E. and W. the W. end is foul, having several little Islands close to it, and to the eastward lies a Bank of Sand distance 1 League at the W. end are several Rocks, within a Mile from the Island. Being past the W. end, you may go away for *Jersey* with safety.

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S. of *St. John's Road* off of *Ambleteuse*, begins a narrow Riff, called the *Bassare*, running S.W. and S.W. by S. there is 4 to 6 Fa. upon it, but 20 to 25 very near it. Between *Bullogne* and *Estaples*, 4 Ls. from the Shore, is another Shoal called the *Vergoy*, having but 4 Fa. and N.W. from the Mouth of the River lie two other Sands distance 4 Ls. the northermost called *Le Battew*, and the southermost *Le Quemur*; there is 8 to 9 Fa. at least upon them: and farther S. another called the *Bassurelle*, on the middle of which is but 2 Fa. Water.

Upon the N. Point of the River *Lianne*, is a high large Tower nam'd *La Tower d'Order*, near a Village called *La Poterie*: the *English* Sailors call it *the Old Man*; 'tis a Mark to know the River by. N. from this Tower, a Mile from the Shore, is a sunk Rock very dangerous, having not 6 Foot Water on it.

On the S. Point of the River is a large Beacon on a Stone Wall; thwart of that Point is a Riff very shoal; run close aboard the new Head or Pier, and you shun the Shoal. *Boulogne* is a Tide-Haven, and needs no Pilot.

From *the Old Man* to *St. Vallery* is 11 Ls. S.W. Between them lie *Estaples* and *Montstrevil* upon the little River *Canche*, which is not fit for great Vessels. To go up the River *Canche* to *Estaples*, you must take a Pilot, there being two Channels. It is much the same at *St. Vallery*, which lies on the S. Shore of the River *Somme*. It is shoal Water from the Mouth of the River 3 or 4 Ls. into the Sea, from 5 to 10 Fa. The Shore is known by the shoaling.

From the *Somme* to *Diep* the Coast lies S.W. distance 7 Ls. the River *Breesle* lies between them, with the dry Harbour of *Treport*, fit only for small Vessels; also the River *Saart* short of *Diep* 2 Ls. The Rivers *Argues* and *Seve* come into the Sea at *Diep*; and the Town lies along the Shore between them open to the Sea; the Haven goes far in within the Town it self, and Pilots are always ready to carry you in.

St. Vallery in Caux, to distinguish it from the other *St. Vallery*, lies from *Diep* W.S.W. distance 5 Ls. 'tis a small Tide Haven, and a strait Channel, but safe when you are in; there are Pilots always at hand. On the same Course is *Fecam* distance 4 Ls. a Tide Haven, but deep, 2 Fa. at low Water: there also you must take a Pilot, because of a Bank at the Harbour's Mouth. Hence to *Cape de Caux* is W.S.W. westerly distance 3 Ls.

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Due W. from *Cape la Hogue* distance 3 Ls. lies the Isle of *Alderney*: between the Island and the Cape runs the famous Channel, called *The Race of Alderney*, by the French the *Race de Blanchart*; the Island stretches in length about 4 English Miles E. and W. the W. end is foul, having several little Islands close to it, and to the eastward lies a Bank of Sand distance 1 Leag. at the W. end are several Rocks, within a Mile from the Island. Being past the W. end, you may go away for *Jersey* with safety.

The Rocks at the W. end of *Alderney* run out into the Sea W. by N. and W.N.W. for near 4 Ls. the outmost is very high, with smaller Rocks about it. In the mid-way between this and the Island lies another as great, but not so high. Most of these Rocks are dry at low Water, but cover'd upon the Flood. These Rocks are called the *Gasketts*, but by our Sailors the *Casketts*: and between them and the Island lie other Rocks call'd the *Barroches*, in two great Ranges stretching wide of the first.

Cape Barfleur is a high Point; near it, upon lower Ground, is a flat large Tower with two Windmills and some low Houses: and upon *Cape la Hogue* is a Castle with a Tower on it, a little to the eastward; and within the Land stands a high Spire Steeple, and at *Cherburg* is a square Tower Steeple.

The Island of *Guernsey* lies S.W. from *Alderney* distance 6 Ls. and from the *Gasketts* S.W. by S. 7 Ls. To anchor under *Guernsey*, you must run to the N.E. Point, so far E. as to ride in sight of the Castle, which is upon a Rock on that side of the Island; bring that over the S. Point, and run in between the little Islands of *Arm* or *Harm* and the Castle; without the Castle is 12 to 13 Fa. Water, and within or behind it is 6 to 7 Fa. at low Water.

N. B. The Tide flows on this side the Channel much higher than in *England*: It flows at *Cape la Hogue* no less than 6 to 7 Fa.

If you would anchor in other Parts of the Island, you would do well to take a Pilot, for there are safe Roads every where, tho differing as the Winds may blow.

S.S.W. from *Guernsey*, distance 7 Ls. lies a great Ledge of Rocks above a L. in length, called *the Rock Dove*: E. by S. from *the Rock Dove* lies a Rock called *Le Barne*, 'tis under Water at the top of the Tide, and therefore very dangerous.

* N E.

E. from *Guernsey* lies the Island of *Sark*: you may anchor any where about it in 25 to 27 Fa. The N. and S. ends are foul, several Rocks lying at those Points, some above, some under Water. Between *Sark* and *Guernsey* lie the Islands *Ask*, and *Arm* or *Harm*, you may go between them all.

Abundance of Rocks take up all these Parts about *Guernsey*.

As, 1. Certain Rocks 4 Miles W. of *Guernsey*; they lie 4 Miles in length; the southermost are the biggest, called the *Grass Hannoveraux*, then lessening towards the middle they are called only the *Hannoveraux*: at the north end they lie all under Water, and are not seen at all, which makes them the more dangerous; Ships are often lost upon them. 2. East from the N.E. end of *Guernsey* distance 1 L. lie the *Amphroques*, and a Mile nearer the Point lie the *Brayes*, and another called the *Sambue*: in a word, *Guernsey* is surrounded with Rocks and Dangers, and no one should come near, that is not well acquainted with them, without a Pilot.

Jersey lies 6 Ls S E. from *Guernsey*, and from *Cape Le Hogue* S.W. by W. distance 6 Ls. surrounded with Rocks also, like the others; yet there are very good Roads and Anchoring-places all round it, especially to the N. side: But Pilots are easily to be had; so the Description is of no use.

Jersey bears with *St. Maloes* S. by E. and N. by W. distance 8 Ls. In the Fair Way lie a Cluster of high Rocks so close, that they are altogether 7 to 8 Miles in compass; they are called the *Mankiers*, or the *Grelets Banks*, most of them under Water: None should go this way without a Pilot.

They who sail thro' the Race of *Blanchart* or *Alderney*, bound to *St. Maloes*, run commonly between *Sark* and *Jersey*: there is indeed another Passage to the eastward of all the Shoals: but this also is Pilots work, who know all the Channels so exactly, that there is no need for the Mariner to look into any Charts, or be at any pains about them.

St. Germain is a Port on the Main E. by S. from the Island of *Jersey*, distance $3\frac{1}{2}$ Ls. there are several Rocks lie between, especially to the northward, but the Pilots direct the Sailors better than their Books.

Granville lies due S. of *St. Germain* distance 6 Ls. 'tis a Tide Haven, and dry at low Water: it lies on the S. side of a great Point of Land, from whence begins the Bay of *Auranches*. It would be endless to describe the numberless Rocks, Shoals and Islands in this part of the Coast; even the latest and most exact Surveys do not do it, but only name the chief and most dangerous, referring to the Pilots; seeing no Ships, no not their own Coasters, venture thro' the Race of *Alderney*, and then by *Jersey* and *Guernsey*, to the southward, or even into this Bay, without them. All along this Coast, between *Cape Le Hogue* and *Granville*, you see upon the Shore a great many little Houses, Mills and Trees for Sea Marks; and indeed there is occasion enough, for it is a dreadful Coast almost the whole length of the Province of *Bretagne*; yet there is good anchoring in 6 or 7 Fa. Water, in the Road before *St. Germain*, and likewise on the N. side of *Granville*; and so there is all along from *Cape Le Hogue*.

for Sailing on the Coasts of France.

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lie off from the Point about 2 Miles, and within them is ano-
ther great Rock always seen above Water, call'd *Grand Pierre*,
and within that many other Rocks, some under, some above
Water: which I mention to confirm what is so often repeat-
ed, that none ought to venture in these Parts without Assist-
ance.

From these Rocks, off of *Concale* Point, distance 3 Ls. lies
the Entrance into *St. Malo*, the Course W. or W. by S. Before
the Haven of *St. Malo* lies the Island *Sifember*, or *Cesambre*,
on which stands a Church and a Windmill; by which Marks
the Entrance is known at a great distance. This Entrance has
so many Islands, Rocks and Shoals in it, that it would be te-
dious to describe them, especially seeing no body goes in a-
mong them without taking Pilots, except on the greatest Ex-
gences, and even Distress.

A. B. The Ships ride here within the Town, where they
lie moor'd with 4 Cables, 2 off in the Sand, and 2 fast to
the Wharfs in the Town. N. B. It flows here with an
ordinary Tide 7 Fa. right up and down.

There are several Channels into *St. Malo*, nor can it be o-
therwise, considering the Situation, and the many Islands in
the Bay: it is enough to hint this, that the Stranger may be
sure to take a Pilot, and not venture upon his own Observa-
tion.

W. from *St. Malo*, distance 2 Ls. is a deep sandy Bay, 'tis an
excellent Harbour, where there is good Riding secure from all
Winds; you ride under a great Rock against a Windmill with
Trees about it: and 2 Ls. N.W. from the Bay is *Cape Frebel*, or
Farel, or *de Late*, for it goes by all those Names.

From *Cape Frebel* the Coast lies N.W. by W. to the Island
Briack, or *Brebat*, dist. 8 Ls. and 2 Ls. from that Cape W. lie the
Robinets, a Ledge of dry Rocks. Between the Cape and the
Island of *Brebat* is the Haven of *Brien*, on a River of the
same name, and at the bottom of a small Bay called also the
Bay of *Brien*. Here lie abundance of Rocks, so that there is
no stirring any way without a Pilot: they stretch along from
Point *d'Herqui* to the very Harbour of *Brebat*; take a Pilot
for any of the small places in the Bay, such as *Verdonlette*,
Ilion, the *Noiras*, *St. Quac*, *Plempoule*, *Quemenos*, &c. all
within the Bay. The principal Rocks known in this dange-
rous Bay are, the

<i>Herqui,</i>	<i>Pele,</i>	<i>Barbottes,</i>
<i>Robins,</i>	<i>Lejon,</i>	<i>Chartiers,</i>
<i>Robinettes,</i>	<i>Bouwillons,</i>	<i>Courtois Bank of</i>
<i>Contesse,</i>	<i>Long Rock,</i>	<i>Garvo, [Rocks.</i>
<i>Sablouier,</i>	<i>Calmaidier,</i>	<i>Lobresses,</i>
<i>Horraine,</i>	<i>Meumoire,</i>	<i>Eschandés.</i>

Besides an infinite number of Rocks and Ledges of Rocks
which are under Water, or have no Name.

N.W. from *Brebat* lie also several Rocks, and 4 rocky I-
lands, such as *Tuselet*, *St. Maad*, *Daren* and *Zearn*, yet
between them and the Point is a Channel called the N.E. Chan-
nel, where Ships may ride in 8 to 12 Fa. Without them 'tis
all foul and rocky: 4 Miles from *Brebat*, and almost 1 L.
from the Shore, lies a Shoal of Rocks called the *Heux*; and

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S. from *Granville* Point lie some small Rocks, which guide you into the Pier or Harbour; and W by N. distance 2 Ls. lie a long Ledge of Rocks, called the *Island Chauffe*, or *De Chose*: They that are bound along the Coast, go between them and *Granville* Point. There are many other Shoals and Rocks in the Fair Way, but the Pilots take the Charge of them; 'tis enough to say, that in steering this Course from the Race of *Blanchart* to *Cartaret* Point, you are to keep at a L. or $1\frac{1}{2}$ L. from the Shore: then steering more westerly between the *Bank de Folee*, *Pel* Bank and *Grune* Bank, when you are past there, go away S. a little easterly, and pass between some high Ledges of Rocks called *Eckrenoue* or *Esfrevere*, and others called *Falbanks*, which will lead you between a great Rock called *Le Beuff*, and the Shore of *St. Germain*.

S.W. by W. from *Granville* is *Concale* Point, distance 4 Ls. between them goes in the Bay of *Auranches*, called so from the River *Auranche* which runs into it. Thwart the Mouth of the River is a small Island, and within that a Hill called *Mount St. Michael*, with a Castle and a high Tower upon it, a good Sea-mark, and seen far out of the Bay: The Ground is so uncertain in this Bay, that you have sometimes from 1 to 13 Fa. in a small compass; and the Sea ebbs so far out, that sometimes from the Strand you cannot see the Water; so that 'tis a very doubtful Place.

If you would go into this River, or into any part of the Bay, you must take a Pilot, for no Stranger can go safe: the like also is your case at the Entrance at the Town of *Concale*, for under that Point, and even just before the Harbour, are abundance of Rocks, and some very dangerous.

In this Bay is the Town of *Pontorson*, 2 Ls. within the Mouth of the River, where is also a Tide Haven, and you must make use of Pilots to go in. From the Point of *Concale* N.E. by E. lie the Rocks called the *Filles*; they are all under Water except on very low Ebbs, and are very dangerous: they

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Bay of *Breue*. Here lie abundance of Rocks, so that there is no stirring any way without a Pilot: they stretch along from Point d' *Herqui* to the very Harbour of *Brebat*; take a Pilot for any of the small places in the Bay, such as *Verdonlette*, *Iliou*, the *Noiras*, *St. Quac*, *Plemponle*, *Quemenos*, &c. all within the Bay. The principal Rocks known in this dangerous Bay are, the

<i>Herqui,</i>	<i>Pele,</i>	<i>Barbottes,</i>
<i>Robiens,</i>	<i>Lejou,</i>	<i>Chartiers,</i>
<i>Robinettes,</i>	<i>Bouvillons,</i>	<i>Courtois Bank of</i>
<i>Contesse,</i>	<i>Long Rock,</i>	<i>Garvo, [Rocks.</i>
<i>Sablonier,</i>	<i>Calmardier,</i>	<i>Lobresses,</i>
<i>Horraine,</i>	<i>Menmoire,</i>	<i>Esebaudes.</i>

Besides an infinite number of Rocks and Ledges of Rocks which are under Water, or have no Name.

N.W. from *Brebat* lie also several Rocks, and 4 rocky Islands, such as *Tuflet*, *St. Maad*, *Daren* and *Zearne*, yet between them and the Point is a Channel called the N.E. Channel, where Ships may ride in 8 to 12 Fa. Without them 'tis all foul and rocky: 4 Miles from *Brebat*, and almost 1 L. from the Shore, lies a Shoal of Rocks called the *Heaux*, and without them are innumerable Rocks and rocky foul Grounds. All these serve to make out what is said above, that here is no stirring without a Pilot.

W. of *Brebat* distance 2 1/2 Ls. is the River *Treguire*; the Channel goes in on the E. side of a little Island called *Er*: if you are to go in there, you must take a Pilot also, for 'tis all difficult. Farther W. 3 1/2 Ls. lie the *Seven Islands*, known by that name; and S. by E. from them distance 1 1/2 L. is *Green Island*; you may pass betwixt this and the *Seven Islands*, but not between any of the Seven: Thwart the eastermost of the *Seven Islands* lies a Ledge of Rocks, and on the south-ermost end one higher than the rest, always above Water. Opposite to these Rocks on the Shore is the Church *La Clarte*, with a high Steeple, which is the Mark to know the *Seven Islands*.

W. of the *Seven Islands* distance 2 Ls. lie the *Treacle Pots*, being several Rocks upon a Shoal; they stretch E.N.E. and W. S.W. in length 4 Miles, and it is a very dangerous place; for they are so steep, that within half a Mile of the Rocks there is 60 Fa. Likewise by another Rock called *La Ploise*, 4 Miles farther W. a little northerly, there is 28 Fa. close to it. But these Rocks and Deeps are so many, that no Stranger can sail into any Haven along this Shore without a skilful Pilot.

W. from the *Seven Islands* is the Haven of *Lanion*, or *Lanieur*, distance 3 Ls. and 2 Ls. within a River. The whole Coast on both sides the *Seven Islands* is full of Islands; we need only name them, because they are so near the Shore, that they are Guides and Marks to one another: they are,

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|------------------------------|-----------------------|--------------------------|
| 1. <i>Morville</i> ; | 5. <i>Gato</i> ; | 10. <i>Le Taureau</i> ; |
| 2. <i>Pomme</i> ; | 6. <i>Brusse</i> , or | 11. <i>Tou Grand</i> ; |
| 3. <i>Le Blanch</i> , or the | <i>Burnt Island</i> ; | 12. <i>Le Grand Tau-</i> |
| <i>White Island</i> ; | 7. <i>Rabenio</i> ; | <i>reau,</i> |
| 4. <i>St. Saneveure</i> ; | 8. <i>Molene</i> ; | and many others. |

Besides

Directions for Sailing on the Coasts of

Besides these there are several Rocks which lie off towards the *Seven Islands* always above Water; and without all, 2 Miles from the Main, lie the *Marten* and the *Menandrenec*, Rocks which are dry only at low Ebbs. It is well for the Sailors that here is no trading Port on the Main, so these Islands and Rocks however dangerous, are in no body's way.

Those Ships which come from the E. should go S.W. by W. and S.S.W. thro' the Channel between the *Green Island* and *Seven Islands*, till the Church of *La Clarte* bears full S. and then steer W. or W. a little southerly, which carries them into the Fair Way between the *Marteene* and the *Triagons*. If they are bound into the Bay to *Morlaix* or any other Port thereabout, let them take a Pilot; nor could they with Prudence venture without one, tho' we should describe all the Islands and Rocks which lie on the Coast with the utmost exactness. The Entrance into *Morlaix*, as also into *St. Paul de Leon*, or *St. John de Doit*, or *Lanion*, and several other smaller places, are all throng'd with Rocks, which no Man that is unacquainted with can discover or avoid without Direction upon the Spot.

The long ragged Rocks of *Morlaix* in particular, spread the Coast from the *Island Bass* for 3 or 4 Miles E. by S. and E.S.E. and are very dangerous.

If you are bound westward, either from *Morlaix* or any of the Places in the Bay, or from *Cape Breat*, the best Course, especially for one not well acquainted, is to keep a good Offing, and go without all these Islands, Rocks and Shoals, 3 or 4 Leagues from the Shore, more or less, as you see Occasion; then you may sail by the help of the Charts, and not call for a Pilot, till you are off of the Port you are bound to.

St. Paul de Leon lies in the Bottom of a large Gulph on the W. side of the Channel of *Morlaix*: On the E. side of the Entrance is the *Island Callot*, and a Town of the same Name at the Point of the Gulph; and the whole Gulph is full of Rocks and small Islands.

The Isle of *Bass* bears N.W. from the Mouth of the Gulph of *St. Paul*, opposite to the Point of *Rofs Goff*, and distant from the *Seven Islands* 8 Ls. S.W. by S. from the *Bass* is the Haven of *Plougoulin*, distance 4 Miles; 'tis a little Tide-Haven: But the Entrance is as it were block'd up with Rocks and Shoals, as most of the Havens on this Coast are.

Farther W. the Coast now turning westward, is *Guiceny*. in a large Bay, and at the Mouth of a small River, distance from the *Bass* 6 Ls. The Shore is all full of Rocks and Islands for 2 Ls. W. of this Port; to run in here we must refer you to the Pilots. The Shoalings also in this Bay are very uncertain from 2 to 10 Fa.

Aberuche, or *Abbreruach*, is the next Haven W. distance 2 Ls. There are three Channels into it; the westernmost is *le Grand Chenal*: The middlemost is *le Chenal de la Pendante*: The easternmost is *le Chenal de Maloins*. They are very good Channels to those that are well acquainted, but all among the Rocks and Islands, as the rest are, and impracticable for Strangers but with skilful Assistance, till you come to the westward of *Portfal*, when you have a clean Coast except the Shoal off of *Portfal*, or the *Salt Haven*: this Shoal is call'd

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At the Island *Brebat* in the Bay of *St. Brieu*, the Flood sets S.E. and in the Fair Way E.S.E. and an E. Moon makes full Sea.

Between that and *Guernsey* a W.S.W. Moon: The Flood there sets E.S.E. and the Ebb W.N.W.

On the Coast within the *Gaskets*, the Tide sets always against the Sun, so that it is never still Water.

Between *Guernsey* and the *Seven Islands*, a W.S.W. Moon:

At *Brebat* ditto, E. by N.

At *Morlaix* and *St. Paul de Leon* W. by S.

At the Island the *Basis*, a W. by S. Moon.

In the *Offing*, the Flood sets E.N.E. the Ebb W.S.W. And so on all the Coast to *Ushant*.

At *Ushant* full Sea at a W. Moon.

Depths of the Water on the Coast of France.

Between *Guernsey* and the *Gaskets* is 35 to 40 Fa.

Between *Alderney* and *Jersey* 25 Fa.

In the Fair Way of *Jersey* and *Brebat* 20, 25 to 30 Fa.

About the *Seven Islands*, and all along the Coast, 45 to 50 Fa. Come no nearer those *Seven Islands* in the Night, than 40 to 45 Fa.

Seven Ls. N.W. from *Guernsey* is a Hole 80 to 90 Fa.

Thwart of the *Basis Point* 5 Ls. off, is 35 to 40 Fa.

Off of *Ushant* 2 Ls. is 48 to 50 Fa.

Notwithstanding all the Directions that have been given for the Coast of *France*, it is almost all along so full of Islands, Rocks, and broken Ground, especially about the *Race of Alderney*, and the Islands of *Guernsey* and *Jersey*; and also about the *Seven Islands*, and the *Treacle Pots* (or *Triagons*) there are such strong Indraughts, Whirlings, and Riplings of the Tide, that it requires great Care in sailing among them (especially in the Night, or thick Water:) Also the Setting of the Tide (whether Flood or Ebb) should be duly allow'd for, to prevent being brought into the Dangers which abound on this Coast.

From *Ushant* S.E. towards *Conquet Bay*, or *Point St. Matthew*, are six small Islands lying in the same Point one from another: They are, 1. *Molene*. 2. *Quemenes*. 3. *Beneguette*. 4. *Balance*. 5. *Banette*. 6. *Aux Chrestiennes*. The French Maps name them thus: 1. *Bannie*. 2. *Balance*. 3. *Molenne*. 4. *Triguelin*. 5. *Chrestiennes*. 6. *Quemenes*.

If you come from the N and cannot weather *Ushant*, you may run between it and these Islands; 'tis a good Channel, and has 6 to 7 Fa. at low Water.

Point Vintiers is to the southward of all these Rocks, but come not too near it, because of several sunk Rocks which you cannot go within. When the southermost Houses of *Conquet Town*, appear without the Point, then the *Vintier Rocks* are on your W. side, or W. by S.

If you are bound into *Conquet Haven*, make the usual Signals, and Pilots will come off to you. Under *St. Matthew's Point* is a good Road between the *Feneffiers* and the Point, or the *Mons Blanch*, or *White Monks*: There are some

Rocks and small Islands.

The Isle of *Bafs* bears N.W. from the Mouth of the Gulph of *St. Paul*, opposite to the Point of *Rofs Goff*, and distant from the *Seven Islands* 8 Ls. S.W. by S. from the *Bafs* is the Haven of *Plougoulin*, distance 4 Miles; 'tis a little Tide-Haven: But the Entrance is as it were block'd up with Rocks and Shoals, as most of the Havens on this Coast are.

Farther W. the Coast now turning westward, is *Guiceny*. in a large Bay, and at the Mouth of a small River, distance from the *Bafs* 6 Ls. The Shore is all full of Rocks and Islands for 2 Ls. W. of this Port; to run in here we must refer you to the Pilots. The Shoalings also in this Bay are very uncertain from 2 to 10 Fa.

Aberneche, or *Abbreruach*, is the next Haven W. distance 2 Ls. There are three Channels into it; the westernmost is *le Grand Chenal*: The middlemost is *le Chenal de la Pendante*: The easternmost is *le Chenal de Maloins*. They are very good Channels to those that are well acquainted, but all among the Rocks and Islands, as the rest are, and impracticable for Strangers but with skilful Assistance, till you come to the westward of *Portfal*, when you have a clean Coast except the Shoal off of *Portfal*, or the *Salt Haven*; this Shoal is call'd the *Bouveau*, where there lie some Rocks above Water, as also at two other Shoals about 2 Miles S. of the *Bouvenereu*: But the Channel westward, call'd *Passage du Four*, is clear.

South of these lies the Harbour of *Aberilduc*, distance 2 Ls. and lying upon the Shore of the *Passage du Four*, so call'd from a Ledge of Rocks which lie off in the Sea call'd *le Fours*, about a L. from the Main; and this is the Channel between.

West from this Haven, distance 4 Ls. lies the Isle of *Ushant*, or *Ouessant*: On the N. Coast of the Island is the Bay of *Beninon*, or *St. Michael*, which is clean and deep, and a good Road; at the N.E. end of the Island, with 10 to 14 Fa. Water, also a deep Bay at the S.W. end, with 25 Fa. at the Entrance, shoaling gradually to the dry Strand.

This *Passage du Four* is the Fair Way to all the western Coasts of *France*; and the N.W. Point of the little Island of *Quilone*, which lies upon the N. end of the Island of *Ushant*, is the famous *Cape Ushant*. Some will have the N.W. Point of the main Island be the Cape, but Antiquity says otherwise. This is the Cape, of which 'tis a known Rule in navigating these Seas, that *Cape Ushant* and *Cape Ortegal* make the *Bay of Biscay*, and *Cape Ushant* and *Cape Cornwall* make the *English Channel*.

Of the Tides.

At *Cape de la Hague*, by the Shore, a S. by E. Moon makes full Sea.

In the *Race of Alderney*, or *Blanchart*, N. by E.

N. B. The Flood sets thro' the *Race* N.E. the Ebb S.W.

In all the Islands N. by E.

The Tides are uncertain, and set several ways, but ordinarily N.E. and N.E. by N.

At *Concale* and *Granville* W.N.W.

At *St. Malo* E. The Flood sets in at the W. Channel, and out at the E. Channel.

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From *Ushant* S.E. towards *Conquet Bay*, or *Point St. Matthew*, are six small Islands lying in the same Point one from another: They are, 1. *Molene*. 2. *Quemenes*. 3. *Beneguelle*. 4. *Balanec*. 5. *Banette*. 6. *Aux Chrestiennes*. The French Maps name them thus: 1. *Bannic*. 2. *Balance*. 3. *Molenne*. 4. *Triguelin*. 5. *Chrestiens*. 6. *Quemenes*.

If you come from the N. and cannot weather *Ushant*, you may run between it and these Islands; 'tis a good Channel, and has 6 to 7 Fa. at low Water.

Point Vintiers is to the southward of all these Rocks, but come not too near it, because of several sunk Rocks which you cannot go within. When the southermost Houses of *Conquet Town*, appear without the Point, then the *Vintier Rocks* are on your W. side, or W. by S.

If you are bound into *Conquet Haven*, make the usual Signals, and Pilots will come off to you. Under *St. Matthew's Point* is a good Road between the *Fenestiers* and the Point, or the *Moins Blanch*, or *White Monks*: There are some Shoals to be avoided, call'd the *Loquejou Banks*; to shun them run right with the *White Monks*, till *St. Matthew's* bears E.S.E. from you.

N. B. To the E. of *St. Matthew's Point*, within half Gunshot from the Shore, lies a sunk Rock call'd *le Cocq*; 'tis very dangerous, and ought to be known as much as possible, that it may be avoided, being directly in the coasting Fair Way to *Brest*.

From *St. Matthew's Point* you go directly into *Brest Water*, the largest and best Harbour in *France*: The Course from *St. Matthew's* is E.S.E. within the *Cocq*; but the Entrance into the Course within the Water of *Brest*, as it requires a Pilot, so I refer it to them.

N. B. The Flood rises in *Brest Harbour* 3 Fa. right up and down.

Bertram's Bay is in the Course to *Brest*, lying E. from *St. Matthew's Point*, and is a very good Road for a N.E. Wind; you ride there easy and safe in 10 to 11 Fa. at low Water; and on the other side, over-against the Bay S.E. distance 4 Ls. lies *Dovarnenez*, or *Pol David*, a large Bay; and within it are several good anchoring Places, as at *Crodon* within the N. Point, and *Burc* within the S. There lie several dangerous Rocks between those Bays, which the Pilots will direct you to avoid.

S. half E. from Point *St. Matthew's*, lies *Bec du Ras*, distance 5 $\frac{1}{2}$ Ls. but there are a great many dangerous Rocks in the way, especially the *Porguet*, the *Geovant*, the *Vandre*, and the *Bas du Lis*: They lie almost in a Line, and near the Fair Way, but not directly in it. Bring *Conquet Mill* over *St.*

Directions for Sailing on the Coast

St. Matthew's Point, a little to the W. of the Abbey of *St. Matthew's*, and go away with them S. by E. till *Crodon* bears due E. and then a little more easterly, because the *Bas du Lis* lies a little out, in your way, more than the rest, till the Land on the E. side of *Camaret* be hid by *Tontiniquet Point*; then you are clear of all the Rocks.

As you enter the Channel between the *Great Stevenet* and the *Great Corfeau*, give the Rocks call'd the *Kirtous* a good Birth, by which you will shun other worse Rocks to the E. of them: And take care to do the like at the *Plattes*, a foul Ledge of Rocks on the W. side of the *Corfeau*.

N.B. The Tide sets hard upon the *Plattes*, and runs almost thwart the *Bec du Ras*; so that in Calms and strong Spring Ebbs, 'tis very hard to avoid running upon the *Plattes*. You must therefore keep a good Account of the Tides. Also if the Wind blow hard in from the S.W. 'tis dangerous.

There lies a Shoal W. of the *Corfeau*, call'd the *Point de Saint*; others call it the *Seams*, distance half a L. it runs to seaward 4 Ls. at least W. by N. and there are several sunk Rocks upon it extremely dangerous. At the E. end there is a Tail runs from it call'd *le Chats*, 2 long Ls. and more; and upon that part are several Rocks which lie above Water.

About a L. and half from *Bec du Ras* there is an Island upon the Shoal; and, in a word, the Shoal and the Tail-Bank too, is all cover'd over with Rocks, some dry, some only bare at low Water, and some sunk and never dry: So that it is a most dangerous Place.

Between *Urbant* and this Shoal lies the *Passage de Liroise*, being a broad Sound reaching from *St. Matthew's Point* 5 Ls. into the Sea.

E.S.E. from *Bec du Ras* lies *Hodierne Bay*, distance $2\frac{1}{2}$ Ls. Give the Shore a good Birth, at least 2 Miles, that you may go without the Rocks, which lie near the Land, 3 to 4 Miles E. of *Bec du Ras*. There is a very good Haven in the Bay, and a good Road mid-way between the *Bec du Ras Point*, and the Bay.

There are two high Hills on this Coast (and by which you may know it) call'd the *Sheets*, which are seen in clear Weather into 55 Fa. Water.

S.E. by S. from *Hodierne Bay*, distance 5 Ls. and 7 Ls. S.E. from *Bec du Ras*, lie the *Penus*, a Ledge of noted Rocks; they lie off from the main Land of *Penmark* a L. to the S. upon the S. Point of which is a flat square Tower, and W. of the Point another Steeple with a Spire on it; also a Village opposite to the high Land eastward, which appears like a Castle with a flat Tower at the E. end of it, and two great Rocks lying close under Shore. Tho' by all these Marks you may be inclin'd to venture in, and perhaps may safely do it, yet as it is very dangerous, you had better take a Pilot. Here is a good Haven when you are in, with 3 Fa. at low Water. You go

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N.N.E. from the E. end of *Groa*, distance 1 $\frac{1}{2}$ L. is the Entrance into the Harbour of *Port Louis*; 'tis a noble Harbour when you are in, tho a difficult Entrance, for which you must have a Pilot. There is also a good Road behind *Tudy Island*, in the Entrance of the River *Quimper Corante*; but if you go in there, you must take a Pilot.

S.S.E. from *Groa*, distance 2 $\frac{1}{2}$ Ls. lies a dangerous Rock call'd the *Birvidaux*, which is sometimes dry sometimes not, and has several sunk Rocks about it. When the Point *Lay* is right over Point *de Croix*, and the northermost Wind-mill on *Quiberon* bears E. by N. then you are thwart this Rock, and may avoid it. Going on still S.S.E. distance 5 Ls. is *Belle Isle*; and from *Penmark* it lies E S.E. fouthery, distance 16 to 17 Ls. The Island lies so high, you may see it out at Sea in 55 Fa.

The N.W. end of *Belle Isle* is foul, and has several sunk Rocks about it: Yet giving those Rocks a good Birth, there is very good anchoring at the N.W. end; but the best riding is within the Island in *Sauzon* Road, or off of Point *St. Julian*, where the royal Navy of *France* may ride in 6 to 12 Fa. perfectly secure from a S. a S.W. and a N.W. Wind, and only open to a N. and N.E. and in case the Wind shifts to those Points, you can shift your Moorings also, and run to the E. end into Port *de Lomaria*, or Port *de St. Andro*, where you are safe again, and have 6 to 11 Fa. The Island lies N.W. and S.E. and good riding any where all round it.

E. by N. distance 2 Ls. from *Belle Isle*, is the Isle of *Hedic*; and S.E. from *Hedic*, distance 1 $\frac{1}{2}$ Mile, lie the *Cardinaux*, a Ledge of Rocks above Water, but with other Rocks about them, some of which are cover'd and dangerous: And N.E. from *Belle Isle* lies another little Island call'd *Hovat*, distance 2 Ls. from Point *Lomaria*: And 3 Ls. N. from *Belle Isle* lies *Quiberon*, a Peninsula, for at low Water it joins to the Main. Between *Port Louis* and *Morbain*, at the S. end of it, there is a Ledge of Rocks, which run out to seaward a L. in length. If you are bound from the N. Coast of *France* to *Nantes*, or to *Roch Bernard*, or *Vannes*, or *Morbain*, you may safely run thro' here, within *Belle Isle*, and between the Islands of *Quiberon* and *Hovat*, and so go about to the eastward of the *Cardinals*, or *Cardinaux*: But if you do this, I advise every Stranger to take a Pilot at *Belle Isle*, for the Entrance of all these Rivers is very hazardous on many Accounts, especially that of the *Loire*, and the *Vannes*: The Ebbs there run exceeding strong because of the great Freshes, insomuch that sometimes in the *Vannes*, tho it blows a Storm right in, you will hardly stem the Current with all the Sail you dare carry. There are two Rivers join here, one from *Vannes*, and one from *Auray*; and there are many sunk Rocks at the meeting of the Channels, therefore go in without a Pilot at your Peril.

The Setts of the Tides and Currents, and the Flowings by the Moon on this Coast, are as follows:

Without *Cape Ushant*, a W. and E.N.E. Moon makes full

E. of *Bec du Ras*. There is a very good Haven in the Bay, and a good Road mid-way between the *Bec du Ras* Point, and the Bay.

There are two high Hills on this Coast (and by which you may know it) call'd the *Sheets*, which are seen in clear Weather into 55 Fa. Water.

S.E. by S. from *Hodierne* Bay, distance 5 Ls. and 7 Ls. S.E. from *Bec du Ras*, lie the *Penns*, a Ledge of noted Rocks; they lie off from the main Land of *Penmark* a L. to the S. upon the S. Point of which is a flat square Tower, and W. of the Point another Steeple with a Spire on it; also a Village opposite to the high Land eastward, which appears like a Castle with a flat Tower at the E. end of it, and two great Rocks lying close under Shore. Tho' by all these Marks you may be inclin'd to venture in, and perhaps may safely do it, yet as it is very dangerous, you had better take a Pilot. Here is a good Haven when you are in, with 3 Fa. at low Water. You go out to Sea from it S.E. among infinite Rocks, some above Water and some under. You have 10 Fa. in the Entrance into the Haven, so that any Ships may go in with safety, the Rocks only excepted.

The *Isles of Glenan* lie off here, distant from the *Penns* 3 to 4 Ls. E.S.E. And about a L. to the N. of them lie the *Isles aux Muttons*: The Fair Way lies between all these Islands and the Main, and there is a very good Road between them and the Bay of *Burec*. Being on the N. side of the Islands, distance from *Burec* about 2 Ls, you have clean Ground, and 10 to 15 Fa. Water. Between the Islands also is good anchoring in 12 to 13 Fa. tho' there is a dangerous Rock lies there call'd the *Porcean*; also there are sunk Rocks off of the *Muttons* S.W. by W. running 2 Miles into the Sea.

Also half a L. from the *Glenan* S. is a great Rock call'd the *Jument*, with a Ledge of sunk Rocks trailing away from it W.N.W. near half a Mile, yet you have 25 to 30 Fa. on the W. end. Besides these Rocks, there lies off a Shoal, with several Rocks upon it, which are seen only at very low Ebbs; 'tis call'd the *Basse Janne*; it lies a League W. from Cape *Glenan*, and 4 Miles from the Shore, in the Fair Way between the *Isles of Glenan* and the Main.

Between this Shoal and the Main there are several other Shoals with Rocks on them, distance from the Shore 2 Miles: But you have clean Ground to the E. all without them, keeping a L. from the Shore; and when you are past the *Isle Verte*, 'tis all good clean Ground, and 10 to 14 Fa. Water along shore to the Island *Grouais*, or *Groa*.

This *Isle of Groa* lies off about a L. from the Shore, and from *Mutton Islands* 7 Ls. E. by S. and E.S.E. The Island is known by three Wind-mills on the E. end, the Land high and steep, and the W. end flat and sloping; it lies off of *Blavet*, that is, *Port Louis*, a little westerly. Under the E. end there is good Anchoring in 6 to 7 Fa. safe from a S.W. as under the N.E. Point you are from a W.S.W. and N.W. Winds; but at the S.E. end it is rocky and foul.

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run thro' here, within *Belle Isle*, and between the Islands of *Quiberon* and *Hovat*, and so go about to the eastward of the *Cardinals*, or *Cardinaux*: But if you do this, I advise every Stranger to take a Pilot at *Belle Isle*, for the Entrance of all these Rivers is very hazardous on many Accounts, especially that of the *Loire*, and the *Vannes*: The Ebbs there run exceeding strong because of the great Freshes, insomuch that sometimes in the *Vannes*, tho it blows a Storm right in, you will hardly stem the Current with all the Sail you dare carry. There are two Rivers join here, one from *Vannes*, and one from *Auray*; and there are many sunk Rocks at the meeting of the Channels, therefore go in without a Pilot at your Peril.

The Setts of the Tides and Currents, and the Flowings by the Moon on this Coast, are as follows:

Without *Cape Ushant*, a W. and E.N.E. Moon makes full Sea.

At *St. Matthew's Point*, a S.W. and N.E. Moon makes full Sea.

At *Brest*, a S.W. by W. and N.E. by E. Moon makes high Water.

In the *Broad Sound* between *Ushant* and *Point de Saint*, a W.S.W. and E.N.E. Moon makes full Sea.

The Flood sets strong upon the Island *Ushant*, and to the southward of it upon the Isle of *Malene*, as also thro' the *Broad Sound* into *Brest Harbour*.

It likewise sets with a great Rippling along by *St. Matthew's Point*, towards the *Passage de la Four*, and therefore must be accounted for by those that come from *Ushant*.

At *Bec du Ras*, a S.W. by S. and N.E. by N. Moon makes high Water: The Flood sets very strong there, and thro' betwixt the *Grand Stevenet*, somewhat thwart over towards the *Courséau*, with very great Rippings over the *Plats*.

It sets also from thence N. and by W. inwards to *St. Matthew's Point*; therefore near the *Bec du Ras*, you must, in Calms, take heed you be not carried away with the Current, as also in Storms and hard Weather out of the N. or S. 'Tis not a little dangerous coming into this Channel, especially with an Ebb, or Out-fall.

'Tis observ'd, That on most part of the Coast of *Bretagne*, and the Islands thereabouts, a S.W. and N.E. Moon makes high Water: But within the Havens, Rivers, Indrafts, Bays and Creeks, a S.W. by W. and N.E. by E. Moon, or a Point later, according as the Havens or Rivers lie deep in the Land.

Nor is there any Setting or Running of the Streams to be reckon'd or allow'd for; but the Flood here, as on the Coast of *Spain*, (by the swelling of the great Ocean) comes right against the Coast, and so runs only into the Havens: The Ebbs, on the contrary, go thwart from the Shore seaward as it falls: So that the Course of none of the Streams is to be perceiv'd, unless it be a little thro' or about some Points of Islands, where the natural Course of the Tide is interrupted by the said Islands, thereby

Directions for Sailing on the C

thereby causing Eddies, and uncertain Whirlings of the Tide to the leeward of the said Islands, which ought to be carefully allow'd for.

The Depth of Water.

The Isle of *Ushant* bearing about S. from you, may be seen when you are in the depth of 50 Fa.

S.W. from *Ushant*, about 6 Ls. off, you have 75 Fa. Water, and may see the Land from the Poop.

In the *Broad Sound*, between *Point de Saint* and *Ushant*, you have 45 Fa. deep: About a L. without *Point de Saint* it is 60 and 55 Fa. And *Point de Saint* may be seen when you are in 60 or 65 Fa. Thwart the Rocks of *Penmark*, and the Isles of *Glenan*, you may see the Land, when you are in 55 and 60 Fa.

You may see *Belle Isle* from below, when you are in 56 Fa. but upon the Round-Top in 60 Fa.

Between the *Vannes* and the *Loyre* is another River, call'd the *Vilaine*; the Entrance lies E.N.E. from the Isle *Hedec*, distance 6 to 7 Ls. The Points of *Penvis* on the N. and *Pirto* on the S. make the Entrance of this River. Between the two Rivers lies the Town of *Crozic*, making the Westmost Point of the Mouth of the *Loyre*, a Place of much Shipping for Wines, Brandy, Salt, &c. and within the *Vilaine* 3 Ls. lies the Town of *Roche Barnard*, high the Country: If you are bound up, take a Pilot; but for *Crozic* a short Direction serves, which is only to avoid a Sand call'd the *Four*, off of *Crozic*, by running to the seaward of it, and of the Isle *Dumet*, which lies on the S. side of the Entrance of the *Vilaine*: On the N. side of the *Dumet* you have a good Channel up the River, and then you are clear of all Dangers; you may go close to the Island on the W. side, but the E. side is foul, and must have a large Birth given it.

S.E. from *Crozic* lies *Poulguen*, a Village with a high Spire Steeple, distance 1 L. which is the Mark for the Channels of both Rivers. To enter the *Vilaine*, you must leave it on the Starboard; and to enter the *Loyre*, on the Larboard-side. A L. off of *Crozic* Point, W. into the Sea, lies the N. end of a great Sand call'd the *Four*, on which are four Rocks, seen at low Water; they lie N. and S. 1 $\frac{1}{2}$ L. in length. When Point *Penvis* bears N. and the high Spire of *Guerande* N.E. by E. half easterly over *Crozic*, then you are thwart the S. end of it; and of the N. end, when *Penvis* bears N. a little westerly, and *Crozic* E. southerly.

To sail into the *Loyre*, and up to *Nantes*, our Pilot-Books direct you from *Bell Isle* to *St. Nazaire*, and then to take a Pilot; but as no Stranger can go the length of *Nazaire* but with some Difficulty, I advise to take a Pilot at *Bell Isle*. There are several Banks lying in the Mouth of the *Loyre* so uneven, that at one cast you have 15 Fa. and at the next but 8 or 9; and as some may be more uneven, 'tis much better to take a Pilot both in and out, where those Dangers begin.

S. of the S. Point of the *Loyre* lies the Bay and Island of *St. Gildard*, call'd also the Bay of *Bourneuf*. At the bot-

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the Tide carefully the Isle of *Rbee*: so you may edge to the Island into 4 or 5 Fa. and that depth will carry you into the Road of *St. Martins*; there you have any depth from 3 to 6 Fa.

If you would go thro', and not anchor in *St. Martins*, run on in the Channel of *Pertuis Breton* till you bring the Mouth of the little River between *St. Michaels* and the Channel of *Lucon* right over the Point *de l'Aguillon*, and run with that Mark quite thro' between Point *St. Marc* on the Main, and Point *Sablouneaux* on the Isle of *Rbee*; and by that Course you will go clear of the *Lavardine*.

The *Lavardine* is a Bank half a League from the S. E. Point of the Isle of *Rbee*, between that Island and the S. Point of the Harbour of *Rochelle*; 'tis dry at low Water: Between it and the *Rbee* you have 12 to 14 Fa. Water. From the Point *St. Marc*, there is a Sand called *La-mere*, which stretches out half over the Channel, so that keeping on the Coast of the Island you go clear of them both.

When in this Course you bring the great Steeple of *Rochel* even without the *Che de bois Point*, and the N. Point of the *Plomb* a Ship's length without the S. Point, then you go right with the *Lavardine*; but bring Point *Courcil* due E. and you may be certain you are gone clear of it; and may run boldly into the Road of *Blasques*, or S. E. by S. to the *Isle de Aix*, as you please.

From *Rbee* to *Oleron* there is a broad Channel, called *Pertuis d' Antioche*; the Course is S. E. distance from the *Isle Dieu* 16 Ls. On the side next *Oleron* there lie the *Antioche*, the *Mater*, the *Repos*, the *Longee*, all Sands and Shoals; go on S. E. only keep nearer the *Rbee* than the *Oleron*, and you miss them all: if it be night, come no nearer the N. end of *Oleron* than 12 Fa.

If you would go into *Rochel*, take a Pilot, tho' the Harbour is not difficult except to a Stranger: But if you go forward, observe that from *Che de Bois*, which is the N. Point of the Entrance into *Rochel*, to the Isle of *Aix*, is S. by E. distance 2½ Ls.

N. B. West from the Isle of *Rbee*, distance 11 or 12 Ls. off to Sea, lie some Banks called *Les Roches Bonnes*, on which there are such Overfalls, that in some places you have 2 or 3 Fa. and in a Cast or two 30 Fa. You may ride on the S. side of those Banks in 30 Fa. and on the N. side there is at least 60 Fa. This makes it very dangerous coming on those Shoals in dark Weather; and in Storms the Sea breaks very terribly upon them. Upon the Banks called the *Verres*, which is but a Mile off them, is even Ground, and 50 to 60 Fa.

Between Point *Angolin* and *Chatillaillon* lie the *Blasques*, a good Road in 4 to 7 Fa. If you are turning thro' the Channel, be sure to give a good Birth to the Point of *Chatillaillon*, because of Rocks which lie West out into the Sea, for a League and half from the Point, all under Water: also the Coast is full of stony Banks and funk Rocks, all from Point *du Chu* to Point *Couril*.

The *Louace* is a Bank of Sand, the S. end of it reaches

both Rivers. To enter the *Vilaine*, you must leave it on the Starboard; and to enter the *Loyre*, on the Larboard-side. A L. off of *Crozic Point*, W. into the Sea, lies the N. end of a great Sand call'd the *Pour*, on which are four Rocks, seen at low Water; they lie N. and S. $1\frac{1}{2}$ L. in length. When Point *Penvis* bears N. and the high Spire of *Guerande* N.E. by E. half easterly over *Crozic*, then you are thwart the S. end of it; and of the N. end, when *Penvis* bears N. a little westerly, and *Crozic* E. southerly.

To sail into the *Loyre*, and up to *Nantes*, our Pilot-Books direct you from *Bell Isle* to *St. Nazaire*, and then to take a Pilot; but as no Stranger can go the length of *Nazaire* but with some Difficulty, I advise to take a Pilot at *Bell Isle*. There are several Banks lying in the Mouth of the *Loyre* so uneven, that at one cast you have 15 Fa. and at the next but 8 or 9; and as some may be more uneven, 'tis much better to take a Pilot both in and out, where those Dangers begin.

S. of the S. Point of the *Loyre* lies the Bay and Island of *Normonstiers*, called also the Bay of *Bourneuf*. At the bottom of the Bay lies the Island of *Boving*, wholly cover'd with Salt-Pans. From *Bell Isle* to *Normonstiers* the Course is E.S.E. distance 13 Ls. Go first E.S.E. till you bring *Abbe Blanch* in *Normonstiers* to the northward of the Trees over the Abbey, then E. by N. till the Abbey comes without the Castle, then E.S.E. again, till you are within the *Moin* or *Monk Rock*; and when the *Barr de Mons* opens from the E. Point of *La Fossa*, there you may anchor, in 6 to 7 Fa. and take a Pilot if you would go farther in.

S. by W. from *Normonstiers*, distance 5 Ls. and from *Bell Isle* 16 Ls. S.E. lies the *Isle Dieu*, called in some of the Charts *Iles*: there are some Banks in the Fair Way, but there is 5 to 7 Fa. on them at least, and in the Fair Way from *Bell Isle* 35 to 40 Fa. There are 5 Windmills altogether in the middle of the Island, which is Mark sufficient to know it by: 'tis a bad Road, and a high raging Sea comes boiling and roaring up, as if it came from a subterranean Passage under the Island. The best riding is on the N.E. side, but it is but indifferent any where: the N.W. is shoal far into the Sea at least 2 Ls.

From hence there is a fair Strand upon the Coast the *Pertuis Breton*, and the *Isle of Rbee*: the Course from the *Isle Dieu* is S.E. by E. distant 13 Ls. In the Fair Way of this Course lie the dangerous Rocks called the *Barges of Ollone*; they are seen at low Water, being about half a League from the Main, and 6 Ls. from *Le Isle Dieu*. From thence the Course lies to *Le Peray* S.E. by E. 2 Ls. and to *Pertuis Breton* 4 Ls. You may anchor in the way before *Le Sables d'Ollone* in 8 to 10 Fa.

Pertuis Breton is the Name given to the Channel on the N. of the *Isle of Rbee*, between that Island and the Main. In passing this Channel, the best Course is to go nearer to the Main than to the Island by one sixth part: in this Course you have 10 to 13 Fa. but when you bring the Fort of *St. Martins* to bear S.S.W. and S.W. by S. it will be shoaler; then you are past the Bank, which runs off from the *Isle d'Oye* to the N. of

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N. B. West from the Isle of *Rbee*, distance 11 or 12 Ls. off to Sea, lie some Banks called *Les Roches Bonnes*, on which there are such Overfalls, that in some places you have 2 or 3 Fa. and in a Cast or two 30 Fa. You may ride on the S. side of those Banks in 30 Fa. and on the N. side there is at least 60 Fa. This makes it very dangerous coming on those Shoals in dark Weather; and in Storms the Sea breaks very terribly upon them. Upon the Banks called the *Vertes*, which is but a Mile off them, is even Ground, and 50 to 60 Fa.

Between Point *Angolin* and *Chatilaillon* lie the *Blasques*, a good Road in 4 to 7 Fa. If you are turning thro' the Channel, be sure to give a good Birth to the Point of *Chatilaillon*, because of Rocks which lie West out into the Sea, for a Leag. and half from the Point, all under Water: also the Coast is full of stony Banks and sunk Rocks, all from Point *du Chu* to Point *Couril*.

The *Lougee* is a Bank of Sand, the S. end of it reaches within 2 Miles of the S. end of *Aix*. S.W. from it, and within $\frac{1}{2}$ a L. of the N.E. side of *Olerou*, it lies extended 2 Ls. in length, and is dry at low Water at either end, but towards the middle has 2 to 3 Fa. On the other side of the *Aix* next the Main, lies the *Dennet*, or the *Isle d'Enot*; and E. 2 Miles is a Sand called the *Manes*, which is dry at low Water. S. by E. from the *Isle d'Enot* lies the Entrance into the River *Charente*, which comes down from *Rochefort*; if you are bound in, take a Pilot at *Aix*: This River ebbs almost dry a great way into the Land: Also if you are bound to *Brouage*, do the same; or if you are for venturing so far, you may take your Pilot at *L'Isle Madam*, for both Channels. Taking Pilots here, it is usefess to give the Marks for the Entrance of those difficult Channels, which are so full of Sands and Shoals, that no Chart can give sufficient notice of them.

S. by E. of *Olerou* is the Passage called *De Maumuseu*, leading to Point *du Gardour* on the main Land of *Sanctonge*: It lies in from the Sea E. by S. along by *Point Gardour* E. by N. to the Mouth of the *Scudre*; the Passage has depth for the greatest Ships; there is 3 Fa. at low Water. From the S. end of *Olerou* there lies a Sand called the *Gatefeaux*, stretching $\frac{1}{2}$ a L. towards the Point; and at the Entrance of the *Scudre* lie 2 Sand Banks, which ebb dry every Tide.

The *Grand Barret* is a Bank of Sand to the S. of *Argent*, if you come from the Sea, you are upon it before you open with the River *Scudre*; but when you see the Mouth of the River, you are quite over it, and may either run up the River, or to the northward within all the Sands, and within *Olerou* quite to *Rochel*, by the Channel described for coming southward before; or if you are to sail farther, go out thro' the *Pertuis d'Antioche*, but the Directions for the same Channels South will be sufficient, if read backward, with due Allowances for the Course north.

In failing along this Coast, besides the Directions given for particular places, take the following general Observations to make use of as you find occasion.

On the W. side of the Island of *Oleron*, a little to the northwards of *Sablere*, and the great Bank of *Choere*, there is a Road where you may anchor in 3 to 7 Fa. off from 3 Rocks that lie near the Shore. The Coast to the northward of this Road, as far as the N. Point of this Island, is very rocky, call'd *Rock de Purley*, and the Shoals reach a great way off the Shore.

So likewise to the southward of this Road, for above 2 Ls. the Shoal Water reaches about half a Leag. from the Shore: but near the S. Point of the Island *Oleron*, to the northward of *Point du Tour de Terre*, you have a fair Road with 3, 4, or 6 Fa. Water. In all these Islands, as also upon all the *French* Coast last described, from the *Barges* of *Ollone* to the River of *Bordeaux*, a S.W. and N.E. Moon makes full Sea.

When you have 55 Fa. Water, you may see *Bell Isle* from the Deck: you may likewise see *Isle Dieu* from off the Deck, when you are without it, in 35 F. deep, or in 60 Fa. when it is clear Weather. When you are about 9 Ls. W.S.W. from *Isle Dieu*, you will have 45 and 46 Fa. the Ground full of fine small Stones, no bigger than coarse Sand.

You may see the Land of *Ollone* from off the Deck, when you are in 25 and 30 Fa. The N. end of the Island of *Oleron*, as also the Isle of *Rbee*, may be seen from off the Deck, when you are in 28 and 30 Fa.

As soon as you discover the Isle of *Rbee*, you will see a high Tower, and a House upon it, as also a Windmill upon the Strand, and 4 or 5 high sandy Hills.

When the Island of *Oleron* appears, you will see a high Spire upon a red Point, with several Trees not far off, and 2 or 3 ragged Sand-hills to the southward of it.

From the *Isle Dieu* to the *Garonne*, or as the Sailors call it the River of *Bordeaux*, is S.E. by S. distance 27 Ls. The Land from the Passage de *Maumusou* lies S. by W. 3 Ls. to *Point de la Coubre*, which is the N. Point of the River, and is all along full of white Sand Hills: But beyond the River to the southward 'tis low and flat, with a few Sand-hills, and those black. W. of the Point *La Coubre* lies a Bank called *La Coubre Terre*, lying half a L. N. and S. The Channel between is called *La Pettie Passe*, in which you have but 6 Foot at low Water. More to the W. of Point *La Coubre* is another larger Bank, called *Matelier*, distance a L. and lying a L. in length to Seaward: and between these two is a third Bank without a Name; but as it makes two Channels between the *Matelier* and the *Coubre Terre*, those Channels are called *Le Pas de Coubre Terre*, and *de Cherantais*: and without all, to the S. right off of the middle of the *Matelier*, lies another nameless Bank of Sand, distance $\frac{1}{2}$ L. The Channel between is called *Pas de la Matelier*, thro' which you have 8 to 9 Fa. at low Water, lying S.W. and S.W. by W. from *Point de Coubre*, distance 2 Ls.

Again, S.W. by W. from this last small Bank, distance $1\frac{1}{2}$ L. lies another Sand on which is but 3 Fa. at low Water. All these Sands and Shoals lie off the Coast of *France*, and are call'd the *Coast of the*

Sailing on the Coasts of France and Spain.

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take experienc'd Pilots to direct them, the Place being so very intricate, and the Channel not buoy'd and mark'd here, as they are in *Holland* and the Coasts farther North.

From the River *Garonne*, the next place of note is the *Bassin of Arcasson*: the N. Point of the Entrance into it is call'd *Cape Ferret*, distance 17 Ls. the Coast between a low clear Strand, neither Rocks nor Sands, with good gradual Shoaling, from 15 to 2 Fa. the Land generally Forest-Woods, no River, or Creek, or Town (of note) all the way.

At the Entrance of this Basin lies an Island call'd *Isle du Terray*, from which several Shoals and Sands run off to the E. and to the W. Also in the Channel between the Island and *Cape Ferret* there lies one large Shoal along the side of the Island, and another thwart the End of it, extending almost the length of the Island. The Fair Way in, is either to the N. of these Shoals, between them and *Cape Ferret*, or thro' *Passé de Papon*, between the Island and the S. Point; in the first is 8 to 9 Fa. and in the last but 2 to 2½ Fa. at low Water.

In either of these Passages you must carefully avoid that particular Shoal running off from the W. end of the Island *de Terray*: If you are bound farther in, 'twill be needful to take a Pilot at *Cape Ferret*, for there are many Channels, and difficult Places within, even after you are pass'd those Shoals.

From hence to *Bayonne* you have nothing remarkable: The Coast of *Gascogne* is all a low plain Strand lying N. and S. for the length of 23 Ls. *Bayonne* stands on the River *Adour*, the Opening is between two plain Strands, and goes in E. by N. The Sands in the Mouth of the River are often shifting, and very uncertain, by reason of the Freshes from the Mountains, which are very violent: There are indeed two Masts on the S. side of the Channel to guide Ships over the Bar, which is otherwise very difficult, having at low Water not above 3 Foot, sometimes not so much; but that is not sufficient for the Channel afterwards. Here therefore a Pilot. is absolutely necessary.

On the N. side of this Harbour within, lies a great inland Water, at least 7 Ls. in length: It has another Opening also into the Sea, at *Cape Bretoon*, which is call'd *the ancient Mouth of the Adour*; but here is no Navigation except of small Boats.

This City of *Bayonne* is the last Port in *France*, and makes the Bottom of the *Bay of Biscay*: For from hence to *St. John de Luz*, the Coast turns away more to the S. *St. John de Luz* lying S.W. by S. distance 3 Ls. You may ride in the Bay in 4 to 6 Fa. clean sandy Ground. *Port de Secca* lies at the Bottom of it, a Tide-Haven, and dry at low Water. This Bay would need a Pilot, if there were any Ports of note within it, but as there are not, 'tis hardly worth describing. It lies, as above, in the very Bight of the great *Bay of Biscay*. To the eastward the Land trends away N. by E. towards *Bayonne*, and to the westward it falls away S.W. by W. and then due W. towards *Fontarabia*: on the E. Point stands a Tower call'd the *Hermitage*, which may be seen far out to Sea; and on the W. Point a flat white Houle upon a high rising Land, which is a Mark

and is all along full of white Sand Hills: But beyond the River to the southward 'tis low and flat, with a few Sand-hills, and those black. W of the Point *La Coubre* lies a Bank called *La Coubre Terre*, lying half a L. N. and S. The Channel between is called *La Pettie Passé*, in which you have but 6 Foot at low Water. More to the W. of Point *La Coubre* is another larger Bank, called *Matelier*, distance a L. and lying a L. in length to Seaward: and between these two is a third Bank without a Name; but as it makes two Channels between the *Matelier* and the *Coubre Terre*, those Channels are called *Le Pas de Coubre Terre*, and *de Cherantais*: and without all, to the S. right off of the middle of the *Matelier*, lies another nameless Bank of Sand, distance $\frac{1}{2}$ L. The Channel between is called *Pas de la Matelier*, thro' which you have 8 to 9 Fa. at low Water, lying S.W. and S.W. by W. from *Point de Coubre*, distance 2 Ls.

Again. S.W. by W. from this last small Bank, distance $1\frac{1}{2}$ L. lies another Sand on which is but 3 Fa. at low Water. All these Sands and Shoals lie off of *Cape Coubre* on the N. side of the Mouth of the River; and having run thro' the latter Passage *La Matelier*, you may be said to be entred the Channel; but for the River it self, whose Stream is great, and the Entrance broad, they always take Pilots, except they are thoroughly acquainted; nor tho they are acquainted, will any Ships of value run the hazard. There are indeed Directions printed in our ordinary Pilot-Books, but they vary from one another, and perhaps few of them are exact; nor do our Mariners in general trust to them, but either depend upon Experience, or

Sailing Directions for the Coast of Spain of Fontarabia on the River Bidassoa inclusive and the Port of Viana exclusive.



WE are now entering upon the Coast of *Spain*, the two Kingdoms of *France* and *Spain* meeting hereabouts: It is not material where the exact Limits are fix'd, 'tis enough to our Purpose to observe, that as the City of *Bayonne* is the last Port of *France*, so the City and Port of *Fontarabia* is the first Port in *Spain*. The Coast lies as follows:

W. and by S. from *St. John de Luz*, distance 4 Miles, lie the Rocks call'd the *Pignons of St. Anna*, near the Shore; and W. from those Rocks lies the *Bay of Fontarabia*, or *Fuentarabie*, with the City of the same Name; the W. Point of this Bay is call'd *Point Figuera*, upon which stands a Castle and a Chapel, a little to the southward: The River is call'd *Bidassoa*.

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westward it falls away S.W. by W. and then due W. towards
Fontarabia: on the E. Point stands a Tower call'd the *Hermi-*
tage, which may be seen far out to Sea; and on the W. Point
a flat white Houë upon a high rising Land, which is a Mark
for the Port.

But this Port is best known by a high Mountain, call'd after
the Town, or the Town after the Mountain, we know not
which, the Mountain of *St. John de Luz*: It is seen above all
the Hills in the Country, and many Leagues off at Sea. Up-
on the Top of this Hill there is a Chapel, from whence, they
tells us, one may see into four Kingdoms, *viz. France, Spain,*
Aragon and Navarre: This Hill is also the Mark at Sea used
to know the Place by.

Coast of Spain, beginning at the City and Port of Passoa inclusive, and ending at the Frontiers of Portugal,

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Port of *France*,
Port in *Spain*.

West of this Cape lies *Port Passage*, distance 1 L. a very
fine Haven with deep Water; both these Places require Pilots
to carry you in. Going on still W. distance a L. lies the City
of *St. Sebastian*, a plain and easy Harbour; yet Strangers ge-
nerally take Pilots here also, because of other Difficulties after
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W. by N. from *St. Sebastian* lies *Cape Macheo*, or *Machecao*,
distance 22 Ls. Between them on the same Coast lies the River
de Oro, distance 4 Ls. and *Saracus* 1 League from *de Oro*:
Here you may anchor in 10 Fa. The Coast of *Biscay* is every
where good clean Ground, and good riding, in 20 Fa. from
St. John de Luz to *Gattaria*, which is 7 Ls. *Gattaria* is
a round sandy Bay, and good Ground, safe from westerly Winds:
The Bay is call'd *King's Haven*. *Deva* is an off Water com-

ing

Directions for Sailing on the Coasts

ing from the Mountains, distance from *Gattaria* 4 Ls. W. And 2 Ls. farther W. lies *Montrico*; and 2 Ls. more *Handaro* in a small Bay; and to the westward of the W. Point of the Bay lies *Cape Machicao*, distance 3 Ls.

There is a little Tide Haven W. of *Machicao*, with a Town upon the River named *Placentia*. Between that Haven and the Cape lies a great Rock close to the Land, and another on the Point, call'd *Punta de Avclane*.

S.W. by W. from *Cape Machicao*, in a large fine Bay, lies *Barme*; 'tis a small Haven, but good riding and deep Water. You must give the E. side a good Birth, and run in by the W. side, and anchor where you please. S.W. by S. 2 Ls. farther, is *Placentia*; there is a small River, and the Town lies a little within it: All these are Tide-Havens.

Two Ls. farther W.S.W. and W. by S. is *Bilboa*; it lies 4 Ls. up a small River: The Port is barr'd, and at the E. Point there is a Riff shoots off, with some Rocks under Water: The Point is high and rocky, it looks white off at Sea like Chalk, but is only Stone. Within this Riff you may anchor till a Pilot comes off, for no Ships go in here without; this Road is $1\frac{1}{2}$ L. from the Bar, S. by W.

West from the Point off of the Bar at *Bilboa* River, distance 4 Ls. is *Castro*; 'tis a good Haven, and deep Water from 6 to 8 Fa. the Entrance is narrow and deep, being full 10 Fa. but farther in, tho broader, 'tis but 3 to 4 Fa. all the way. Between *Bilboa* and *Castro* you have 12 Fa. Water within half a L. of the Shore. Here all Pilots come off to bring you in.

From *Castro* Bay the Course is W. by N. distance 5 Ls. to the Hill of *St. Anthony*, that is, 4 Ls. to *Laredo* W. and 1 L. N.N.W. to the Hill: You go close by *St. Anthony's Hill*, till you come about the E. Point; the Haven is large; all the way to *Laredo* Bay you have 20 Fa. within half a L. of the Shore.

Thwart *St. Anthony's Hill* lies a great Ledge of sunk Rocks, which you'll know by the breaking of the Sea upon them: The usual Road is within them, before the Haven, which is built by Hand; the great Ships ride farther out. On the S. side is another Haven, and from thence runs out a great Riff stretching from the E. toward *St. Anthony's Hill*; and from the Village a Tail of Sand lying thwart within it: In the middle of the Sound is 9 Fa. and at *St. Anthony's Point* 10 Fa.

Two Ls. farther W.S.W. is *Cape Kefgo*, lying to the eastward of *St. Andero*: Thwart of it is large clean Ground, and deep Water. From this Cape to the S.E. Point of the Peninsula of *St. Andero* is S.S.W. distance 4 Ls. A little to the southward is good anchoring in 10 Fa. *Cape Kefgo* makes a large Bay; *St. Andero* is at the Bottom of it, the Haven is on the E. side, and the Peninsula, on which the Town stands, on the W. The Course to it from the Cape is W. by S. $3\frac{1}{2}$ Ls. You have any depth here from 7 to 20 Fa.

N. B. Our *Pilot Books* observe that *St. Andero* is a very good Harbour, but not safe to go in or out without a Pilot.

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s. W. *N. B.* We find no setting of the Tides upon the Coast of *Biscay*; but a N.E. and S.W. Moon makes the highest Water, and within the Rivers a Point later.

own From the Island of *St. Cyprian* to *Cape Ortegál* is 9 *Is.* W. and by N. and W.N.W. Between them lies the little Bay of *St. Marcus*, where you may put in and ride safe, in case of S.S.W. or Westerly Winds, in 7 to 8 *Fa.* All this Coast is clean and good, and full of excellent Ports.

water. W. from *St. Marcus* is the little River of *Karyns*, where is a good Road in 8 to 10 *Fa.* but no Town or Haven except a small Village called *Karyns* at the W. Point of the Entrance. From hence the Land stretches out with a long Point into the Sea, making a safe Road under it to the eastward: this Point runs N.W. by W. 5 *Is.* and the outmost Point is called *Cape Ortegál*.

The There is a Castle upon the Cape, and off of the Castle is the best Road due E. and Landlockt from a westerly Wind, either N.W. or S.W. If you come from the eastward, you see this Castle a great way off at Sea; it looks at a distance as if it stood in the Sea, the Hills appearing beyond it.

ance Off in the Sea, distance about 2 *L.* and N.N.W. from the m 6 Castle, lies a great Range of Rocks; but you may run thro' between them and the Cape in 10 *Fa.*

Fa. S.W. from *Cape Ortegál* is *Cape Prior*, being the first Point Be- on the side of the Ocean, the Course is S.W. distance 10 *Is.* half between lies the Haven and Town of *Siverns*, a very good ring Harbour and deep Water from 5 to 12 *Fa.* In all these Ports the and Havens for some length there has been no need of Pilots; r L. all the Coast is clean and bold, the Havens clear, deep, and till the all the Dangers (if any) visible, so that you may sail on almost the any where, and run in any where.

In this Haven of *Siverns* the N. side of the Entrance is rocky and foul; but the Rocks are all above Water, and the m: W. side is all clear and deep, so that you will easily see your h is Course. The Land on the W. side is high and steep, close by S. it you have 12 *Fa.* and within the Haven 10 *Fa.* You may run Riff boldly up till you come to the Town, and anchor before it in the 7 *Fa.* good Ground.

Cape Prior is a rough rocky Point, at a distance it seems to be cover'd with People looking to see you come in; but when you come on Shore, you find few People there. This is the first Cape that is dangerous; you must give it a good Birth, for it is full of Rocks all about it, tho' most of them are above Water, especially two great ones.

N. by E. from *Cape Prior* lies the Haven of *Ferol*, it lies in a little Bay, and you see the Haven open it self as soon as you enter the Bay; the Entrance lies E. by N. going in between two high Lands: as soon as you are in, edge up to the N. close by the Point, and anchor under it, because to the W. of the Village the Ground is not good, but flat and foul. The Entrance is so narrow, that you may toss a Stone ashore on either side; yet 'tis a clear Channel, and not less than 15 *Fa.* in the midway. But there being some Difficulties in coming into this Port from the *Groyne*, or from the W. they generally bring Pilots with them: but from the N. there seems to be no

The usual Road is within them, before the Haven, which is built by Hand; the great Ships ride farther out. On the S. side is another Haven, and from thence runs out a great Riff stretching from the E. toward *St. Anthony's Hill*; and from the Village a Tail of Sand lying thwart within it: In the middle of the Sound is 9 Fa. and at *St. Anthony's Point* 10 Fa.

Two Ls. farther W.S.W. is *Cape Kefgo*, lying to the eastward of *St. Andero*: Thwart of it is large clean Ground, and deep Water. From this Cape to the S.E. Point of the Peninsula of *St. Andero* is S.S.W. distance 4 Ls. A little to the southward is good anchoring in 10 Fa. *Cape Kefgo* makes a large Bay; *St. Andero* is at the Bottom of it, the Haven is on the E. side, and the Peninsula, on which the Town stands, on the W. The Course to it from the Cape is W. by S. $3\frac{1}{2}$ Ls. You have any depth here from 7 to 20 Fa.

N.B. Our *Pilot Books* observe that *St. Andero* is a very good Harbour, but not safe to go in or out without a Pilot.

From *St. Andero* to *Settevilles*, a small Tide-Haven, the Course is W. distance 4 Ls; thence to *St. Vincent* 4 Ls. more, the Course the same: Thence to *Idone* or *Lianes* 3 Ls. the Course still W. Thence to *Rio de Sella*, distance 5 Ls. the same Course W. But then from *de Sella* to *Villa Vitiosa* the Course changes to W.N.W. distance 6 or 7 Ls. All these little Bays and Havens require Pilots, and they are always ready on the least Signal.

West from *Villa Vitiosa* lies the Point of *Sanfon*, on which is a little Tower; between the Town and the Tower is good anchoring in 6 to 7 Fa. as there is also on the W. side before the Town.

West of *Sanfon* is the Haven or Peer of *Gyon*; and a L. W. of that lies the Bay of *Torres*; and 3 Ls. N.W. of *Torres* lies the *Cape de Pinas*: You must have a Pilot to go in here. Within the Cape lies *Avielos*, distance 4 Ls. 'tis a Tide Haven, the great Ships may go in at half Flood, but you must have a Pilot to guide you in.

From *Avielos* to *Luarca* is 3 Ls. and thence to *Ribadens* - 1 S. all W. by S. From the E. Point of the Haven of *Ribadens* there runs off a Ledge of Rocks toward the W. Shore, you may sound about it in 4 Fa. to $4\frac{1}{2}$: But if you go into the Port, you must have a Pilot to carry you up.

West from *Ribadens* lies a little Tide-Haven, distance 1 L. They that come along Shore from the W. may mistake it for *Ribadens*, but when they see the Marks they will easily distinguish.

Cape de Brilo, or *de Bourel*, lies N.W. from *Ribadens*, distance 6 Ls. A little to the westward of it lies the Bay of *St. Cyprian*, you may anchor in it near a Village on the W. side of the Bay in 9 and 10 Fa. $1\frac{1}{2}$ L. W.N.W. lies the Island of *St. Cyprian*, before the Haven of *Viverus*; and by this Island you may know the Haven, it being the Mouth of a River which goes far up into the Country.

Course. The Land on the W. side is high and steep, close by it you have 12 Fa. and within the Haven 10 Fa. You may run boldly up till you come to the Town, and anchor before it in 7 Fa. good Ground.

Cape Prior is a rough rocky Point, at a distance it seems to be cover'd with People looking to see you come in; but when you come on Shore, you find few People there. This is the first Cape that is dangerous; you must give it a good Birth, for it is full of Rocks all about it, tho most of them are above Water, especially two great ones.

N. by E. from *Cape Prior* lies the Haven of *Ferol*, it lies in a little Bay, and you see the Haven open it self as soon as you enter the Bay; the Entrance lies E. by N. going in between two high Lands: as soon as you are in, edge up to the N. close by the Point, and anchor under it, because to the W. of the Village the Ground is not good, but flat and foul. The Entrance is so narrow, that you may toss a Stone ashore on either side; yet 'tis a clear Channel, and not less than 15 Fa. in the midway. But there being some Difficulties in coming into this Port from the *Groyne*, or from the W. they generally bring Pilots with them; but from the N. there seems to be no occasion for it.

From *Ferol* to the *Groyne* is 3 Ls. the Course S. and S. by W. tho *Cape Prior* seems to open the great Bay, in which the Entrance to the *Groyne* is said to lie; but taking the *Groyne* as a Harbour only, 'tis quite otherwise.

The Entrance into the *Groyne* is wide and fair, the Depth from 50 to 35, 30, 20 and 10 Fa. and you may anchor in 6 to 8 Fa. just within the Castle before the Town it self; but when you are entred, the Pilots always come off to bring you to any particular place of the Bay you please, for there are several Roads and Towns within the Entrance.

Due W. from the *Groyne*, opposite to a Point of Land running out into the Sea N. lies the Island of *Cisarga*, distance 8 Ls. and from *Cape Ortegat* 18 to 19 Ls. S.W. and S.W. by W. The Haven of *Queres* lies just within it S. by W. or S.S.W. This is a good Harbour for Ships of any Burden, for 'tis clear of Rocks on all the W. side; the E. Shore indeed is a little foul, but keep the middle of the Channel, and you may run up W. 2 Miles, and anchor before a Village in 7 to 8 Fa. good Ground: The Town of *Queres* is on the Larboard side, almost a League up the River.

S.W. by W. and W.S.W. lies *Cape de Bylem*, or *Bellem*, distance 12 Ls. 'tis a high steep Point, and seen a great way off to Sea; behind it lies the great Sound or Haven of *Mounsie*, of which this Cape may be said to be the E. Point, the Entrance being reckon'd to begin here. Several high ragged Rocks lie off of the Point; one of them looking black, and rising up like a great round Steeple, is called *the Monk*, but by the *Spaniards* the *Munick*: There is also a Range of Rocks which runs out from the Point thwart the Entrance into *Mounsie* Bay, stretching S.W. by S. three Cables length or more. When you sail with the Shore, 'tis all double Land.

There

There is good anchoring in this Sound, but it is not so easy to go in, as at some other of the Harbours upon this Coast: there are also no less than three Channels to go in by, so that 'tis best, if you are bound in, to take a Pilot at the Point.

Four Ls. W. from Cape *Belem* lies Cape *de Toriane*, and from thence due N. and S. 'tis 3 Ls. more to Cape *Finisterre*: In the Course between is a fine sandy Bay, large and deep, running into the Land, with a Bight at the utmost end turning N. 'tis very good riding here for northerly or N.E. Winds. The best Road is under the Lee of a great Rock, which lies off the N. Entrance into the Bay; under the same N. side farther in, lie some Rocks under Water; but you will find them by sounding, they are but a few; besides, they lie out of the way, for 'tis only giving a Birth to the Shore, and you have Water enough and clean Ground.

N. B. Off from Cape *Finisterre* N.W. by W. 42 Ls. from the Land, there lies a great black Rock in the Sea above Water; it appears at a distance like a large Boat or Vessel turn'd bottom up. Those Ships should be careful of it, who coming from the southward about that distance of 42 L. from the Shore of *Galicja*, pass thro' the Parallel of 44 d. 20 to 30 m. the Rock lying about that Latitude.

E. from Cape *Finisterre*, distance 1 L. lies the Haven or Port of *Secbe*; 'tis called *Corcovia* by some, by others *Corch*, by others *Corch Bayonne*: there are two little sandy Bays between this and the Cape; the westernmost is the largest, and lies just under the Cape: and by the second goes in this Haven of *Corch*: there is good anchoring in them both. On the E. side of the Entrance into this Haven lie several Rocks, one is a great one above Water, and S.S.W. from it is another under Water. But if you go in N. you go clear of all; and as you will see the Town of *Secbe* before you N.E. you may run up to it, and anchor there in 6 to 7 Fa. hard clean Sand.

From the Cape, leaving this Haven to the N.E. the Coast lies S.E. to *Mores*, or *Mouros*, distance 6 Ls. In this Course are more Rocks than have been seen together on all the Coast from *Bilboa* to the *Groyne*. As soon as you are about Cape *Finisterre*, you see a high ragged Hill upon the Coast; it runs so far S. that you may see it also from the Sea off of *Mores*, and 'tis a Mark to know the Coast by. As to Rocks in the Sea, here are very many, particularly E.S.E. from the Cape, distance 3 Ls. lie a great Range all under Water, and S.E. by S. from those lie another Range above Water. W. by S. also from *Mores* there lie a great many Rocks as well under Water as above; and right in the midst of the Entrance lies a great sunk Rock S.E. off from Mount *Lauro*.

N. B. Mount *Lauro* is a high Hill upon the N.E. Point of the Sound of *Mores*; and is seen a great way off to

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to easy Channel here also is something difficult, because of Rocks in the Entrance; and therefore Pilots come off to you as soon as you appear standing in for the River.

N. B. 2 Ls. S.W. from the Mouth of *Rio Roxo*, lies a great sunk Rock, which is very dangerous; but it is not in the Fair Way from any part of the Coast.

S.E. by E. distance $4\frac{1}{2}$ Ls. from *Rio Roxo*, lies *Puerta Vedra*; between them lies a Rock or small Island, *Monte Carbala*; there is a Channel within it of 3 Fa. but then you must keep from the Shore, for 'tis rocky and foul on the side of the Main all the way from *Roxo* to the *Puerta Vedra*. Right thwart the Entrance into this Port, lies an Island called *Blydones*; you may sail round it on any side: on the N. where it is shoalest, is 7 Fa. and on the S. side 20 Fa. It is a Port of Trade, and sometimes great Ships put in here. The S. side of the Island is the best Entrance into the River: the Town lies within a little Bay under the N. Point of the Entrance: in the middle of the Haven lies another Island, which also go to the S. of, and keep all along by the S. Shore as you sail up; then you run over a Bank in 5 Fa. to the Point on the other side; and just under it lies the Town, there you may ride in 4 Fa. good Ground.

S. of the Island, in the Mouth of *Puerta Vedra*, distance 5 Ls. lie the Islands of *Bayonne*: when you first make them, they appear as three Islands, and look black and gray: The Sea runs thro' between them but in one place. so that they are no more than two; you will know them at Sea by two, high Hills upon the Main, which are seen over them; the easternmost Hill has 3 Hummocks, and the westernmost two, with hollows between the Hummocks: and a little to the eastward of the easternmost Hill you will see a great white Stone Building, being an Abbey. By all these Marks the Islands are easily known; you may sail within them either way, but at the N.E. end is a sunk Rock: Take heed!

These Islands lie before the Entrance into *Vigo*, and the Sound of *Bayonne*: if you would go in by the northward, you must go between the Islands and the Main, keeping Mid-channel, till you open the Sound of *Vigo*, or *Cannas*, which is very broad, and where you may anchor on both sides, that is, on the S. side before *Vigo*, and on the N. before *Cannas*, in 12 to 13 Fa. If you are bound farther in, as also into the Sound of *Bayonne*, you must have the Help of the Pilots, who are always ready here, having not much Business. The Sound of *Bayonne* is more difficult than that of *Vigo*.

N. B. A S.W. and N.E. Moon makes full Sea on all this Coast, and in the Harbours a Point later. *N. B.* The Flood from the Ocean does not flow along Shore here, as on the Coast of *Britain* and *France*, but flows directly upon the Shore from the Sea; and so the Ebbs run out of the Rivers and Havens strait on to Seaward.

S. from the Isles of *Bayonne*, and the Port of *Vigo*, distance

From the Cape, leaving this Haven to the N.E. the Coast lies S.E. to *Mores*, or *Mouros*, distance 6 Ls. In this Course are more Rocks than have been seen together on all the Coast from *Bilboa* to the *Grayne*. As soon as you are about Cape *Finisterre*, you see a high ragged Hill upon the Coast; it runs so far S. that you may see it also from the Sea off of *Mores*, and 'tis a Mark to know the Coast by. As to Rocks in the Sea, here are very many, particularly E.S.E. from the Cape, distance 3 Ls. lie a great Range all under Water, and S.E. by S. from those lie another Range above Water. W. by S. also from *Mores* there lie a great many Rocks as well under Water as above; and right in the midst of the Entrance lies a great sunk Rock S.E. off from Mount *Lauro*.

N. B. Mount *Lauro* is a high Hill upon the N.E. Point of the Sound of *Mores*; and is seen a great way off to Sea.

There is also a Bank of Sand upon this Coast, (which is very rare hereabouts) it lies S.S.E. from the Cape 3 Ls. into the Sea. These Rocks lying so thick about the Entrance into *Mouros*, 'tis needful to take a Pilot, if you are bound in.

N. B. When you are in the Haven up as high as the Town, you have 13 Fa. Water before it.

S. E. from *Mouros*, distance 2 Ls. lies the *Rio Roxo*; the Entrance into it is by the Island *Salure*; and on the North Point of the Entrance lies the Town of *Villa Nova*. The



Sailing Directions for the Coast of Portugal and and the River Guadiana exclusive, wher



VIANA, the first Port of the Dominions of Portugal, lies due S. from *Camina*, distance 7 Ls. The Town stands close to the Water side: From the N. Point of the Entrance lies off a Ledge of Rocks, 2 Ls. from Shore; and before the Mouth of the River on the S. side, are 2 Light-houses: it is a barr'd Port, and the Entrance narrow and dangerous; and if you are bound in, a Pilot must help you.

You may anchor without the Bar in 12 Fa. a good Road and clear Ground; and Ships generally do so, till the Pilots come off to them.

From *Viana* the Course is S. by E. to *Villa de Condu*, dist. 6 Ls. 'tis a broad Entrance; and tho there are many Rocks before it, there is room enough on either side of them, and not less than 5 to 6 Fa. Water. The Passage to the northward is the narrowest, but is thought the best: when you are in,

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you would go in by the northward, you must go between the Islands and the Main, keeping Mid-channel, till you open the Sound of *Vigo*, or *Cannas*, which is very broad, and where you may anchor on both sides, that is, on the S. side before *Vigo*, and on the N. before *Cannas*, in 12 to 13 Fa. If you are bound farther in, as also into the Sound of *Bayonne*, you must have the Help of the Pilots, who are always ready here, having not much Business. The Sound of *Bayonne* is more difficult than that of *Vigo*.

N. B. A S.W. and N.E. Moon makes full Sea on all this Coast, and in the Harbours a Point later. *N. B.* The Flood from the Ocean does not flow along Shore here, as on the Coast of *Britain* and *France*, but flows directly upon the Shore from the Sea; and so the Ebbs run out of the Rivers and Havens strait on to Seaward.

S. from the Isles of *Bayonne*, and the Port of *Vigo*, distance 5 Ls. lies the Haven of *Camina*, the last Port upon this Coast in the Kingdom of *Galicie*, and the Dominions of *Spain*: 'tis a broad Sound, and has Room and Water enough to receive the biggest Ships: The Entrance lies in, N.E. by E. There is a Rock lies above Water in the middle of the Fair Way, a little towards the S. of the Entrance; and to the N. of the Rock is the Road, and the deepest Water. There is a little Island in the Sound, on the N. side, and a Tower upon it, which is the Mark for going in, keeping the Tower on the N. Land, and so run in right with it.

Portugal and Algarva, from Viana inclusive, to Faro exclusive, where the Coast of Spain begins again.

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the S. side of the Haven is the best lying, the N. side being foul, and full of sunk Rocks.

To the S. of *Villa de Conda* are the great Rocks called the *Lesfons*, just against a little Haven of 2 Fa. deep, called *Metteylene*: Also S.W. from the S. Point of the *Lesfons*, is a great sunk Rock very dangerous: You may run between the *Lesfons* and the main in 8 Fa. a fair Channel.

S. of the *Lesfons* distance 1 L. is the opening of the River *Duoro*, vulgarly called *Port-o-Port*, or *Oporto*. On the N. side of the River, 4 Ls. within the Bar, is the City of *Oporto*, whither the Ships go up, making fast to great Rings in the Town-Walls. But as this also is a barr'd Port, and the Entrance very difficult, so no Ships go in or out here without a Pilot.

From the Mouth or Bar of *Oporto* the Coast goes away S. to *Aviero*, distance 10 Ls. all the way a clean Strand, a fate bold Shore,

Directions for Sailing on the Coasts of

Shore, no Rocks or Shoals, or other Dangers; but you sail along Shore in 7 to 8 Fa. When a black Hummock called *Carrizinho* bears E.S.E. from you, then you are thwart the Entrance of *Rexera*. This is also a barr'd Port, and you must take a Pilot to go in.

The Coast of *Portugal* is easier to be known by several Remarkables, such as the Hills of *St. Rego* on this N. Part, and Cape *Rocq*, or *Rock*, commonly call'd the Rock of *Lisbon*, on the S. Cape de *Montego* also is a very high Point, S.W. of *Aveiro*, distance 7 Ls. 'tis sometimes mistaken for Cape *Roque*. A Leag. S. of this Cape lies *Vassage*, a Town on the River de *Montego*, or Cape de *Monteebo*, a small but wide Haven, of no importance. From the Cape runs off a foul Ledge of Rocks into the sea.

There is a good Road under the Cape on the S. side; you have there 7 to 8 Fa. and are secure from N. and N.N.W. Winds: If it blows from the S. you may shift, and anchor to the S. of the River under the N. side of the southward Point. From the S. Point runs off a Riff of Sand; take care to go to the northward of it, for you cannot run thro' on the S. side. This Haven is of the less importance, because the Sands are often shifting by the violent Freshes which come down there.

From Cape de *Montego* the Course is S.W. by W. distance 11 Ls. to *Cabo del Fiferon*, and the *Peniche*: Off of this Cape, lie the Rocks call'd the *Burlings*. From Cape de *Monteebo* to the *Burlings* the distance is 14 Ls. S.W. Behind the *Burlings* from the N. Point, lies a great Rock near the Land; and to the southward of the Rock goes in a Bay, in which is the Town of *Attozie*: small Barks run in behind the great Rock for shelter in bad Weather; but behind the *Burlings* is a good Road in 10 to 11 Fa. clear and good Ground.

S. by E. and S.S.E. from the *Burlings*, distance 14 Ls. is the Cape *Rocq*, or the Rock of *Lisbon*. From Cape *Fiferon*, the Course lies due N. and S. distance 15 Ls.

S.S.W. half W. from Cape *Rocq*, is a great Rock under Water; on every side of it is 17 to 18 Fa. Water: but just upon the Rock scarce 7 Foot. Cape *Rocq* is a great Point running out into the Sea, is exceeding high, and to be seen far off.

There is also to be seen the sharp Hummock of the Abbey of *Syntra*, very high Land also, but not like the *Rocq*. E. from the Point of the *Rocq*, distance 1 L. lies the Road of *Cascais*, being the northern Point or Opening to the Entrance of the great River *Tagus*, or *Tajo*, call'd the *River of Lisbon*: Here is very good anchoring for N.W. or N.E. Winds, in 12 or 13 Fa. more or less.

East of *Cascais* is the Point of *St. Julian*, or *St. Gilian*, upon which is a high Fort guarding the Entrance into the Port of *Lisbon*; this Point shoots far out into the River, so that the Northern Channel goes in under the Mouth of the Cannon. Here the Ships take Pilots to carry them up to *Lisbon*, which is about 5 Ls. from *Cascais*.

From Cape *Rocq* to Cape *Spichel*, or Cape de *Fitcher*, is 10 Ls. the Course S.E. by S. There is a high Tower upon the Shore, and the Land it self is very high; the Castle of *Ses-*

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of the Haven lies a great Bank of Sand; when the white Castle on the Water-side bears N.N.E. from you, then you are right against the Haven's Mouth.

It is Pilots Work to go over or about this Bank, and into the several Channels of this Haven; therefore I refer that Part to them.

From *St. Ubes Point* to *Cape St. Vincent*, or the *Southward Cape*, is S.E. distance 29 Ls. no known Havens being between: And from *St. Ubes Bar* to the *Southward Cape*, is S.E. distance 29 Ls. but the Coast varies by reason the said Bar lies in so far to the N.E. so that you go S. by W. to the Cape. The Coast between the Capes is a clear Strand, neither Town, River, Bay or anchoring Place, except the *Silinas*, which is of no use, there being no depth of Water. Towards the Cape the Shore is foul and rocky, but Ships generally keep a good Offing here, that they may weather the Cape.

The great Mark to distinguish this Coast by, besides the Cape it self, is *Mount Chigo*, which lies about the Point or Cape within *Lagos*: As for knowing the Cape, there is a certain Rule thus: To the northward of it lies a high Cliff within the Land, somewhat whitish; when you see that Cliff you are sure you are pass'd the Point, whether you saw the Cape it self or no. Also on the Cape stands an old ruin'd Cloister or Chapel; and close by the Point a high Rock; by all which Marks the Cape is to be known.

N. B. S.S.W. from *Cape St. Vincent*, distance 16 Ls. off to Sea, lies a dangerous sunk Rock; 'tis so near the Surface, that sometimes on a very low Ebb it is to be seen above Water: There is deep Water all about it 30 to 35, and 40 Fa.

There is good anchoring a little to the eastward, almost under *Cape St. Vincent*, in a small sandy Bay, where is 25 Fa. Water, and secure from N. and N.W. Winds: And a little farther, under a second Point, is good riding in another little Bay, in 14 and 15 Fa. secure from W. Winds.

Here the Shore trends away eastward, being the S. Coast of *Algarve*; and from the *Southward Cape*, which is the westernmost Land of *Algarve*, to *Faro*, or *Cape Santa Maria*, is E. a little southerly, distance 20 Ls. Between the *Lagos*, or *Lagos*, and *Villa Nova*: *Lagos* lies more northerly in the Bay; the Course therefore from the Cape is E. by N. distance 6 Ls; 'tis a small Tide-Haven, but they have a good Road in the Bay, and whole Fleets sometimes ride for shelter here from N.W. W.N.W. and N. Winds, when it over blows; they have 10 to 12 Fa. in the Road clean Ground and hard Sand.

Villa Nova lies E. of *Lagos* distance 4 Ls. 'tis a better Haven than *Lagos*, and you have 4 to 5 Fa. within the Harbour before the Town; but you must not go in without a Pilot.

From the Mouth of this Haven to *Faro* is due E. 12 Ls; there is a Light-house, or *Terra del Fuzo*, upon the Strand, to guide Ships to the Haven's Mouth; but if they would go in, they must have help, the Pilots come presently off. The Point of Land at the Entrance is call'd *Cape Santa Maria*, 'tis a low sandy Point running out into the Sea, so low, that you cannot see it above

the Rock scarce 7 Foot. Cape *Rocq* is a great Point running out into the Sea, is exceeding high, and to be seen far off.

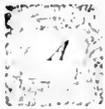
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From *Cape Rocq* to *Cape Spichel*, or *Cape de Fitcher*, is 10 Ls. the Course S.E. by S. There is a high Tower upon the Shore, and the Land it self is very high; the Castle of *Sezimbre* is also a Mark for this Point, especially for the Road under it, where is very good anchoring in 15 to 16 Fa. Between the Mouth of the *Tagus* and this Point is the Opening of a little River, call'd *Rio de la Dapofata*; it makes a small Haven at the Entrance into the Sea, but 'tis barr'd up with Sand, so as no Vessel of any burden can go in.

This *Cape Spichel* is better known to the Sailors by the Name of *Setuval Point*, or *St. Ubes Point*; the Haven is noted for the vast number of Ships which lade Salt there; it lies from the Point due E. distance 10 Ls. before the Mouth

Sailing Directions for the Coast of Spain, from A Guadiana, to Cape Dragon on the

 **MONTE**, or *Ajamonte*, makes amends to the whole Country for the Defects of their Havens; it is situate on the E. Bank of a Branch of the great River *Guadiana*, which parts *Spain* from *Portugal*, and is the first Port in *Spain*: 'Tis a noble fine Haven, and a deep Bar, distance from *Tavira* 5 Ls. E.N.E. 'Tis without Comparison the best Haven on this Coast: The Entrance has 3 Fa. at half Flood, and goes in N.W. There are some Shoals before the Haven, for which Reason Pilots are necessary.

Lepe lies from *Anonte* 7 Ls. E by N. the more known Name of it is *St. Michael's Haven*; 'tis a barr'd Port also, and the Bar so often shifts, and is so uncertain, that you must by all means take a Pilot.

From hence the Coast pushes out a little, and goes away E. by S. to *Palos*, distance 7 Ls. Here you fall into the great *Condeat*, an inland Water, well known in the Country; but the Entrance is difficult, and must be refer'd to Pilotage. The

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From the Mouth of this Haven to *Faro* is due E. 12 Ls; there is a Light-house, or *Terra del Fuogo*, upon the Strand, to guide Ships to the Haven's Mouth; but if they would go in, they must have help, the Pilots come presently off. The Point of Land at the Entrance is call'd *Cape Santa Maria*, 'tis a low sandy Point running out into the Sea, so low, that you cannot see it above 4 to 5 Ls. off to seaward. Under the Hummock upon this Point lies the Town of *Faro*.

N.E. by E. from *Faro*, distance 6 Ls. lies *Tavira*; 'tis a small Haven, and the Entrance so shoaly and the Sands so often shift, that they are no way to be trusted to; and the Port is therefore much less us'd than it would otherwise be.

N. B. This is the last Port in the Dominions of *Portugal*, *Santa Maria* being not reckon'd a Port, nor the Haven of any use.

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Land from hence W. is call'd the *Rodugn*, because of the red Sand-hills of which it is full. Here goes in the Haven of the *Saltees*, and the River which goes N.W. to *Odyr*.

From the Mouth of the *Guadiana* at *St. Michaels*, to the Mouth of the *Guadalquivir*, which we vulgarly call the River of *Seville*, or of *St. Lucar*, is 17 Ls. the Course S.E. by S. The red Sand-hills mention'd above, reach all along this Coast, till the Town of *St. Lucar* is in sight.

Between these two is the Haven of the *Saltees*, mention'd above; a difficult Place, and those who go in there, must take a Pilot.

This great River of *Guadalquivir*, comes down from *Seville*, and is navigable so far for good Ships. The Gallions from *New Spain* us'd formerly to unload there. This Water requires a Pilot, nor do any rich Ships go up without one.

The S. Point of the Entrance into this River is call'd the Land of *Sibiona*: From hence to *Cadiz* the distance is 8 Ls. S.E.

in a strait Line cross the Bay, not about by the Shore, in which are divers other Ports, Havens and Towns, as *Rotta*, *Port St. Marys*, and others.

To enter the Bay of *Cadiz*. you must go right with the *Porques*, within two Cables length of them; they lie to the N. of *St. Sebastian*: Run thus in 6 to 7 Fa. till you come before the Port of *Cadiz*, and anchor in 8 to 15 Fa. as you please.

In this Course you must be careful of the Sand call'd the *Diamond*, upon which is a sunk Rock, and very dangerous; it lies 2 Miles N. of the *Porques*: There is but 3 Fa. upon it at half Flood. The Marks to avoid it are,

1. Bring *St. Katharine's* Chapel, which stands upon the N. Land, to be E. from you, a little northerly, then you are thwart it; the *Puntal* bearing also S.E. by S.

2. Other Marks are, *St. Mary's* Church over the End of *Cadiz*, or a Cloister which stands at the End of *Cadiz*, and a little House on the Hill over the Chapel, which stands to the westward of *Port St. Mary*; then you are thwart the *Diamond*.

3. Set the two Hills, which are southward of the way to *Sheres*, but a little asunder, and yet keep them from coming together; then you go clear of the Rock.

To lie before *Cadiz* in the Road, you should anchor so as to have the *Puntals* bear S. from or near it, according as one lies near the City. To the S. of *Cadiz* lies a sunk Rock; come no nearer to it than 7 Fa. The W. side of the Island is all foul, no anchoring near it: The Bay lies from *Rotta* to *Cadiz* in breadth 5 Miles, and much the same between it and *St. Marys*: The depth between the *Diamond* and the N. Shore of the Bay is from 5 to 8 Fa. If you would go into the Harbour behind the *Puntals*, or into the Creek, you should take a Pilot.

S.W. from the Point of the Town of *Cadiz*, and a little less from *Barbace* Point, lies the Island *St. Pedro*: In the way between lies a Rock under Water; but in going S. for the *Streights Mouth*, you go without it all.

From the Bay of *Cadiz* to the *Streights*, you go away S.E. to *Cape Trafalgar*, call'd by our *English* Sailors *Travel de Gar*; the Course from Point *Sebastian* W. of the City of *Cadiz*, is S.S.E. the Distance 9 Ls.

To go about into the Channel of the *Streights Mouth*, you must give the Cape a good Birth, to avoid the *Spanish* Coast which is foul. W. by S. from *Tariffa* there is a shoal Bank 2 Ls. to 2' into the Sea, where is 8 to 10 Foot Water; you may know it by the Breach of the Sea upon it when it blows hard.

Being thus without the Cape, with a S.S.E. and S.E. by S. Course, you will make the *Barbary* Shore, just about thwart of *Tangier*, lying in a great Sand-Bay.

From *Tangier* to *Apes-hill* the Course is E.N.E. but to go thro' the *Streights Mouth*, whether for the S. or N. Shore, the right Course is E. by N. mid-Channel, or rather towards

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because the easterly Winds generally come with such Squalls and Gusts. from the high Hills of *Gibraltar* behind the Town, that you will be ill able to get out of the Bay on that side.

Being bound from the eastward out of the *Streights*, and keeping on the *Spanish* Coast, observe to bring the Hill of *Gibraltar* against the high Land of *Barbary*: For some, mistaking the flat low Land to the N. of *St. Anne's-bill* for the Opening of the *Streights*, and running into the Bay upon that Supposition, have lost their Ships by losing their way.

N.N.E. from *Gibraltar*, distance 8 Ls. lies *Estepona*: There are several Light-Houses or Fire-Towers on the Coast between, to give notice of Enemies in the Bay: There is also good anchoring on all the Coast between, if not too near; and if the Winds do not blow too hard from the E. or S.E. At the first Tower from *Gibraltar* you may anchor in 25 Fa. *Gibraltar* bearing S.S.W. Here you have the best Road for a *Levant*, to run out with thro' the *Streights*. At the second Tower you may ride in 20 to 22 Fa. and there you may water on shore with great Convenience; the Ground being low before *Estepona* you may anchor in 14 Fa. but there is no Haven, Creek, or River; neither is there at *Mirabelle*, which is the next Town on the Coast, distance 6 Ls. N.N.E. from *Gibraltar*. There are five Watch-Towers on the Coast between *Estepona* and this Place.

On the Shore going to *Mirabelle*, are two great Pack-houses, as the *Dutch* call them, or Ware-houses, and a square Watch-Tower on the E. side of them. If the Gate of the City appears between the Ware-houses and the Tower, you may anchor in 9 to 10 Fa. but not right before the Town. there the Ground is not good: You may water also to the eastward of the City with very good Convenience.

E.N.E. from this City, distance 8 $\frac{1}{2}$ Ls. lies *Cape Malaga*, being the westernmost Point of the *Bay of Malaga*. Between them lies *Fangerola*, a small Place without any Road near it: To this Place the Coast is still full of Watch-Towers, built, as is suppos'd, to prevent the Rovers of *Barbary* from making any Descent in the night: They all serve for Sea-Marks also.

From *Cape Malaga*, or as some call it *Cape Moll*, to the City of *Malaga*, the Course is N.E. distance 3 Ls. This Coast all the way is a fair Strand, with good riding in 10 to 12 Fa. The City is known by two strong Forts, one on the E. side, and two Walls running down from it, to another Fort by the Sea-side more southerly.

To anchor before *Malaga*, you bring the *Mole* to bear N. by E. and there you ride in 10 to 14 Fa. very clean Ground; and the same clean Ground extends E. or E. by N. to *Velez Malaga*, distance 7 Ls. This City stands a L. from the Sea; and on the Shore are several large Ware-houses, which look like a Fortification, and where the Ships load and unload. W. from those Ware-houses, the City bearing E. from them, you may anchor in 8 to 12 Fa. good Ground; by anchoring thus, you avoid a Bank which runs out into the Sea a little W. from the Watch-Tower: But run along Shore, and come no

From ~~the~~ Bay of *Cadiz* to the *Streights*, you go away S.E. to *Cape Trafalgar*, call'd by our *English* Sailors *Travel de Gar*; the Course from Point *Sebastian* W. of the City of *Cadiz*, is S.S.E. the Distance 9 Ls.

To go about into the Channel of the *Streights Mouth*, you must give the Cape a good Birth, to avoid the *Spanish* Coast which is foul. W. by S. from *Tariffa* there is a shoal Bank 2 Ls. to 2 1/2 into the Sea, where is 8 to 10 Foot Water; you may know it by the Breach of the Sea upon it when it blows hard.

Being thus without the Cape, with a S.S.E. and S.E. by S. Course, you will make the *Barbary* Shore, just about thwart of *Tangier*, lying in a great Sand-Bay.

From *Tangier* to *Apes-hill* the Course is E.N.E. but to sail thro' the *Streights Mouth*, whether for the S. or N. Shore, the right Course is E. by N. mid-Channel, or rather towards the Coast of *Spain*.

If you are to go thro' in the night, keep to the *Barbary* Coast, because that is clear, whereas the *Spanish* Coast is rocky and foul: If you will go on the *Spanish* side, you must go close by the Shore, and run between the Island *Tariffa*, and the foul Grounds which lie off that Island, or keep off enough so as to run without them.

E. of the Island *Tariffa* lies *Cape Cabrita*, distance 5 Ls. being the westernmost Point of the great Bay of *Gibraltar*: A little westward of it, over-against the Hill of *Gibraltar*, is good riding for a N.E. Wind in 8 to 12 Fa. thwart of a great Rock, and not far from the Shore.

There is a Fire-Tower or Light-house upon the Point; and a little to the westward of it is a fair Strand: There you may ride smooth from the western Swell of the Sea, which comes in upon any Storm in the Ocean.

Thwart *Cape Trafalgar* is a Rock under Water, 1 L. from the Shore; there is but 9 Foot Water upon it: There is a good Channel between it and the Shore. Also W. by S. from the same Island lies a whole Ledge of Rocks, much about the same depth under Water; they are perceiv'd in foul Weather by the Breach of the Sea upon them: But at the E. end of the Island is a good Road safe against easterly Winds, and 13 to 20 Fa. clear hard Sand; but you must not anchor nearer to the Island than 13 Fa. the S.E. Point being foul. The best of the Road is the S. Point, bearing W.S.W. from you, and the Sand-hill W.N.W. then you will have 14 Fa. Water good Ground, and a good distance from the Shore.

Between *Cape Cabrita* and the Island *Tariffa* there is a Bay, and in the Middle of it a Light-house, against which you have good Ground in 12 Fa. and a good distance from the Shore; all the way from the Island to the Cape is a clear Strand, and nothing dangerous but what is in view.

To sail from the Road of *Gibraltar*, in order to go out of the *Streights* into the Ocean, if you have the Wind Easterly, bear up before it towards the W. Shore of the Bay, and out along by it, tho it be a Lee-shore, till you get out of the Bay;

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All this Coast continues fair and clean quite to *Almanucar*, which is the next Port due E. from *Velez Malaga*, distance 15 Ls. 2 Ls. short of it stands *Porto de Torres*, which is a Point of Land with a Fire-Tower on it: You have 12 Fa. Water at *Almanucar*, lying to the westward of a Rock, with a Chapel on it.

E. from *Almanucar*, distance 3 Ls. is *Solebrenna*, a small Town having a little Chapel adjoining: The Chapel stands upon a Mountain, with a small Island against it; by both which it is known from the Sea. To the W. of the Island is good riding under the E. Point of *Almanucar Bay*, where you are safe from E.N.E. Winds; all round the Island is good anchoring and you may run between it and the Main: Here you have 14 to 16 Fa. good clear Ground.

Two Ls E. from *Sallebrenna*, and standing half a Mile from the Sea, is *Modril*, a Town with two Churches, which makes some call it two Towns; there is also a four square Tower by the Sea-side: This is no safe place to anchor in, especially if the Winds blow from the S. or S.E.

From hence to *Adra* you have all the way a low plain Coast, lying E. and E.N.E. distance 12 Ls. and the like quite to the *Bay of Almeria*, and *Cape du Gat*.

N.B. As here are no Havens upon all this Run from *Gibraltar Bay* to *Almeria*, but that all Ships are bound to ride in open Roads, sometimes shelter'd and sometimes not, the Commanders should be careful to keep all things ready in case of Storms, either to carry out Anchors, or to slip, and run out to Sea.

N.B. Observe also, that the Noise of the Sea on this Coast oftentimes gives notice of a Storm, at least a Day and half before; but when it comes, you have nothing to trust to but good Ground-Tackle: Yet if the Wind be not directly upon the Shore, you cannot be in much danger.

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Directions for Sailing on the Coasts of

From *Cape de Gat* to *Almazaron* is 17 Ls. the Course N.E. by N. it lies in a great Bay, in which there is a Castle, having a Rock to the eastward standing high out of the Water, with a Watch-Tower upon it: And from this *Almazaron* to *Cartagena* is 6 Ls. E.N.E.

Cartagena is an open Bay and Harbour, with a Mole before the Town, and a strong Castle: It is the first Place after *Cadix*, where any mention need be made of a Pilot; but here it is absolutely necessary.

The Harbour of *Cartagena* is known at a distance by the Island *Combrera*, which lies just before the Mouth of it, distance 2 Miles S.S.E. from the W. Point of the Harbour: You may run in between this Island and the Main, but you must be carefull to keep the mid-way between them, for the Shore is foul on either Hand. On the N.E. side of the Island is a large Bay call'd the Bay of *Combrera*, where you may anchor in any part of it, and in what depth you think fit: But a Wind off Sea brings a high Surge rolling in here.

E.N.E. from the Island is a little Place call'd *Port Genoves*, in which you may anchor in case of necessity, and with a small Ship: But keep to the Starboard-side in going in, for in the mid-Channel lies a funk Rock very dangerous.

From *Combrera* the next Port of Consequence is *Cape Palos*, it lies E. by S. from *Genoves* distance almost 4 Ls. 'tis a low Point, compar'd to the Coast, which is generally mountainous. Off at Sea about two miles N. E. lies a little Island called *Formigus*, surrounded with Rocks both above and under Water, and therefore very dangerous. But the Island is as a Buoy to the rest, and by that which appears to warn Sailors of the Mischiefs which are concealed: If you run thro' within the Island, take heed to keep to the side of the Main.

From this Cape the Coast falls off into a great Bay, and the Land trends away first due N. then N. by E. towards *Alicant*. In this Course 3 Ls. N. from the Cape, lies another small Island called *Gross*, surrounded also with Rocks and foul Ground: there is likewise a Channel between it and the Main, but 'tis narrow and dangerous, and no Ships care to run thro', neither should but upon extreme Necessity. You may anchor any where upon the Coast in this Bay, in 8 to 10 Fa. provided you are first past that Island.

From *Gross* you go away N.N.E. to *Cape St. Paul*, distance 12 Ls. and to the Island *St. Paul*, or *La Gross*, 5 Ls. so from *Palos* it is 17 Ls. distance, the Course N. by E. easterly: but the Island *Gross* being a little more to the N. makes the Course vary near a Point: short of *Cape St. Paul*, and distance 3 Ls. S.W. by W. is a Castle call'd *Guardamoor*, and a Tower call'd *La Matta*, in a deep Bay where they load Salt. The Ships generally ride off of another Castle call'd *Lugar Nova*, while they take in their Loading, this Castle being under the Lee of the Cape, and in some places better Riding.

If you go to *La Matta*, keep to the southward under the Shore in 4 Fa. till you come to the Point over against *Ile St. Paul*: when you are past the Point, you will see the Castle of *Lugar Nova* under the Point. Bring the Castle to bear N.E. from you, and you are in the best of the Road: Come to an

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From the Cape to *Alicant* is 10 Miles, the Course North, making a great Bay. Also when you come without all, you must avoid the Island by all means, because of a Ridge of Rocks which lie out S.W. by S. into the Sea; but you may run over them, if you keep a little off, in 7 Fa. You may on any Emergence run between the Island and the Main; but 'tis better to avoid it, because of the Rock under Water in the Passage mention'd above.

From the Island you go away N. as before to *Alicant*, keeping as near the Shore as you will, only not in less than 4 to 5 Fa. If you would anchor before *Alicant*, lie right before the Mole, so that you may see into the Town thro' the *Head Gates*; there you will have the best Ground, and 5 to 7 Fa. or you may keep farther off in 12 to 13 Fa. the E. Point of the Mole bearing from you E.N.E. This Road is secure from N.E. and S.W. Winds.

The City of *Alicant* is situated on the N. Shore of the Bay half a Point W. taking it from the Island of *St. Paul*. The Castle stands upon a very high Mountain, and its white Walls were a Mark to know the City by: it was blown up in the late Wars by the *French*; but the Mountain is the like Mark, tho the Castle be in its Ruins: The Road is just before the Mole.

A Wind off Sea makes this Road sometimes very uneasy, the Sea going very high: but the Ground is good, and the height of the Mountain checks the Wind; or, as the Sailors say, *The Land refuses the Wind*.

The E. Point of the Bay of *Alicant* is called *Cape Overt*; or *La Hoverte*, or *Alcadre*. N.E. from this Cape is another high Hill on a Point called *Mount Benidorme*, with an Island of the same Name 2 Miles short of it; from the Cape to the Mount is near 17 Miles. There are several little Towns and Fire-Towers on the Coast between, but no considerable place; you may run between the Island and the Mount. A little to the W. of the Mount lies *Villa Jovosa*, a little Town, from whence some Charts call the Island *Isle Jovosa*: you have a good Road there in 7 to 10 Fa. secure from a *Levant*.

N.E. from this Point you may anchor in 7 to 10 Fa. in a large sandy Bay, before the Town of *Altier*, from which 'tis called *Altier Bay*: 'tis an excellent place for Watering, where a whole Fleet may ride in Safety, and water with the greatest Expedition. *N. B.* The *English* Navy water'd here in two days in the late War.

E. of *Altier*, and just without the Extent of the Bay, is the little Town of *Calp* in another little Bay, where is a good Road in 12 to 15 Fa. and where several Ships load Fruit.

From the Isle of *Bendoan* N.E. distance 5 Ls. is a high steep Point call'd *Cape St. Martins*: you see this Cape 8 or 9 Ls. off at Sea; but the Point is so high, the Shore running flat out before it, that it endangers Ships running on Shore in the Night: for which reason steer more easterly, and come no nearer in the Night, or in dark Weather, than 8 to 10 Fa.

There are 3 Light-houses (not Fire-Towers) on this Cape, not far from one another: and beyond the Point to the eastward lies a little high Island, but there is no passing between that Island and the main. Two Ls. from this Cape is *Cape St.* *Antonia*, being N.W. in a little deep Bay, where is the Town

there is likewise a Channel between it and the Main, but 'tis narrow and dangerous, and no Ships care to run thro', neither should but upon extreme Necessity. You may anchor any where upon the Coast in this Bay, in 8 to 10 Fa. provided you are first past that Island.

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If you go to *La Matta*, keep to the southward under the Shore in 4 Fa. till you come to the Point over against Isle *St. Paul*: when you are past the Point, you will see the Castle of *Lugar Nova* under the Point. Bring the Castle to bear N.E. from you, and you are in the best of the Road: Come to an anchor there in 4 Fa. then the eastermost Point will bear E. by N. from you, the Castle *Guardamoor* S.W. and the Hills to the southward of the Castle S.S.W.

This Road is secure from N.E. and S.W. Winds: *La Matta* lies to the S. of the Castle *Guardamoor*.

N. B. 'Tis only a square Tower, which they call *Fire Towers*, we should call it a Light-house: but the Difference is, that those Fire-Towers are for alarming the Country, and Light-houses are for directing the Sailors: but those serve also for both. *N. B.* There is no Town at *La Matta*, nor any good Riding; and therefore it is that the Ships go away to *Lugar Nova*. But if you are in haste, and can be dispatch'd, you may venture, as you see the Weather settled or not settled; you may anchor in 8 to 10 Fa. near the Tower. *N. B.* If you go up to the Round Top, you may see the Salt lie in Heaps on the Land.

All along this Bay, and from Cape *Palos* to *Alicant*, the Land is mountainous, and so high, that in the Night you may be deceiv'd by the height of the Land, and think it farther off, and so be in danger of running ashore; you must therefore keep a good Look-out. The Shore it self is very good, a fair smooth Strand, bold and safe; and you may sail in 12 to 14 Fa. all the way, within Call or hearing of the Land. The distance from *Palos* to *Alicant* is 21 Ls. the Course N.N.E. that is, 17 Ls. to the Isle of *St. Paul*, and 4 more to *Alicant*.

The Island of *St. Paul* is call'd in the Charts *Plane Island*; it lies near 2 Miles from the Cape; in the middle of the Channel between there is a dangerous Rock under Water: If you go thro' the Passage, keep nearer the Cape than the Island, and you may avoid it, but then you must not go too near the Main neither, for the Point is foul too: At the end or Point of the Cape is a Fire-Tower.

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There are 3 Light-houses (not Fire-Towers) on this Cape, not far from one another: and beyond the Point to the eastward lies a little high Island, but there is no passing between that Island and the main. Two Ls. from this Cape is *Cape St. Antonio*, lying N.W. in a little deep Bay, where is the Town of *Xobea*, or, as we call it, *Sheva*, and some Light-houses or Fire-Towers: there is a good Road, and 12 to 14 Fa Water.

There is a Light-house on the Cape, and several Windmills near the Town; the Road is before the Town, where the Ships lie close to the high Land on which the Mills are; where they ride with two Anchors to seaward, and a Head-fast ashore, the E. and E.S.E. Winds blowing right in.

On the N. side of the Cape, and under a high Hill, lies the Town of *Denia*, where is a small Haven; 'tis a difficult Entrance, and this is the second place within the Straits where I would advise taking a Pilot; they come off to you as loon as you come about the Cape.

From this Point the next place of note is *Grao*, the Sea-port for *Valentia*: the Course is N.W. distance 17 Ls. There are the small Ports of *Gaudin* and *Cullora* between, but no good anchoring at either of them.

The Town of *Grao* is small; the River of *Valentia* opens into the Sea within a quarter of a Mile of this Town, but there is not Water enough to carry a Pinnace up to the City: the Road of *Grao* is good, and you have 7 to 8 Fa. but no shelter from any Wind, the Shore being low, and the Country plain and level: there goes a great Sea sometimes in this Road, and Ships are in danger of foundring as they ride.

N. from *Grao* lies the City of *Monoedra*, distance 8 Ls. A little to the N. of it stands a Light-house close to the Sea-side; and N.N.E. from thence is *Cape Oropeza* distance 9 Ls. To the westward of the Cape is a very good Road secure from a *Levant*: The Marks to know the Point by, are a round Tower or Castle on the Point it self, and a high Hill a little from it on the W. side. There is nothing considerable upon the Coast between *Grao* and this Point.

N.E.

N.E. from the Cape, distance 5 Ls. lies *Peniscola*; there is a good Road in the Bay close to the E. end of the City, with about 10 Fa. Water; but here, as in other places, if the Winds are off Sea, you are in danger of running ashore, the Ships therefore ride here with 2 Cables off to Sea, and a Head-fast ashore. On the same Coast, and in the same Course, dist. 2 Ls. lies the little City of *Bene-Carlo*, tally call'd by our Pilot-Books *Beneccalon*; here is no good Road, and therefore the Ships chuse to lie at *Peniscola*.

E. from this City lies *Unverova*, distance a small I. here is a Fire-Tower close by the Sea; to the eastward of the Tower lies a fair Strand for 5 Ls. which is called the *Alfrague* of *Tor-ros*: On the W. end of it is another Tower. Here the great River *Ebro* opens it self in several large Mouths into the Sea; but the Current is so rapid, and the Tide rises so little, that it prevents any considerable Navigation into the River.

The Bay of *Alfrague* makes this Point be an Island, the River coming in on the W. side; there is good anchoring almost in any part of the Bay, except on the Island side, where the Land is low, and the Water shoal: but keep to the Main, and you have 6 to 8 Fa. The Land upon the Main here is so high, that 'tis seen 15 Ls. to Sea; the best of the Road is off of the old Monastery in 5 Fa.

From *Alfragu* the next Place is Cape *Ampulla*, distance 7 Ls. E.N.E. and N.N.E. the Coast between is all flat, and low, full of Salt Ponds, and marshy or sandy Grounds. Some of our Pilot-Book Writers tell us, the River of *Alfrague* runs out into the Sea here, but is not navigable except for Boats; whereas this is the great River *Ebro* which rises in *Guipuzcoa* within 10 Ls. of the Bay of *Biscay*, that traverses almost all *Spain*, and after a Course of above 700 Miles, and receiving all the Rivers of *Catalonia* and *Aragon*, empties it self

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THE Isle of *Ivica* lies E. northerly from Cape *St. Martin*, distance 12 Ls. There lies a great craggy Rock call'd *Belcran*, off of the westernmost Point of the Island, and another call'd *Comiger* off of the N.W. Point; but about the W. Point, and clear of the Rock, is a very good Road: the Coast between them stretches out N. by E. and S. by W. 5 Ls. and about the Island from *Comiger* to the N.E. Point E.N.E. and W.S.W. distance near 10 Ls. with good anchoring in several places between.

At the N.E. Point is a large sandy Bay, and very good Ground; but on the E. side there is a funken Rock, which is seen by the Breach of the Sea on it: between the Rock and the Isle of *Togomago* is 16 Fa. good Ground; *Togomago* is a small Island about Gunshot from the Point, and the Road as above is between them. From this E. Point to the S. Point the Land goes away S.W. and S.W. by S. distance 9 to 10 Ls. The Shore is foul, but there is a Bay call'd *St. Hilario*, in which is

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Sailing on the Coasts of Spain.

here is here into the Sea, in 4 Channels, and is so rapid a Stream, that no Boats can stem the Force of it; and this is the main reason why it is not navigable, otherwise good Ships might go up to *Tortosa*.

The City of *Tortosa* lies up this River, distance from the Sea about 4 Ls. there is good anchoring behind *Ampulla* in 6 to 7 Fa. From hence the Coast goes away N.E. to *Saló*, distance 7 Ls. There are several Villages and sandy Bays upon the Shore between those two, but none of note, nor any Harbour for Shipping.

Saló is a small low Point with a Fire-Tower or Light-house at the Extremity of it: it appears as you sail by like an Island, and is not discover'd till you come very near it. There is a tolerable good Road to the W. of the Point, in 8 to 9 Fa. good hard Sand. On the other side, E. from the Point, distance a little above a Mile, lies the City of *Terragona*, situated on the higher Ground and well fortify'd; 'tis no Port for Shipping, but the Trade is carry'd on at *Villa Nova*, a noted Port standing close to the Sea: 'tis true, here is no Harbour, but here is a good Road (that is) good anchoring, having 7 to 9 Fa. and good hard Sand: but 'tis an open Road for all Winds except just off Shore. They have no Mole or Heads, but haul their small Vessels upon the *Beach* before the Town, where they lie dry. The Coast is low, and the Land within high.

Barcelona, which lies E. from *Villa Nova* distance 9 Ls. thro' a great City, has no River or Haven, only a *Mole*: the several Ridings near the *Mole*, as also the going into it, are only for small Vessels and Gallies; the large Ships ride eastward from the Lanthorn, where there is a very good Road in 15 to 20 Fa. whereas a Galley's length from the *Mole* there is not above 6 to 7 Foot, and in the *Mole* about 10 to 12.

Directions for the Island of Ivica.

Cape *St.* there are also two small Islands, or rather Rocks, on the E. side of the Bay. Near those Islands there is a great sink Rock, which must be avoided with great Care: In stormy Weather the Sea breaks on it with great Violence, and the Rock it self appears in rough Weather: There is a little Crook to the westward, in which there is a great depth of Water, but no River comes in there.

S. of the Bay, distance 3 Ls. is the City of *Ivica*: there is a good Haven, but the Entrance is foul and difficult, and a Stranger must have a Pilot if he is bound in, or else ride without the Bar.

S.S.E. of the southermost Point of *Ivica*, distance 2 1/2 Ls. is the Island of *Formentera*: you may sail between it and the Point on the *Main*, but you must avoid a Shoal which lies from the Point. Keep in the middle of the Channel, there you have 5 Fa. Water clear Ground, and so clear Water that you may see the Bottom. There is a high Tower on the Isle of



THE Ile of *Ivica* lies E. northerly from Cape of *Martin*, distance 12 Ls. There lies a great craggy Rock call'd *Beleran*, off of the westermost Point of the Island, and another call'd *Comiger* off of the N.W. Point; but about the W. Point, and clear of the Rock, is a very good Road: the Coast between them stretches out N. by E. and S. by W. 5 Ls. and about the Island from *Comiger* to the N. E. Point E.N.E. and W.S.W. distance near 10 Ls. with good anchoring in several places between.

At the N.E. Point is a large sandy Bay, and very good Ground; but on the E. side there is a lunken Rock, which is seen by the Breach of the Sea on it: between the Rock and the Ile of *Togomago* is 16 Fa. good Ground; *Togomago* is a small Island about Gunshot from the Point, and the Road as above is between them. From this E. Point to the S. Point the Land goes away S.W. and S.W. by S. distance 9 to 10 Ls. The Shore is foul, but there is a Bay call'd *St. Hilaria*, in which is very good Riding on the Coast, between which is clean Sand: there is a Castle, and two Fire-Towers on the Strand;

Sailing Directions for the I

FROM the eastermost Point of *Ivica* to the westermost Point of *Majorca* is N.E. by N. dist. 14 Ls. Just upon the Point stands the Island *Dragonera*, distance from the Shore one little Mile: You may sail thro' within it, or ride safe under it in 4 to 6 Fa. good Ground. S.E. from the Point, distance 8 Ls. lie 3 Islands, with a Tower upon the eastermost of them; they lie behind a small Point of the main Island, and beyond them there is a Bay, in which there is a Light-house (really such) where a Fire is always kept in the Night. E. from the Light-house is the Haven call'd *Porto Piu*, where you ride safe from any Winds, with one anchor to seawards, an' two Head-falls ashore.

A little S. of this Haven is the City of *Minorca*: there is a lunk Rock in the Fair Way between them, having 13 Foot Water upon it; yet the Water is so clear, that you may see it as you sail by it.

They have built a new *Mole* at the City just by the Entrance into the Haven; on the W. side of the Haven is a white high Tower, and you stand into the Haven between the Tower and the *Mole-head*. When you are in, go forward right to the

Sailing Directions for th



FROM Cape *Tarmentelli*, the most northerly Point of *Majorca*, to Cape *Baglio*, the northermost Cape of *Minorca*, is N.N.E. dist. 10 Ls. Thence to the S.W. Cape of *Minorca* is 6 Ls. S. by E. Between them are 2 safe Bays, with good Riding, secure from N. Winds, and all others to the S.S.W.

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there are also two small Islands, or rather Rocks, on the E. side of the Bay. Near those Islands there is a great sunk Rock, which must be avoided with great Care: In stormy Weather the Sea breaks on it with great Violence, and the Rock it self appears in rough Weather: There is a little Crook to the westward, in which there is a great depth of Water, but no River comes in there.

S. of the Bay, distance 3 Ls. is the City of *Iwica*: there is a good Haven, but the Entrance is foul and difficult, and a Stranger must have a Pilot if he is bound in, or else ride without the Bar.

S.S.E. of the southernmost Point of *Iwica*, distance $2\frac{1}{2}$ Ls. is the Island of *Formentera*: you may sail between it and the Point on the *Main*, but you must avoid a Shoal which lies from the Point. Keep in the middle of the Channel, there you have 5 Fa. Water clear Ground, and 60 clear Water that you may see the Bottom. There is a high Tower on the Isle of *Formentera*, and another on the S. Point of *Iwica*.

Directions for the Island of Majorca.

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Key, which lies before the City: 'tis a great Bay rather than a Haven, and you have 10 to 11 Fa. within the *Mole*, good Clay Ground.

S.E. from the City, distance 5 Ls. on a white Point stands a high Tower, to the S. of which is the Island *Cabrera*: this is one of the southernmost Points of the Island. From *Majorca* to *Cabrera* is 7 to 8 Ls. the Coast lies S. by W. From this Point to the other S. Point behind *Cabrera*, the Course is S. by W. distance $2\frac{1}{2}$ Ls. 'tis a fair clear Coast, and there is a good Road in 12 to 13 Fa. The Channel is good between *Cabrera* and the Point, about $1\frac{1}{2}$ L. over, and 7 to 15 Fa. Water: also there is a good Road under the Isle *Cabrera* on the W. side of it.

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Four Ls. beyond the S. Point, to the S.W. of it, lies *Port St. Pedro*: 'tis a good Harbour, and no Wind can hurt you in it except a S.E. There is an old run'd Castle on the Larboard-side of the Entrance.

The S.E. Coast is clear and good, all the way to the easternmost Point call'd *St. Pedro*, and several little Bays where 'tis safe Riding.

Directions for the Coast of Minorca.

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From the S.W. to the S.E. Point is 10 Ls. E.S.E. Near this Point lies the Island call'd the *Laire de Maon*: there is a good Channel between the Island and the Point, upon which is a white round Tower, formerly a Fire Tower. S.W. from it is a small sunk Rock.

Directions for Sailing on the C

On the S.E. end of the Island, distance from the *Laire de Maon* 3 Ls. goes in the famous Harbour of *Port Maon*, vulgarly *Port Maboon*; formerly *Spanish*, now *English*: the Entrance into it must be refer'd to the Pilots, especially since the new Additions and Fortifications added to it by the *English* Government, by which the Marks and Buoys also are alter'd.

The S. Coast of the Island trends away W.N.W. and E.S.E.

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Sailing Directions for the Coast of France in the Mo the Frontier of Roussillon, to the Ports of Nic



*C*APE Dragon is the utmost Boundary of *Catalonia* W. to the seaward. It lies from *Palamos* N.E. by N. distance about 4 Ls. From *Cape Dragon* the Coast falls away again to the N. and lies to *Cape Creos* N. by E. distance 10 Ls. There is a wild Road between, and nearest *Cape Creos*, but no Ships anchor there except in great necessity, the Sea going generally very high: But under the Cape on the N. side is good riding, opposite to the Village of *St. Sebastian*, where you have 15 to 20 Fa. good hard Sand. There is a round Tower of Stone upon the Cape, by which it is seen 7 to 8 Ls. from the Shore.

Farther to the northward you have several good Roads, as particularly one call'd the Road *de l'Anson*, and another call'd *Venerz*; in both which you are safe from westerly and North-westerly Winds, and have from 6 to 8 or 9 Fa. Water, and very good Ground.

From this *Cape Dragon* begins what they antiently call'd the *Sea of Narbonne*, and the *French* the *Gulph of Narbonne*: You have upon all the Coast of it good Anchor-ground and good Shoalings, but no Harbours or Trading Ports, except the Ports of *Rosès* and of *Cette*. In all this Gulph you have a great depth of Water, and a very dangerous Surge of the Sea, quite from *Cape Dragon* to the *Iles of Flores*: Nor is the Motion of the Sea here, like what it is in other Places; but if it blows any thing hard, especially from off the Sea, that is, from the S. or a *Lewant* from the E. and S.E. the Sea runs so high, and with a chopping short Wave, and breaks so furiously, that it is very fearful, and good Ships often founder in it: It seems at a distance as if there were some great Rocks which lay sunk under Water, upon which the Sea dashing by the Force of the Wind should fly and rage in that manner by the Recursion of those Rocks; but upon the most exact sounding the Coast, there are no Rocks found, nor are there any Over-falls or Deeps and Hollows, but an even fair Bottom. So we leave enquiring into the Causes, and only mention the Fact, for the Direction of those that sail this way, to avoid the Danger of it as much as possible.

The first Port of note eastward from the *Gulph of Narbonne* is *Marselles*, which lies from *Cape Dragon* N.E. distance about 40 Ls. This Port is very singular for the Marks leading to it: It lies in a round Gulph or Bay about $1\frac{1}{4}$ L. deep; and the two Points of the Bay lie E. by S. and W. by N. In the

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aire de in length 10 Ls. or more. On the N. side of the Island lies the Haven of *Porto Farela*, with a Hill on the E. side of it; you may sail into the Haven with the Hill: you have 15 Fa. in the Entrance and 6 to 7 Fa. at the Anchoring-place: 'tis a very good Haven, and convenient for shipping: but the great Harbour is enough, there is no need of any other in this Island.

ance in the Mediterranean, from Cape Dragon on the Ports of Nice and Villa Franca exclusive.

Catalo- When you come up to the Harbour, there is a Road on the N. side, where you may anchor in 7 to 10 Fa. from whence you may take your Opportunity to warp into the Haven, for which you may also call a Pilot to assist you. There are several Castles and Forts which command the Entrance, and you steer sometimes on one side, sometimes on the other, close under the Guns of the Forts, for which there are Marks to direct: But as that also is Pilots Work, I leave it to them. *N. B.* The great Castle stands to the S. of the City.

The easterly Point of the Bay of *Marseilles* is call'd *Cape Crusetta*: From thence the next Point is *Larita*, which lies E.S.E. from *Crusetta*, distance 7 Ls. *Larita* is a small Town on the Coast, with a little Creek rather than a River. The Entrance admits no Ships of burden; but there lies a small Island before the Place, where the Ships ride, and which makes (as it were) a Harbour to the Place.

From hence the Coast lies in the same Course, and you go on E.S.E. to *Thoulon*, distance 18 Ls. but from *Marseilles* to *Thoulon* directly is only 14 Ls. The Harbour of *Thoulon* is known, and the Entrance fair; but as there is a large Bay before you come to the Port, and many Points, Rocks and Shoals in the passing to the Port, and also some Difficulties in going in, 'tis sufficient to refer to the Pilots. The *South Cape* which you pass as you go from the Coast, is call'd *Cape Thoulon*; and there are good Roads within the Cape W. in three several little Bays, and one very large, where the biggest Ships may ride under shelter from westerly Winds, whether to the S. or N. of the W. The Entrance into the Bay of *Thoulon* is beyond these, and lies in S.W. and N.E. On the Starboard-side is the great old Castle, call'd *Castle Thoulon*: There you may take a Pilot, or if you are bound into the Harbour, you may pass the Castle first, keeping near the side where it stands, and anchor any where before the Heads, and then take a Pilot to go into the Harbour.

From the Point call'd *Cape Thoulon* E. lie the Isles of *Hieres*, or *Eres*. They are four or five Islands, making a Circle, with several Openings between them; and the hollow within forms a Basin or Pool; it is so surrounded with the Islands, that it must necessarily be an excellent Harbour, especially the Ground being good, with a moderate depth of Water: On this Account the royal Navy of *France* often rides here, as do all other Ships that are bound in or out of the Harbour of *Thoulon*.

thing hard, especially from off the Sea, that is, from the S. or a *Levant* from the E. and S.E. the Sea runs so high, and with a chopping short Wave, and breaks so furiously, that it is very fearful, and good Ships often founder in it: It seems at a distance as if there were some great Rocks which lay sunk under Water, upon which the Sea dashing by the Force of the Wind should fly and rage in that manner by the Reculsion of those Rocks; but upon the most exact sounding the Coast, there are no Rocks found, nor are there any Over-falls or Deeps and Hollows, but an even fair Bottom. So we leave enquiring into the Causes, and only mention the Fact, for the Direction of those that sail this way, to avoid the Danger of it as much as possible.

The first Port of note eastward from the *Gulph of Narbonne* is *Marseilles*, which lies from *Cape Dragon* N.E. distance about 40 Ls. This Port is very singular for the Marks leading to it: It lies in a round Gulph or Bay about 1 $\frac{1}{2}$ L. deep; and the two Points of the Bay lie E. by S. and W. by N. In the Mouth of it, and a little more to the eastern Point, lies a Rock and a rocky Shoal, on which there stands an old Tower, by which you will be sure you are in the Fair Way in; you must steer as you have the Wind, either on one side or the other; the Ground is good, only be sure to go to windward of the Rock and Tower: The Channel is deep enough, for you have 20 Fa. at least on either side.

If you go in on the E. side of the Tower, your Course to *Marseilles* is due N. the Port lying in the middle of the Bay. Between the old Tower and the City, and near the middle of the Course N.E. lie three Islands; the first call'd *Caga Stracia*, the second *Lilia*, these lie close together; and the third (farther in) *Castle Dito*.

These Islands make the Course to *Marseilles* safe, and the Roads easy: There are clear Channels between them all, and safe going in: Also there is good anchoring under them all, so that you have many Roads to ride in before you go up to the Harbour. If the Weather prove dirty, under *Caga Stracia* you ride shelter'd from all Winds but an E. E. by S. and E. by N. Under *Lilia* from all Winds but E. by S. and E.S.E. And under *Castle Dito* all but N.W. and S.W. and the Points between; so that you may shift your Road, and run from one safe riding to another, as the Weather shifts, and be safe, let it blow where it will.

The best Passage to the City is between the two first Islands and the third; you may go in between the third and the Main, but the Passage is narrow, and there are some Dangers in the way, as a sunk Rock, and two or three above Water; but in the Passage all is clear. You may ride also in the Bottom of the Bay, due E. and lie there under the Shore S.E. from the City; from whence you may run along Shore, leaving two little Islands which are in the way, on your Larboard-side: In that Channel, tho narrow, you have 5 Fa. Water.

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1. *Robadin*, the most westerly.
2. *Polcoirola*.
3. *Porto Crofa*.
4. *Bovena*, the most easterly.
5. *Eres*, or *Hieres*. Some will have this last and *Robadin* to be the same, and that the word *Hieres*, or *Eres*, is properly the Name of the City only; if so, then they are but four in number.

Directions for Sailing into the Circle of the Isles of Hieres, and for coming to anchor among them.

The Island *Robadin* is join'd to a dry Cliff near the main Land, so that you cannot sail between the Island and the Main. On this Island stands a Castle, and on the N. side of *Polcoirola* stands a Church, which you may see as you sail on the S. side of the Island: When you sail thro' the Channel between *Robadin* and *Polcoirola*, you must be careful to shun a blind Rock or two which lie close to the latter. This Haven, and the Road before *Hieres*, lies N.N.E. and S.S.W. distance 2 Ls. You may sail near either side without danger, and anchor as well under *Robadin* as *Polcoirola*, or any where, for it's all good Ground.

East of *Polcoirola* is likewise a Channel large and wide, where you must sail in N. then the Road of *Hieres* bears N.W. northerly 2 Ls. from you: Betwixt *Porto Crofa* and *Bovena* is no danger.

If you come from the eastward, and desire to go in betwixt the Island *Bovena* and *Cape Lard*, you must beware

of a Rock which lies a L. S. and by E. from the Cape; neither must you come too near the N. Point of the Island of *Bozvena*, for fear of a small Rock which lies E. from that Point, as big as a Boat, and but just above Water.

Being got within the eastermost Island, you may run in W. then you have a black Rock on your Starboard-side, which lies E. from *Cape Berganfon*, between which and the Main is good anchoring in 6 or 7 Fa. The Barks and Tartans sail thro' here frequently.

Due W. of *Cape Berganfon* lies a small White Island, on which stands a great Castle call'd *Berganfon Castle*, and from which the Cape derives its Name: Along from this Castle is good Ground, till you are past the *Hieres*. You may anchor any where in 4 or 5 Fa. These Isles all together take up about 3 Ls. and reach from without W. by N. and from within about W. it is wide and deep.

From *Cape de Larda* to the Point on which the Castle of *Berganfon* stands, the Course is W. by S. 4 Ls. in the Passage 'tis very deep, but when past the Point, you may anchor to the westward of the Castle, in 12 or 14 Fa. It is a good Road for a *Levant*.

From the Castle of *Berganfon* to the Road of *Hieres*, the Course is W. northerly 2 Ls. You may anchor before *Hieres*, either above or below the City, in 4, 6, or 10 Fa Water; in 15 Fa. you lie half a L. from the Shore, it's all good Anchor-ground.

When coming from the eastward, and that you are past the Point of *Berganfon*, then the City *Hieres* lies against a high Mountain or Hill: You may also see the *Salt Mountains* lie against the Water-side, with a few old Houses at the Foot of them.

These Isles of *Hieres* lie on the E. side of the *Gulph of Narbona*, or *Martelles*: They are the first Islands that are seen coming over the Gulph from the westward.

Cape de Larda is the next Point of Land upon the Main towards the Coast of *Genoa*: It lies from the E. end of the Isle *Bozvena* N.N.E. easterly, dist. 3 Ls. There is a Fire-Tower upon it, the first we see upon this Coast; it is in the westermost Point of the *Gulph of Trentul*: Between the two Capes is *St. Torp*, a little Place in the Bottom of a Bay of the same Name. To go in there, keep the W. Shore a-board; and as you will see two Rocks in the way, about a long Mile E. of *Cape de Lard*, leave them on the Larboard-side, and run between them and the Main. Within them you have 7 to 8 Fa. and without 15 to 20.

Sailing Directions for the Coasts of Italy, from D of the King of Sardinia inclusive, to the

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N. from *Cape de Larda* is a Creek and a little Bay, where you have very good anchoring late from the N.W. and S.W. Wind: 'Tis a clean Shore, and you may sail by it in 8 to 12 Fa. As you go, you will see a low crooked Point running out into the Sea, and a Bay behind or beyond it, call'd the *Bay de Grimault*: Bring the Point to bear S.W. and open the City of *Grimault* close upon the Strand with two Castles, one opposite to the other; that on the lowest Ground is call'd *St. Martin*.

If you are bound into *Trieval*, take a Pilot, for there are several Rocks and Islands about the Entrance, which, unless you are acquainted, may be dangerous: Besides, in some parts of the Bay you cannot anchor, the Ground is so soft, the Anchors will hold no purchase. Indeed the whole Bay is a very indifferent place for Ships to ride in; for besides the loose soft Ground, if the Winds chance to blow E.S.E. or S.E. they bring in a very great Sea, and it's great Odds but you are driven on Shore: If you find this like to be, then as soon as you perceive a Levant begin to blow, prepare to be gone, weigh, and steer for the Isles of *Heres*, or go away for *Thoulon*.

Two Is. from *Trieval* E.S.E. easterly, is a low Point with a Light-house on it: There is no Road at the Point, but about a L. farther E. is *Cape Rosa*, N. of which lies the Haven of *Cannano*, a very good Security for all Ships sailing this way: The Land from *Trieval* hither is all uneven and foul, and no riding any where.

To go into *Cannano* keep under the Shore E. by S. till you see two little Islands which lie before the Entrance of the Haven: You may anchor under the *Castle Island*, which is one of them, in 18 Fa. About a Gun-shot from the Castle to seaward, there is a Sand or Bank; when you are going in you have 30 Fa. When you are in, you lie with one Anchor in 8 to 9 Fa. and a Head-stay a-shore. You are safe here from all Winds, except a S.E. which blows right in: If you are not acquainted, fire a Gun, and the Pilots will come off to you, and carry you in.

From the Clouster Island to *Cape Garapo* the Course lies E.N.E. There is a Light house on the Cape, and under it a fine clear sandy Bay: You ride well here in 8 Fa. free from easterly Winds. Within 2 Is. of this little Bay to the northward, lies *Antibes*, a little City with a Castle: They have a very good Mole on the side next the Sea, but 'tis only fit for small Vessels

Italy, from Nice and Villa Franca in the Dominions inclusive, to the City of Venice also inclusive.

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L. farther eastward, is a much better Shelter in case of a Levant than this of *Villa Franca*: 'Tis a very good Road, and there is a good Haven: nor is there need of a Pilot, for you may come

upon it. The first we see upon this Coast; it is in the westernmost Point of the Gulph of *Trevent*: Between the two Capes is *St. Torp*, a little Place in the Bottom of a Bay of the same Name. To go in there, keep the W. Shore a-board; and as you will see two Rocks in the way, about a long Mile E. of *Cape de Lard*, leave them on the Larboard-side, and run between them and the Main. Within them you have 7 to 8 Fa. and without 15 to 20.

Sailing Directions for the Coasts of Italy, from of the King of Sardinia inclusive, to

 All-North-East from *Antibes* lies the Harbour of *Nice*, or *Niffa*. This may be reckon'd the first Port in *Italy*, and begins the *Gulph of Genoa*. *Nice* lies so near the Sea, that in stormy Weather it beats up against the Walls of the Town. From *Cape Garapo* it lies N.E. and is dist. 4 Ls. The Castle is a good Seemark, it stands to the S.E. of the Town on a very high Mountain, you may see it 12 Ls. out at Sea.

The Road is under the Castle farther S.E. 'Tis but a wild Road at best, and in Case of a Levant is scarce sufferable, for which reason the Ships generally run into *Villa Franca* for Shelter in Case of a S.E. or S.W. Wind. In the Road the Ships lie with a Cable on Shore in 30 to 35 Fa.

Villa Franca lies E.S.E. from this Road of *Nice*, dist 1 Mile. It is in a large deep Bay, which is none of the easiest to enter, or of the safest when you are in; which is occasion'd by the high Points at the Entrance, and the Hills on both sides when you are past them, all which bring sudden Gulls and Squalls, and then Calms as sudden and equally dangerous; but when you are pass'd these Difficulties, and come up to the Town, which lies on the W. side, you have a good safe Road in 9 or 10 Fa. When you ride before the Town, the Mouth of the Bay bears S.E. by S. and the E. Point S.S.E. The two Points of the Bay lie W.N.W. and E.N.E. and the Entrance is about a Mile between. On the W. Point is a Light-house, the E. side is high but bare, only there is an old Chapel upon *Cape Vespiere*. about $1\frac{1}{4}$ Mile E. from it: The Shore is steep all the way to the eastward, 20 to 30, to 50 Fa. close to the Rocks; between the W. Point of the Bay and the Town of *Nice*, is a pretty large Bay, with an open Road too, in 22 to 30 Fa. So that *Villa Franca* lies as it were between two Bays. I advise no body to venture into any of these Bays, unless driven by necessity; for a very little dist. from the Shore they will have 100 to 120 Fa. Water, and the Shore stony and steep.

There is a Key and a Pier Head at *Villa Franca* for small Ships; but larger Vessels go farther into the Bay, and anchor under the W. Shore. The Bay of *Sappiers*, which is about a

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From the Cloister Island to *Cape Garapo* the Course lies
E.N.E. There is a Light house on the Cape, and under it a
fine clear sandy Bay: You ride well here in 8 Fa. free from
easterly Winds. Within 2 Ls. of this little Bay to the north-
ward, lies *Antibes*, a little City with a Cattle: They have a
very good Mole on the side next the Sea, but 'tis only fit for
small Vessels

of Italy, from Nice and Villa Franca in the Dominions
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L. farther eastward, is a much better Shelter in case of a Levant
than this of *Villa Franca*: 'Tis a very good Road, and there
is a good Haven; nor is there need of a Pilot, for you may come
to an Anchor any where.

One L. still farther E. and 2 Ls. N.E. from *Cape St. Ivespierre*,
lies the Tower of *Monaco*: The City is situate under a
Mountain, under the E. Point of which is the Road, which
is very safe for westerly Winds, but something open to a
Levant.

Tis but a wild
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Villa Franca for
Road the Ships

You may know the Port of *Monaco* by the high Mountain
mention'd above, which is seen far into the Sea. All the
Coast from *Monaco*, and thence to *Cape de Melle*, is a clear
Strand, being a fine sandy Shore stretching away N.E. by E.
and E.N.E. neither Haven or Road, but small Heads to receive
Barks and small Craft all the way to *Monaco* and *Cape de Melle*.
Between them are the small Places of *Menton*, *Vintimiglia*, *Bor-*
diguere, *St. Remo*, and several others. The Current runs
strong here to the westward from the Coast of *Genoa*, so that
Ships bound from the *Iberes* are hard put to it to turn in for
any of these Ports.

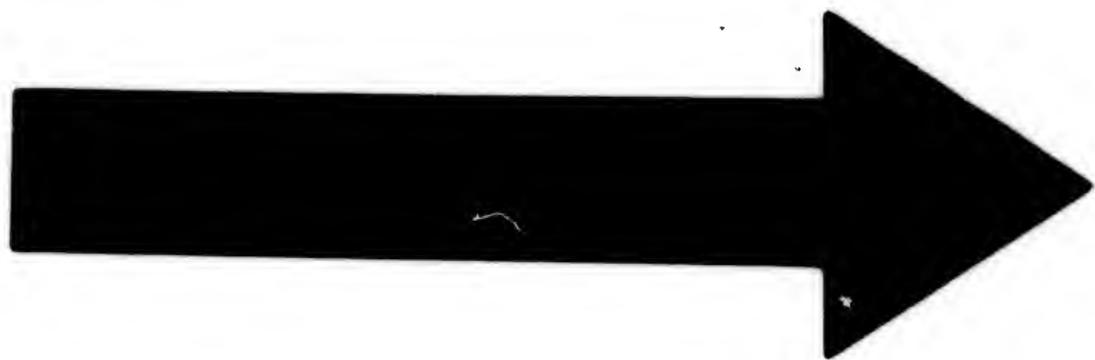
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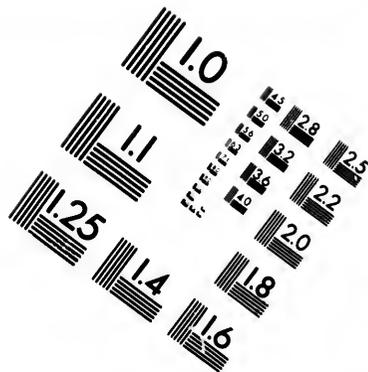
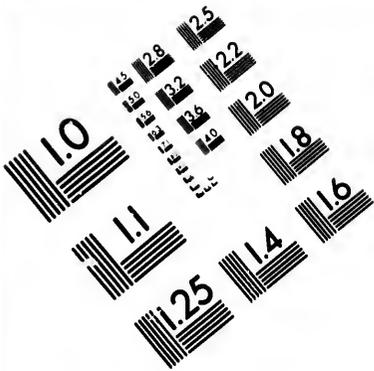
From *Cape de Melle* the Shore trends away N.W. On the
N. side of the Point, close to the Strand, is a little Village
call'd *Arissa*, with a great Rock before it, and a Light-house
upon it. Between the Town and the Rock is very good an-
choring, safe from W.N.W. and N.W. or northerly Winds,
but too open to the *Levants*. The Shore going on northerly
here, you have no other Road or Harbour to *Cape Noli* ex-
cept *Final*. Here Ships ride well, while the good Weather
lasts, but in case of Storms they must either run back to *Cape*
de Melle, and anchor under the Light-house, or get about
Cape Noli, and away to *Savona*.

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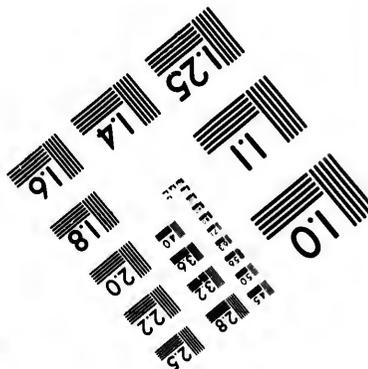
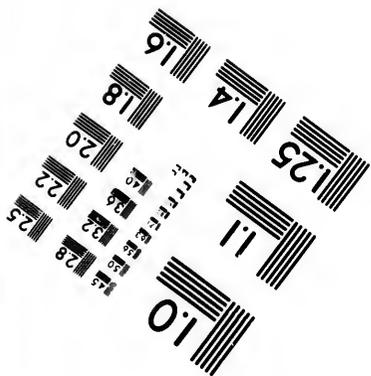
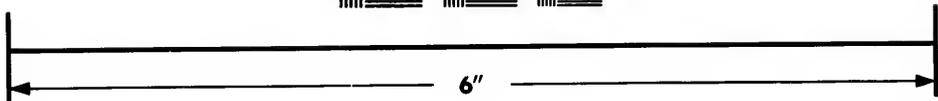
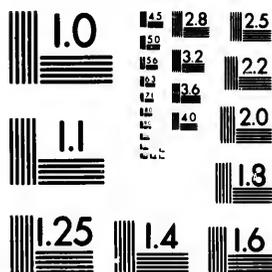
There is a Fort to the northward of *Cape Noli*, and right
with the Fort a very good Road for westerly Winds, or S.W.
or N.W. but bad in a *Levant*, as all the rest are. There is
a Chapel with a Steeple upon the Point of *Cape Noli*, which is
a fair Mark to know it at a distance. On the N. side of the
Cape is the Village *Noll* or *Noli*, where the bell of the Road
lies.

N. from





**IMAGE EVALUATION
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Directions for Sailing on the Coast

N. from the Cape is the Town of *Vai*, dist. 3 Ls. with a small Bay and a good Road. In the Course from *Cape Noli* to *Vai*, the Cape bearing N.W. by N. from you, in the Height you will see the City of *Genoa* from the Deck of your Ship. Dist. 10 Ls. from *Cape Noli* N.E. by E. and midway between in the same Course N.E. from the Cape, lies the City and Harbour of *Savona*, formerly a good Port, and capable of receiving great Ships; but since it has been subject to the Government of the *Genoese*, the Haven is damm'd up with Ships sunk in the Entrance (as reported) on purpose to spoil the Trade; so that now few Ships can come in, or lie if they were in, except such as do not draw above 7 to 9 Foot Water.

There are no Ports or Roads, or so much as a Point to shelter any Ship under, between *Savona* and *Genoa*: The City of *Genoa* lies N.E. from *Cape de Melle*, dist. 20 Ls. The Current still runs here strong to the westward, and 'tis very hard to get out of the Bay with the Wind at E. or S.E. Therefore if you are bound in, keep to the eastward as much as you can, till you come off of the Port.

Genoa is a large Harbour within a Mole, the Heads running far out into the Sea. On the eastermost Point or Head of the Mole is a Light-house Tower, or as the *Genoese* call it a *Lanthorn*: the W. Point does not run out so far as the Lanthorn Point. If you are bound in here, you must keep the Fair Way, which is Mid-Channel between the W. Head of the Mole and the Light-house. The Head on which the Light-house stands is a Point of Land, all Rocks and foul a little way off; therefore you must give it a small Birth as you go in; the Entrance it self is clean and Water enough: when you are in, you ride secure, with two Anchors off in the Harbour, and two Cables a-shore. You need no Pilot.

From *Genoa* the Coast changes its Situation, the Land trending away S. and the Course from the Head of the *Mole* to *Cape Fin*, or *Fino*, lies E.S.E. dist. 8 Ls. the Coast is a clean Strand, beautify'd with fine Buildings, most of which are made use of for Sea-marks, but no Harbour or Road in all the way, just as is the Case on the other side from *Cape Melle*.

Portofino has a Haven for Ships of a middling size; the Entrance is narrow, and it has a Light-house on the W. Point; and to the westward of that, close under the Point, is very good anchoring, secure from E. and S.E. Winds; but W. or N.W. blow directly in.

N. B. The Shore on this side lying E. from the Sea, the *Levant* Winds have no ill Effect here, as they have on the other Coast from the *Hieres* to *Genoa*; so that we hear no more of them for a great while.

The Coast is foul all about *Cape Fin*, and is dangerous; so that you should be careful not to anchor there, if it can be avoided. If you would go into the Haven, keep by the W. Point, and you need no Pilot, or any farther Instructions, only to anchor before the Town in 6 to 7 Fa. but go not up beyond the Town, for there you will hazard running a-ground. This Haven, tho' small, has such an excellent Situation, that no Wind can hurt you, if you ride in the right place before the Town.

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at *Porto Spezia*. Here is no Harbour, but you ride under a high Shore in 7 to 8 Fa. and if the Wind veers to the S. you make a foul Shore, and must run out of the Bay, if possible, to *Spezia*.

From *Porto Spezia*, the next Port is *Leghorn*; it lies S.E. by S. dist. about 14 Ls. *Leghorn* lies from *Cape de Melle* E. by S. 38 Ls. and from *Cape Corso* N.E. by E. 23 Ls. the E. Coast of the Isle of *Corsica* lying Parallel with the Coast of *Tuscany*.

In the way from *Cape Corso* to *Leghorn* you make the Island *Gorgona*, which lies off of *Leghorn* S.W. by W. dist. 7 to 8 Ls. When you come the Length of *Gorgona*, you will make the Mountain of *Leghorn*, or *Mount Negro*, by which you know your Course, and keep it in view all the way: it lies a little to the eastward of the City; but at Sea, especially as you come from *Cape de Melle*, it is seen just over or behind it. There is a high Land upon *Gorgona*, with a Castle upon it, which is the Sea-mark for your Course: Bring this Castle to bear E.N.E. and W.S.W. and you go right with the Rock upon the *Malora*, and with the Port of *Leghorn*.

When you come nearer to *Leghorn*, you will see (in the Course just mention'd) a Rock in the Sea, with a little Tower upon it, call'd the *Malora*, built for a Mark to the Port; it is plac'd on the Point of a long Riff or Bank of Sand, call'd also the *Malora*, which runs out from the Shore N. by W. from *Leghorn*, and N.W. from the Mouth of the River *Arno*; and stretching S. and S. by E. and S. E. in length above 5 miles, lies so shoal, that no Ships can go over it; so that the Sea within is like a Bay: and this is the Sand, which breaking the Force of the Sea on the N.W. makes the Road of *Leghorn*, which is by that means an admirable safe Harbour, with very good Anchoring, in any Depth of Water from 3 to 15 Fa.

In entering this Road you need no Pilot, nor have you any thing to do but to keep the Rock upon the *Malora* on your Larboard-side, giving it a Birth of about half a mile; then run with it into the Road, and anchor as you think fit; there's all a clear Sound within, with good Shoalings.

S. of the City stands a great Light-house, being a high Stone Tower built in the Water, and so far out, that small Vessels may go between it and the Shore; and some sail that way to the Haven. Here is a Light always kept in the Night, to guide Ships into the Road, that they may go clear of the *Malora* Sand; the Course is from *Gorgona* N.E. by E. the *Malora* and the Light-house bearing E. and W. half easterly and half westerly, the Passage between about $3\frac{1}{2}$ miles.

To the N. of the *Mole-head* are 4 Stone Towers, built also in the Water, as the Light-house is; they call them Watch-Towers, but keep no Watch in them; yet they are good Marks to pilot the Ships which go into the *Mole*: the outermost, which they call the *Powder Tower*, is the largest, and lies due N. from the *Boca*, or Mouth of the *Mole*.

You may run into the Road in what Depth you please, the *Malora* Sand having very good Shoalings from 10 Fa. to 1; the Sand is seen by the Breach of the Sea upon it, almost as well as if it lay dry; so that there is no danger of any kind.

is the Cafè on the other fide from Cape *Melle*.

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The Coaft is foul all about *Cape Fin.* and is dangerous; fo that you fhould be careful not to anchor there, if it can be avoided. If you would go into the Haven, keep by the W. Point, and you need no Pilot, or any farther Inftuctions, only to anchor before the Town in 6 to 7 Fa. but go not up beyond the Town, for there you will hazard running a-ground. This Haven, tho' fmall, has fuch an excellent Situation, that no Wind can hurt you, if you ride in the right place before the Town.

N. of the Point is a little Bay, and towards the bottom of the Bay lies the populous Village of *St. Ropollo*, where is good anchoring juft before it: You will know this Bay at a great diftance by a high Mountain, which looks off at Sea like an Ifland, but as you come nearer fhews it felf to be part of the Main.

From hence the Shore differs again; and as the other was all a clean Sand, with no Points or Roads, this part of the Coaft is full of them all the way to *Porto Spezza*, or *Spezia*, which lies E.S.E. from *Porto-Fino* 11 Ls. This is another fafe Port, where (when you are in) no Wind can hurt you; yet becaufe there are many Anchorings and Points within the Port and Bay, you fhould call for a Pilot.

Porto Spezia is at the Bottom of a deep Gulph, which goes in N.N.W. and S.S.E. In the Entrance is a little Ifland, or large Rock rather, with a Light-houfe upon it very high: it lies near the W. Point of the Gulph: within and between that and the Point, the Ground is foul, and fome funk Rocks, as well as others above Water, make the Paffage next to impracticable without a Pilot. On the other fide the Fair Way is good, and makes a deep and clear Channel; and you have 10 Fa. Water clofe under the Shore.

After you are thro' the narroweft of the Entrance, the Bay widens to more than 2 Ls. and on the N.W. fide you have 2 fmaller Bays, where Ships ride with the greateft Safety imaginable, under the Lee of a high Shore, and yet in very good holding Ground; the Ifland with the Tower alfo breaking off the Sea, fo that if it fhould blow hard into the Bay, you ride very eafy on that fide. efpecially if the Winds blow from any part of the W. or the N. and on the other hand, if it blows from any Point to the eastward of the N. or due E. then they have very good anchoring under the E. Point, where there is fafe Riding in 10 Fa. hard Sand.

E.S.E. from hence is *Via Regio*, dift. 9 Ls. or thereabouts, a fmall Port, and in a little Gulph too, but not fo deep in, as

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S. of the City stands a great Light-house, being a high Stone Tower built in the Water, and so far out, that small Vessels may go between it and the Shore; and some sail that way to the Haven. Here is a Light always kept in the Night, to guide Ships into the Road, that they may go clear of the *Malora* Sand; the Course is from *Gorgona* N.E. by E. the *Malora* and the Light-house bearing E. and W. half easterly and half westerly, the Passage between about $3\frac{1}{2}$ miles.

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You may run into the Road in what Depth you please, the *Malora* Sand having very good Shoalings from 10 Fa. to 1; the Sand is seen by the Breach of the Sea upon it, almost as well as if it lay dry; so that there is no danger of any kind.

Small Ships go into the *Mole* it self, and larger may; but the Road is so good, they seldom do: if they go in at any time, it is when chas'd in by Rovers and Pirates; and in such cases great Ships have run in at all Hazard, but then Pilots come off immediately to bring them in.

In the Mouth of the Haven, just at the Entrance, lies a great Rock above Water, call'd the *Moletta*; it looks like an Island, and has several Rocks about it, especially on the N. side towards the *Powder Tower*; but the Channel lies in on the S. side, between the Rock and the Mole, and the Cannon of the Fort commands the Entrance, so that no Enemy will venture in after you.

N. B. There are some small Channels over the *Malora* Sand, which small Vessels, and such as are well acquainted, may go thro'; but great Ships can not pass them, they are too narrow, as well as too shoal.

From hence the Shore lies away S. and S. by E. to *Piombino* 16 Ls. In the Fair Way between, and about 7 Ls. from *Leghorn*, lies a stony rocky Shoal or Bank; it lies off from the Shore about 2 Ls. 'tis a dangerous place, and many Ships have been lost upon it, especially in the Night; it has not above 8 to 10 Foot Water over it, and in hard Gales you may see a great Breach of the Sea upon it. To avoid it, keep your Course due S. from the *Malora* Rock, and go so far with that Course, till you see the Island *Capria* even with the N. Point of the Island of *Corfica*; then you are just the length of the Shoal, and may go away S.S.E. for *Piombino*, clear of the Stone Shoal: but if the Weather is foul, and you cannot see *Cape Corsò*, which is far W. go on then S. till you bring *Capria* to bear E.N.E. then you are clear of the Stone Shoal, and may go away for *Piombino* W. by S.

N. B. The Stone Shoal lies from *Piombino* N half easterly, dist. 7 Ls.

Off of *Piombino*, lies the Isle of *Elb*, or *Elba*, the Course S.W. and S.W. by W. dist. $3\frac{1}{2}$ Ls. from *Leghorn* it is 16 Ls. S. and S. by W. leaving *Gorgona* and *Capria* both on the Starboard side, and from *Capria* 9 Ls. the Course S.E. and N.W.

The Island of *Capria*, tho small, has a fair sandy Bay on the E. side of it, where is a good Road shelter'd from S.W. and N.W. Winds, in 5 to 7 Fa. good Ground; but it lies open to a N. or N.E. Wind; it lies from *Leghorn* S.W. and S.W. by W. dist. 12 Ls. and 5 to 6 Ls. from *Gorgona* S.S.W.

Elba is a mountainous place, you may see the Land 12 to 13 Ls. at Sea, especially as you come from the northward: There are two small Islands in the Passage from *Piombino* to *Elba*, with a Light-house on each of them; the biggest is called *Palmaiora*, the least *Palminor*: you leave them on your Larboard side, going to *Elba* from the Main, or pass between them, as Wind and Weather may serve.

There is a very good Harbour on the N.E. side of this Island, and another on the S. side of it: The first is a Place of Importance, call'd *Porto Ferrajo*; and for that reason there is a Castle to defend the Haven, called *Cosinopoli*; 'tis an excellent Harbour, where Ships lie secur'd by the Castle from the *Turkish Corsairs*, and by the Castle and the high Point from all Winds that can blow, so that 'tis a useful Point to Navigation on both Accounts. As you go in, you leave the Castle on the Starboard side, and anchor a little beyond the Pier, with two Cables to Seaward and a Head-fast a-shore; 'tis very good Riding, and clean Ground.

The other Haven is on the S.E. Part of the Island, and is called *Porto Longone*, where there is a strong Fortreis which secures the Ships too, but the Harbour is not so good as the other. S.W. from *Porto Longone*, dist. 3 Ls. lies a little low flat Island call'd *Planosa*, it is seen but a little way; and due S. lies another, which is as high, as that is low; 'tis call'd *Monte Christi*, and is seen far at Sea; it lies S.E. by S. from the S.W. Point of *Planosa*, dist. 5 Ls.

S.S.W. from the S.W. Point of the Island *Planosa* lie the dangerous Rocks call'd the *Formigues*; they are a Cluster of small Rocks lying some under, and some a little above Water, the most not above 5 Foot: The biggest of them do not reach above 4 or 5 Ships length; but there is a Tail of them on the N. side, which stretches away N. into the Sea: tho they lie under Water, they are to be seen if you are near them; and by the Breach of the Sea upon them, when farther off.

There are many Marks to know them by, *viz.* when you are coming from the West, and the Rocks are E. from you a Musquetshot off, the N. Point of *Monte Christi* will bear due E. and the S. Point E. by S. 3 Ls. dist. Again, keep *Monte Christi* E. by N. and sail to or from it, then you are clear of the *Formigues* to the S. or keep *Monte Christi* E.S.E. then you will be clear also to the northward.

S.E. by E. from *Piombino* dist. 7 Ls. is *Castigliano*; 'tis so small a Harbour, and of so little import, that our *English* Pilots have not thought it worth mention; which is the more strange, because there is a very good Road in 5 to 8 Fa.

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is E.S.E. dist. 10 Ls. The Entrance into the Haven is easy to be known by a particular Mark, so that you need no Pilot: There stands an old Wall in the Sea about a Fa. above Water; behind it is the Haven, and on the W. side of it on the Shore stands a Light-house; you may sail into the Haven on either side of the Wall, but the E. side is the deepest, being 5 Fa.

There runs a Shoal from the Point, which you must avoid, because the Ground also is foul; if you go in on the W. side of the Wall, you have 3 Fa. in the Fair Way, and more when you are in. In the Haven you come to an anchor, with two Anchors in the Water, and two Head-stalls in Rings upon the Wall; this is the Pope's Town, and is lately made a free Port.

From *Civita Vecchia* the next place is *Ostia*, the Mouth of the River *Tiber*, dist. 6 Ls. the Course E.S.E. 'Tis a very indifferent Port now, and will receive none but small Vessels: The old Haven which was antiently the Port to the City of *Rome*, is now call'd *Porto*, but is spoil'd, and of no use in Navigation; it lies a little W. of *Ostia*.

From the Mouth of *Tiber* dist. 7 Ls. is Cape *Antio*, the Course S.E. by S. the City *Nettuno* lies E. of the Cape dist. half a L. the old Haven remains, but is uselefs also, except for small Craft. From this Cape to *Monte Corcelli* is also 7 Ls. S.E. by S. 'Tis a long low Point lying far into the Sea; so that at a distance you may mistake it for an Island; the Mountain which gives it the Name, standing farther E. within the Main. Round about this Point stand 4 or 5 Watch-Towers.

From this Point to *Gaeta* is 8 Ls. E. by S. being on the Coast of *Naples*: Between them are several small places, as *Terracina*, dist. from *Corcelli* 2 $\frac{1}{2}$ Ls. it had formerly a good Haven, but is now spoil'd and not fit for use, as are several other small places. *Gaeta* lies in a Bay, where you have good anchoring for all Winds, except that a southerly, and a S.E. Wind blows right in. The Mountain call'd *Monte de Santa Trinitade* is a good Mark to know the Port by; the Town stands upon part of it, and another part makes the Point which forms the Haven: the Road is capable of securing a great Fleet. From this Point to the W. end of the Island of *Ischia*, the Course lies S.E. by S. and S.S.E. dist. 12 Ls.

The Island of *Ischia* lies off of *Mola* S.E. by S. and S.S.E. dist. 12 Ls. and from *Naples* 8 Ls. S.W. The Course from *Ischia* to *Naples* N.E. by E. and from *Ischia* to *Castellamer* is E. 9 Ls. There is good anchoring in *Castellamer* under the Fort, or at the Pier, being the Entrance into the Mole, close to the City of *Naples*.

From the Gulph of *Naples* to the *Fare* or *Vare* of *Messina*, there is not one Haven, Creek, Road, or Port of any Consequence; if you have made the Bay, and are bound into the Port, keep away E. or N.E. according as you are situated; and when you come fair open with the Bay, run right in with the Channel, directly for the City. Between the Points or Pier of the Haven and the Land, you may anchor without fear, in 5 to 6 Fa. Ships bound out ride behind the Island *Nassta*, where the Castle stands, there is good riding for great Ships; but take care not to go to the eastward of the Island.

dangerous Rocks call'd the *Formigues*; they are a Clutter of small Rocks lying some under, and some a little above Water, the most not above 5 Foot: The biggest of them do not reach above 4 or 5 Ships length; but there is a Tail of them on the N. side, which stretches away N. into the Sea: tho they lie under Water, they are to be seen if you are near them; and by the Breach of the Sea upon them, when farther off.

There are many Marks to know them by, *viz.* when you are coming from the West, and the Rocks are E. from you a Musquetshot off, the N. Point of *Monte Christi* will bear due E. and the S. Point E. by S. 3 Ls. dist. Again, keep *Monte Christi* E. by N. and sail to or from it, then you are clear of the *Formigues* to the S. or keep *Monte Christi* E.S.E. then you will be clear also to the northward.

S.E. by E. from *Piombino* dist. 7 Ls. is *Castigliano*; 'tis so small a Harbour, and of so little import, that our *English* Pilots have not thought it worth mention; which is the more strange, because there is a very good Road in 5 to 8 Fa. secure from northerly and easterly winds: it stands at the Mouth of the great Lake call'd *Lago di Castigliora*, where are likewise some other Roads, and a little Haven at *Cilya*, where Ships often put in for Water and Provisions.

From *Castigliano* to *Monte Argentaro* the Course is due S.E. dist. 10 Ls. occasion'd by the Situation of *Castigliano* lying in the Bay a Point to the E. for from the E. end of *Elba* to *Monte Argentaro*; the dist. is 16 Ls. and from *Piombino* the same.

Argentaro is a high Point running far out into the Sea W.N.W. The Haven of *Orbitello* is on one side at the Foot of the Mountain *Argentaro*, and *Porto Hercule* or *Hercule* on the other. *Porto Hercule* is a commodious Haven, able to receive great Ships; the Entrance is between two Castles; when they open to your View, they shew you the Channel or Fair Way into the Port; when you are enter'd the Haven, come to an anchor on the W. side: you will need no Pilot.

N.W. from *Argentaro* lie another Sett of *Formigues*, being Rocks like the former, and call'd so for that reason; they are 3 in Number, the westernmost is the largest; they have many small Rocks about them; but as they lie towards the Shore more out of the way, so they are not so dangerous to Navigation as the other: there are 2 other Islands lie off at Sea 4 Ls. N.W. from *Argentaro*, they lie N.N.W. and S.S.E. One is called *Gigio*, and the other *Nanuti*.

From *Porto Hercule* the next Port of Consequence is *Civita Vecchia*, or as our Sailors call it, *Civita Vecch*: the Course

great Fleet. From this Point to the W. end of the Island of *Ischia*, the Course lies S.E. by S. and S.S.E. dist. 12. Ls.

The Island of *Ischia* lies off of *Mola* S.E. by S. and S.S.E. dist. 12 Ls. and from *Naples* 8 Ls. S.W. The Course from *Ischia* to *Naples* N.E. by E. and from *Ischia* to *Castellamer* is E. 9 Ls. There is good anchoring in *Castellamer* under the Fort, or at the Pier, being the Entrance into the Mole, close to the City of *Naples*.

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All the Coast, as is said above, from *Naples* southward, tho' pretty clean, has no Ports, Rivers or Havens for the Benefit of Navigation, or the Safety of the Mariners; some few places there are, where in Case of Necessity Ships may ride, but the best of them are very indifferent for Safety; such as,

1. The Island of *Capri*, 5 Ls. from the Gulph of *Naples* due S.
2. From *Capri* to *Almafri* the Course S.E. there is a Road under the Shore near the Point, which is high and shelter'd from the easterly and N.E. Winds, but here is no Haven; and southerly and westerly winds blow right in.

N. B. Sailors of all Men should not pass it over, that at this Town of *Almafri* the first use of the Compass (or of the Load-stone in sailing) was discover'd and contriv'd.

3. *Salerno*, 2 Ls. from *Almafri*; there also is no Haven, but a good hard Sand, and very safe anchoring for northerly and easterly Winds, but very dangerous in other Winds.

4. Cape *Policaastro*, or rather the Gulph of *Policaastro*, is from *Salerno* 12 Ls. E.S.E. In all these, or forwards, where the Coast trends away S.S.E. to the *Vare* or Strait of *Messina*, which is 30 Ls. at least, you have no good Harbour, nor any Port of Consequence.

Sailing

Sailing Directions for the Islands n

*Sailing Directions for the Islands on the Coasts of
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THE northermost Point of the Island of *Corfica* is call'd *Cape Corfo*; it has two smaller Points, which lie 3 to 4 Ls. S.E. from one another; one is call'd *Cape Blanco*, and the other *Cape Sagri*: There is a kind of Harbour between them, where the two Points breaking off the Sea, you may ride very secure from a westerly and S.W. Wind.

About a L. southerly from *Cape Corfo* there is a little Island, with a Light-house upon it; and half a L. S. of the Light-house is a sandy Bay, where also there is a very good Road: and there is another Light-house also S.E. from the Island on a Rock or Cliff by the Water's Edge: This Rock is call'd by some *Cape Sagri*, but it is by mistake, the Cape being farther S.E. Coming from the northward, at first sight it makes like an Island, but when you are about the Point, you see it joins to the Main.

As you sail by it, you see two crooked Points, and a Bay between, which seems plain and fair. There is a Castle on the S. side of the Point; at a distance it seems as if it was a good shelter from S.S.W. and westerly Winds, but when you are in, it does not prove so: Also I think the Ground is not good for Anchoring. Besides, the N. Land there, is higher than the S. and the Points lie so flat, and the Land so low, that they are no Security at all.

Some tell us also, that there is neither Bay nor Road on the E. side of *Corfica*, yet Ships do frequently ride there, and there is good Anchor Ground and hard Sand in many places, tho' not well shelter'd, or secur'd from Rocks, and very open to the *Lewant* Winds.

There is a low piece of Ground S. by E. from *Cape Sagri*, thrusting out into the Sea beyond all the Rocks, where the Town of *Sino* stands. dist. 12 Ls. from the Cape; a blind black Rock lies 4 Ls. to Seaward from it on the E. side; there cannot be above 3 Foot Water on it, by reason of the violent Rippings and Breach of the Sea upon it: you ought to be very careful of this Rock, as you sail by, for it is little bigger than a Boat, and you may sound long before you find it.

At the Entrance of a small Island call'd *Giglia*, or *Ligli*, lies the Haven of *Vechio* S.W. from *Cape Sagri* 11 Ls. you may go in on either side the Island; there is good anchoring safe from all Winds. Some small Islands lie without the S. Point, and they are foul on the S. part also, so that when you go without them, you must be sure to give them a good Birth.

S.W. from those Islands lies *St. Ananiso*, dist. 5 Ls. a bold Cape, the Course S.W. and the Bay of *St. Bonifacio* lies 3 Ls. S.W. by W. from the Point; and upon the Point it self stands

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Corsica is a large Castle, also two Rocks call'd *La Vega* lie just before the Haven: by all which Marks the Place is very easily known.

If you are forc'd to lie by to the eastward of the Island of *Corsica*, you may perhaps find a Leeward Current, so that nothing can be sav'd by turning; the best way then will be to get a good Road to come to an Anchor in, and ride for a Wind: and in such Case this Bay of *Bonifacio* is always helpful, if you can but fetch up so far.

From *Bonifacio* it is 5 Ls. W.N.W. to the Island of *Monagu*: There are some difficult Rocks in the way, and you cannot well sail between them, unless you are very well acquainted, so that I advise to keep in the *Fare*, or Passage without them, between those Rocks and *Sardinia*.

The Gulph of *Talabo* is the next Harbour of Note, it lies N.W. from *Monagu* dist. 4 Ls. if the Winds blow hard from the N.E. 'tis good riding here. Also 6 Ls. N.W. by N. from *Talabo* lies *Monte Rosa*, and between them the Gulph of *Ajazzo*. At the bottom of the Gulph is the Town of *Sagano*: This Bay or Gulph is a Road almost as good as a Harbour, and as safe Riding, secure from all Winds from the N.W. to the S.W. Points.

About a L. W. from *Mount Rosa* are the Islands call'd *Sagonara*; between them and the Main you have a good Channel; but 3 Ls. at least from the Island S.E. there stretch out some sunken Rocks; which those that come out of the Gulph to sail to the westward should be careful to avoid, because they are exceeding dangerous.

The Gulph of *Genarva* is on the N. side of *Mount Rosa*, which in respect of Conveniency for good Anchoring, is also much the same as the Gulph of *Ajazzo*. There are some Rocks also which lie out a L. into the Sea, and must be avoided. They lie 8 Ls. from *Mount Rosa* towards the Bay of *Aulan*, N. by W. from the southward part of it.

9 Ls. N. by E. easterly is the best Course from those Rocks to *Cape Rivilla*, and there is good anchoring all along the Coast between.

The Town of *Calvi*, which is one of the chief Havens of *Corsica*, is about a L. and half due E. from *Cape Rivilla*; and the Island Point *Rosa* is E. by N. at the same distance; between which and the Main is good anchoring in 2 or 3 places.

It is 12 Ls. from Point *Rosa* to *Cape Corso*, the Course is E.N.E. and there is a good Haven. *Fierenzo* is 6 Ls. due E. from *Rosa*. The next is *Cape Blanco*, N.N.E. which makes the Circle of the whole Island, just ending at *Cape Corso*, where you set out.

Sardinia, beginning at the Passage between the said

bove 3 FootWater on it, by reason of the violent Ripplings and Breach of the Sea upon it: you ought to be very careful of this Rock, as you sail by, for it is little bigger than a Boat, and you may found long before you find it.

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S.W. from those Islands lies *St. Amanso*, dist. 5 Ls. a bold Cape, the Course S.W. and the Bay of *St. Bonifacio* lies 3 Ls. S.W. by W. from the Point; and upon the Point it self stands

Sailing Directions for the Island of Sardinia, beginning at the Island and the Island



THE Passage between *Corfica* and *Sardinia*, beginning about *St. Bonifacio* on the S. part of the Island of *Corfica*, and measuring to the most northerly Point of *Sardinia*, call'd Point *Tico*, is 2 Ls. and a half broad.

But as they seldom cross here, the ordinary Passage lies into a little Bay at *Puffinero*, where 'tis about 3 Ls. over; from the Haven of *Bonifacio* on the S.E. of *Corfica*, to the Island of *Afinaria*, the Course is S.W. 13 Ls. and from *Afinaria* to the N. end of *Sardinia*, or the N.W. Point call'd *Pene*, is 9 Ls. and from Point *Pene* to the Isles of *Costa di Dona* is 16 Ls. S. by E.

From *Costa di Dona* to Point *St. Marco*, 'tis S. by E. 3 Ls. and 10 Ls. from *St. Marco* to the Island of *St. Pedro*, the Course S. by W.

St. Pedro is a stony or shelly Island of a reddish Colour; the W. end seems to be high, bending crooked downwards, about a Mile from the highest Point: At the E. end 2 Rocks lie above, and some under Water. *St. Pedro* stands due W. 3 Ls. dist. from the Island *Sardinia*; and betwixt them a fine large Channel to turn in: there is a good Road also to the eastward of *St. Pedro*, in westerly Winds.

The Island of *Palma de Sall* lies about 3 Ls. S.E. of *St. Pedro*; there is good space between them to sail or turn: Commonly the *Turks* lie lurking behind these Islands for Ships which sail this way to the Bay of *Rosa*, or to *Cagliari*. A Rock call'd *Vaca* lies close to *Palma de Sall*; but a good way off from the Shore, and more easterly, lies the Rock *Taro*, 'tis the highest of the two, and is about 5 Ls. S.E. dist. from *St. Pedro*.

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9 Ls. N. by E. easterly is the best Course from those Rocks to *Cape Rivita*, and there is good anchoring all along the Coast between.

The Town of *Calvi*, which is one of the chief Havens of *Corfica*, is about a L. and half due E. from *Cape Rivita*; and the Island Point *Rosa* is E. by N. at the same distance; between which and the Main is good anchoring in 2 or 3 places.

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The Course to *Cape Tolar* from the Rock *Vaca* is 3 Ls. E. *Tolar* is the W. Point of the Bay of *Rosa*; 'tis a high bare ragged Point: there is a sandy Bay E. of it, where there is even Ground, and in westerly Winds a good Road: and the Coast to the Island of *Rosa* from Point *Tolar* is 2 Ls. N.E. There is very deep Water in this Bay of *Rosa*.

This Island is pretty big, but stony and flat; the Rocks are of a reddish Colour; there is a good and fair sandy Bay to the westward of it, where you have from 10 to 23 Fa. You may anchor any where, the nearer the Island the deeper, but 'tis not above 10 or 12 Fa. To the eastward you may run into it in any thick Weather, or in the night time, 'tis all one, for it is a good fair Harbour, you need fear nothing but the Shore.

Cape Fironia is S.S.E. 2 Ls. from the Island *Rosa*: A Watch-Tower stands on the Cape, and E. of it is a good Road for westerly Winds.

Cape Pulla, which is the W. Point of the Bay of *Cagliari*, is a large Leag. E.S.E. from *Cape Fironia*; 'tis all rocky Ground on the W. side of those Capes. *Cape Pullo* is a low Point: Coming from the westward, and sailing about this Cape N.E. towards *Cagliari*, you have good sandy Ground, but 18 or 20 Fa. Water close to the Cape, steep and stony, and the Land is full of small Trees.

You may see another Point when you are pass'd *Cape Pullo*, call'd *Cape Saroch*: About 4 Ls. off it appears like two Hills, or Islands at first, tho' it's firm Land; and two Light-houses stand on it: For the most part it's a fair sandy Ground betwixt this and *Cape Pullo*.

Four Ls. N. and N.N.E. from *Cape Saroch*, lies the Bay and City of *Gallaria* or *Cagliari*; and to the W. between the

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Cape and the City is a great Bay, and low Land, all along the Water-side, with good anchoring Ground, and an even sandy Shore.

At the Port, or in the Bay of *Cagliari*, you may come to an anchor any where in 3, 4, or 5 Fa. sandy Ground; cast your Anchor just before the City, there you lie safe from all Winds: Under the Castle, a L. from the Road, or 2 or 3 Ls. from *Cagliari*, is 14 or 16 Fa. sandy Ground.

A Point call'd the *Spert* lies $1\frac{1}{2}$ Leag. S.E. of the Town: This Point at first shews like an Island, when you come from the eastward into *Cagliari Bay*, yet it joins to the Main by a small Neck of Land: But there is an Island lies to the westward of this Point, and a Church and a Town stand on the Point of it. E. from this Point is a great Bay, with even sandy Ground all over it.

In 14 or 16 Fa. Water you may anchor 3 or 4 Ls. from the City. If you come into this Bay by night, and cannot get sight of *Cagliari*, the Bay is all over good Ground as above.

At the E. end of the Bay of *Cagliari* lies the Island *Cortelazo*, dist. from *Zuart* 7 Ls. S.E. by E. but 12 or 13 Ls. E. by N. from *Cape Pullo*: in W. and N.W. Winds there is a good Road under this Island; but the W. Point of it must be shunn'd, because it is foul Ground. This Island of *Cortelazo* lies under *Cape Carbonera*, which is the S.E. Point of *Sardinia*.

Two Islands lie to the E. of *Cortelazo*; the innermost is the highest; the easternmost is call'd *Serpentera*, and has many small Rocks about it. On each of those Islands stands a Watch-Tower, and on each of them some Guns.

If you are bound for *Cagliari Bay*, coming from the eastward, and cannot get in by reason of westerly Winds, you may anchor under *Cortelazo*; but if unacquainted and dare not, then sail about *Cortelazo* and *Serpentera*, and luff near to *Carbonera*: Then to the N.W. you will see a flaunting

Sailing Directions for the Island of Sicily, from the Coast, to Palermo, Trapano, &c.

THE Point of *Messina* is low Land, and sandy Ground, on which stands a Light-house: About 3 Ls. southward of this Point lies the City at the Bottom of the Harbour, 'tis the best Haven in *Sicily*, having a large Mole. Those that would go in there, need not take any Pilot, or fear any thing, but sail close along the Shore on either side. You may come to an Anchor close by the City, and near to the Mole-head, with your Anchors to Seaward; there you lie shelter'd in all Winds, you may anchor also without the Haven if you think fit, it's all good Ground.

Those that would sail thro' the *Vare of Messina* from the southward, or eastwards to the N. must keep near the Coast of *Calabria*, or the main Land of *Italy*, for the Current commonly sets to the northward on that Shore: And contraywise, those that would sail thro' to the southward, must keep

for Sailing on the Coasts of Sicily.

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Point, with a round Hill near it; then till you are past the Rocks, keep along the Shore and a Point standing near to the Watch-Tower, and there anchor in 12 or 14 Fa. good sandy Ground: Near to the Tower is very deep Water, where you can't anchor, for you will find no Bottom; but being at Anchor N. of the Tower, you may see an Island 3 Ls. to the northward, on which a Watch-Tower stands; and there you may have Wood, good fresh Water and Provisions, or whatever you stand in need of, for little Money.

Seven or 8 Ls. N. of *Carbonera Point* lies an Island, which shews it self when it lies N.W. by W. dist. 3 Ls. from you: It's about half a L. long, and two Light-houses appear upon it, one to the S. end on the highest Land, and the other to the N. There are two good Roads and sandy Bays to the southward of this Island, secure in S.W. and W. and N.W. and northerly Winds.

A great white Tower, 3 Ls. S. of this Island, stands on the Main of *Sardinia*; and there seems to be a good sandy Bay under it as you sail by; but when you come nearer, it is but a wild Road.

There is also a high and bare Point of Land lying about 3 Ls. to the northward of this Island; and about 3 Ls. to the southward of it lies another S.W. from you, being also a bare Point of Land, but high.

From the northermost end of *Sardinia*, about 4 Ls. S.E. lies the Island *Talara*, from the Land a pretty distance, being high and flat; and a high Hill lies N. of it about Musket-shot off, by which the N.E. end of *Sardinia* is always distinguish'd at Sea.

Also 3 or 4 Islands more lie to the northward of it; so that much broken Land lies at the N. end of *Sardinia*.

Behind those Islands seems to be many fair and good Bays, where they suppose are good Roads; but they lie out of the way, and no Use is made of them.

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If you are coming from the northward of *Sicily*, and bound in for *Trapano*, keep the N. Point at a handsome dist. then haul up easterly, and anchor where you please, off of the Town, in 4, 5, or 6 Fa. Here you are secure from all Winds, that is to say, from the N. Wind by the Land, from westerly Winds by the Island, and from southerly Winds by the Shoals of the *Salt-Ponds*; so that it is all one as if you were in the Haven, or under the Mole-heads.

Those Shoals lie 3 or 4 Miles off at Sea from the Road; the Ground is uneven, and full of Holes, so that you must stand no nearer than 7 Fa.

The Water rises about a Fathom or somewhat more, with a N.W. Wind, but not so much in calm Weather. A S.S.E. Moon makes high Water.

From thence to *Marfalia* the Course is S. westerly, dist.

THE Point of *Messina* is low Land, and sandy Ground, on which stands a Light-house: About 3 Ls. southward of this Point lies the City at the Bottom of the Harbour, 'tis the best Haven in *Sicily*, having a large Mole. Those that would go in there, need not take any Pilot, or fear any thing, but sail close along the Shore on either side. You may come to an Anchor close by the City, and near to the Mole-head, with your Anchors to Seaward; there you lie shelter'd in all Winds, you may anchor also without the Haven if you think fit, it's all good Ground.

Those that would sail thro' the *Vare of Messina* from the southward, or eastwards to the N. must keep near the Coast of *Calabria*, or the main Land of *Italy*, for the Current commonly sets to the northward on that Shore: And contrarywise, those that would sail thro' to the southward, must keep near the Island.

But this must be known and observ'd, That the Current on the *Sicilian* side runs sometimes with such a force, that it is as fierce almost as a Mill Stream, especially the Flood; so that those who go in there in still calm Weather, can hardly get out again, and therefore avoid it.

The *Vare* or *Vare of Messina* lies extended S. by E. and N. by W. about 10 Ls. From the Point of *Messina* to the Point of *Melazzo*, the Course is W. by S. 9 or 10 L. Under the Point of *Melazzo* there is a good Road, and safe riding.

From the Point of *Melazzo* to the Point of *Salanto*, or to *Cape Bongiorno*, the Course is W. by S. 29 Ls. Close by *Point Salanto* lies a great Rock, upon which stands a great Light-house; and eastward of it is the Bay of *Salanto*. There is good Ground all over the Bay, and good riding in southerly Winds; but the N. and N.E. make a foul Shore.

W. of *Point Salanto* lies a great Creek about 3 Ls. long: In the Bay opens the River of *Palermo*, those that sail thither must keep westward right with the Haven, and anchor behind the Head or Mole with two Stern-falls on the Mole, and an Anchor to seaward, where you lie in 6 Fa. Water, shelter'd in all Winds.

Cape de Gallo is the last Point in the northern Coast of the Island, it lies distant from *Palermo* 3 or 4 Ls.

From *Cape de Gallo* the Land falls off S.S.W. to *Trapano*; the Course is W.S.W. dist. 13 Ls. The City of *Trapano* lies on a small Point of Land, and stretches out from the W. end of *Sicily* W.N.W. Between them lies *Cape de St. Vite*, dist. 5 Ls. Under the E. side of *Cape de Vite* is a deep Bay and good anchoring.

Those that come to the westward of the Island, and would sail to *Trapano*, must steer E.S.E. till they come to a little Island whereon stands a Castle, call'd *Colombiere*, then keep to the southward of the Island, and anchor between it and the City *Trapano* in 5 or 6 Fa. where they may lie very well in most Winds.

Trapano, and about to Cape Passaro.

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If you are coming from the northward of *Sicily*, and bound in for *Trapano*, keep the N. Point at a handsome dist. then haul up easterly, and anchor where you please, off of the Town, in 4, 5, or 6 Fa. Here you are secure from all Winds, that is to say, from the N. Wind by the Land, from westerly Winds by the Island, and from southerly Winds by the Shoals of the *Salt-Ponds*; so that it is all one as if you were in the Haven, or under the Mole-heads.

Those Shoals lie 3 or 4 Miles off at Sea from the Road; the Ground is uneven, and full of Holes, so that you must stand no nearer than 7 Fa.

The Water rises about a Fathom or somewhat more, with a N.W. Wind, but not so much in calm Weather. A S.S.E. Moon makes high Water.

From thence to *Marsalla* the Course is S. westerly, dist. about 3 Ls. and from *Marsalla* to *Marsara*, it's about 10 Ls. S. by W. The Land is low to the Water's Edge: and with the Wind off Shore stand no nearer than 10 or 9 Fa. because of Overfalls.

To the northward of *Sicily* lie a Cluster of Islands, call'd by the Sailors the *Lipari Islands*, because *Lipari*, which is one of them, is the chief Place of Business; but they have all Names severally, as the Island of *Stromboli*, *Lipari*, *Salina*, *Fillicur*, *Allicur*, and *Ustica*. The Island *Stromboli* smokes continually, and is a Sea-Mark for all the rest; it lies from *Messina* N.W. If you would sail from the *Fire-Boat* of *Messina* to *Naples*, or *Gaieta*, and sail N.W. you will hit exactly with *Stromboli*. Near the Island *Ischia* under *Stromboli* is a good Road for westerly Winds.

Lipari lies from the Point of *Messina* W.N.W. 15 L. and from the Point of *Sisala* N.E. by E. 20 Ls. to the westward of which lies *Fillicur* and *Allicur*.

The Island of *Allicur* and the City of *Palermo* lie S.W. by S. dist. 15 Ls. and *Ustica* lies from *Palermo* N.N.W. 17 Ls. and from *Cape de Gallo* N. westerly 11 Ls. On the Island of *Ustica* stands a little Church; and there is good riding near the Land just before the Church.

Ustica and the Island *Maritimio* on the W. Coast of *Sicily*, lie N.E. and S.W. 22 Ls.

There are two large Islands besides this of *Maritimio*, and some small ones, which lie all at the W. end of *Sicily*, and which are all very high Land; their Names are *Furaguanano*, and *Levenzo*. The W. end of *Sicily* is also very high, by which it may be known at a great dist. some say it is seen to *Cape Bona* near *Carthage* on the Coast of *Africa*.

The Island *Maritimio* is the westernmost, and lies W. from the W. end of *Sicily* 5 or 6 Ls. it is certainly the highest of the three, and in clear Weather may be seen 16 Ls. off when to the northward. *Levenzo* is the northermost of them, and at a dist. makes like two long Hills. *Furaguanano* is the southermost

Sailing Directions for the Isle of Malta, and the

most and largest, and hath much low Land about it; on the S. end of it stands a Castle, and on the low Land a House, which are both Sea-Marks, as well to know the Island by, as to guide Ships in, to the adjacent Ports of *Marcella* and *Mazara*. This Island is very uneven and ragged, and may well be known by it. They that come from the S.E. Point of *Sardinia*, or from *Cagliari Bay*, and sail E.S.E. and S.E. by E. shall be sure to fall to the southward of the aforesaid Islands, and to the northward of the *Quells*, and safely go between them; also with this Course you fall to the northward of *Malta*.

The City *Trapano* lying on the N.W. Point of *Sicily*, from thence to *Point Mazara* the Course is S. by W. 10 Ls. Between these two lies the City *Marcella*, 4 Ls. from *Trapano*.

From *Point Mazara* to *Cape Leacota* the Course is S.E. by E. 23 or 24 Ls. About 6 Ls. E. from the W. Point lie two long Mountains at the Water-side; the easternmost is ragged and uneven: Under these Mountains lies the City *Xica*; and eastward of these Mountains the Land is all along very high and hilly; but westward near the Water-side it is plain and even, and the more westerly the lower the Land.

Fifteen Ls. from the Point of *Mazara* lies the City of *Sergento*, seated on a high Hill, very beautiful in Prospect; over which you see a strong Castle. On the W. of this City is a low square Castle under an old white Cliff, where are small Rocks which make a Mole: And here the Ships load their Corn for *Malta*.

From *Mazara* to *Leacota* the Course is S.E. by E. 23 Ls. and from thence to *Cape Samaris* the S. Coast of *Sicily* reaches E.S.E. 15 Ls. and from thence to the S.E. Point, or *Cape Passaro*, the Course lies E. 17 Ls. *Cape Passaro* lies in Lat. 36. 48. and is the farthest Point of Land eastward in the whole Island, facing towards the *Gulph of Venice* and the Coast of the *Morea*.

Cape Passaro is Land, having a great first you see the Cape but it's the firm Land of this Cape the Island what mountainous there lies another Cape bears 4 or 5 Ls. N. W. then the high N. from you. The far from the City Weather you may the S. Coast of *Sicily* and this Mountain forth; the Smoke well known by its eastern and southern

Near *Cape Passaro* Ground is very favourable your Cables will Anchor.

From *Cape Passaro* call'd *Saragosa*, the Course to *Messina* the Course is already given the Passage is call'd the *Thorow-Fare*, Passage into the Bay of *Constantinople* is call'd length about 10 Ls. ing against the Bay of *Gusta*; from whence the Course is direct

Sailing Directions for the Island and Channel of Malta, and the African Coast.

Wenty four Leagues from *Cape Passaro* S.W. lies the Island of *Malta* or *Malta*; and between *Malta* and *Cape Bona* on the *Barbary* Shore lie the Islands *Pantalania*, *Limosa*, and *Lampidosa*. *Pantalania* lies from *Cape Bona* E. by S. and E.S.E. 16 Ls. and *Lampidosa* lies from *Pantalania* S. by E. 28 Ls. In *Lampidosa* is a good Road, where there is fresh Water and Provisions to be had, and safe riding from northerly and N.W. Winds.

Limosa lies from *Lampidosa* N.N.E. 10 Ls. From *Pantalania* to the Island *Goza* the Course is E.S.E. 37 Ls. and from *Pantalania* to *Cape Passaro* it's E. and E. by S. 55 Ls. The Island *Goza* lies at the W. end of *Malta*, upon which stands a flat Tower near the Water-side, being even Land all along between *Goza* and *Malta*. There are several small Islands, which are also even and flat, but without People or Buildings, except a few Hutts for the Herdsmen who keep Cattle there; by those Hutts you may know the Islands.

The S.W. side of Point N.W. and N. the highest in all Malta from this Point lie eastward, and *Malta* very short and even. Land, like to *Dor* about a L. off, you The N. side of *Malta* E. by S. and E.S.E.

If you would make a Signal, a good anchoring in to 18 Fa. but as it but either pursue they can.

Cape Passaro is the S.E. Cape of *Sicily*, a low Point of Land, having a great Light-houle upon the Point of it. When first you see the Cape, then this Point seems like a low Island, but it's the firm Land, as you will afterwards see. Northward of this Cape the Land of *Sicily* begins to be high and somewhat mountainous; but even to the northward of the Cape, there lies another low Point of Land: When this low Point bears 4 or 5 Ls. N. by W. from you, and *Cape Passaro* S.W. by W. then the high *Volcano* of *Mount Aetna*, or *Gibello*, lies due N. from you. This Mountain is exceeding high, and lies not far from the City *Catanea*, a little within the Land: In fair Weather you may see it all along the E. Coast, and almost all the S. Coast of *Sicily*. This high Land is cover'd with Snow, and this Mountain continually smokes and sometimes flames forth; the Smoke seems like a great black Cloud: It is well known by its Height, and is a noted Sea-Mark for all the eastern and southern Coast of *Sicily*.

Near *Cape Passaro* lie 3 or 4 Islands; and off this Cape the Ground is very foul; therefore you cannot ride here, for your Cables will presently cut, and you will lose your Anchor.

From *Cape Passaro* to *Syracusa*, corruptly by our Sailors call'd *Saragosa*, the Course is N. by W. 9 Ls. From *Saragosa* to *Messina* the Course is N. by E. about 26 Ls. A Description is already given how to go in at the Haven of *Messina*. This Passage is call'd the *Vare* or *Fare* of *Messina*, which signifies the *Thorow-Fare*, or Passage, or Streight of *Messina*: as the Passage into the *Baltick* is call'd the *Sound*, or the Passage to *Constantinople* is call'd the *Hellepont*, and the like: It is in length about 10 Ls. reaching in S. from *Messina* to the Opening against the Bay of *Catanea*, or the City and Port of *Augusta*; from whence to *Cape Spartavento* or to *Cape Passaro*, the Course is directed as above.

Malta, and the Islands adjacent on the South Coast.

The S.W. side of *Malta* stretches from *Goza Isie* to the S.E. Point N.W. and N.W. by N. 14 or 15 Ls. The S.E. Point is the highest in all *Malta*; and about half a Leag. W. or W. by S. from this Point lies a round high Rock: Coming from the eastward, and *Malta* bearing N. from you, then it appears very short and even. The S.E. end of *Malta* hath much white Land, like to *Dover*, but not Chalk; and when you are about a L. off, you may see on that white Land a white Church. The N. side of *Malta* trends from *Goza* to the N.E. Point E. by S. and E.S.E. 12 or 14 Ls.

If you would go into the Harbour of *Malta*, you must make a Signal, and Pilots will come off to you. There is good anchoring in the Road of *Malta* before the Port, in 15 to 18 Fa. but as it is in the open Sea, no Ships ride long there, but either pursue their Voyage, or enter the Port as soon as they can.

Wenty four Leagues from *Cape Passaro* S.W. lies the Island of *Malta* or *Maltba*; and between *Malta* and *Cape Bona* on the *Barbary* Shore lie the Islands *Pantalaria*, *Limosa*, and *Lampidosa*. *Pantalaria* lies from *Cape Bona* E. by S. and E.S.E. 16 Ls. and *Lampidosa* lies from *Pantalaria* S. by E. 28 Ls. In *Lampidosa* is a good Road, where there is fresh Water and Provisions to be had, and safe riding from northerly and N.W. Winds.

Limosa lies from *Lampidosa* N.N.E. 10 Ls. From *Pantalaria* to the Island *Gosa* the Course is E.S.E. 37 Ls. and from *Pantalaria* to *Cape Passaro* it's E. and E. by S. 55 Ls. The Island *Gosa* lies at the W. end of *Malta*, upon which stands a flat Tower near the Water-side, being even Land all along between *Gosa* and *Malta*. There are several small Islands, which are also even and flat, but without People or Buildings, except a few Hutts for the Herdmen who keep Cattle there; by those Hutts you may know the Islands.

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Sailing Directions for the South and East Coasts of I of the whole Adriatick Gulph; with the Coast of inclusive: Also the Islands in the Ionian and Egean

PE *Spartavento* is the southermost Point of *Italy*, after you are thro' the *Vare* of *Messina*: It lies opposite to *Cape Passaro* in *Sicily*. The Course to it from *Passaro* is N.E. northerly, dist. 32 Ls. and from *Spartavento* to *Cape Borfano* N.E. by N. 3 to 4 Ls. thence to *Cape Stillo* 10 Ls. N.N.E. and from *Cape Stillo* to *Cape Colonna* N.E. by E. 32 Ls. Again from *Spartavento* to the City and Port of *Taranto* N. by W. 30 Ls. all which contain the whole breadth of that part of *Italy* call'd *Calabria*, from S.W. to N.E. being 216 Miles in length.

In all the long space between in this Run you have no place of Note but *Taranto*; indeed the Coast is full of small Creeks and Bays, where Ships may on occasion find shelter: but none of our Surveys give any other Description of them than in general, as is here also done.

From *Cape Colonna* to *Cape St. Maria* is 24 L. N.E. northerly; and W. from *St. Maria* lies the City of *Gallipoli* dist. about 3 Ls. W. of that Port are several good Roads, where you are shelter'd from S.W. S.E. and N.E. Winds: There are some Islands lying thwart the Mouth of the Haven of *Gallipoli* to Seaward; if you sail for the Road, you must keep without those Islands, for the Road it self is without them: there you may ride easy and safe in view of the Haven, and without the Trouble of going in, or coming within Command of the Castles, which for good reason the *English* Ships used care-

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The S.W. side of *Malta* stretches from *Gozza* Isle to the S.E. Point N.W. and N.W. by N. 14 or 15 Ls. The S.E. Point is the highest in all *Malta*; and about half a Leag. W. or W. by S. from this Point lies a round high Rock: Coming from the eastward, and *Malta* bearing N. from you, then it appears very short and even. The S.E. end of *Malta* hath much white Land, like to *Dover*, but not Chalk; and when you are about a L. off, you may see on that white Land a white Church: The N. side of *Malta* trends from *Gozza* to the N.E. Point E. by S. and E.S.E. 12 or 14 Ls.

If you would go into the Harbour of *Malta*, you must make a Signal, and Pilots will come off to you. There is good anchoring in the Road of *Malta* before the Port, in 15 to 18 Fa. but as it is in the open Sea, no Ships ride long there, but either pursue their Voyage, or enter the Port as soon as they can.

West Coasts of Italy, the Coasts of Venice, and the Coast of the Morea to Cape St. Angelo and Egean Seas.

fully to avoid; and for the same Reasons Strangers ought to be warn'd.

If you are resolv'd to go in, and are secur'd against all other things, then take a Pilot to carry you thro' among the Islands, for the Passages are very difficult.

From Cape *St. Maria* to Cape *Otranto* the Course is N. 9 Ls. This Cape is the northermost Point of the Entrance into the *Adriatic Sea*, or the *Gulph of Venice*. There is a Haven at *Otranto* secure from S. and S.W. Winds; but northerly and N.E. Winds blow right in, and bring in a foul Sea.

The first Port on the Coast of *Italy* within the *Adriatick Gulph* is *Brundisi*, formerly *Brundisium*; it lies from the Mouth of the Gulph N.W. by W. 13 Ls. 'tis all the way a clean Strand, with good anchoring in a hard sandy Ground, and in what depth you please: 'tis the same under the E. Point of the Haven, where you are safe from W. and S.W. Winds.

There is a Castle on the W. Point of the Entrance into this Haven; if you would go in, you must keep close under the Castle, for the E. side of the Channel is foul Ground, with many Rocks, whereof some are under Water and very dangerous: and yet you need no Pilot, having nothing to do but to keep close along by the W. side, till you are within the Haven, and then come to an Anchor where you please, for you are past all the Rocks.

From

From *Brundisy* to *Bari* the Course varies; to *Monopoli* it is W.N.W. 10 Ls. and thence to *Bari* 10 Ls. more; the Course W. by N.

Bari is a large City, situate close to the Water's Edge, and has a very good Haven, but the Entrance is difficult and full of Rocks; and even the Road too is but little known, so that a Stranger should be at the trouble of a Pilot before he comes to an Anchor: Many *English* Ships use this Port, and therefore 'tis needful to warn them to keep off, or ride at a sufficient distance, and make a Signal for Pilots.

W. from *Bari* 6 Ls. lies the City of *Berletta*, where the Road is better, and you ride before the City very safe in 8 to 9 Fa.

From *Berletta* the next place is *Cape Vestice*; the Course is N.W. by N. and N.N.W. 13 Ls. From *Monopoli* to *Cape Vestice* the Course is N.W. by W. 23 Ls. the difference is occasioned by the unevenness of the Coast, full of little Bays, and Points thrusting out into the Sea.

It should be observ'd here, that at the Entrance into the *Adriatic Gulph*, which side soever you are bound to, you should keep the eastern Shore at first; for the Gulph goes in almost N. and S. at least the Channel or Fair Way lies so; indeed after you are enter'd, you vary the Course as your Voyage requires; if you are bound to the Coast of *Italy*, you must come to a N.W. Course, the *Italian* Shore trending away to the N.W. and N.W. by N. all the way from *Otranto* to *Ravenna*; except that at *Cape Vestice*, and the Shore from *Point Ferma* to *Ancona*, there the Land stretches out N. and N.N.W. but then falling off again, returns to its former Course.

Also it is to be observ'd, that in all this part of the Gulph, the Current sets generally to the southward: for as this whole Gulph is in the nature of a Bay, having no Passage any other way: so the many great Rivers which flow into it, as the *Po* and the *Addige* in particular, with abundance of Rivers out of *Isiria*, *Croatia* and *Dalmatia*, must of necessity make a great Current downward.

Add to this, that the northerly Winds, which the *Italians* call *Tramontane*, blow so constantly as well as violently, that when they set in, no Ships can stir beyond *Mount Angelo*; so far indeed they may lead it up, the Coast falling away something to the westward, but there the Land turns again, and pushes out to the north, and then 'tis not to be done: Therefore Ships bound to *Venice* must keep as much to windward as possible, that is, they must keep the Coast of *Dalmatia* aboard, and run as far to the northward as they can; and then they may lead it away to *Venice* as we shall see presently.

Between *Cape Barry* and *Vestice* is a large deep Bay, occasion'd by the Land which makes the *Cape of Vestice* thrusting out so far into the Sea northward, so that with the *Tramontane Winds* there is no weathering *Cape Vestice*: Therefore Ships bound farther up the Gulph, should never come nearer *Monopoli* or *Barry*, or any Port on this Coast, than *Otranto*, but stand away to the N. as is said before in good time.

About this Bay, between *Barry* and *Vestice*, lie the small Ports of *Manfredonia*, *Siponti*, and *Monte St. Angelo*—This

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Sailing on the Eastern Coasts of Italy.

Monopoli a noted Port for Safety : it lies in a Bay, and you have 14 to 15 Fa. in the Road within half a L. of the Shore, but 'tis soft Ground, and open to easterly Winds; which as they blow right in, bring a great Sea into the Bay; and the Ground being not a good holding Sand, you may be in danger of going ashore.

From hence to *Ancona* the Coast bears a little out into the Gulph, and you must steer N.W. northerly: Here is a *Mole*, and within it a good Haven, shelter'd from all Winds whatever, but you must call for a Pilot to bring you in; within the Mole-Heads, at the N. Point of the E. Head, the Pier turns about W. and makes a Hook; and upon the end of the Pier there is a large Tower or Pavilion, with a good Battery of Guns under the Pavilion; and within the Battery the Ships ride very well secur'd, and have 7 to 8 Fa. within a Cable's length of the Shore.

From *Ancona* to *Synagaglia* the Course is W. by N. 8 Ls. Here they have a little River, where small Vessels may ride, but the great Ships ride under the Mole-Head, which is very good, and where they are well secur'd.

From *Ancona* to *Rimini*, call'd by our Sailors *Rimano*, is 21 Ls. the Course N.W. by W. and W.N.W. 'tis situate on the River *La Mareccia*, formerly call'd *Ariminus*, over which the Bridge is of Marble: small Ships may go into the Mouth of the River up to the Bridge, but larger Vessels ride under the Castle, where they have 6 to 8 Fa. but open to N. and N.E. Winds.

From *Rimini* to *Ravenna* the Course is N.W. by W. 8 to 9 Ls. The Haven here, once so famous, is now quite choak'd up, and the Sea is retir'd from the Land, so that they have no Port at all; yet there is a good Road under the Point or Cape N. by E. and N.E. from the City, where the Ships ride in 9 Fa. Water.

Between these two Cities the River *Pifatello*, formerly call'd the *Rubicon*, falls into the Sea, making a small Haven, but with a Bar, and only fit for Vessels not drawing above 8 or 9 Foot Water.

Farther in the Gulph, N.W. by N. from *Ravenna*, dist. 5 Ls. stands the Pope's Sea-Port of *Commaccio*, a place of little use in Navigation, only for Fishing Vessels and other small Craft, for the Haven is not able to receive Ships of Burden.

On this side *Commaccio*, the most southerly *Bocca del Po*, or Branch of the great River *Po*, opens into the Sea, and some Vessels go in there, and go up to *Ferrara* and *Bologna*; but no Ships can go up, and those that ride near it must have a Pilot, for the Current is so violent that no Stranger can stir there.

From *Commaccio* to *Volano* is 4 Ls. N.N.W. Here comes in another Arm of the River *Po*, and here is a good Harbour made by the said Branch; but the Freshes are so violent, especially in the Winter, by the great Waters from the Mountains and Lakes among the *Alps*, that the Sands in the Port often change, and are so uncertain that no Stranger can go in without a Pilot.

From *Volano* the Coast goes away N. and N. by E. the Land bearing in upon the Sea all the way dist. 40 Ls. to the *Fiume*

call *Tramontane*, blow so constantly as well as violently, that when they set in, no Ships can stir beyond *Mount Angelo*; so far indeed they may lead it up, the Coast falling away something to the westward, but there the Land turns again, and pushes out to the north, and then 'tis not to be done: Therefore Ships bound to *Venice* must keep as much to windward as possible, that is, they must keep the Coast of *Dalmatia* aboard, and run as far to the northward as they can; and then they may lead it away to *Venice* as we shall see presently.

Between Cape *Barry* and *Vestice* is a large deep Bay, occasion'd by the Land which makes the Cape of *Vestice* thrusting out so far into the Sea northward, so that with the *Tramontane Winds* there is no weathering *Cape Vestice*: Therefore Ships bound farther up the Gulph, should never come nearer *Menopol* or *Barry*, or any Port on this Coast, than *Otranto*, but stand away to the N. as is said before in good time.

About this Bay, between *Barry* and *Vestice*, lie the small Ports of *Manfredonia*, *Siponti*, and *Monte St. Angelo*. This *Monte Angelo* runs out N. as above, making part of the *Cape Vestice*; it is a high Mountain within the Cape, and the first Land you make to the westward, after you are thro' the Entrance into the Gulph: Here you have good anchoring in westerly and northerly Winds. This Bay of *Manfredonia* is the only Shelter this Coast affords in case of northerly Winds; for here you have deep Water, whereas on all other parts of the Coast the Shore lies flat off, and you have not above 7 to 10 Fa. for 8 or 9 Ls. from the Coast.

Off of this great Point or Promontory of Land you have several Islands in the Sea, at a large distance from the Shore, as *Gymnasi*, *Santa de Maria Trinidad*, *Caprara*, *Galitia*, *St. Jacob* and *Pelagosa*, the most northerly of all the rest. From *Cape Vestice* to *Gymnasi* you must steer N.W. by N. 9 Ls. it bears S.S.E. from *St. Maria* 3 Ls. 'tis a small flat Island, and is not to be seen till you are within 3 to 4 Ls. of it. From the Cape to *St. Maria Trinidad* is 11 Ls. the Course N.W.

N.W. from *Cape Vestice*, something westerly, lies the Port of *Tortore*; 'tis upon the Opening of a small River, and lies about 3 Ls. within the Land: You will want a Pilot to carry you in here, the Channel in the Mouth of the River being often shifting and uncertain.

There lies a large Bay a L. to the E. of this Port, between it and the Cape, where there is good Riding, but no shelter from the *Tramontane Winds*, which blow right in. On the Point of this Creek, close to the Strand, stands a large Tower of Stone, which is seen far at Sea; it seems to be a Light-house, and is a very useful Mark to know the Anchoring-place or Road by; but when you come to it, 'tis only a large Building for Ware-houses, and by it is a Key, where you have 6 to 7 Fa. good hard Sand.

From *Cape Vestice* to *Ortona* is 26 Ls. the Course, as on all this Coast, lies N.W. or N.W. by W. There are no Places of Note between but those mention'd above; neither is *Ortona*

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Farther in the Gulph, N.W. by N. from *Ravenna*, dist. 5 Ls. stands the Pope's Sea-Port of *Commaccio*, a place of little use in Navigation, only for Fishing Vessels and other small Craft, for the Haven is not able to receive Ships of Burden.

On this side *Commaccio*, the most southerly *Bocca del Po*, or Branch of the great River *Po*, opens into the Sea, and some Vessels go in there, and go up to *Ferrara* and *Bologna*; but no Ships can go up, and those that ride near it must have a Pilot, for the Current is so violent that no Stranger can stir there.

From *Commaccio* to *Volano* is 4 Ls. N.N.W. Here comes in another Arm of the River *Po*, and here is a good Harbour made by the said Branch; but the Freshes are so violent, especially in the Winter, by the great Waters from the Mountains and Lakes among the *Alps*, that the Sands in the Port often change, and are so uncertain that no Stranger can go in without a Pilot.

From *Volano* the Coast goes away N. and N. by E. the Land bearing in upon the Sea all the way, dist. 17 Ls. to the Entrance into the Port of *Malamoco*. From *Ancona* indeed the Course borrows of the W. and you steer N.N.W. westerly, and N.W. by N. the dist. 53 Ls. When you are in the Fair Way sailing for *Venice*, Mid-Channel of the Gulph, you have not above 23 to 24 Fa. But if you keep nearest the eastern Coast, that is, within 10 to 11 Ls. of it, you will have 40 to 43 Fa. and when you come within the like distance from the City of *Venice*, you will not have above 16 to 17 Fa.

When you come within 16 to 17 Fa. you will see the Hills behind the City of *Venice*, and perhaps *St. Mark's* Steeple or Tower; and you may go boldly in, be it by Night or Day, and come to an Anchor in 6 to 7 Fa. If you have Day-light, run in to the N. of *Malamoco*, and anchor in 8 to 9 Fa. that indeed is the best Ground, and a very good Road.

The Island *Malamoco* lies in the Mouth of the Entrance into *Venice*; it stretches N.N.E. and S.S.W. in length between 4 and 5 Miles. To the S. of this Island is the Entrance into the Port, and there the Ships lie to make their Report when they come in, and to clear when they go out; 'tis an excellent good Road and Harbour. There is another Harbour to the northward of the Island, where the Gallies and small Ships, and most of the Coasting Vessels lie; but *Malamoco* is the chief Harbour.

If you are bound in for the main Port of *Malamoco*, and come from the northward, that is, from the Coast of *Istria*, keep along the S. Shore, till you bring the Block-houses and some Trees on the Land of the other side to bear with one another; then stand over, and run in close by the Heads or Mole: this going in lies W.N.W. and W. by N.

N. B. There is very little Tide in all the Gulph, and at *Venice* it does not rife above 3 Foot at the highest Spring.

Note Also, that a N.W. Moon makes the highest Tide.

If you would go farther in than the Road of *Malamoco*, take a Pilot there.

Sailing Directions for the South Coasts of

S. of *Venice*, among the Rivers and Islands, lies the City *Chiosta*, dist. 7 Ls. A little to the S. of the Entrance into *Venice* lies a flat Shoal; you are in great danger of it if you miss the Entrance: for the Winds blowing there, as the Current runs, you will find it very hard to recover the Harbour: There was a stout *English* Ship lost there once, by that very Mistake.

From *Venice* to the N. we have no Survey of the Coast, tho there are several Rivers and Bays, in which are good Roads, and which are navigable far in, and particularly the Coast of *Friuli*, the new imperial City and Port of *Trieſte*, where there is a large Bay call'd the Gulph of *Trieſte*; as also the City of *Paranzo* without the Gulph, and some others, where good Ships often go in; but as neither the *English* or *Dutch* have any Trade in those Ports, our Pilots have not thought them worth their Observation.

From *Venice* to *Rovigno* is cross the bottom of the Gulph; the Course is E.S.E. 25 Ls. There is a very good Harbour at *Rovigno*, 'tis made so, chiefly by some small Islands which lie before the Mouth of it, upon one of which stands a long Pole like a Mast; that Island in passing thro' should be left to the westward: but there are some Rocks in the way between *Rovigno* and *Paranza*, which must be carefully avoided, for many good Ships have miscarried on them. The Haven of *Rovigno* lies in E.N.E.

The great Mountain *Caldero* is the Mark off at Sea to know the Port by; it is so high, that you may see it in clear Weather within 10 Ls. of *Malamoco*, where you may see *Caldero* on one hand, and the Tower of *St. Mark* at *Venice* on the other, and so be guided either way, for they lie E. by S. and W. by N. of one another.

The next Place is the Cape *Promontories*, which lies S.E. or S.E. by S. dist. 6 Ls. This is not a City, but a Haven between two Rocks, which lie off of Cape *d'Pella*. Between the Rock and the Shore lies a great Shoal, but there is a Channel between, and there the Ships ride, the deepest Water being in the Channel; you must go so near the biggest Rock, that you might toss a Bisket Cake on Shore; the Rock is steep, and all secure. Half a L. off from this Rock is another Shoal S.E. from it, where is not above 8 to 9 Foot Water, you must heave the Lead for it, which will soon discover it, for you have 16 Fathoms just before.

From this Cape dist. 22 Ls. lies *Insula Longa*, or *Long Island*; the Course is S.E. easterly: Between them is the Island *Sanſigo* at the S. end of the Island *Offero*; there you have an excellent Road, clean Ground, and what Depth you please, being secure from all Winds. There is a foul Bank indeed which lies N.W. of the Island, dist. something less than a L. but as there is Water enough over it, the only danger is of losing your Anchor, if you should attempt to ride there: but 'tis clean and good Ground both within and without it.

Within the Island of *Offero* lies a Haven call'd *Porto Monigo*, where there is a good Road as to the Winds, (being well shelter'd) but the Ground is foul: And E. of *Sanſigo* dist. 3 Ls. is the Island of *St. Pedro de Nino*, where there is a very good

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cause there are divers Roads and anchoring Places among them; as the Island of *St. Andrews*, *Mellefello*, *Pomo*, *Cuette*, *Casrola*, and others.

N. B. The Entrance of *Malanoco* and the Island *Lisa* lie N.W. and S.E. in a strait Line, dist. 76 Ls.

From *Lisa* to *Lessina* is 6 Ls. S.E. This is a very little, but secure Haven, nor is it able to receive above three or four Ships of burden at a time: The City lies close to the Water's-edge within the Haven: You have 12 Fa. Water when you are in, but the Rocks and Islands lie so thick, and there is so little room to stir, that you should take a Pilot both in and out. But the best Haven among all these Islands is *Porto Palermo*, lying not above one L. from the Haven of *Lessina* due N. and upon the same Island; the Entrance is between two Mountains, and when you are in, 'tis still Water like a Mill-pond, no Wind can disturb you; the Ships lie broad-side to the Shore, with Head-fasts and Stern-fasts, and no need for Anchors or Cables. There is also another small Haven between the last two, which is call'd *Porto Grego*, where you lie moor'd to a Rock, and safe from all Winds. There are many small Islands lying before the Entrance into these Havens, and you may anchor among them, but 'tis not advisable, for the Ground is generally foul, and the Water very deep, at least 30 to 35 Fa.

There are so many good Roads and Havens among the other larger Islands, that you need run no Hazards in these doubtful Places: There are good Roads at *Torkelio*, *V. Agosta*, *Andria*, *Brassia*, *Corfola*, *Porto Carbon*, and many others.

N. B. There is a little Island in the middle of the Gulph, call'd *Pelagosa*, mention'd before; 'tis dist. from *Cape Vestice* 13 Ls. N. and from the Isle of *Lisa* 12 Ls. S. It is very needful Strangers should have notice of it, it being dangerous in the night. There is also a small Rock lies about a League eastward from the Island; 'tis dangerous, because it lies even with the Water, and sometimes is cover'd. There is another great Rock between that and the Island, but that is always above Water.

In the Island *Corfola* is the City *Corfolla*, a Place of note and with a very good Haven, secure from all Winds on that side, lying on the S.W. part of the Island, and having five little Rocks lying in a Semi-circle before the Entrance; so that nothing can hurt a Ship when once it is in.

Within this Island lies the Point of *Sabioncella*, and the Town of the same Name on the S.W. Shore of it; there is 22 to 23 Fa. Water between, and good riding, but the Passage is block'd up with Rocks at the S.E. end, so that there is no passing in or out, but with extreme hazard, unless you take a Pilot: The only clear Passage is close under the Main.

From hence going on S.E. and S.E. by E. is the Island *Malledda*, dist. 5 Ls. Here is a River and Port; and tho' the River can be but of short Course, the Island being only 6 Ls. long, yet it is navigable 2 Ls. and the Channel very deep, from 35 to 50 Fa. Here are also three other small Islands, having Havens or Roads at them all, viz. *St. Augustine*, *Jap-pano*, and *Isla Mesa*.

From *Malledda* it is 6 Ls. E. to the City of *Ragusa*, throug'd

might tols a Bisket Cake on Shore, the Rock is steep, and all secure. Half a L. off from this Rock is another Shoal S.E. from it, where is not above 8 to 9 Foot Water, you must heave the Lead for it, which will soon discover it, for you have 16 Fa. just before.

From this Cape dist. 22 Ls. lies *Insula Longa*, or *Long Island*; the Course is S.E. easterly: Between them is the Island *Sausigo* at the S. end of the Island *Offero*; there you have an excellent Road, clean Ground, and what Depth you please, being secure from all Winds. There is a foul Bank indeed which lies N.W. of the Island, dist. something less than a L. but as there is Water enough over it, the only danger is of losing your Anchor, if you should attempt to ride there: but 'tis clean and good Ground both within and without it.

Within the Island of *Offero* lies a Haven call'd *Porto Monigo*, where there is a good Road as to the Winds, (being well shelter'd but the Ground is foul: And E. of *Sausigo* dist. 3 Ls. is the Island of *St. Pedro de Nino*, where there is a very good Haven: This is the most southerly of all the Islands, whereof this Bay is so full. There is 10 to 12 Fa. Water in this Harbour, a clear Entrance, and you may anchor where you please, so that you need no Pilot.

Next you come to *Long Island*; there are several Rocks and Islands lie between it and the last mention'd Islands, and abundance more between it and the Shore; the chief of those between *Long Island* and the *St. Pedro*, is the Island of *Molato*, where is also a fine Haven call'd *Porto de Molato*, where you ride in 30 to 35 Fa.

Insula Longa is indeed, according to its Name, a *Long Island*, lying parallel with the Shore, 30 Miles in length, and scarce two over; stretching N.W. and S.E. There are many small Islands between it and the Main; but with the help of Pilots you may sail between them to the City of *Zara*, where there is a good Haven, and the Heads or Piers come so near that the Mouth of the Haven is shut up with a great Chain, and in case of War with a Bomb: But it is open'd for the paying a small Duty, which the Pilots include in their Wages, and account for to the City.

From *Long Island* it is 10 Ls. to *Cape Cesio*, where there is a tolerable Road, but no Haven: The Course to the Cape is S.E. and from thence due E. to the Island of *Bua*, where indeed is no Haven, tho the Water is deep, and the Shore bold and safe; so you need no Pilot.

From *Bua* you turn to the southward to *Lisa*; it is a small Island, and has a good Haven on the N.E. end, but goes in S.S.E. it is dist. from *Bua* 9 Ls. At the W. end of *Lisa* is another Harbour, or rather a Road, call'd *Porto Camisi*; there is good anchoring, but a Westerly and W.N.W. Wind blows right in: There is good riding in most places round this Island, but always open to one Point or other.

Here are other Islands as well without as within, which tho many of them are uninhabited, are needful to be known; be-

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Within this Island lies the Point of *Sabioncella*, and the Town of the same Name on the S.W. Shore of it; there is 22 to 23 Fa. Water between, and good riding, but the Passage is block'd up with Rocks at the S.E. end, so that there is no passing in or out, but with extreme hazard, unless you take a Pilot: The only clear Passage is close under the Main.

From hence going on S.E. and S.E. by E. is the Island *Malledda*, dist. 5 Ls. Here is a River and Port; and tho' the River can be but of short Course, the Island being only 6 Ls. long, yet it is navigable 2 Ls. and the Channel very deep, from 35 to 50 Fa. Here are also three other small Islands, having Havens or Roads at them all, *viz.* *St. Augustine*, *Japapano*, and *Isla Mefia*.

From *Malledda* it is 6 Ls. E. to the City of *Ragusa*, throng'd with Islands and Rocks all the Course; just before the Port lies the Island *Cromma*, and the Road which is very safe and good lies between; the Port of *Ragusa* is known by the Church upon a Mountain behind the City, which is seen a great way to seaward.

From the Island *Malledda* to *Catarro* is 12 Ls. E. by S. and E.S.E. The *Gulph of Catarro* is the Mouth of a considerable River, but not navigable, higher than the City; there is a very good Road in the Mouth of the Gulph, and a Fortrefs call'd *Castle Nova*; but the chief Road and Harbour is before the City, where there is a good Haven, but you must go up with a Pilot.

From *Castle Nova* to *Budoa* is 5 Ls. the Course S.E. by E. There is a good Port at *Budoa*, and a very good Road behind the Point on which the Castle stands; as there is likewise at *Antonari* on the same Coast. Six Ls. from *Budoa* lies the City of *Dulcigno*; the Course likewise S.E. by E. At *Dulcigno* there is a Road, but no Haven; and at *Valdenosi*, which is just by it, is a good Road; but there is not one good Haven on all this part of the Coast, till you come to *la Valona*.

Next to this Fort is the Gulph of *Lodrin*, where is a City of the same Name, and a River with a good Road for large Ships, and under the Shelter of a Castle.

Just under the S. Point of the Gulph of *Lodrin* S.E. lies the City and Harbour of *Durazzo*. From the Island *Malledda* hither, the Course is S.E. by E. 53 Ls. and from *Durazzo* to *Valona* is S. 17 Ls. This last is an excellent Haven, there is an Island just at the Entrance which breaks off the Sea, and secures it from southerly Winds, the Main shelters it from northerly; and the Points of the Entrance, being both very high Land, secure it from the E. and W. so that nothing can hurt you. Here is also a very good Watering place.

From the Port of *la Valona*, but in particular from the Island *Soasfu* at the Mouth of that Haven, it is 15 Ls. to the

Island of *Fanu*, off of the N. end of *Corfu*, the Course S. by E. Between *Fanu* and *Corfu* is a good Road, under the Lee of a little Island call'd *Marlere*, as also behind the Rocks call'd *Frefcoglie*, which lie on the same side of *Corfu*, and under the N. end of *Corfu* it self; in both which Roads you have 10 to 12 Fa.

If you come in from the northward, and are bound to *Corfu*, keep the Main on board, and go in by the Island of *Serpe*, which lies just at the Entrance; but you must have a Pilot, as well for the Bay and Haven of *Corfu*, as for the whole Passage between the Island and the Main.

The S. end of *Corfu* is call'd *Cape Blanco*; there is a Shoal there runs off from the Point a great way into the Sea, which you must avoid if you come from the southward, by keeping close to the N. Point of the Island *Pachfu*, till it bears S.W. by S. and till a high round Mountain upon the Main shews it self to the southward of the Point of *Corfu*, and another Island shews it self also near the Main: Keep these all N.E. by N. from you, and you may sail in with them into *Corfu*.

Come no nearer the Shoalings of the Sand, than from 10 to 6 Fa. for it is foul and rocky, and uneven Ground; if you will go farther in take a Pilot.

From the Island *Fanu* to *Pachfu* is 23 Ls. the Course S.E. by S. and from thence to the Isle of *Cephalonia* is 32 Ls. S.S.E. There are several Havens in *Cephalonia*, the best is call'd *Porto d'Arogosto*, or *Arogostoli*, to the southward of *Cape Sidero*. There is a good Road behind the Island *Guardia*, before you run into the Haven, where you have 8 to 9 Fa. and the Island reaches E. and W. on both sides the Haven: *Cape Sidero* is the westernmost Point of the Island; and the *White Point*, or *Cape Blanco*, is the S. Point, and lies opposite to the Island of *Zant*, dist. about 5 Ls.

To sail from *Cephalonia* to *Zant* your Course is due S. if you come from the Port or City of the same Name with the Island; but if you come from the Island *Guadiana*, the Course is S.E. by S. To go into the Harbour of *Zant*, you must make the N.E. Point first; then keeping up to it, sail along close by it till it comes abaft the Mast, and then go directly for the City, which you will see before you. There is good anchoring almost all the Way between the N. Point and the N.E. Point in 15 to 18 Fa. but when you are about the N.E. Point, you ride before the Mole in 8, 10 to 12 Fa. good holding Ground, and you have 4 to 6 Fa. in the very Haven it self, within the Heads. The N.E. Winds blow right in and make a foul Sea in the Road.

On the S. part of the Island, between the S. and S.E. Points, is a very large and commodious Bay, with very secure riding in 8 to 12 Fa. with an Island on the S.E. side, which breaks off the Sea and shelters from the Wind at the same time: The Shore is full of Rocks all about, which makes that Road the safer when you are in. The *Turkish* Fleets often ride here, tho the Island is not their own, there being no Forts or Batteries to prevent them.

Islands and Coasts of the Adriatick and Ionian Seas.

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Channels in, and some Difficulties in the Entrance, you may avoid all by taking a Pilot at *Sapienza*, and the same for the Haven of *Navarin* which is on the other side the Point.

There are several Islands lie off of this Bay and off the Point, between which you may sail if you are bound out of the Sea to *Modon*; and among them are several very safe Roads, and good anchoring, such as *Venetica*, *Caurera*, and *Sapienza* it self, as also the Bay of *Carama*, *Vitello*, *Jabega*, and *Corota*. In this Space, and S. of *Cape Matapan*, dist. 16 Ls. and 3 Ls. N. from *Venetica*, lies the Bay and City of *Coron*; you will see it at Sea as you sail by: There is a good Road under the Point a little to the S.W. of the City, and a Mole and Haven at the City, but it needs no Pilot or Description, for 'tis all open before it, and clear Ground.

Cape Matapan lies E. by S. from *Point Sapienza* 16 Ls. 'Tis a sharp Point, without any good anchoring-ground on either side of it, and the Water exceeding deep, being 50 to 60 Fa. in some Places. To the northward of the Cape about 4 Ls. is a large deep Bay, where you may ride with great safety: This is on the E. side of the Cape, and on the W. side is a great Rock about half a L. off from the Shore, but it may be seen above Water.

The Cape is very uneven, so that the extreme Point, which is high, looks at a distance like an Island. To the eastward lies a great Bay in the way to *St. Angelo*, and to the northward in the Bay is a good Haven, especially for Vessels bound to the eastward. There is an old ruin'd Castle a little within the Land, by which the Haven may be known, especially by its having a Wall reaching from the Castle to the Water's-edge. To go into the Haven, you must sail right with the said Castle in the Fair Way, avoiding either Shore, for both are foul.

There is a great Rock also in the middle of the Entrance, but there is Water enough over it; and when you are over it, you may anchor any where in 10 to 15 Fa. The Anchor-hold is good, and you are shelter'd from all Winds. From this Haven to the Island of *Serigo* is 9 Ls. S.S.E.

There is another good Haven also N. of the Point, dist. 3 to 4 Ls. safe and deep Water, as the other; it is known by a red Point on the S. side, and a Castle on the N. side of it: You need no Pilot here, but may run in directly between the red Point and the Castle; go as far up as you please, you will have 12 or 16 Fa. good hard Sand, and clean from Rocks. From *Serigo* to this Haven the Course is N.W. westerly: In the same Bay is the Road of *Paguano*, a Place much frequented by Seafaring People.

Due N. from the Cape lies the Haven of *Rapa*, antiently *Rapini*; if you would go in there, 'tis needful to take a Pilot.

All this Coast from *Modon* to *Cape St. Angelo* is call'd by the Inhabitants *Bratsa de Meyn*; 'tis all the way full of Havens and Ports, and good Roads.

From *Cape Matapan* to *Serigo* the Course is E. by S. 9 Ls. it lies from the Main at least 4 to 5 Ls. The Point of the Island lies high, as does also the Main beyond it; so that as

S.E. by S. To go into the Harbour of *Zant*, you must make the N.E. Point first; then keeping up to it, sail along close by it till it comes abast the Mast, and then go directly for the City, which you will see before you. There is good anchoring almost all the Way between the N. Point and the N.E. Point in 15 to 18 Fa. but when you are about the N.E. Point, you ride before the Mole in 8, 10 to 12 Fa. good holding Ground, and you have 4 to 6 Fa. in the very Haven it self, within the Heads. The N.E. Winds blow right in and make a foul Sea in the Road.

On the S. part of the Island, between the S. and S.E. Points, is a very large and commodious Bay, with very secure riding in 8 to 12 Fa. with an Island on the S.E. side, which breaks off the Sea and shelters from the Wind at the same time: The Shore is full of Rocks all about, which makes that Road the safer when you are in. The *Turkish* Fleets often ride here, tho the Island is not their own, there being no Forts or Batteries to prevent them.

Opposite to the Port of *Zant* and on the Main, is a Port and Road call'd *Tornese*, much used by *English* Ships for lading Currants; but 'tis a bad Road and foul Ground.

Seven Ls. S.E. from *Zant* lies the Island *Siravalli* or *Stafadia*; 'tis noted only that it may be avoided, being foul all round, and lying so low, almost even with the Water, that 'tis very dangerous, for Ships are almost foul of it before they see it. From this Island to *Cape Sapienza* on the *Morea* is 11 Ls. The Course S.E. by S. The Island *Sapienza*, from whence the Cape has its Name, lies 2 Ls. farther S. and E. of the Point lies the famous City of *Modon*, and N. of it the as famous Haven of *Navarin*: If you are bound into any of these Ports, you will find it necessary to take Pilots.

All the Coast of the *Morea* to the northward of *Zant* is a fair deep Shore; but as the *Turks* permit no *European* Ships to go into the *Gulph of Corinth*, call'd now the *Gulph of Lepanto*, we have no need to take the Survey of it here. 5 Ls. N. of the Point of *Modon* is a very good Road, where you are secure from easterly and westerly Winds, but a S. or S.S.W. Wind blows in, and makes it an uneasy Road.

As *Modon* is noted for Shipping, 'tis necessary to describe it a little: The anchoring Place before it is a clean fair Strand, the Ground good, and what Water you please. There is a way into the Road between *Cape Sapienza* and the Castle; but you have no anchoring till within a Mile of the Castle, where you have from 10 to 20 Fa. but as there are several

Sailing Directions for the Sea Coasts of the Island of Candia North from Cape St. John

 THE westernmost Point of the Island of *Candia* is call'd *Cape St. John Baptist*, it lies from *Cape Passaro* in *Sicily* E. by S. 140 Ls. or thereabouts. This *Cape St. John* is low Land, and the Ground about it is foul, there lying near it two or three great Rocks; but to the eastward of the Cape

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Haven to the Island of *Serigo* is 9 Ls. S.S.E.

There is another good Haven also N. of the Point, dist. 3 to 4 Ls. safe and deep Water, as the other; it is known by a red Point on the S. side, and a Castle on the N. side of it: You need no Pilot here, but may run in directly between the red Point and the Castle; go as far up as you please, you will have 12 or 16 Fa. good hard Sand, and clean from Rocks. From *Serigo* to this Haven the Course is N.W. westerly: In the same Bay is the Road of *Paguano*, a Place much frequented by Seafaring People.

Due N. from the Cape lies the Haven of *Rapa*, antiently *Rapini*; if you would go in there, 'tis needful to take a Pilot.

All this Coast from *Modon* to *Cape St. Angelo* is call'd by the Inhabitants *Bratsa d' Meyn*; 'tis all the way full of Havens and Ports, and good Roads.

From *Cape Matapan* to *Serigo* the Course is E. by S. 9 Ls. it lies from the Main at least 4 to 5 Ls. The Point of the Island lies high, as does also the Main beyond it; so that as you come against it from the Sea westward, it seems to be a part of the Land of the *Morea*.

Under the S. Point of *Serigo*, on the E. side of the Point, there is a fine Bay with very good anchoring; bring the E. Point to bear E. by S. and the S. Point S.W. by S. from you: Then you are in the best of the Road, and have 23 Fa. but 'tis a wild Road in a S. or S.E. Wind. S.S.W. from the S.W. Point of the Island, lying one L. from the Shore, is a great Rock call'd *L'Ovo*, or the *Egg*; but as it is above Water, the Danger is the less. 3 Ls. off of the S.E. Point lie the *Dragooners*, they are three little rocky Islands with a good Road under them, on the side of the main Island; they are good Marks to know the Island by, and so is the Island for them. Under the northermost of those *Dragooners* you have 22 Fa. with a Fast to the Rock, and no Danger, being well shelter'd from all Winds.

From the E. side of *Serigo* to *Cape St. Angelo* is 6 Ls. the Course N.E.

N. B. This Island is generally the Place, where Ships bound out of the *Adriatick Gulph* for *Constantinople*, or any of the Islands in the *Archipelague*, come to an Anchor for a Wind, and so again in their Return.

N. B. The Islands of *Serigo* and *Serigoto* lie in the Fair Way between the Islands of *Candia* and *Cape St. John Baptist* on the Island of *Candia*, that *Cape* and *Cape St. Angelo* in the *Morea*, bearing due N. and S. dist. about 24 Ls.

Coasts of the Island of Crete, or Candia, beginning on the from Cape St. John Baptist inclusive.

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St. John it stretches N.E. 9 Ls. till you are past three Islands
which lie to the northward of *Cape St. John*: One of these
Islands

Sailing Directions for the Coasts of the

Islands lies 3 Ls. from the main Island of *Candia* towards *Serigo*; and from thence you may see the Island *Serigoto*, which lies between them, bearing N. 7 or 8 Ls. from you.

When you sail by the aforesaid Island, you may also see *Cape Spado*, bearing N.E. from you. This Cape is a high Point of Land on the N. side of *Candia*; and eastwards from it, about 7 Ls. the Land appears like another great Cape: But that Cape is 3 Ls. farther to the eastward, and is a high steep Point call'd *Mallecha*. Upon the W. end of an Island off of *Cape Spado*, where you will see a great many Cypress Trees growing, there is good riding, and good Anchor-ground, and fresh Water to be had at several Places with great convenience.

Between *Cape Mallecha* and *Cape Spado* lies the City of *Canca*, in a deep Bay, which reaches in S.E. by E. and where there is very good anchoring for Vessels under 100 Tun.

About a L. W. by S. from *Canca* lies the Island *Urula*, on which there are two Castles. On the S.E. side of that Island there is a good Road, but you must sail to the eastward of the Island to get into it; for on the S. side there is a Ledge of Rocks reaching from the Main to the Island, so that you cannot sail thro' to the southward: You may also anchor close under the Island on the E. or on the N. side, for there it is very clean; and you may lie with your Ship-side close to the Shore.

When you lie in that Road, the E. Point of the Island lies N.E. and the E. part of the Island of *Candia* E.N.E. from you.

A little to the westward of *Canca* are several Rocks under Water very dangerous, so that you must be careful to avoid them. The Haven of *Canca* is not able to receive great Ships, but Ships of a small Draught may go in very readily, and lie near the Shore, tho the Ground is not very clean.

Cape Mallecha or *Mellacha* is a high steep Land, and may be very well known. On the E. side of it lies *Suda*, or *Zuda*, a very fair Haven, the best on that side of the Island, without which lies a Rock, and upon the Rock stands a Castle, near which you may ride in 12 or 14 Fa. and but a little way off you will have 30 to 40 Fa. and at some places foul Ground too; therefore you must anchor under the Castle; for if you are past the Rock, there is 50 or 60 Fa. The Ground round about this Rock is clean and dry, but every where else loose and foul.

Five or 6 Ls. to the eastward of *Zuda* lies the City of *Retimo*, where there is a very good Bay, and a Road for all southerly Winds. About 12 Ls. to the eastward of *Cape Mallecha* lies the City of *Candia*, the Capital City, (as well as the best Port) of the whole Island, tho the Haven is almost like the Haven of *Canca*, only fit to receive Ships of a small Draught.

Four Ls. N.N.E. of the City of *Candia* lies an Island call'd *Standia*; you may see it when you are just past *Suda*, the Land being very high at *Standia*. You have 3 convenient Havens here, the westernmost is the worst, and there stands a Tower on the W. Point; but the two easternmost are very good Harbours, where you may lie with a Fast ashore.

About a Musket-shot to the eastward of *Standia* lies a very high Rock above Water: also a little N.W. of *Candia* lies a Point of Land call'd *Friskin*. When the 2d snowy Mountain bears S. by W. from you, then steer away S.S.E. till the Island

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be known, nam'd *Mount Ida*, call'd by some *Moses's Temple*: When you bring that to bear S.S.W. from you, or first make it in your sailing from *Standia*, you will be then just before the City, where you may anchor in 20 or 15 Fa. and then the Point of *Friskin* will bear N.W. the Island of *Standia* N.E. the City of *Candia* S.W. and the outermost part of *Candia* to the eastermost will then bear E. from you; there is good Anchoring and good Ground, and from thence you may see into the Haven.

The Haven of *Candia* is very narrow and doubtful at the Entrance. Coming from the Road towards the Haven, you will not have above 3 Fa. and in the very Entrance not above 14 Foot. On the N.W. side of the Haven stands a Castle, and at the S.E. side lies a Mole; now those that would ride within the Mole, must sail nearest to the side on which the Mole is built, and leave the N.W. side, on which the Castle stands, for on the other side is the most Water: and as soon as you are come within the Mole, you must luff up round, and come to an Anchor close under it, riding with 2 Fasts ashore on the Mole, and 2 Anchors out astern towards the City.

If you would sail from the City of *Candia* eastward, then sail from the Island *Candia*, or the Island *Standia*, due E. and you will come right on the Island *Scarpanto*, to the Westward of which lies the Isle of *Caxo*. If you would go between them, keep nearest to *Caxo*, for near *Scarpanto* lie some sunken Rocks, which you ought to beware of; they may be discern'd by a Rippling and Breach of the Water on them. The Channel reaches in S.E. and N.W. but W. of *Caxo*, which is between *Caxo* and *Cape Solomon*, the Place is wide and large to sail thro', and sufficient Depth of Water.

The eastermost Point of *Candia*, which is *Cape Solomon*, is a reasonable high steep Point, with an Island close by the same, but no Anchoring thereabouts.

Five or six Ls. to the eastward of this Cape, at the S. end of *Candia*, lie 2 Islands call'd *Christiana*; you may sail between those Islands and the Island of *Candia*, whithersoever you are bound.

Ten Ls. to the westward of these Islands lie other two Islands call'd *Chaldereno* or *Calderoni*; and a little farther westerly about 15 Ls. lies the Island of *Cabrera*: they both lie very close to the Land, no Channel fit to sail thro' being between.

Due E. from *Cabrera* lies a fair Bay, in which is a good Road: there lieth another also to the westward, which likewise is a good Road. From thence W.S.W. 12 Ls. lies the Island *Gosfo*, and another low Island to the westward of it, call'd *Antegosfo*.

Gosfo is high at the W. end; and at the N. side is a fair sandy Bay, and a good Road: there is good fresh Water to be had; and at the S.W. Point of *Gosfo*, not far from the Land, lies a Rock under Water, which is very dangerous.

Gosfo and *Cape St. John*, being the westermost Point of *Candia*, lie N.W. by N. and S.E. by E. dist. 11 Ls. from each other.

Those that come from *Cape Passaro* in *Sicily*, and would go to the southward of *Candia*, should sail E. by S. somewhat southerly, otherwise they will not get to the southward of *Candia*.

The S. side of *Candia* is towards the W. part of it, very high Land, most times cover'd with Snow, and reaches about

30 to 40 Fa. and at some places foul Ground too; therefore you must anchor under the Castle; for if you are past the Rock, there is 50 or 60 Fa. The Ground round about this Rock is clean and dry, but every where else loose and foul.

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About a Musket-shot to the eastward of *Standia* lies a very high Rock above Water: also a little N.W. of *Candia* lies a Point of Land call'd *Friskin*. When the 2d snowy Mountain bears S. by W. from you, then steer away S.S.E. till the Island *Standia* bears E. by S. from you, and till you get that which lies behind *Point Friskin* to bear N.W. and N.W. by W. from you; then you are in the best of the Road before *Candia*. Just before *Candia* lies a great Mountain, which is easy to

bound.

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Sailing Directions for the Coasts of the Morea, from the Passage thro' the Archipelague, and the second Passage, to the Dardanelli, and the City of Constantinople, and the Navigation of all the Coasts of Europe.



IN sailing thro' the *Aegean* and *Ionian* Seas, antiently call'd the *Archipelago*, but by the Moderns the *Archipelagu*, and by the Sailors the *Arches*, you may take several Courses, according as the Port lies to which you are bound, supposing you come from the West, or at last touch'd at *Cape St. Angelo* on the S.W. Point of the *Morea*: But of all the rest of the Passages, two are in particular the most used, and esteem'd the best Channels, being in the Seamens Language, *The Fair Way*.

1. The 1st, which passes from between *Serigo* and *Serigo* to N.E. by E. after going in sight of *Cape St. Angelo*, steers N.N.E. and then N. by E. passing between the Islands of *Zea* and *Macronisi*, and with the same Course, a little more northerly, goes between *St. Andrea* and the S.E. end of the Island of *Negropont*; then steers away due N. and N. by W. and N.W. either for *Salonichi*, and the Gulph of *Volo*, or N. by E. to *Mitylene* and the *Dardanelli* for *Constantinople*.

N. B. This is the usual Course the *Venetian* Ships take when they go the height of *Lemnos* and *Tenedos*.

2. The 2d Course is, passing from the same Point between

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fouth- *Gosò* is high at the W. end; and at the N. side is a fair sandy Bay, and a good Road: there is good fresh Water to be had; and at the S.W. Point of *Gosò*, not far from the Land, lies a Rock under Water, which is very dangerous.

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the best The S. side of *Candia* is towards the W. part of it, very high Land, most times cover'd with Snow, and reaches about half way the Island; but from thence eastward it is low, and shows at a great distance to be Hills, and broken Land, tho when you come nearer to it you find it otherwise.

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Havens The S. side of *Candia* is towards the W. part of it, very high Land, most times cover'd with Snow, and reaches about half way the Island; but from thence eastward it is low, and shows at a great distance to be Hills, and broken Land, tho when you come nearer to it you find it otherwise.

Tower The S. side of *Candia* is towards the W. part of it, very high Land, most times cover'd with Snow, and reaches about half way the Island; but from thence eastward it is low, and shows at a great distance to be Hills, and broken Land, tho when you come nearer to it you find it otherwise.

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mountain The S. side of *Candia* is towards the W. part of it, very high Land, most times cover'd with Snow, and reaches about half way the Island; but from thence eastward it is low, and shows at a great distance to be Hills, and broken Land, tho when you come nearer to it you find it otherwise.

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easy to The S. side of *Candia* is towards the W. part of it, very high Land, most times cover'd with Snow, and reaches about half way the Island; but from thence eastward it is low, and shows at a great distance to be Hills, and broken Land, tho when you come nearer to it you find it otherwise.

the Morea, from Cape St. Angelo exclusive; with the several Islands and Coasts in the said City of Constantinople inclusive, compleating the Morea.

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is more than 3 Ls. broad, a clear Sea, and full of Shelter on all Occasions.

In the passing this length, you have several Islands on both hands of you, and many of which you will see or not see, as the Weather is clear or hazy, viz.

1. *Maricarvo*. 2. *Terra Polla*. 3. *Falconera*. 4. *St. George* or the *Cardinals Hats*. 5. *Milo*. 6. *Antemilo*. 7. *Firmio*, and several other smaller Islands.

1. *Maricarvo*, or *Carava*, or *Grava*, lies N.E. from *Cape Angelo* 8 Ls. 'tis a black rough Rock and no better; small for an Island, but large for a Rock, 'tis about as big as the Hulls of 2 or 3 Ships; it is of no use to be described, but that it may be avoided by the Mariners; there is no Riding about it or going near it: you leave it on the Larboard-side, and go on to *Falconera* E. by S. 6 Ls. This Island lies to the eastward of the direct Passage above-nam'd; but they who go to the eastward of *Grava*, choose to go to the eastward of this also; nor is it of any Consequence on which side you go, so that you keep at a good distance from them both.

Terra Polla, or *Bella Polla*, as some call it, lies more to the westward of the Passage; it lies from *Cape Angelo* N.E. by N. 12 Ls. It is a small high Island, and makes like 2 Islands with 2 high round Hills: it bears with *Grava* N.N.W. and S.S.E. dist. 4 Ls.

St. George, or the *Cardinals Hats*, lies in towards *Cape Colonn* and the Gulph of *Athens*, or the *Eubæan Sea*, S.W. by S. from the Island *Macronisi*; 'tis high and steep, and easy to be known by the tops of the Hills, which make our Sailors call it the *Cardinals Hats*. In the Fair Way nam'd above you go close under it, but there is no Road or Harbour in or near it, and hardly any Bottom about it.

Macronisi is a low flat Island, having two small Hills at the S. end of it about a Mile asunder, and by that Mark it is to be known; they are indeed upon two little Islands distinct from, but close to the main Island, and are not seen to be Islands as you pass along: the Island it self lies N.N.E. and S.S.W. a little easterly and westerly.

Zea is higher Land, and near it is another Island call'd *Firmio*; they are both hilly: There is a very good Haven at *Zea*, able to receive a great Navy, being well shelter'd, and having any Depth of Water from 20 to 30, and 32 Fa. and with gradual Shoalings to 2 Fa. In the best of the Road you have 17 to 18 Fa. and in another Part good Riding in 7 to 10 Fa. The Entrance is narrow, tho without any Cattle or Guns: you go in due S.E. or a little southerly: but when you are in, it spreads every way to the E. and N.E. and to the S.W. and S.

From *Zea* to *Macronisi* the Course is N.W. northerly: *St. George* lies from you W.S.W. and the Isle of *Negropont* due N. 8 Ls. You will know the Haven of *Zea* by very good Marks; as first. a white Church or Steeple on the N. side of the Entrance into the Haven, which is seen off at Sea 4 or 5 Ls. Open with the Mouth of the Haven, you see a round Mountain with

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Besides the Haven, there is also a good Road without the Harbour, under a little Island, due W. from the Harbour's Mouth, and not a L. off: There you ride also very safe, in 18 Fa. hard sandy Ground. Also on the E. side of the *Porto Lion* is a little Bay, which runs far in to the Land, and in which there is another Haven; tho' indeed the Bay is it self a Haven, secure from almost all Winds, and good Anchoring any where.

At the Island *Pelenda* there is good Anchoring in 17 to 18 Fa. good Ground; it lies S.E. from *Athens* about 3 Ls. and W. by S. from Cape *Colonna* 4 Ls. but there are many Rocks about this Island, and some of them under Water, which is dangerous; otherwise in all this Gulph you need no Pilot.

Between *Macronisi* and *Negropont* lies the Island of *Andros*, call'd here *Andrea*: it lies from *Zea* N.E. by E. 8 Ls. The Channel between this and *Negropont* is about a L. broad: there is also a Channel between *Andros* and *Tinos*, which is 2 Ls. broad; and either of these serves for the same Course northward: But the first is the safest Passage, tho' not the broadest; for on the side of *Tinos* there are Rocks under Water, and those that use this Channel must be careful to avoid them, by keeping to the side of *Andros*; and if they are to turn it up, must not stand over too near to *Tinos*.

Having gotten thro' this Channel, they may stand away for *Scio* and *Smyrna*, as they please, or keep to the N. and steer for *Mitylene* and the *Dardanelli*. If they would go for *Scio*, the Course is N.E. by E. 18 Ls.

The Isle of *Andros* stretches away N.W. dist. from the Mouth of this Channel 9 Ls. to some small Islands which lie on the W. side of it; and from thence N.N.W. N. N.N.E. and at last N.E. At the W. end of the Island there is a Haven, but 'tis a sorry Place, full of Rocks, and very difficult to get in if you are out, (and may be in distress) or to get out when you are in; nor is it good Riding when you are in. From the N. Point of *Andros* to *Scio* is 16 Ls. the Course is E.N.E. and to the Island call'd the *Caloyers* 5 Ls.

To go from *Cape Angelo* to *Scio*, the Fair Way is as before; but your exact Course is E.N.E. a little northerly. After you are past the Island of *Antemilo*, go away N.E. by E. according as you have the Wind; as to the Islands in the way, it is not of absolute Necessity to leave them on this Board or on that; for most of them may be sail'd round on any board, and you may come into the Course again, when you are past them.

The first Island you make from the Cape is *Milo*, or *Millo*, due E. from the Cape: It is high Land, and makes in the Shape of two Hills, the southermost is the biggest, *Antemilo* is less, but as high as the other, and round in form, come to it which way you will: the Course to it from the Cape is E. by N. and from *Milo* N.W. you may see it 10 to 12 Ls. at Sea. There is a good Haven on the N. side of *Milo*, it goes in S.E. by S. and S.E. and is secure from all Winds: But in case of a northerly Wind there goes a great Sea; it is very good when you are in a proper bearing within the Haven, but you must not go in, or moor your Ship when you are in, without a Pilot.

Antemilo lies close to the University of *Milo*, (wher it also

you pass along: the Island it self lies N.N.E. and S.S.W. a little easterly and westerly.

Zea is higher Land, and near it is another Island call'd *Fir-mis*: they are both hilly: There is a very good Haven at *Zea*, able to receive a great Navy, being well shelter'd, and having any Depth of Water from 20 to 30, and 32 Fa. and with gradual Shoalings to 2 Fa. In the best of the Road you have 17 to 18 Fa. and in another Part good Riding in 7 to 10 Fa. The Entrance is narrow, tho without any Castle or Guns: you go in due S.E. or a little southerly: but when you are in, it spreads every way to the E. and N.E. and to the S.W. and S.

From *Zea* to *Macronisi* the Course is N.W. northerly: *St. George* lies from you W.S.W. and the Isle of *Negropont* due N. 8 Ls. You will know the Haven of *Zea* by very good Marks; as first, a white Church or Steeple on the N. side of the Entrance into the Haven, which is seen off at Sea 4 or 5 Ls. Open with the Mouth of the Haven, you see a round Mountain with a large Building on it, like a Church or Cloister: beyond that you see the Land much higher than the Building, and on it 5 Windmills altogether; bring those Mills to bear S.S.E. and go with them so, and you will soon see the Church on the Point of the Haven.

The Haven runs in S.E. by S. and notwithstanding it is so good Riding, yet it is so large when you are in, that you will find you may want a Pilot to direct you where to ride.

There is a good Haven at *Macronisi* also, but not like that of *Zea*; it goes in on the W. side between the Island and the Main: you may sail thro', but there are many Rocks at the N. end of the Island, which you must be very careful of: If you are bound in either to the Haven, or to go thro' the Passage, take a Pilot, for 'tis difficult.

N. of the Island lies the Haven of *Porto Raphi*, being at the Entrance into the Channel of *Negropont*, or between the two Islands: 'tis fam'd for being the most convenient Haven in all the *Archels*, and especially for Ships in Distress, because you run in so readily with almost any Wind.

N.W. from Cape *Colonna* goes in the great Gulph of *Angia*, which reaches within 6 Miles of the Gulph of *Corinth*, but is ignorantly by the Pilot Books call'd the Gulph of *Corinth*; whereas the Gulph of *Corinth* is the same which is now call'd the Gulph of *Lepanto*, and opens into the Mouth of the *Adriatick* Gulph, about 20 Ls. N.E. from *Cephalonia*. This Gulph is by some call'd the Gulph of *Cenchraea*, because the Haven of *Cenchraea* lies at the farther end of it. *Cenchraea* was formerly the Port on this side to the City of *Corinth*, as *Lecheus* was in the other Gulph, now call'd of *Lepanto*.

In this Gulph is the Haven of *Athens*, now call'd *Porto Lion*: 3 Ls. E. of it stands a Castle upon a high Mountain, which is the Mark by which the Haven is to be known: The Haven is good still; the Entrance is like that of *Zea*, narrow; but when you are in, 500 Sail may ride at large in 9 to 10 Fa. good clean Ground, and safe from Rocks or Storms.

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To go from *Cape Angelo* to *Scio*, the Fair Way is as before; but your exact Course is E.N.E. a little northerly. After you are past the Island of *Antemili*, go away N.E. by E. according as you have the Wind; as to the Islands in the way, it is not of absolute Necessity to leave them on this Board or on that; for most of them may be sail'd round on any board, and you may come into the Course again, when you are past them.

The first Island you make from the Cape is *Milo*, or *Millo*, due E. from the Cape: It is high Land, and makes in the Shape of two Hills, the southermost is the biggest, *Antemili* is less, but as high as the other, and round in form, come to it which way you will: the Course to it from the Cape is E. by N. and from *Milo* N.W. you may see it 15 to 12 Ls. at Sea. There is a good Haven on the N. side of *Milo*, it goes in S.E. by S. and S.E. and is secure from all Winds: But in case of a northerly Wind there goes a great Sea; it is very good when you are in a proper bearing within the Haven, but you must not go in, or moor your Ship when you are in, without a Pilot.

Antemili lies close to the Haven of *Milo*, so that it almost blocks it up; which makes the Harbour of the last the more secure: there are several Rocks between, to go among which the Pilots will inform you.

On the N.E. side of *Milo* lies *Argentera*, a small Island; and between them is a good Anchoring abreast of a white old Church; it is call'd the Road of *Argentera*: you have 12 to 13 Fa. in it, and good Ground.

There is also a Haven at the S.E. end of the Island *Serfou*; but 'tis Pilot's Work to go in. There is a small Haven also at *Sifanto*.

As the Fair Way from the westward to the Port of *Smyrna* lies between the Islands of *Serfou* and *Sifanto*, and then between *Tinos* and *Mycone*, those that are bound to *Smyrna* should be careful in this part of the Passage, which is the most difficult; the first part of the Course is N.E. by E. and E.N.E. towards the S. end of the Island *Syra*; then an E.N.E. Course leads them to the Channel of *Tinos*, and between *Tinos* and *Mycone*. In the middle of this Passage lies a great Rock call'd *Lacatto*, a little part of it is above Water, and that but a little way; so that coming in the Night, it may be over-look'd, or in dark Weather. Those that are bound thro' this way, would do well, not to go too far off from the Island of *Syra*, which is the best way to avoid it.

There is another great three-corner'd Rock quite under Water, at the S. end of *Syra*; it lies steep and sloping all along from the S. to the N. end of the Island.

Syra has a Haven at the S.E. end; it lies due N. from the cover'd Rock; 'tis a difficult Entrance, and you must have a Pilot. The Channel between *Tinos* and *Mycone* is near five Mile broad; there is a Ledge of Rocks indeed in the Passage, call'd the *Dilles*, which at the W. end grow up into small Islands, but they are all above Water.

Tinos has no Haven for any thing bigger than a Long Boat; but there is a good Road in a fine sandy Bay on the S.E. side of
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the Island; there you may anchor in 15 to 20 Fa. Nor is there any good Haven at *Mysone*, but several good Roads, especially under the westernmost Point of the Island, where you ride before the Town in 15 to 20 Fa. good Ground and well shelter'd from N.N.E. E. and S.E. Winds; but a S. and S.W. blows right in: yet 'tis counted to good a Road, and to equal to a Haven, that many Merchant Ships winter here.

From this Channel to the Island *Scio*, or to *Venetico*, a Rock at the S. end of *Scio*, is 18 Ls. the Course N.E. by N. In the way from this Passage to the Gulph of *Salmichi*, is the Island *Skyros*, lying from the easternmost Point of the Isle of *Negropont* due N. dist. 13 to 14. Ls. On the S.W. side of it is a Haven, and at the S. Point of the Entrance into it lie two great Rocks, and they are no more, tho' call'd Islands; they are of a red Colour, and seen a great way, and are a Mark to know the Haven by; there is good Riding in this Haven with all Winds, and a fair Entrance without any need of a Pilot.

There are several good Anchoring places and Roads on the other sides of this Island, and particularly in the Passage between a long narrow Island on the N. side of the Haven and the main of the Island, where you lie well shelter'd in 8 to 12 Fa. On the S. side also is another in a Bay with 17 to 18 Fa. where you lie with a Head-staff on Shore. The *Greek* Pilots say that the whole Island of *Skyros* is a good Haven.

From *Skyros* to the S. part of *Schepoli* is 17 Ls. the Course N. by W. This Island makes the S. part of the Entrance into the Gulph of *Salmichi*. A little beyond the N. Point of it, there is a very convenient Haven, the Entrance lies E. by S. and E.S.E.; it is narrow, but clear, and safe sailing in or out: the best Riding when you are in, is on the S. side under a Point; there you will have 15 to 25 Fa. made fast to a Post on the Shore, and one Anchor in the Water. You are also shelter'd from all Winds, saving that a westerly Wind hinders your coming out; the great Inconvenience is, that when shut in with those Winds, the *Turk's* Men of War often come and make Prize of the Ships.

There is a Road without the Haven among some Islands, but the Riding is not very easy, the Depth being so great as 30 to 60 Fa. and the northerly and southerly Winds blowing right in bring in a great Sea, so that Ships are apt to tye ashore.

There are abundance of small Islands lying about this Gulph, but no other Haven. From hence to the Island *Schiata* is 5 Ls. W.N.W. it is a small Island in the Entrance into a very deep large Bay: This is part of what is call'd the *Gulph of Volos*. At the S. end of *Schiata* lie 5 or 6 other Islands, and behind them the Entrance into the Bay, you may ride where you will, and go in or out between any or all of those Islands; there is every where Depth enough, and no Rocks under Water any where.

There is only one Ledge of Rocks that are dangerous; they lie between this Island and *Schepoli*; there is but 5 or 6 Foot Water upon them, and some Ships have been lost there: you may easily see w. them by the Rippling and Breach of the Sea

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Having pass between the Islands, between the E. end of *Negropont* and the Ile of *Andros*, the Course is N.E. to *Mitylene*, or E. by S. to *Scio* and *Smirna*.

The W. Point of *Mitylene* is call'd *Cape Seguro*, or *Seguiri*; and the next Point on the Main, that is, which makes next in your Passage forward, is call'd *Cape St. Marys*, but by the *Greeks Cape Diababera*, or *Bababera*, lying due N.E. dist. 3 Ls. This is the first Land of *Asia*, being the Coast of *Natolia*, which you make in the whole Voyage; 'tis a high Point, smooth and flat on the top, and shews like an Island at its first appearance, as you sail to the *Dardanelles*; it bears S.E. by E. from you 4 to 5 Ls. there is a good Road under the Point, and Ships coming from the northward do often sail thro' between the Island and the Main, and 'tis easy so to do with care, and provided they know the Coast, and have a Wind at N.N.E. or E.N.E. 'tis a bold Shore, and all the way good anchoring, and you have 25 to 30 Fa. within Gun shot of the Main.

W. by N. from this Point lies the Island of *St. Stratt*, or *Stradi*, dist. 14 Ls. and N.W. dist. 12 Ls. lies *Stalwene*, the ancient *Lesbos*: The first is a small low Island, the last is large but low also, except two Hills which make at Sea like two Islands: Between those Hills is the Haven, which is large and good, and lies on the S. side of the Island.

It is a safe Harbour in all Winds, except S.E. and S.S.E. and there are good Shiftings in it, even in these Winds should blow; but there is a great Variety of Channels and Courses to go in and out, so that you must make use of a Pilot to go in or to come out.

From *Mitylene* to the Island of *Tenebr* is N. by E. 5 Ls. and from *Perth* *St. Marys* N. or at most N. by W. 1 Ls. It lies so directly in the fair Way to *Constantinople*, that it is perfectly indifferent on which side of the Island you go, to you may take it as the Wind and Weather directs, or ly observe, that if you leave it on the starboard side, than the Main, and steer close by the Island; if on the larboard, give the Island a Birth, and keep a good Offing: The Reasons are, because the western Points of *Tenebr* are full with a Bark running out a great way to Leeward, stretching S.E. southerly, and N.W. westerly: the rest is all good anchor ground, clear of Rocks, and 20 Fa. Water within a quarter of a Mile of the Shore. There are several Shoals and Sands on the *Starboard* side, running out towards the Island; and as there are others running out also from the Island, it is difficult running on that side, tho' by those who are well acquainted, and by the help of the Lead, it is often done with safety.

From the N. Point of *Tenebr* to the *Dardanelles*, and the Entrance into the *Streight of Constantinople* call'd the *Negropont*, the Course is N.E. by N. 3 or 4 Ls. The S. Point of the Streight is call'd *Cape Trisfari*, but there is another Point before you come to the Entrance. The Coast from *Cape St. Marys* lies N. by E. 'Tis a clean Strand without any Creeks, and very little or no Shoals or Biffs running out from the Land. Upon the first Cape stands a House and three Windmills; 'tis a plain Point, only that there are three little Hills at some distance from it: If you are bound in, you must en-

There is a Road without the Haven among some Islands, but the Riding is not very easy, the Depth being so great as 30 to 60 Fa. and the northerly and southerly Winds blowing right in bring in a great Sea, so that Ships are apt to lay ashore.

There are abundance of small Islands lying about this Gulph, but no other Haven. From hence to the Island *Schiata* is 5 Ls. W.N.W. it is a small Island in the Entrance into a very deep large Bay: This is part of what is call'd the *Gulph of Volo*. At the S. end of *Schiatta* lie 5 or 6 other Islands, and behind them the Entrance into the Bay, you may ride where you will, and go in or out between any or all of those Islands; there is every where Depth enough, and no Rocks under Water any where.

There is only one Ledge of Rocks that are dangerous; they lie between this Island and *Schappoli*; there is but 5 or 6 Foot Water upon them, and some Ships have been lost there: you may easily know them by the Rippling and Breach of the Sea upon them, tho' it be calm Weather.

From that Island to the Gulph of *Volo* is 3 Ls. W. it goes in N. a little westerly; the Gulph is 2 Ls. wide when you are in, and it runs in 6 to 8 Ls. in length. At the Bottom of the Gulph lies the City of *Volo*, where is a good Road, but no Haven: You have many good Roads, Islands and anchoring places in this Gulph, and some small Bays, too many to enumerate; nor are we supply'd with Names for them all: 'Tis enough to say, that 'tis every where a very commodious Gulph, and there are Pilots to guide you to the landing-places, on either side, as your Business shall require.

S.W. from this Gulph the Coast stretches away to the W. end of *Negropont*, and to the *Pass of Aelinou*, which lies along between *Negropont* and the Main: As this part above the Gulph is a good Coast for all the Purposes of Trade, so is that also within the Island; but the off-side of *Negropont*, that is, the N. Coast of the Island, is a foul rocky dangerous Coast, without either Haven or Road; and if you are taken here with a Wind off Sea, you must work it off if possible, or run a-shore and be lost.

The W. end of *Negropont* is good, and you have opposite to it *Achiron*, *Acladi*, *Zitonni*, *Stalidi*, and several other small Cities and Coast Towns, where are Havens or good Roads, and in all of them Pilots to assist you.

North of *Chitta* goes in the *Gulph of Salonichi*, and the Coast of *Macedonia* and *Thrace*, which make together the Bottom of the *Achelopelago*: There is a large River at *Salonichi*, the Mouth of which is navigable for great Ships, and is much frequented: but there are Pilots to direct all Ships which come from the southward: As to the Coasters, they are as it were at home, and need not their help.

We must now look back to the Course of the *European* Ships, sailing thro' the *Archipelago*, as is said above, to the Coast of *Crete* and the *Islands*.

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running out a great way to Land, stretching S.W. for 1000 yds, and N.W. westerly; the rest is all good anchoring ground, clear of Rocks, and 20 Fa. Water within a quarter of a Mile of the Shore. There are several Shoals and Sands on the *W. Coast*, running out towards the Island; and as there are others running out also from the Island, it is difficult running along on that side, tho' by those who are well acquainted, and by the help of the Lead, it is often done with safety.

From the N. Point of *Ten dos* to the *Dardanelles*, and the Entrance into the *Streight of Constantinople*, call'd the *Chrysospond*, the Course is N.E. by N. 3 or 4 Ls. The S. Point of the Streight is call'd *Cape Janisari*, but there is another Point before you come to the Entrance. The Coast from *Cape St. Marys* lies N. by E. 'Tis a clean Strand without any Creeks, and very little or no Shoals or Riffs running out from the Land. Upon the first Cape stands a House and three Windmills; 'tis a plain Point, only that there are three little Hills at some distance from it: If you are bound in, you must endeavour to go without a Sand, which runs about a *Gunshot* off from the Point into the Sea; but being a-breast of the Point, you are past the Sand to the N.

There is another white Point beyond *Cape Janisari*, before you enter the Streight; there is 15 Fa. within Musket-shot of it, and 15 to 20 Fa. half a L. off; and in the Entrance of the Streight from 15 to 40 Fa. but shoaler in the Passage between the Castles.

If you are bound for *Constantinople*, observe in passing the Streight that you keep near the Castle of the *Dardanelli* on the S.E. side; for by the N.W. goes always a forcible Stream outward, and chiefly in the Winter; which Current is sometimes extraordinary, that with a good stiff Gale you can scarce stem it; and yet you must not come too near the S.E. side neither, not closer to it than about a Musket-shot from the Shore; for the Shore is foul a good way out from the Land, and in some Places there are Rocks under Water which are very dangerous, and must be shunn'd; but the other side is very clean, so that in sailing along, except that of the Current, you have no difficulty, but may sail close by it, and also to it and from it, as you please, without any danger.

The Passage between the Lands is about 2 Ls. wide; from these Castles inward the Course is N. and N. by E. 3 Ls. towards a low Point which lies on the E. side, and has another Point reaching towards the W. Shore, on which stands a little House and a thick and high heap of Stones, which must be shunn'd, as well when you come to as when you sail from the Streights.

Also there stretches a Bank of Sand a good way from the Shore towards the W. side; and between the Castles and the aforesaid Point on the E. side, there are some foul Points which you must avoid: All the Ships that pass these Streights must both in sailing up or down, come to an Anchor, and lie 3 or 4

Days to be search'd. You must come to an Anchor near a green place which you will see upon the Land just before you. Those that come from the eastward, being past the Point of the Bank of Sand mention'd above, must luff up close by the Point which is on the E. Shore, and come to an Anchor under it; but you must be careful that you lie not too far from the Shore, and so miss your anchor-ground; for a Musket-shot to the southward of the Bank it's 20 Fa. deep.

It happens sometimes that the Ships coming down the Streight from above, with a strong N. or N. easterly Wind, do miss the anchoring place; and then there goes so forcible a Stream outward, that not gaining the Road soon enough, they are oblig'd to anchor in soft Ground, and so are driven from their Anchors between the Castles, the Ground not being hold- ing enough, so that their Anchors come home.

Over-against this Point to the W. side (or a little to the northward of the westernmost Castle) lies the ancient City *Mayta*, next which, on the Land, are many Wind-mills. Between *Mayta* and the Point it is about a L. wide: From this Point (or from the Rock off of the Castle) to *Gallipoli*, the Course is N.E. by E. and E.N.E. 7 or 8 Ls. To the westward, or behind *Gallipoli*, there is a great Bay, where you may ride well in a N.N.E. Wind, but an E. Wind is but indifferent for it: There is in the Road 20 and 25 Fa. and you lie before the Arsenal.

To the eastward of *Gallipoli* is also a great Bay, but the City stands on a Point, and the Land is even and low, so that (in a manner) it is lower than the Water. Between *Gallipoli* and *Mayta* you must always stand nearest the N. side, but not too near in dark and thick Weather; for at some Places there lie certain Shoals, upon which if you stand too near you may perhaps strike; yet by Sounding you may find them in the night, and may discern by day where they lie by the Colour of the Water.

On the *Natolian* side the Land has some Bays, and you may perhaps be in danger of touching on some of the Points between them, as you come from *Gallipoli*, in dark or thick Weather, and as you come from above also; for there seems to be no Openings: Sail therefore towards the high Land which lies to the northward of *Mayta* on the *Gallipoli* side, and you will discover them in coming near to that Shore. You may ride under the Lee of those Points of Land in all northerly or westerly Winds. In the Passage between *Gallipoli* and *Mayta* it is, at divers places, about 2 Ls. wide.

Over-against *Gallipoli*, on the S. side, lies a Ledge of Rocks, which you must shun either in sailing in or out: This Ledge reaches far from the Shore; it's very steep, so that at one time you will have 30 Fa. and the next Cast 10 Fa. and then about Ship, or you will be upon them.

Between this Ledge of Rocks and the Main to the southward, you may ride almost in all Winds; but you must sail to the westward of the Ledge of Rocks, for at the E. end it

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you will see another Hill on the high Land close to the Water-side ; from thence you are about a L. from *Gallipoli*, and then you have 20 Fa. all good anchor-ground ; you may sail close along the Shore, only beware of the Rock under Water lying off from the Light-house, as is mention'd above.

Between *Gallipoli* and *Marmora*, that is, between the N. and S. main Land (for *Marmora* is an Island) the Streight is 5 Ls over.

Marmora is a high and short Clump of Land, being one great Rock of Marble ; it is the highest Island lying in the Gulph coming from the westward ; it appears in two Hills, having a little low Island to the northward, and with two or three other Islands to the southward : These also are low, and not great. Sailing from the Castles to *Gallipoli*, you may see *Marmora* all the way ; and while you are to the westward and northward of *Gallipoli*, you may see this City over it : You may sail to the southward of *Marmora* between it and the low Island, as most do in the Winter, because the Winds then commonly blow at S. and S.E. but in Summer and in good Weather, for the most part they blow from the northward, between *Marmora* and *Rodesta*.

Between *Marmora* and the Island to the southward of it, it's all clean Ground ; nevertheless with those that have great Ships, and are not well acquainted, it's best to sail to the northward of *Marmora*. The *Italians* indeed commonly sail thro' to the southward, between *Marmora* and the *Natolian* Shore, where there is good riding in many places, and Shelter from all Winds.

S.E. by E. from the E. end of *Marmora*, about half way over, there lies a sunken Rock, on which there is not above 8 or 10 Foot Water ; which in sailing to the southward of *Marmora*, you must take heed of.

Point Rodesta, over-against *Marmora*, is a pretty high Point, higher than the other Land thereabouts : With a northerly Wind you must not come too near this Point, because, if you do, you may chance to lose a Mast, by the Wind coming down from the Point in Gusts and Flaws, as with those Winds it very often does.

E. of this Point, it is again low and even Land ; and in the Bay lies the City *Heraclea*, near which on the high Land stand a great many Mills.

Those that are forced to turn between *Gallipoli* and *Marmora*, or from thence to *Constantinople*, must not stand over too near to the *Natolian* side ; for on the N. Shore there goes the least Tide, but on the other it runs forcibly to the westward.

From the N. side of *Marmora* E. by N. 10 Ls, is another Point call'd *Marda*, but not reaching very far out ; to the eastward of that is good anchoring A Mile farther to the eastward of that Point is a great white Spot on the Land, by which it may be easily known : Next to this is a white Strand and shallow Water : A Gun-shot from the Shore there is but 5 Fa. but sailing from thence to the westward, it grows deeper,

weather, and as you come from above also; for there seems to be no Openings: Sail therefore towards the high Land which lies to the northward of *Mayta* on the *Gallipoli* side, and you will discover them in coming near to that Shore. You may ride under the Lee of those Points of Land in all northerly or westerly Winds. In the Passage between *Gallipoli* and *Mayta* it is, at divers places, about 2 Ls. wide.

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Between this Ledge of Rocks and the Main to the southward, you may ride almost in all Winds; but you must sail to the westward of the Ledge of Rocks, for at the E. end it reaches out with a Tail to the Main.

Over-against *Gallipoli*, behind the aforesaid Ledge, lies a City call'd *Camanar*, close by the Water-side on low Land, so that it is hardly seen; but *Gallipoli* lies somewhat higher: Upon a certain Point to the eastward stands a large Light-house: Over-against that Light, and about a Gun shot from the Shore, lies a sunk Rock, on which heretofore many Ships have struck and been lost. But except that Rock only, it is all over the Gulph a very clear Coast.

From *Gallipoli* towards the Island *Marmora*, the Coast is E. by N. dist. 10 or 11 Ls; but with an ENE. Course you will fall about a L. to the northward of *Marmora*, and 2 Ls to the southward of the Point *Rodejlo*. *Marmora* and the Point *Rodejlo* lie opposite to each other, and 'tis about 3 Ls broad between them.

From *Gallipoli* eastwards a good way, it's very low and even Land, and shoal Water all along, and a Musket-shot from the Shore 'tis 4 Fa. deep. On the end of that low Land, about 2 Ls. to the eastward of *Gallipoli*, lies a round Hill, below which there stands many Trees, with a long white Tower; but you lose sight of it immediately. In sailing eastward of this Hill is a Valley, wherein and about it stand many Trees; also a-breast from this Hill about a L. from the Shore, and nearest to seaward you have 14 or 15 Fa. all good Ground, but near the Land it's very shallow, therefore stand not too near the Shore thereabouts: This Shoal reaches eastward 20 Ls towards the Hill.

Eastward from this Hill on the *Natolian* side, lies a great white Rock not far from the Shore; and as *Gallipoli* stands upon a low, bare Point, and is not very easy to be known coming from the eastward; this Rock is not easily seen, for then it lies as it were under the Land; but by the aforesaid round Hill you may know that 'tis about 2 Ls from thence: When you sail westward to *Gallipoli* it begins to be deeper, and

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Between this Point and the *Natolian* Shore it's about 9 Ls broad E. by S. And E.S.E. 3 or 4 Ls, is another Point call'd *St. Stephano* ; both which make a fine Bay : This last is Clay, like Sand, of a reddish Colour, some few Houses standing thereon : From thence reaches a Bank of Sand to seaward : About 2 Miles off you have not above 5 Fa. Water upon it.

This Point and the Island *Marmora* lies distant E. by N. and W. by S. 11 or 12 Ls.

From this Point eastward the Coast reaches E. by N. northerly 1 L. till you come to the W. Point of the City of *Constantinople*, to which you must not come nearer than 9 Fa. and sail along in the same depth, till you come near the Seraglio at the N.E. Point ; and then luff up towards *Galata*, where the Ships use to unload, and which is therefore call'd *the Porte*.

When you would sail thence, you must remove with your Ships to *Toppena*, that with a northerly Wind and the Stream you may sail from the City of *Constantinople* down on the *European* side.

Between the City of *Constantinople* and the Islands that lie S. from the City, it is about a L. and a half broad ; but the Land of *Natolia* southward lies distant from the City 5 or 6 Ls.

The Streight of the *Bosphorus*, and the Coast of *Thracia*, begin just at the Point opposite to the City of *Constantinople* ; by which Streight is the Passage into the *Euxine* or *Black Sea* : But as the *Turks* permit no Ships but their own to go beyond the Port of *Constantinople* that way, none of our Pilots have been able to take any Survey of the Coast on that side ; by which we lose the Description of the Coast of *Asia* as far as *Trapezond*, and of *Europe* as high as the Streights of *Cassa* and the City of *Asoph*.



Sailing Directions for the Coast of Africa Sea, commonly call'd the Barbary

Directions for Sailing into the Mouth of the Streights on the Barbary side.



COMING from the North, and being bound thro' the *Streights* to the Coast of *Barbary*, you are suppos'd first to make *Cap: Trafalgar*, or *Travel de Gar*, as the Sailors call it; and standing in for the *Cape*, when you are in the height of the Point dist. 2 Ls W. by N. set your Course S.S.E. and S.E. by S. By that you will make *Cape Spartel*, being the southmost Point of the Opening into the *Streights Mouth*.

When you make the *Cape* dist. N.N.W. 2 Ls, steer away E. and E. by S. to you will come in the Fair Way into the *Streights Mouth*, and immediately make the W. Point of the Bay of *Tangier*: Keep your Offing, and keep on with the same Course till you are past that Place.

You will know *Tangier* by the following Marks: On the W. Point of the Bay stands an old high built, but half-demolish'd Castle; and beyond that above the Castle, upon the Hills which are very high, stand the Ruins of an old Watch-Tower: Also to the eastward of *Tangier* is another demolish'd Watch-Tower. Thus you will know *Tangier* at any distance, if in sight of Land.

Being pass'd *Tangier*, change your Course from E. by S. to E. by N. if you are bound only thro' the *Streights*; but if bound to the Coast, keep on E. by S. from *Tangier* to *Apes-hill*, the Course is E.N.E.

If you would sail thro' only, if it be in the night, 'tis best to keep to the *Barbary* side, because there the Coast is clean, and clear of Shoals or Riffs; but the other Coast (as was describ'd in its place) is foul and difficult.

N. B. At *Tangier* a S.W. by S. Moon makes full Sea.

In all other parts of the Entrance or Passage call'd the *Streights Mouth*, the Flood runs till the Moon is in the W. by S.

Also all the other Parts of the said Passage have the Flood out of the W. which runs on each side from *Cape Spartel* and from *Cape Trafalgar* along by the Shore, and much stronger than in the Middle; and this holds to *Cape Cabrita* on the S. side, and to *Apes-hill* on the *Barbary* side. And here respectively the Tide, as above, meets the Flood, which comes out of the *Mediterranean* from the N.E. about the Point of *Gibraltar*, and

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the culties about the Tides and Currents in the *Mediterranean Sea*, but that is not to our present purpose.

At *Malabata* there is a Ledge of Rocks stretching from the Shore directly off into the Sea, but they go but a little way, and are all above Water, and there is no less than 5 Fa. Water fair by them.

To anchor in *Tangier Bay*, bring the Castle, which is at the N.W. Corner, over the N. Wall of *Tangier*, and *Cape Malabata*, due N.E. and you are then in the best of the Road, and have 9 to 10 Fa. at high Water: You are safe in this Bay from an E. and S.E. Wind, as also a S. and S.W.

From *Tangier* the next Place is *Ceuta*, dist. about 7 Ls, the Course due E. there you have a good Road, tho no Haven, but a Bay; 'tis safe from a S.E. a S. a S.W. or a W. Wind.

From *Ceuta* you see *Tetuan* as soon as you are about the Point, but it is no Port, for it lies a Mile up the Main, and upon a Hill: Go on then S. till you see the E. end of the Town lie even with a round Hill that stands upon the high Land.

In the middle of *Tetuan* is a black old Tower, and behind the Town three little Hills; bring those Hills to bear with the black Tower, then come to an anchor, but let it be so far from the Shore that the first Hill may be seen to the S. of *Ceuta* towards *Cape Porcus*; then you will have good riding, clean Ground, and 16 Fa. Water, otherwise you will endanger losing your Anchors.

N. B. You must be very nice in anchoring here, for the Spot of Ground describ'd is not two Cables length in Circumference.

Cape Tetuan lies 2 or 3 Ls S. from the Town, and about 9 to 10 Ls from *Ceuta*: You must be careful not to mistake this Cape for *Cape Porcus*, which you may easily do by keeping close on board the Shore. There is a fine sandy Bay, and good anchoring-ground, almost all the way between *Ceuta* and *Cape Porcus*.

Penon de Velez is the next Port of importance on this Coast; it lies from *Ceuta* E.S.E. southerly 24 Ls.

Having pass'd *Velez* from the W. you will see a rough Point grown with Trees; on the side of the Point lies *Buttery* in a fine Bay, the Points 2 Miles asunder: The E. side of the Bay is the Place for Traffick, and the best to ride under in case of a Levant.

Seven Ls beyond the W. Point of *Buttery Bay*, is the Bay of *Burema*: Here is good anchoring, that is, the Ground is

...keep on E. by S. from Tangier to Apes-
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If you would fail thro' only, if it be in the night, 'tis best to keep to the *Barbary* side, because there the Coast is clean, and clear of Shoals or Riffs; but the other Coast (as was describ'd in its place) is foul and difficult.

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Also all the other Parts of the said Passage have the Flood out of the W. which runs on each side from *Cape Spartel* and from *Cape Trafalgar* along by the Shore, and much stronger than in the Middle; and this holds to *Cape Cabrira* on the S. side, and to *Apes-hill* on the *Barbary* side. And here respectively the Tide, as above, meets the Flood, which comes out of the *Mediterranean* from the N. E. about the Point of *Gibraltar*, and makes S. W. into the *Streights Mouth* on that side all the first quarter of the Flood, and then sets W. S. W. from *Gibraltar Point* to *Cape Cabrira*, and so under Shore.

On the Top of the (Flood) Tide there comes a Race of a Current from the W. and spreads the whole Passage from Shore to Shore. but does not hold it at that furious rate above half an Hour; which is something unaccountable.

But that which is more surprizing is, that all this while, in the middle of the *Streights Mouth*, the whole Tide of Ebb runs very strong to the eastward; and when the Race of the Current above-noted begins at a W. by S. Moon, at that Instant begins the Ebb at the W. side of the Points of *Gibraltar* and *Cabrira* to run to the eastward: So that, in short, you have here four or five several Currents running all at the same time, some one way, some another.

1. On the *Barbary* side the Ebb runs very narrow along Shore, from *Apes-hill* to *Alcassar*.

2. At the same time, on the W. side the Point, it runs about 3 Miles broad.

3. At *Cape Malabata*, which is the E. Point of the *Bay of Tangier*, it runs 2 Miles broad, and holds so on to the W. as far as *Cape Spartel*, and so runs under Shore S. W. as far as *Sallee*.

4. To the E. of *Cabrira* and of *Apes-hill*, the Ebb is begun by the Race of a Current, as above, and runs in E. N. E. in the middle, and from *Apes-hill* to *Centa* along Shore all the first half Tide: and the remaining half Tide it runs from *Cabrira* E. S. E. into the *Streights Mouth* by the Point of *Centa*; and from *Gibraltar Point* the first half Ebb runs N. E. towards *Cape Fangerola*.

This Variety of the Currents and Sets of the Tides is more particularly describ'd in the Charts, and is necessary for every Commander or Pilot of a Ship to know perfectly well in the passing these *Streights*. It is useful also to answer many Diffi-

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Seven Ls beyond the W. Point of *Buttery Bay*, is the *Bay of Burema*: Here is good anchoring, that is, the Ground is good, but no cover against any Winds; 'tis a wild Road, but there are several Trading Places about it.

E.N.E. from it dist. 18 Ls lies *Cape de Tres Forcas*, or *Three Points*; and here is the other Extreme: For as at *Burema* there is good Ground but no Shelter, here is good Defence from the Wind, but no good Ground to come to an anchor in: But 11 Ls farther, S.S.E. from *Cape Tres Forcas*, there is a Haven and a Mole, but even this is not for great Ships: So that upon the whole, here is no good Harbour from the *Streights Mouth* hither.

From *Cape Tres Forcas* to *Cape Hon*: the Course is E by S. 23 Ls: Between them on the W. side of the Bay lies the Fortrels of *Melilla*; when the *Spaniards* possess'd it, some Shipping us'd the Place, the Haven was kept up, the Moles repair'd, and the Heads made serviceable; but now the *Moor*s have it, 'tis all neglected: However, at best the Haven was not capable of receiving great Ships.

There is indeed good Riding without the Heads, but when 'tis without Shelter from any but westerly Winds. There is a wide Bay here between the two Capes of *Tres Forcas* and *La Hon*, but there are no places of Note nor any Harbours: There is a small River comes into the Bay at *Port-Nova*, where is good anchoring, and where Ships come to load Salt; but the Port is a Bar, and admits no great Ships. E.N.E. from *Port Nova* are three rocky Islands call'd *Zafarros*, lying about a L. from the Shore, and about a L. from one another; you may anchor on the W. side of them indifferently well shelter'd, but come not too near, the Ground being foul all about them. There is a Town behind them on the Shore call'd *Safirum*; you may go in between the Islands and the Main, and anchor before the Town. From hence to *Cape Hon* is about 11 Ls. N.E. and N.N.E. a foul Shore, and no good anchoring any where near the Land. From *Cape Hon* to *Cape Fal* is 20 Ls. N.E. and N.E. by E. There is little of Note all the way between;

between; the first is the little Bay of *Delimachy*, in which is a little Island of the same Name, where you may anchor in case of Necessity; but no Haven.

Also *Cape Fogaly*, or *Fogaly*, lies midway between *Cape Horn* and *Cape Falcon*, with a little Island uninhabited, where is good Watering, and between which and the Shore is a good Road in case of a Levant. The Shore is clean, but no Harbour; and as there is no Safety, so there are no Dangers but what are to be seen.

Two Ls S.E. from *Cape Falcon* you see a Rock above Water, under a small Point which has no Name; upon the Rock stands a Cross; from this Rock the Shore trends along E. by S. and E.S.E. making a wide Bay; you may run along Shore close by the Rock. On the W. side of the Bay lies a Cattle call'd *Morjagiver*, which in the *Moorish* Language signifies the great Cattle; you may anchor under it in an excellent Road, in 9 to 11 Fa. well shelter'd from any Wind.

About 1 L. from this Cattle lies the City of *Oran*; it is a small Haven, but so open to the northerly Winds, that it affords no Safety: great Ships chule much rather to ride under the Cattle of *Morjagiver*. There is a Cattle at *Oran* also, just at the Entrance on the W. Point of the Haven; it stands aloft upon a rising Ground; and the Hills beyond it make like a Saddle, so that 'tis casily known a great way off at Sea.

The next Point beyond *Cape Falcon* is *Cape Ferrat*, or *Ferrat*, dist. 9 Ls, the Course E. by N. The great Bay of *Arava* lies on the E. side of this Point, and reaches to *Cape Horn*. There is good anchoring before the Town of *Arava*, in the Bottom of the Bay.

From *Cape Ferrat* to *Cape Times* the Course is E.N.E. 26 Ls. There is little of Note between, the Coast being empty of Ports: the Country sandy and desolate; but from *Cape Times* the Circumstances of the Country alters, and of the Coast also; for East of *Cape Times* the Coast is full of good Roads, safe anchoring places, and some Rivers, as also of large and populous Towns.

A little W. under the Cape lies the Town of *Times*, or *Tini*, which gives name to the Cape. Here is a good Road in - to - Fa. admirably shelter'd from those terrible Winds call'd the Levant, all the Country being high like a Wall to the E. and N. Eastward: But if a westerly Wind happens, you must trust to your Ground Tackle; the Ground is good, a hard holding Sand; observe the Saddle hill for your Mark, when that beats S.E. from you, drop your Anchor, for there is the best of the Road.

On the E. side of the Cape you have several good Roads, tho' no Havens. From the Cape the Shore falls off S.E. to another Point, tho' 'tis all call'd *Cape Times*; and this is call'd the Eastward Point of the Cape: under it lies the little City of *Arach*, or *Arak*, where there is a small Bay and a good Road, if you are bound to the westward, and are taken short with a N.W. or S.W. wind; but then here is no Shelter from the E. and N.E. but if you foresee a Levant Gale, put to Sea, and get about the Cape n. to *Arach*, and there,

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but the faithless *Turks* are such cruel *F*oes and uncertain Friends, that few Christian Nations care to venture into their Harbours, but chuse to lie in the Road, and load or unload there.

Likewise in this Space lies the Gulph of *B*ona, or *Bozza*, with the Cape of the same Name: there is good anchoring in this Gulph, and on the W. side of it also close under the Point; but here is not much business for Shipping, other than to take Shelter upon Occasion.

From Cape *Bangouane* to the Island *Gabitta* is 35 Ls E.N.E. and E. by N. 212, to Cape *de Faria* or *Izo*, the Course is E. by N. and thence to *Gabitta* E.N.E.

N. B. This Island of *Gabitta* is a place noted only for its Situation, being a wild desolate Island, only that it lies in the Fair Way of all the Navigation in these Seas; it bears from Cape *Pulla* in *Sardinia* due S. dist. 30 Ls; from the Rock *Toro* S. by E. and S.S.E. 26 Ls. It is a very small Island, lying E. and W. about 1 1/2 Mile in length, in Lat. 37. 30.

The Island is foul and full of Rocks every way, except on the S. side, where there is a good Road for a Levant, which in short is the only thing for which the Island is valued; for in this Road you lie secure in northerly and easterly Winds.

There are many Rocks at the W. end of the Island, and at the E. end is a high Mountain rising up to a Peak, sharp at top, like a High crown'd hat; and towards this Point the Shore is all rocky and foul also.

S.W. from the westernmost Point lies a large Rock, and some small ones about it, all under Water, and therefore very dangerous; they lie at least a L. from the Shore: if you would come to an Anchor in the Road under this Island, you must first make the E. Point, there you will see 3 Rocks above Water; leave them on your Starboard side, and just beyond them you will have 9 to 12 Fa. If you would go on to the S. side, sail close by the E. Point within a Cable's length of the Shore; there also you may have 7 to 9 Fa. but in neither of these Places is any Shelter, tho' you may anchor there for the present, and then taking your Opportunity, stand away W. for the main Road under the S. Point.

There are no Pilots to be had here; therefore the Direction for this Road, which is so necessary to Navigation, is the more requisite.

On the S. side of the Island where the Road lies, are two Creeks; if you come from the eastward, and would anchor in this Road, pass the first Creek, and anchor right against a grey Spot of Land lying near the Water's edge by the second Creek; there you have the best of the Road, and 10 to 12 Fa. close to the Shore; there you are perfectly secur'd from a Levant, and all Winds between the N.E. and N.W. and tolerably well also from westerly Winds.

N. B. The Current usually sets along the Island to the eastward. *N. B.* If you are passing on the E. Point, where the high *Pico* stands, you have sometimes very untoward Gulls coming from the Mountains, that see some

which gives name to the Cape. Here is a good Road in 7 to 8 Leas admirably shelter'd from those terrible Winds call'd the Levant; all the Country being high like a Wall to the E. and N. Eastward: But if a westerly Wind happens, you must trust to your Ground Tackle; the Ground is good, a hard holding Sand: observe the Saddle-hill for your Mark, when that bears S. E. from you, drop your Anchor, for there is the best of the Road.

On the E. side of the Cape you have several good Roads, tho' no Havens. From the Cape the Shore falls off S. E. to another Point, tho' tis all call'd *Cape Tenes*; and this is call'd the Eastward Point of the Cape: under it lies the little City of *Arcol*, or *Alcol*, where there is a small Bay and a good Road, if you are bound to the westward, and are taken short with a N. W. or S. W. wind; but then here is no Shelter from the E. and N. E. but if you force a Levant Gale, put to Sea, and get about the Cape into *Tenes*, as before.

From hence to Cape *d'Albatel* the Course is E. by N. about 12 Ls. There are several good Roads between, particularly at *Musfelch*, or *Low Cassine*, where there is a small Bay like a Haven, and good Riding, save that a N. Wind blows right in.

From *Tenes* to Cape *Cassine* is 22 Ls, the Course E. by N. and E. N. E. The Coast between *Albatel* and *Cassine* is a fair smooth Strand, and (as before) neither Shelter or Danger; no Harbour and no want of it. Cape *Cassine*, or *Cuxine*, makes the westernmost Point of the Bay of *Alger*, as Cape *Mattison* or *Mattin*, is the most eastward Point; and all between is call'd the Bay of *Alger*.

The E. side of Cape *Tenes*, and the W. side of Cape *Mattison*, are very foul; so whether you come from the W. or from the E. to go into *Alger*, you must give the Capes a good Breeze: When you are past those Dangers you may go boldly into the Bay, and anchor any where. On the E. side of *Tenes* beyond *Point Pisador*, or *Fishers Nose*, you may ride in 12 Fa. Under Cape *Mattison*, about Gun-shot off, you may ride in 8 to 10 Fa. before the City, or Port $\frac{1}{2}$ Mile from the Shore in 13 to 20 Fa. and farther off due N. from the Town in 25 to 35 Fa.

N. W. from Cape *Mattison*, dist. out into the Sea 2 Miles, is a long Ledge of Rocks all under Water and very dangerous; and N. N. W. from the same Cape lies another Ledge about the same dist. from the Land. There are also 2 Islands lie off from the Cape about 4 to 5 Miles E. N. E. so that the Cape is surrounded with Dangers, and it is best to keep without them all, for the Islands are foul and rocky; they lie a Mile asunder.

From Cape *Cassine* to Cape *Burbon*, without all those smaller Points and Islands, the Course lies due E. 58 Ls.

The City of *Alger* lies in the W. part of the dist. between: They have a kind of natural Haven at *Alger*, in which they keep their Men of War from a Levant; but if it blows hard at N. they have sometimes difficulty enough. The Mole is 1000; and when Ships are putre within it they are well secur'd;

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There are no Pilots to be had here; therefore the Direction
for this Road, which is so necessary to Navigation, is the
more requisite.

On the S. side of the Island where the Road lies, are two
Creeks; if you come from the eastward, and would anchor in
this Road, pass the first Creek, and anchor right against a grey
Spot of Land lying near the Water's-edge by the second Creek;
there you have the best of the Road, and 12 to 12 Ls.
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well also from westerly Winds.

N. B. The Current usually sets along the Island to the east-
ward. *N. B.* If you are passing on the E. Point, where
the high *Pico* stands, you have sometimes very untoward
Gusts coming from the Mountains, that are sometimes
ready to carry all by the Board, and will make the Sea
rage extremely especially if the Wind blows hard from
the N. or N.W. And then on a sudden, being under the
Lee of the Hill, you shall have it stark calm again, and
not a Breath of Wind, and then Gusts again, and so very
often one after another: 'Tis needful to watch against those
Squalls, and not carry too much Sail till you are past the
Danger. *N. B.* Also it is observ'd, that the Winds vary
at the same time, according as you are on this or that side
of the Island: when it blows N.N.E. right off the E. Point,
it shall blow W.S.W. off of the West Point.

If you come from the westward, and desire to put in for the
Road of *Galitta*, you must run by the W. end between the
main Island and the little Island which lies off of the end, leav-
ing *Galitta* on the Larboard side; and having pass'd the Point,
steer away E. to the S. Road.

From the Road you may see the *Barbary* Coast, and the
Island of *Tabarca* will bear S. by W. from you about 12 Ls.

If you come from the northward, from *Sardinia* or the
Coast of *Tunec*, and are bound to *Tabarca*, you should first
make this Island of *Galitta*; and as you have sight of it, let
your Course S. by W. for *Tabarca*, a little westerly, because
the Current sets to the eastward, as it does at *Galitta*.

Tabarca is a little Island in a Bay within Gunshot of the
main Land of *Sardinia* off of Cape *Bona*, 'tis easily known; the
Coast to the westward reaches almost to *Bona*. Two Ls. W.
of the Island lies Cape *Rosita*: As you lie at an Anchor under
the Island, the westernmost Land you can see on the *Barbary*
Shore is Cape *de Ferro* dist. 16 Ls. and Cape *N. gro* lies to the
N.E. dist. 7 Ls. All the Coast this way is a fair Strand, and
very good Roads.

On the N. side of *Tabarca* is a strong Castle to defend the
Road, and several little Towers to guard the Corn Warehouses
erected there: A little to the northward of those Warehouses
runs a Ledge of dangerous Rocks, some under Water 3 Foot,

Sailing Directions for the Northern Coast

some 10 to 12 Foot deep; they are discern'd by the Rippling of the Water on them, and by the Breach of the Sea in blowing Weather, especially if the Winds are northerly.

The Road is to the eastward of those Rocks, and to the E. of the northermost of the Corn Houses there is good Riding almost close to the Shore. Suppose you come from the Seaward with a N.E. or N.W. Wind, run on towards the E. Point, and anchor 3 or 4 Ships length to the eastward of the Shoal of Rocks, where you will have 5 Fa. Water, and carry a good Head-fast ashore: but if you cannot conveniently make use of your own Boat, call on shore or fire a Gun, and a Pilot will come off to carry your Fast ashore for you, and direct you where to place it: Then you may heave in 2 or 3 Ships lengths farther by your Headfast, by which you will be better shelter'd from the Wind under the Lee of those Rocks, on which the Sea breaks.

In riding here special care is to be taken that your Shore-fast be a good Cable; and as it is to be fasten'd to a Rock, it must be well serv'd, not only that part which is laid about the Rock, but 5 or 6 Fa. of that part which lies next the Rock: for if it should blow a Storm, and your Cable cut for want of Service, you may lose your Ship; the reason is, there is a large River comes into the Sea just behind the Island, which sometimes runs so fierce, especially with a N.W. Wind, that a Ship is hardly able to lie here.

You may upon these Occasions slip, and run into the Road behind the Rock, where you have good Ground in 17 to 20 Fa. and may ride in a Storm at W. or W.N.W. but if the Storm be from the N. or N.N.W. there is no bearing it: Then you must slip again, and run away eastward under the little Castle, where you may ride in 8 to 9 Fa. but let fall two Anchors, and lie as close to the Castle as you can. These Directions are given the more at large, because this is a Place of great Business for Shipping, and requires it.

N. B. There are Pilots to be had to direct you in shifting your Roads in Cases of Extremity, who will be very helpful with their Shallops or *Barco Longo's* to get up your Anchors again, when you have been forc'd to slip, and go from one place to another.

There is a good Road for smaller Vessels, which do not draw above 9 to 10 Foot Water, on the W. side of the Island, between a Bank that lies off from the Point and the Main: the Pilots will direct you there also; 'tis a good Shelter in W. and N.W. Winds, which are the worst Winds for this Coast that can blow.

Right off of *Tabarca* westward along the *Barbary* Coast are abundance of Rocks, but most of them above Water: You have all along that part of the Coast 15 to 18 Fa. almost close to the Shore; 'tis also stony uneven Ground, and very bad anchoring: but eastward toward Cape *Negro* 'tis the Reverse, being clear sandy Ground, good Shoalings, and not above 6 to 10 Fa. except one Point only about 1 1/2 L. from the Island, which is foul but even; there keep in 6 to 8 Fa. and the Ground is good.

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Guardia, is more properly *Cape Farina*; and under the Cape about a L. lies the *Porto Farina*.

The Entrance into this Port is between two Points, $\frac{3}{4}$ of a Mile wide: if you would go into the Harbour, keep near the easternmost Point in $\frac{1}{4}$ and a half Fa. the W. Point is Shoal, having a Sand stretching out a Cable's length from it. The Town of *Porto Farina* is right before you, N. from the Entrance into the Harbour, or N. by E. for you run N. in; and if you keep the Church, and the easternmost Head of the Mole in one, that is your Mark, and you will need no Pilot, but run in to the eastward of the Town, and anchor at the E. end in $\frac{1}{4}$ to $\frac{1}{2}$ Fa. there you are secure from all Winds, 'tis an excellent Harbour.

E. from Cape *Farina* is *Gamarohs*, a low flat Island, scarce out of the Water, dist. from the Main 2 little miles.

From *Port Farina* to *Cape Carthage*, the Coast falling in far due S. your Course is S. by E. 6 Ls. W. of the Cape goes in a deep round Bay, formerly a Road and Harbour for great Fleets *Carthaginian* or *Roman*, now of small use; yet 'tis a fine sandy Bay, a safe Road, and able to receive a Royal Navy, having good hard Sand for Anchor-hold, and gradual Shoalings from 12 Fa. to the Wall of the Shore, and no Dangers but what appear.

Cape Carthage lies between this Bay and that of *Tunis*, making as it were the E. Point of one, and the W. Point of the other. On the S.E. side of this Cape stands the Island and Castle *Goletta*, famous in History, defending as well as forming the Entrance into the Harbour or Port of *Tunis*. *Cape Carthage* and *Cape Tortas* make the Bay of *Tunis*, dist. from one another 7 Ls. W. and S.E. as the Castle of *Goletta* and the opposite Point, form the Port of *Tunis*. There is good Riding in any part of the Bay of *Tunis*, either on the W. side under *Cape Carthage*, or on the E. side under *Cape Tortas*, or before the Port under the Castle *Goletta*.

N.E. from *Cape Tortas* dist. 8 Ls is *Cape Bani*; and from thence the Coast trends along S. to *Cape Cupia* 8 Ls.

From *Cape Cupia* to *Cape Susa* S.S.W. 22 Ls.

From *Cape Susa* to *Comegra* S.S.E. 5 Ls.

From *Comegra* to the City of *Africa* 5 Ls S.E. by S.

From *Africa* to the City of *Affacus* 8 Ls S.E.

From thence to the Port and City of *Tripoli* S.E. half easterly 55 Ls.

N. B. From *Tripoli* eastward to *Alexandria* the Coast is not surveyed; nor do any of our Charts give an Account of the Coast or Courses, Depths or Soundings, there being very little Navigation that way, and consequently no Occasion for a Survey.

Here being no Survey of the Coast of *Africk*, we must call it the Coast of *Egypt*, and go away East to the Limits of the *Asian* Coast, viz. to the City of *Damiata* on the Mouth of the *Nile*. From *Jassa* W.S.W. 53 Ls; and 6 or 7 Ls to the eastward of *Damiata* reaches a great Shoal from the Land, some Ls to Seaward, where there is not above 3 or 2, and at some places 1 Fa. Water.

Anchors again, when you have been forc'd to slip, and go from one place to another.

There is a good Road for smaller Vessels, which do not draw above 9 to 10 Foot Water, on the W. side of the Island, between a Bank that lies off from the Point and the Main: the Pilots will direct you there also; 'tis a good Shelter in W. and N.W. Winds, which are the worst Winds for this Coast that can blow.

Right off of *Tabarca* westward along the *Barbary* Coast are abundance of Rocks, but most of them above Water: You have all along that part of the Coast 15 to 18 Fa. almost close to the Shore; 'tis also stony uneven Ground, and very bad anchoring: but eastward toward Cape *Negro* 'tis the Reverse, being clear sandy Ground, good Shoalings, and not above 6 to 10 Fa. except one Point only about $1\frac{1}{2}$ L. from the Island, which is foul but even; there keep in 6 to 8 Fa. and the Ground is good.

N. B. This Island of *Tabarca* would not be so considerable for Shipping, but that it belongs to the *Genoese*, who have Peace with the *Moors* and *Turks*; whereas all the other Princes and States in the *Mediterranean* Sea, *France* excepted, have perpetual War with them: so that this Island is constantly throng'd with Ships from *Spain* and *Leghorn*; and tho it is not above half a L. in Circuit, there are 5 Forts on it, besides the great Castle; under the Protection of which the Ships ride in Safety.

N.E. from this Island, upon the Main of *Africa* lies Cape *Negro*, dist. 7 Ls; 'tis a long Point or Promontory stretching out far into the Sea, and the Ground being flat within, you would take it for an Island as you come from the eastward. There are several Creeks on the Coast before you come to the Cape, but of no note to Navigation, the Waters being often dry'd up by the Heats. East of the Cape is a small Rock 3 to 4 Fa. above Water, and sharp like a Spire Steeple; and when to the northward you see thro' it, by this Mark you know a fine sandy Bay which lies beyond it, where you have a very good Road; and all along the Coast you have a clean sandy Shore so that you may sail near it, and anchor almost where you will.

This Coast trends away E.N.E. and afterwards E. by N. 8 Ls beyond Point *Negro* to Cape *Marabut*, or *Mirabut*: from thence it trends due E. with some Hills, and several small Rivers emptying into the Sea: and farther E. is the Harbour formerly call'd *Biserta*, being the Haven or Port to the great City of *Carthage*. This Cape *Marabut* lies with the Island *Galatta* W.N.W. and E.S.E. dist. 15 Ls. and E. by S. from the Cape dist. 7 Ls. lies *Point Guardia*.

S.W. from this Point of *Guardia* dist. $1\frac{1}{2}$ L. lies the *Porto Farin*, or *Farina*. There is distinguish'd in our common Charts a *Cape Guardia*. and a *Point Guardia*: *Cape Guardia*, which is the only Point that ought to be so call'd, is to the westward. as above; and that which they call the *Point*

From *Cape Sufa* to *Comegra* S.S.E. 5 Ls.

From *Comegra* to the City of *Africa* 5 Ls S.E. by S.

From *Africa* to the City of *Affacus* 8 Ls S.E.

From thence to the Port and City of *Tripoli* S.E. half easterly 55 Ls.

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Here being no Survey of the Coast of *Africa*, we must call it the Coast of *Egypt*, and go away East to the Limits of the *Asian* Coast, viz. to the City of *Damiata* on the Mouth of the *Nile*. From *Jaffa* W.S.W. 53 Ls; and 6 or 7 Ls to the eastward of *Damiata* reaches a great Shoal from the Land, some Ls to Seaward, where there is not above 3 or 2, and at some places 1 Fa. Water.

Damiata, formerly called *Pelufium*, has two high Towers, which are seen far off at Sea, and whereby it may be known. It lies open to the Sea at the easternmost Point of the easternmost Arm of the famous River *Nile*, which causes very high Water there at the Swelling of the said River.

Before *Damiata* there is good Anchor Ground a great way off, but it is somewhat soft just at the Town, by reason of the Mud that is brought down by the Waters of the *Nile* into the Sea: but both to the eastward and westward of *Damiata*, the Ground is hard.

From *Damiata* to *Cape Brule* the Course stretches W.N.W. northerly dist. 11 Ls. This Coast is very low Land, with abundance of Trees; but off at Sea it is good sandy Ground and safe riding, especially when the Freshes do not come so much out of the *Nile*.

When you first get sight of this Coast, the Trees that stand here and there in Clusters seem to be an Island, for you see them a good while before you see the Land, because the latter is so low. About half way between *Damiata* and *Cape Brule*, but nearest the last, are 2 great Mountains, and right W. of *Damiata* 2 Hills, which seem to be 2 red stony Cliffs: These are good Marks whereby you may know the Coast, and the Port also.

Along all this Coast, and a great way out at Sea, its even Ground and shoal Water, and you may anchor in 6 or 7 Fa. near the Shore, without Danger, even just where you will.

From *Cape Brule* to *Rosetti* the Coast stretches W.S.W. 6 or 7 Ls. *Cape Brule* is high Land, but to the westward of it towards *Rosetti*, the Land is very low, almost even with the Water; and you are in 10 Fa. water before you can see the Land: Nay, when you are about 3 Ls. from the Shore, you will not see it, but may see the Vessels that ride in the Road before you can see the Land.

Rosetti

Rofetti lies even to the Sea also, as *Damiata* does; 'tis situate on an outer Point of Land, not far from the River *Nile*, but not just upon its Banks; it has 4 or 5 high Towers or Towers, and a Castle lying on that side next the *Nile*, which runs with a great Arm very near by it, and brings down black Water into the Sea. By all these Marks *Rofetti* is easily known.

Before the City of *Rofetti* there is a good Road, but in westerly Winds 'tis worse lying than at *Damiata*: S. of *Rofetti* is a great Bay call'd *Moody*, or *Madi Bay*, where there comes in also another great Stream from another Arm of the River *Nile*.

Before this Bay lies an Island, behind which is good Riding and good Ground; and if you are forced to remove from *Rofetti* by any Storm of Wind, you may run into the Bay of *Madi* behind this Island, and under the Shelter of it come to an Anchor in 6 or 7 Fa. Water.

Four Ls to the S. of *Rofetti* lies *Cape Becur*; and between these two lies the aforesaid Island before the Bay of *Madi*, the Cape thrusting out between the two Arms of the River.

Between *Cape Becur* and the Island are several Rocks and Shoals very dangerous, so that you cannot sail thro' with great Ships except you are very well acquainted; the Ground all the way is very foul. Some of the Rocks also lie above, and some under Water. The *Turks* sometimes sail with small Ships thro'; but to the northward of the Island is a broad and good Passage; so that besides the Difficulty, there is no need to run the Hazard.

Upon *Cape Becur* stands a Castle call'd *Apokera*, which when you first get sight of, it is like the Sail of a Ship, but it soon shews it self.

From *Apokera*, or *Cape Becur*, to *Alexandria*, the Course is S.W. by S. about 4 Ls, the Land high and plain. From *Cape Giso* in *Candia* it is S.E. by E. somewhat southerly 134 Ls; and from *Cape de Gata* in *Cyprus* to *Alexandria* it is S.W. by S. a little westerly 8 Ls.

With this Course you will come to a Point of Land in *Egypt*, which lies about 16 Ls to the westward of *Alexandria*: This Point is a little higher than the other Land, and appears in 2 long Hills, but not high; and coming about 7 Ls farther E. you will find 20, 15, 10, or 7 Fa. but then you are close to the Shore. There are but few Marks to know this Coast by, because it's all low Land, and uninhabited; so that in 25 Ls running you see neither Town nor House, except this Point. Four Ls to the westward of *Alexandria* lie 2 black Hills upon the Land, by which stands a Building called the Tower of *Arabia*. Four Ls eastward of this Tower lies the Port of *Alexandria*; but in sailing to it the Current of the *Nile* must be observ'd, which runs very hard, especially as the Winds may blow. This Current sitting to the eastward runs so strong, that sometimes you are in danger of over-shooting the Port; therefore you must sail S.W. by W. if with a N.W. Wind sail W.S.W. left, as above, you fall below the Town of *Alexandria*. To know *Alexandria* when you come from the westward, observe

Directions for the Western Coasts of Africa.

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that it shews it self in 2 high Mountains; the easternmost is the greatest, and is like a Country House; the westernmost is smallest, and appears at first like a Stack of Hay. Then you will see open the highest Lighthouse; but if you fall not right with the City, you shall know by these Marks whether you beto the eastward or westward of it: the Land to the westward is even, without any Trees at all, and reaches W.S.W. and W. by S. the Land to the eastward is all low sandy Ground, and full of Trees, reaching from Alexandria to Apokera, or Cape Becur, N.W. by N. 4 Ls. You may easily discern it by the Ground; for near to Alexandria and the Coast to the westward, it is very deep close to the Land, but to the eastward of Alexandria you will have good Anchor Ground and an even Shore, till you come past Damiatata, the further E. the smoother Water; and when you are out of sight of Land, it is not above 14 or 15 Fa. deep, and at some places not so much; you may sail as close to the Shore as you will at 6 or 7 Fa. and all the Shore even low Land full of Trees.

The Haven of Alexandria is a great large Bay, not very wide at the Entrance: On the Points of the Haven stand two Castles, one on the E. side, the other on the W. which is the biggest; coming near which you must fire a Gun, to give Notice that you intend to anchor there, and after to enter the Port.

Due E. from the W. Castle lies a round black Rock above Water; between which Rock and the aforesaid Castle 'tis foul Ground, so that you cannot sail between them; but E. of the black Rock and close to it, you may sail in.

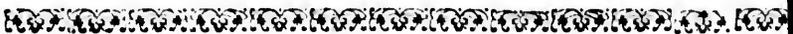
From the easternmost Castle stretches out a Ledge of Rocks lying under Water, and running towards the said black Rock; and between them it is not very wide, but the deepest is 6 Fa. without it is 12, 10, and 8 Fa. but within from 8 it shoals to 4 or 3 Fa.

Before the City lies a Ledge of Rocks, the east end above, and the west end under Water; but to the southward of it is good Riding. There lies also within the Haven a Rock about 4 Foot under Water, behind which is the best Road in 3 Fa. and a half: but all over in this Haven the Ground is sharp, that you must serve your Cables well, if you intend they shall not cut: you must sail to the eastward of this blind Rock, and by those other Rocks. There are 4 Gaps like Doors in the Wall of the City, you must sail towards them, and then keep the greatest Tower in the City against the aforesaid Gaps of the Wall of the City, and you need not fear the blind Rocks.

Within the Haven on the E. side it's foul Ground: On the inside of the westernmost Castle the Turks commonly lie, but the biggest Ships for the most part lie northerly, just within the Haven in very foul Ground.

Coming before this Haven in good Weather, the Pilots will come aboard you, and bring you into the Haven. W. of the City is another Haven, but not convenient for great Ships; it serves only for Turkish Gallies.

2 long Hills, but not high; and coming about 7 Ls farther E. you will find 20, 15, 10, or 7 Fa. but then you are close to the Shore. There are but few Marks to know this Coast by, because it's all low Land, and uninhabited; so that in 25 Ls running you see neither Town nor House, except this Point. Four Ls to the westward of *Alexandria* lie 2 black Hills upon the Land, by which stands a Building called the Tower of *Arabia*. Four Ls eastward of this Tower lies the Port of *Alexandria*; but in sailing to it the Current of the *Nile* must be observ'd, which runs very hard, especially as the Winds may blow. This Current fitting to the eastward runs so strong, that sometimes you are in danger of over-shooting the Port; therefore you must sail S.W. by W. if with a N.W. Wind sail W.S.W. left, as above, you fall below the Town of *Alexandria*. To know *Alexandria* when you come from the westward, observe



Sailing Directions for the Western Cape Spartel Southward, to the Cape De Ve called Serraloon, exclusive.



It has been observ'd, that the *Straits Mouth* is form'd by Cape *Trafalgar* on the *Spanish* side, and Cape *Spartel* on the *Barbary* side; and that this Passage separates the two several Quarters of the World, *Europe* and *Africa*. The Breadth of the *Straits* in this Place is measured at something less than 7 Ls.

Cape *Spartel* is the utmost Angle of the Land of *Africa* N.W. as Cape *Trafalgar* is of *Europe* S.W. It is a long extended Promontory of Land, shooting out far into the Sea, and may be seen off at Sea near 10 Ls in clear Weather, tho the Land it self is not very high.

At the very Extremity of the Cape there lies a Rock, that breaking off the Violence of the Sea, which (the great *Atlantic* Ocean beating upon it) would otherwise be very raging, leaves under its Lee to the S. of the Point, a very safe Road with good Anchoring, where you may ride in 12 to 13 Fa. clean sandy Ground, and well shelter'd from northerly and easterly Winds: But it must be added, that you must lie ready to put to Sea, if the Wind veers to the West, and especially to the southward of the W. otherwise you may be embay'd, and on a Lee Shore too: However, if you are nimble in taking the first Change of the Weather, you may with Ease get out of the Road, and running round the Point take Shelter on the other side in *Tangier Bay*.

To the S. of the Cape about a L. you will see a Hummock on a low Ground, near the Strand, which looks like the Ruins

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The Western Coasts of AFRICA, from the Cape De Verde and the Port of Sierra Leon, vulgarly

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From hence the Coast thrusts out a little to the W. and the
Course to *Arzilla* is S. by W. 10 Ls. Here is a Haven and a
River, but 'tis a barr'd Port: There are also several large Rocks
lying thwart the Mouth of the Haven, which are a Security
to the Ships that ride within the Rocks, they lie in a Line
N. and S. before the Bar. But you may go in between the
Rocks in several places, and anchor behind them, as also be-
tween them and the Shore; the N. Channel is the best and
deepest Water, but neither of them deep enough for great Ships;
there being but about 2 Fa. and a half at high Water.

The Coast hither is low and flat, with a clear sandy Shore;
but the Country within shews very hilly and mountainous: To
you must be cautious not to mistake the Hills for the first
of the Land; if you should in dark Weather, or in the Night,
you may be ashore before you are aware.

From *Arzilla* the Coast still trends away a little westerly,
and your Course is S. by W. to *Larache* 8 Ls. There are some
Rocks on the Shore, otherwise the Coast is all clear, and good
Anchoring in several places, even in the open Sea. The Shore
is better as you go on southward, than it is more northerly;
also the Land lies highest to the Southward. *Larache* is a strong
Sea-Port, with a great Castle; it stands on the River *Leccus*, on
the S. Bank of the River; the Channel in, is crooked and un-
certain: and since the *Moors* have been Masters of it, the
Marks

Sailing Directions for the Western Coast

Marks for the Entrance have not been kept up, so that no Stranger can go in secure, nor are their Pilots much to be depended upon. But at best there is no Depth of Water for any Ships of Burden, so the Haven is not of much importance; but Ships ride pretty well in the Road before the Mouth of the River.

You may know the Entrance into the Port, by the N. Point having some Houses upon it; 'tis a low flat Point, and the Houses, which are but few, stand close together. From the N. Point runs a Quick Sand slanting S.S.W. into the Sea, which makes a Bar also to the Entrance, and there is not above 3 Fa. upon it at the highest Springs; so that no great Ships can go in except at Spring Tides. In the Road you have very good Ground, and 17 to 18 Fa. but 'tis no safe Coast to ride in an open Road; for upon a westerly Wind you have a terrible Sea comes in.

The Sea also sets right upon the Shore all along this Coast, so that in sailing by it you must be careful to keep a good Offing; otherwise even in a Calm you may be in danger of going ashore, by the mere Course of the Water.

From *L'Arache* the next Port is old *Mamora*, dist. 6 Ls. the Course continues still S. by W. Here is a good Haven for Ships of indifferent Burden; the Coast is still low and sandy, but not so clean as before, and which is worse, 'tis without any Marks to guide you in, or to know it by: There are some Towns on the Shore, but no Churches or Towers, or Steeples to guide the Mariner in his Course.

From *Old Mamora* to *New Mamora* it is 8 Ls, the Course much the same as before, one Point more westerly; for you go S. by W. for some part, and then the Land bearing out a little westerly, you must go away S.S.W. The N. Side of the Haven looks like a Cape or Point, and the City seems as if it stood in an Island off in the Sea. Here is a very good Road before the place, with good hard holding Ground, but a little too much Depth of Water, for you have 20 Fa. within a little mile of the Mouth of the Haven; but then you have good gradual Shoalings to the Shore, for you come to 15 and 10 Fa. and have 5 Fa. within a Stone's Cast of the Shore: But for the Reasons above, it is not prudent to let your Ship lie too near the Shore.

Off of the Harbour is a high broad Bank of Sand, which is not easily seen at a distance, tho it lies dry, because the Coast is in general low next the Water: As you sail by it to the southward, you will perceive it plainly.

The Port is not easily seen as you go by, for the Opening of the Channel lies to the southward easterly, and the North Point or Bank of the River lies flat and low: But keep on, and as you come nearer the Shore, you will perceive a Mark set up to guide towards the Entrance of the Haven; it is a high Pole or Mast standing on the high Ground within the Castle of *Mamora*, and looking towards the S. If the Weather be clear, you will also see the high Tower of *Sallee*. There is a Bar at the Mouth of the River, where there is at a Spring-Tide 16 to 17 Foor, but the Depth alters often by the working of the

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Rocks and Steeples for the *Moors*

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Tower, the Castle stands upon a rising Ground close by the River, and is wall'd round; the Haven is large, but is almost dry at low Water, having not above a Foot or Foot and half Water, but at high Water 13 to 14 Foot, and at Spring-Tides 3 Fa. There is a Bar before it, which at high Water may be past well enough; but at low Water it stops all Passage.

The Channel shifts often, occasioned by Storms or high Winds off Sea, and Freshes from the Land; sometimes the Stream runs by one of the Points, sometimes by the other, and sometimes in the middle.

In coming to an Anchor in the Road before the Town, you must bring the high thick Tower which stands on the Point of the Castle over the S. Point of the River, bearing from you about S.E. then you may anchor as near, or as far off as you please, in 16 to 30 Fa. 'tis all clean black Sand, tho the Shore is all full of Rocks and Stones. When you come to an Anchor, fire a Shot for the *Moor*s to come off to you; they understand the Signal.

Fedale is an Island upon the Coast; the opposite Land between that and *Saltee* is rugged and uneven. The Shore lies S.W. about 9 Ls; the Strand is black, with Rocks scatter'd here and there; and those Rocks are likewise black, and often taken for the Island it self: The only Mark to know *Fedale* by, is a Wood to the northward, dist about 1 L. it lies below on the Land, looks like a Barn, and in sailing by you will see the Land beyond over the Wood. To the northward of *Fedale* 4 Ls, is a little round Hummock, which when you are a little off Shore is seen above the rest of the Land; but if you are nigh, 'tis hid by the double Land.

From *Saltee* to this Island of *Fedale*, the Land is all high within and double; and the Coast being so very bare and without mark'd Places, special Notice should therefore be taken of such small Marks as there are, such as the Black Rocks, Hummocks, &c.

Between the Wood and the Island is a little *Moorish* Town, which stands also in a Wood; you may see part of the Walls as you sail near the Shore; the Town is call'd *Monjofs*.

To the southward of *Fedale* the Land begins to appear higher; and where the high and low meet is a Cliff, by which the Island of *Fedale* is easily known: for when the Cliff is S.S.E. from you, the Island is so too. To go into *Fedale*, you must run right with the Wood, till you come within less than a L. of the Shore, and then along by it; so you will run between the Island and the Main, and cannot miss the former; you may anchor in the Bite between the Strand and the N. Point of the Island in 6 to 8 Fa. but 'tis a bad place to lie in: The best Riding is, when the Point of the Island bears N.N.W. and N. by W. from you, and the Wood E.N.E. and *Monjofs* a Hand-spike's length open to the northward of the Wood. Here you will ride easy, having a Cable fast on the Island; but when the Wind is any thing westerly, the Sea comes rolling in so hard round the Point of the Island, that 'tis safer lying in the open Sea than any where within the Island: But you may also run into 12 Fa. and anchor there, with the N. Point of the Island lying W. by S. from you; 'tis safer lying.

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The Port is not easily seen as you go by, for the Opening of the Channel lies to the southward easterly, and the North Point or Bank of the River lies flat and low: But keep on, and as you come nearer the Shore, you will perceive a Mark set up to guide towards the Entrance of the Haven; it is a high Pole or Mast standing on the high Ground within the Castle of *Mamora*, and looking towards the S. If the Weather be clear, you will also see the high Tower of *Sallee*. There is a Bar at the Mouth of the River, where there is at a Spring-Tide 16 to 17 Foot, but the Depth alters often by the working of the Sea; also the Sand shifts, for in the Spring commonly the Entrance lies E.S.E. or thereabouts, and in the latter end of Summer more easterly.

In the Summer the Wind generally blows here from N. by E. to N.E. along the Coast, so that the Current runs southward: In the Winter the Shore is boisterous, the Wind generally S.W. and S.S.W. off Sea; but as soon as it begins to come more to the S. or S.E. the Shore is safe and pleasant; however you should be careful to keep a good Offing in these Seas, for the Winds soon shift from the S.E. to the S.W. and W.S.W. and these Winds commonly bring foul Weather; and then as it comes about to the W.N.W. or N.W. the good Weather ordinarily returns.

This Road of *Mamora* for about a L. off before the Town, is pretty good, and you have 18 to 20 Fa. clean sandy Ground: From thence to *Sallee* the Coast goes away S.W. by S. and S.S.W. low Ground, a plain and even Coast all the first part of the way, with double Land, and a sandy kind of Strand; but about midway between *Mamora* and *Sallee* it rises, and from thence southward you have many black rugged steep Rocks with little Hills interspersed; so that when you are at some distance from the Shore, 'tis not easily discern'd that the Land is double.

If the Weather is clear, you will easily discern the great Tower of *Sallee* as soon as you are a L. from *Mamora*; and by that Token, when you are sailing by the Coast, you know you are past *Mamora*. The Shore continues thus rocky and steep, till you are past *Fedale*, and some time afterwards; only that between that and *Sallee* you will perceive now and then some white sandy Banks among the Rocks, but to the northward of *Sallee* nothing but perfect Rocks, and a dangerous Shore; therefore keep out to Sea.

N. B. From Cape *Spartel* to the River of *Sallee* the Course is all S. by W. 40 Ls.

The Town of *Sallee* lies on the N. side of the River upon a low sandy Point, with a little Tower in the Town; there is a Castle on the high rocky Point on the other side, with a small

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From the said N. Point there is a Rift of Rocks, which shoot out about Musket-shot into the Sea, but they are most of them very high above Water: The Island it self is very flat, and the Bay is a fair sandy Strand, so that you may ballast from the Shore; but the Natives are very treacherous, so be upon your Guard. To the northward of this Island, over against the Wood, and so all along to *Sallee*, 'tis all shoal Water till about 2 Ls from the Shore, there you have 23 to 25 Fa. clean sandy Ground. Over against the Island the Ground is foul, but the Depth the same.

If you would trade at *Fedale*, you must fetch the *Moors* on board, for they have no Boats, so you must anchor as far in as you can; when you are in, you'll see a high Hummock upon the N. Point of the Island, it looks like a ruin'd Castle, but is only a Cluster of Rocks. The Tide flows right up, and down here 7 to 8 Fa. and no where upon the whole Coast besides above 2 $\frac{1}{2}$ to 3 Fa. the reason is not very easy to know.

Three Ls from *Fedale* S.W. by S. or S.W. and close upon the Strand, lie the Ruins of an old Town call'd *Anafe*; it is stretch'd along upon the Shore, and has several Towers, one of them almost as thick and high as that of *Sallee*, but is not seen far off: The Wood to the northward of *Fedale* may also be seen thither.

Two Ls to the westward of *Anafe* is a steep Point, with red Cliffs, which look like Houses; you will see the like in several places on this Coast. From *Anafe* S.W. by W. westerly lies *Azamor* dist. 18 Ls, and between them another decay'd place call'd *Liones*.

On the E. side of *Azamor* there runs out a sharp Point far into the Sea; and as you come from the northward along Shore, you see the Town standing high behind it upon the Strand; so that it is seen over the Point. The Shore is flat all about, not above 8 to 10 Fa. to a L. and half from the Shore: the Ground is foul and rocky, so that there is no good anchoring.

A little past the Town westward you will see the River, and some Towers near the Mouth of it: on the low Grounds to the westward of this River lies the Town of *Maffagam*, or *Mazagon*, dist. 12 Ls, on a white Strand, and close by the Shore; 'tis inhabited by *Spaniards* and *Portuguese*, but the *Moors* are Masters of the Coast: it has no Tower of Note, and at a distance looks only like white Spots upon the Land: when you are over against it, you will see the high Tower of *Tyro* to the southward, 'tis an old ruin'd Tower much like that of *Anafe*. *Mazagon* lies in Lat. 32. 56.

A little to the westward of *Maffagam*, and at the Point of the Bay, a great Ledge of Rocks shoot out into the Sea near a L. at low Water they are to be seen, but at high Water they are sunk, and therefore dangerous.

Tho' this is a large Bay, there are but few places where the Ground is clear; so that if you are not well acquainted with the Place, you will do well to take a Pilot. The best Road to lie in, is where the E. Point of the Bay lies E. and the W. Point N.W. from you. *N. B.* Here are *Portuguese* Pilots to be had.

About a L. to the westward of *Tyro* lies a very steep Point, as you come along Shore from the eastward; you see no Land without this Point till you come very nigh it: But when you begin to bring it upon your Broadside, then you will see come out to the westward of it a great square Cliff very remarkable, having white and red Spots appearing at a distance, as if it were a Wall: this is the famous *Cape Blanco*.

About 3 Ls to the westward of this Cape, upon a high Land, stands a little Tower with a Valley near it, 'tis call'd *Casa Cavaglero*: and about 4 Ls farther W. upon the same high Land stands a Houle call'd *Emendra*; but you cannot see it, unless you are near the Shore. From *Cape Blanco* to *Cape Cantin*, the Shore lies W.S.W. about 9 Ls.

Cape Cantin is a plain even Point; when you are to the northward of it, it appears flat toward the W. In going off to seaward there stands a small Tower upon it; but sometimes 'tis hardly discernible. If you come from the northward, and are bound to *Safia*, your Course is S. and S. by E. off from *Cape Vincent*; then you will fall with the Land 4 or 5 Ls to the eastward of *Cape Cantin*: But if you keep a more westerly Course, you must run on till you are in Lat. 32. 30. then *Cape Cantin* lies due E. from you. 'Tis better to fall a little to the E. than to the W. of the Cape, because the Winds are generally northerly at that Place. In sailing thus eastward of the Cape, the Coast lies S.W. by W. and S.W. plain even Land all along.

The Town of *Tyro* stands to the eastward of the Cape about 12 Ls, having a white Tower by the Sea-side: And farther to the westward, between *Casa Cavaglero* and *Cape Cantin*, is a little Bay, having many large black Rocks scatter'd about upon the Strand, looking at a distance like Wrecks of Ships. From the Bay to the Cape 'tis a fine even sandy Shore.

In sailing round the Cape, you must carefully avoid a Ledge of Rocks which shoot out from it far into the Sea; to avoid

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of the Island : Those of them which are nearest the Island, are always above Water, the others not, to take good heed. If you come from the northward, and would go in behind the Island, you must run between those Rocks and the Island close by them, leaving them on your Larboard-side, where you will have 5 Fa. On that side of them are other Rocks to be seen at low Water only ; when you come to the outer End of them, you may luff up by them towards the Main, and have 3 Fa. Water good Ground, but 'tis but a very indifferent place to anchor in, if it comes to blow, because of the violent Breach of the Sea upon those Rocks ; but farther on the Starboard-side, under the Island, there is good lying at $2\frac{1}{2}$ Fa. Water.

N. B. The Island of *Mogodora* lies in Lat. 31. 18.

From the S. end of the Island lies a little Riff towards the main Land ; and to the southward of that, another Bank runs a League and half into the Sea. In going out at the S. end you must run along by the Shore of the Main, till you are past that Riff ; then keep along by the Bank, and you will soon be in deep Water, and may fail where you will, having from 4 to 10 Fa. and more.

Cape Geer lies S.S.W. from the Point of *Saffa* about 38 Ls, and 25 to 26 from *Mogodora* : The Coast between is a fine sandy even Strand, the Land double, and in some places very high. About 8 or 9 Ls to the northward of that Cape lies *Cape Taffelano*, under which you may run for E. and N.E. Winds, and have good Ground and sufficient Shelter.

Setts of the Tides.

A S.S.W. and a S.W. by S. Moon makes full Sea on all these Coasts.

Courses and Distances.

From *Cape Spartel* to *Cape Cantin* the Course is S.W. southerly 85 Ls.

From *Cape Cantin* to the southward Cape call'd *Cape St. Vincent*, on the Coast of *Portugal*, the Course is due N. 90 Ls.

From *Cape Cantin* to *Teneriffe* in the *Canaries*, the Course is S.W. by W. 148 Ls.

From *Cape Cantin* to *Cape Geer*, the Course S.S.W. 50 Ls.

From *Cape Spartel* to the *Maderas*, the Course is W. by S. and W.S.W. 200 Ls.

Cape Spartel is in Lat. 35. 52. *Cape Cantin* in 32. 40.

Cape Geer is a remarkable Point of Land, appearing from the northward lower than the main Land, and to the southward it lies flat with the Sea, and yet it is seen 3 or 4 Ls off. There is a high Hummock about 4 Ls to the northward of it within the Land, which is seen much farther. To the northward of the Cape the Land is high, but you see no Land to the southward of it, no not tho you are near the Cape. There is a great Riff which runs out from the N. side of the Cape a great way into the Sea, so that you cannot approach the Cape : if you come from the northward, you must stand off

is hardly once seen. If you come from the northward, and are bound to *Saffa*, your Course is S. and S. by E. off from *Cape Vincent*; then you will fall with the Land 4 or 5 Ls to the eastward of *Cape Cantin*: But if you keep a more westerly Course, you must run on till you are in Lat. 32. 30. then *Cape Cantin* lies due E. from you. 'Tis better to fall a little to the E. than to the W. of the Cape, because the Winds are generally northerly at that Place. In sailing thus eastward of the Cape, the Coast lies S.W. by W. and S.W. plain even Land all along.

The Town of *Tyro* stands to the eastward of the Cape about 10 Ls, having a white Tower by the Sea-side: And farther to the westward, between *Casa Cavaglero* and *Cape Cantin*, is a little Bay, having many large black Rocks scatter'd about upon the Strand, looking at a distance like Wrecks of Ships. From the Bay to the Cape 'tis a fine even sandy Shore.

In sailing round the Cape, you must carefully avoid a Ledge of Rocks which shoot out from it far into the Sea; to avoid which keep a good Offing, especially in westerly Winds.

From *Cape Cantin* to the N. Point of *Saffa* the Coast lies S. by W. about 6 Ls: Between them the Land is steep and rocky, tho the Inland is even and plain.

About a L. to the southward of the Cape lies a Shoal by the Shore, call'd the *Golden Bank*. To the northward of the Bay of *Saffa* the Land is high, double and uneven; but to the southward it is plain and even: So the Difference is a Direction, when at a distance, whether you have over-shot the Town or not.

If you would anchor in the Road of *Saffa*, you must bring the N. Point, which the low Tower stands upon, N. a little westerly from you; then you have 18 Fa. Water: If you would go farther into the Bay, bring the said N. Point N.N.W. a little northerly; and then the northermost of the two N. Points will be about a Ship's length open without the fouthermost: Run then to the southward, till the high square Tower, which stands below at the landing Place even with the Town Wall, comes right over a Tower which is fast to the Wall; and then come to an anchor, or else stay till you have the high Castle of *Saffa* E. by S. and E.S.E. from you; there you will have 16 to 18 Fa. fine sandy Ground. Or you may run into the Bay till the N. Point bears N.W. and N.W. by N. from you, there you have 15 to 16 Fa. *N. B.* These are all Summer Roads, but in Winter you must keep farther off in 28 to 30 Fa. where you have coarse sandy Ground.

You may run boldly into the Road of *Saffa* by night or day, keeping the Castle E. by N. and E.N.E. There is no manner of danger, unless you will run bump a-shore.

The S. Point of the Bay lies about 2 Ls from *Saffa* very low, and about 2 Ls more southward lies another Point, but steep and rocky. Here comes in the River *Tenciff*, which comes from *Morocco*.

Thirteen or 14 Ls S.S.W. from the Point of *Saffa* lies an Island call'd *Mogodor*, or *Mogedora*; and there shoots out a great Ledge of Rocks from the Main opposite to the N.E. end

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From *Cape Cantin* to the Southward *Cape* call'd *Cape St. Vincent*, on the Coast of *Portugal*, the Courfe is due N. 90 Ls.
From *Cape Cantin* to *Teneriffe* in the *Canaries*, the Courfe is S.W. by W. 148 Ls.
From *Cape Cantin* to *Cape Geer*, the Courfe S.S.W. 50 Ls.
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Cape Spartel is in Lat. 35. 52. *Cape Cantin* in 32. 40.

Cape Geer is a remarkable Point of Land, appearing from the northward lower than the main Land, and to the Southward it lies flat with the Sea, and yet it is feen 3 or 4 Ls off. There is a high Hummock about 4 Ls to the northward of it within the Land, which is feen much farther. To the northward of the Cape the Land is high, but you see no Land to the Southward of it, no not tho you are near the Cape. There is a great Riff which runs out from the N side of the Cape a great way into the Sea, fo that you cannot approach the Cape; if you come from the northward, you must stand off to Sea, and go about it.

Santa Cruz lies S.E. by E. and E.S.E. from the Cape 7 or 8 Ls: Five or 6 Miles to the northward of it is the *Moor's Castle*, upon a very high Land; and from that Castle runs a Range of Rocks, about Gun-shot in length into the Sea; the rest of the Coast is clear.

If you would anchor here, you must run into the Bay till the *Moor's Castle* bears N. from you, and the Christians Pack-houses or Ware-houses N.E. then you are to the Southward of the Range of Rocks, and have 7 to 8 Fa. The best Road is when *Cape Geer* bears N.W. by W. from you. In Summer time you may come so near the Shore here as to 6 or 7 Fa. but in Winter, keep your Distance. In sailing from the Cape to this Road, you must be sure to run along by the Land of the Cape till you come before the Castle, because the northerly Winds almost blow Trade here; and if you keep too far from the Shore, you may be oblig'd to fetch it up again from the N.E. and N.N.E. to recover the Shore. *N. B.* If you come to this Road by night, you must come no nearer than 12 to 14 Fa. at your utmost peril.

You must be very careful also in your anchoring here, and especially to have all your Anchors ready; your small Bower must be laid before the Land-Wind, and your other Anchors to the seaward, and your Sheet-Anchor brought out to the S.W. against a Storm, which frequently happens here, and is foreseen a good while by the swelling and rising of the Sea: Also keep your Fore-sail to the Yard, that you may be ready to put to Sea if you should be forced from your Anchors.

About 18 to 19 Ls from *Cape Geer* on the Coast S. and S. by W. lies *Cape Gilon*; and S.S.W. about 10 Ls from *Cape Gilon*, is *Cape Non*: There comes in the River *Dorodus*, in the Mouth of which is a very good Road. From hence S.W. by S. 18 Ls lies *Aimfelli*, and thence S. the Bay of *Albuch* and *Cape Chabi* 17 Ls; from hence the Coast to *Cape Bajador* is W.S.W. near 50 Ls. All the Land on this Coast appears desolate

Coasts of the Canary Islands.

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best *Jador*, in a Line from N. to S. is 120 Ls; but as the Coast guides the Sailors, 'tis near 145 Ls.
36. On the Coast of *Morocco* and *Sanbaga* a S.W. and a S. Moon
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Coasts of the Canary Islands.

ies; So that when 'tis 5 or 6 Ls N.W. or S.E. from you, it seems
and to be an Island separated above a Mile from the other; but as
pads, you come nearer the low Land shews it self. To go into the
r all Road you must sail about the Point, along by the *Ifolettes*,
le in leaving them on the Starboard-side, till you bring the Castle
he E. about N.W. by N. from you, and there you may anchor in 8
otta, to 12 Fa. then the N. Point will bear N.E. by N. and the S. Point
that S.S.E. from you. At the S. end of this Island there is another
outh- very good Road for southerly Winds, in a fine sandy Bay; the
2 Fa. Road is call'd *Massapalomba*: There is also good watering.

The N.E. Point of *Teneriffe*, call'd *Punta de Nago*, and
the N.E. Point of the *Grand Canaries*, lie N.W. and S.E.
rmost dist. 14 Ls. There is a Road on the S.E. side of *Teneriffe*,
llos; before the Town of *Santa Cruz*, where is a fair sandy Bay.
into: The best of the Road is a little to the northward of the
edges Town, in 20 to 24 Fa. and then the said N.E. Point of *Tene-*
icons, *riffe* lies N.N.E. from you, and the S. Point S. by W. When
o one, *Pica Teneriffe* is W. from you, you are open before this
edges Road of *Santa Cruz*; and when you lie in the Road, the
left of Island of *Grand Canaries* lies S.E. from you about 11 to 12
e soon Ls. There are no Havens or Creeks in either of these two
Water. Islands; and therefore, tho the Roads are good, and this
Then Road off of the Castle of *Santa Cruz* is the best, yet if a
d an- Storm from off Sea happens, you ride very hard, and there
e Bar. comes in such a grown Sea, that the Ships generally chuse
Ship to slip their Cables, and run out to the S.E. and so go off to
Ledge Sea, or get under the Lee of the *Grand Canaries*, according
e you as the Winds are.

Eight or 9 Ls from the N.E. Point of *Punta de Nago*, and
from on the N.W. side of *Teneriffe*, lies the Road *Garrichica*, bear-
t side, ing W.S.W. and S.W. by W. To lie right before the Town,
ire to you must anchor to the westward of the Cross call'd the *Lion*,
able's being a Rock in the Shape of a Lion, having a Cross on it;
out a so that the Rock must bear S.E. by E. and S.E. Then you
Rocks may see into the very Streets of the Town, thro' the Cloister
Water of the *Dominicans*; there you have clean Ground in 36 to
h Wa- 40 Fa. and the *Pica Teneriffe* lies over the W. end of the
o Ca- Town. If you go nearer than 25 to 26 Fa. you have foul
Boats Ground, and so it is all westward towards the Riff of
n old *Lapania*.

'Tis needful to have Sails and Anchors ready, and a clear
Ship, when you ride here, in case of a Storm; for this is a
n was dangerous Road, and the only Remedy, as said before, is to
of the go out to Sea, or to shift Roads to some of the other Islands.

There is indeed a little Haven at *Garrichica*, where a few
toward Ships may go in; but you must have a Pilot then to carry you
road. in, while it is fair Weather, in a Storm you will find there
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may come close to it; without the Haven 'tis an clean sandy Ground. 5 Fa. to 5 1/2; At high Water, with the Wind off Sea, here goes a great Swell, but the Winds generally blow from the N. and N.E. so that 'tis almost always smooth Water.

Porto de Cavallos, which is the other Haven on that side, is very narrow, and lies among the Rocks, which are to the Seawards of you: The Haven is little more than a Cable's length over, and from the Entrance to the main Land about a Cable and half; and the Mouth of it is not broad. The Rocks on both sides shew themselves at low Water, but at high Water they are cover'd for a good way.

Between these two Havens lie two little Islands: At high Water you may go thro' on the inside of them into *Porto Cavallos* with Boats, but not with Ships; and at low Water Boats cannot pass, for it ebbs dry. You will see the Ruins of an old Castle on the southermost of those little Islands, which was formerly demolish'd by the *English*. From the S. side of the Island shoots off a Riff, and to the southward or westward of that lies the Bar, which is not above 10 Fathom broad. Upon the main Land also are two little Beacons, as at *Porto de Naos*, which you must bring into one; and then keeping them so, sail right in. At high Water and at Spring-Tides too there is not above 12 to 12 1/2 Foot Water; and the Mouth of the Haven where you must go in, is very bad Ground, nothing but Rocks; but when you are in, 'tis clean sandy Ground, where you may lie without any danger. At the highest Water most of the Rocks in the Entrance are cover'd, and they row over them in small Boats; but at low Water there is not above 12 to 18 Inches Water, so that a Ship's Boat cannot go in or out.

When you are in, you lie Land-lock'd for all Winds, and tho' it should blow very hard, the Water is always smooth.

N. B. In both these Havens a S. by W. and N. by E. Moon makes full Sea. They who come here must be provided with fresh Water, for they very rarely find any here; nor has the Island either Fruit or Wine.

There is a little Island between *Lancrotta* and *Forteventura*, call'd *Ile de Lobos*; it is very foul on the N.W. yet you may anchor on both sides of it in 15 to 20 Fa. as also in 6 Fa. About Cannon-shot S.W. by W. from the W. Point of it, you may anchor Land-lock'd for all Winds except a N.N.W. and S.E. The Coast of *Forteventura* at the N.E. end towards this Island is very foul, with several Riffs lying out, on which the Sea breaks exceedingly; and by the Breach of the Sea upon them you will know them. Tho' these Islands are not much used in Navigation, 'tis needful to know the Dangers that are about them, that Ships if forced in by necessity may go safe.

West from *Forteventura* lies the main Island, from which the rest take their Name, the *Grand Canaries*, dist. 19 Ls; the Road is on the E. side of the Island, behind the N.E. Point, thwart of a Castle. The Land of the said Point is very high, with a long low Strand or Shore running out to the Main.

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Eight or 9 Ls from the N.E. Point of *Punta de Nago*, and on the N.W. side of *Teneriffe*, lies the Road *Garrichica*, bearing W.S.W. and S.W. by W. To lie right before the Town, you must anchor to the westward of the Cross call'd the *Lion*, being a Rock in the Shape of a Lion, having a Cross on it; so that the Rock must bear S.E. by E. and S.E. Then you may see into the very Streets of the Town, thro' the Cloister of the *Dominicans*; there you have clean Ground in 36 to 40 Fa. and the *Pica Teneriffe* lies over the W. end of the Town. If you go nearer than 25 to 26 Fa. you have foul Ground, and so it is all westward towards the Riff of *Lapania*.

'Tis needful to have Sails and Anchors ready, and a clear Ship, when you ride here, in case of a Storm; for this is a dangerous Road, and the only Remedy, as said before, is to go out to Sea, or to shift Roads to some of the other Islands.

There is indeed a little Haven at *Garrichica*, where a few Ships may go in; but you must have a Pilot then to carry you in while it is fair Weather, in a Storm you will find there is no venturing in, for there is a funk Rock on the W. side of the Passage in the very Haven's Mouth; and tho the Sea breaks continually upon it, so that it is to be known, yet 'tis dangerous. When you are in, you are well secured, and have 5 to 6 Fa. but the Ground is foul, and you must buoy up your Cables with Cask, to keep them from the Ground, otherwise they will chafe and cut; also you must bring two Cables a-head to seaward, besides one upon the Rocks and an Anchor a-stern fastned on Shore, so that the Ship may not wind Ebb or Flood. 'Tis a good Fair-weather Harbour, and fit for Summer; but in Winter Storms 'tis best to avoid it, for sometimes there comes such a rolling Sea in from the N.W. that a Ship could not ride it, tho she had ten Anchors out. They load Wines here in the Season, but no Ships care to stay here in the Winter Months.

There are three lading Places more, between *Teneriffe* and *Garrichica*, viz. *Maramela*, *Relecho*, and *Oratama*: And on the S.W. of *Teneriffe* is a little Bay call'd *Adesse*, where you may lie well enough, except that 'tis open to a S.W.

From *Teneriffe* to *Palma* the Course is W.N.W. 18 Ls. *Santa Cruz* is the chief lading Place, where is a fair Bay, on the S.E. side of the Island: If you come from the northward, and would anchor in the Road, you must run in, till you are to the southward of the Head of the Bridge; there you may anchor in 25 to 30 Fa.

Be sure in the Winter not to come too near the Shore here, because of the S.E. or S.S.E. Winds. In this Road they ordinarily ride moor'd with two Anchors for the Sea Winds, and a small Anchor a-stern to keep the Ship right. To the eastward of the Town is a high white Reck with a Cross, and there is the best of the Road. A little to the northward of the Town is a fair sandy Bay, where is 25 to 35 Fa. good Ground, more or less, as you lie farther off or nearer; 'tis

call'd *Rammel Road*. When you lie in the Road of *Palma*, *Pica Teneriffe* bears E.N.E. from you. On the S.W. side is another lading Place call'd *Tassa Corda*.

The Island of *Gomera* lies about 6 Ls W.S.W. from the W. end of *Teneriffe*; there is a good Haven on the N.E. side of it, with 10 Fa. Water. There is better lying here than in any of the other Islands, for 'tis safe almost with any Winds: You

Sailing Directions for the rest of the Sea Coast Bajador to the Gulph of St. Anne



OST of the Coast from *Point Subi* to *Cape Bajador* is W. and S.S.W. From *Cape Bajador* the next Place of note is *Cape Olloguedo*, dist 56 Ls S.W. Between *Bajador* and *Olloguedo* are several good Capes and Bays tho of little note, viz. *Penne Grande*, *Terra Alta*, and *Rubias*. This Coast is very rugged, and the Rocks standing out together are called the *Seven Points* or *Capes*. The Bay of *Rubias* is very large, with a fine sandy Shore, and continues so till you are past the *Seven Mountains*; and the Bay de *Cavallos*, to *Cape Olloguedo*: A little Riff lies all round the Cape, beyond which, at the S. side of it, comes in the River *Oro*, a great River lying under the Tropick of Cancer. The Country is one great bare and barren Rock, and the Sun shining upon the Rocks makes the Heats insufferable: this Land is call'd *Terra Baxa*, or the low Land: 4 Ls to the southward, there is a Land-lock'd Bay, call'd ignorantly in our Pilot Books *Irra Barree*; it should be *Terra Baxa*, or *Baxea*; it is a large Bay, and there is good anchoring in several places secured from most Winds, especially under the N. Shore of the Bay. There is a Riff of Rocks on the very N. side of it, and a Sand Bank before it: These make the Place secure, for you may run in between the said Riff and the Sand Bank, in 20 Fa. and when you are within the Bay, 'tis safe riding and good Ground.

The Ships which come upon this Coast a fishing, run into this Bay in the Evening for safety, and so out to Sea in the Morning. Upon all this Coast, between *Cape Blanco* and the River *Oro* exclusive, there is no fresh Water.

From *Irra Barree* S. lies the Gulph of *Sintra*, it has a fine sandy Shore all round it, and good Ground, but is open to the W. and W. by S. Winds. From thence the Coast lies near W. by S. and you pass by *Terra Arca* and *Playes* to the *Rio St. Cypriano*, on the W. of which River you will find some clifty Islands, till you reach *Cape Barbas*.

From *Cape Barbas* S. by W. 10 Ls. lies *Cape Carwasone*; the Coast is all the way very foul, and from *Cape Carwasone* the Coast is due S. to the Gulph of *St. Anne*, being a large Bay with good sandy Ground.

N. B. A S.W. by W. and a S.W. Moon makes full Sea upon

Directions for the Western Coasts of Africa.

Road of *Palma*, may indeed lie without before the Haven in 20 Fa. but if it blows, you must shift Roads : The Road of *Adeffa* in *Teneriffe* lies just over-against it E. distance about 6 Ls. *Palma* lies N.W. by N. 16 Ls. and the Island of *Ferro* lies S. by W. from *Palma* 12 Ls.

W. from the W. here than in any ny Winds : You N. B. A S.W. and N.E. Moon makes high Water at most Places in the *Canary Islands*.

of the Sea Coasts on the West Shore of Africa, from Cape Sulph of St. Anne, and thence to Sierra Leon.

Subi to *Cape Bajador* the *Aguedo*, dist 56 Ls *Aguedo* are several little note, viz. This Coast is put together are Bay of *Rubias* is continues so till the Bay of *Cacias* all round the comes in the River of *Cancer*. The rock, and the Sun is insufferable ; this and : 4 Ls to the call'd ignorantly in the *Terra Baxa*, or anchoring in severally under the N. rocks on the very These make the the said Riff and e within the Bay,

be obliged to turn before you come into the Road. The S. Point of the Cape is very clean, which when you pass you run N.N.E. 3 Ls to *Cape Casado*.

To the N. of *Cape Blanco* is *Sloper's Bay*, and a Riff runs from the N.E. Point of it, behind which you come to an anchor ; and N.E. you go towards *Bochle Bay*, and still more northerly the Bay of *Angra*, or the *Great Bay*, properly so called.

This Coast is call'd *Angra Canjaboda* ; as you pass it, you meet with the Island of *Guaon*, and farther southward the Island of *Taffin*. There are some Cliffs on the northward Point of it, and the like to the southward ; but you go clear of them all, by giving these little Islands and the Coast also, a reasonable Birth.

Two or 3 Ls from *Cape Blanco* southward, a great Sand Bank stretches it self out S.S.E. and N.N.W. about 28 Ls, and at low Water the southermost end of it ebbs dry. This Sand is call'd *Blank Bank*.

In going from *Cape Blanco* towards *Arguin*, run S.E. by S. about 3 Ls, till you are past the Cliffs of *Rio de Soufa* lying seaward ; then towards the E. southerly of the Cliff that lies on the Point of the Main, and about two Ls still eastward, you come to the Island of *Arguin* : And to the westward of the Island lie two long small Islands, the westernmost call'd *Obcs*. In the Bay of *Arguin*, on the N. side, lie several Shoals from the Main ; and from *Arguin* S. easterly, towards the *Long Heads*, are some Cliffs to the seaward ; and farther S. you will see several *Bear Stables*. There is also a little Island by the Point call'd *Terra Gorda*, and more to the southwards another call'd *Monzora*.

If your Vessel be small, and you go southward towards the *Wyck* and to the River *St. John*, you may keep the Shore on board, and run along by the Main between the Islands of *Savne* and *Gonzana*, only taking heed of a Riff upon the Coast of the Island *Tyder* to the Point of *Terra Gorda*.

At the Entrance of the River *St. John* are several Shoals ; but having passed them, you find a good Haven, called *Point Taffia*.

In this Course, from *Cape Blanco* to the River *St. John*, you must keep off without the *Great Bank*, and take heed of

Shore of the Bay. There is a Run
N. side of it, and a Sand Bank before it: These make the
Place secure, for you may run in between the said Riff and
the Sand Bank, in 20 Fa. and when you are within the Bay,
'tis safe riding and good Ground.

The Ships which come upon this Coast a fishing, run into
this Bay in the Evening for safety, and so out to Sea in
the Morning. Upon all this Coast, between Cape *Blanco* and
the River *Oro* exclusive, there is no fresh Water.

From *Irra Barree* S. lies the Gulph of *Sintra*, it has a fine
sandy Shore all round it, and good Ground, but is open to the
W. and W. by S. Winds. From thence the Coast lies near W.
by S. and you pass by *Terra Arca* and *Playes* to the *Rio St.*
Cypriano, on the W. of which River you will find some cliffy
Islands, till you reach *Cape Barbas*.

From *Cape Barbas* S. by W. 10 Ls. lies *Cape Carvasone*;
the Coast is all the way very foul, and from *Cape Carvasone*
the Coast is due S. to the Gulph of *St. Anne*, being a large
Bay with good sandy Ground.

N. E. A S. W. by W. and a S. W. Moon makes full Sea upon
all this Coast.

Cape Blanco lies S. from *Cape Carvasone* 16 Ls. To the
eastward of the Cape runs in a great Bay, where there is a
good Road, as is also under the Cape it self; you must go
close by the Cape to come to an anchor, bringing short about:
You have nothing to fear in your coming from the northward,
but what is plain to be seen; nor need you be apprehensive if
you hear a prodigious noise and whelming of the Sea here-
about, it being nothing but the dashing of the Currents one
against another: Nor are you to be surprized by the Fall of
the Water at the Corner of the Cape, where it ebbs dry 4 to
5 Fa. in a very little time; but you will find 6 to 7 Fa. remain
at low Water, near enough the Corner for Ships to come.

In going about the Point of the Cape you must not give
any Wind over, but sail as near as you can, and yet you will

Sailing Directions for the Sea Coasts of Africa, thence to the Cape de Verde Islands



TINDI is a remarkable Point, having one Bank
of Sand lying to the southward of it, and another
to the eastward: The Coast from thence almost to
the River of *Senegal* bears southerly, and then it
falls S. W. till you come to *Borra*. On the Point of the Ri-
ver, betwixt *Tindil* and *Senegal*, are many Places, such as
Lucey, *Toussa*, *Great Palme*, *Little Palme*, *Gunnar*, and *Rio*
Dike; but they are of no note to the Sailor, nor of any
use in Navigation.

The River *Senegal* is more properly one of the Mouths of
the great River *Argo*, and should be mark'd so in the Charts,
tho' 150 Leagues off of the other, which is the main Stream,
and call'd *Rio Grande*. There are several Reaches and Bays
within the River it self; great Ships may go safely 6 or 7 Ls
up it, smaller Vessels 30 to 35 Ls. Sloops and Barks 70 to 80

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on the Point of the Main, and about two Ls run eastward, you come to the Island of *Arguin* : And to the westward of the Island lie two long small Islands, the westernmost call'd *Obes*. In the Bay of *Arguin*, on the N. side, lie several Shoals from the Main ; and from *Arguin* S. easterly, towards the *Long Heads*, are some Cliffs to the seaward ; and farther S. you will see several *Bear Stables*. There is also a little Island by the Point call'd *Terra Gorda*, and more to the southwards another call'd *Monzora*.

If your Vessel be small, and you go southward towards the *Wyck* and to the River *St. John*, you may keep the Shore on board, and run along by the Main between the Islands of *Sanne* and *Gonzana*, only taking heed of a Riff upon the Coast of the Island *Tyder* to the Point of *Terra Gorda*.

At the Entrance of the River *St. John* are several Shoals ; but having passed them, you find a good Haven, called *Point Taffia*.

In this Course, from *Cape Blanco* to the River *St. John*, you must keep off without the *Great Bank*, and take heed of the southern Tail of it which lies dry at low Water ; then run easterly by it, till you come before the River : You may go between the *Great Bank* above-mention'd and the Island *Bankring*, and that without danger, being careful with your Lead.

Cape Mirrick is your next Land on the Main : It lies on the S. side of the River *St. John*, extending itself 2 Ls into the Sea, and on the S. side of it lies a Bank which runs 2 Ls farther : There is also a Salt-Pan, or Pond, on the E. side of the Bar of *Cape Mirrick*.

From hence the Coast lies S.E. by S. and S.S.E. till you come to a Sand Bank in Lat. 18 deg N. To the S. of *Cape Mirrick* lies *Tindal*, dist. 18 Ls, and several other small Places, but of no note for sailing, so not worth our naming.

Coasts of Africa, from Cape Tindel to Cape de Verde, and Verde Islands, inclusive of those Islands.

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Ls, and small Boats to many hundred Miles. The *Portuguese* Pilots give the Depths of Water in the Channel, and the Setts of the Currents in the several Reaches, as also what anchoring in the several Bights of those Reaches, with an exact Account of the Shoals and Sands which lie off of the Points, of which some lie several Ls. right up and down, as it is in most great Rivers : But there can be no use of these Descriptions in this Work, no *European* Traders having for many Years attempted to sail up there ; except the *Portuguese*.

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The Coast from the River *Senegal* to *Cape de Verde* bears S.W. About midway there is a large Bay, safe for all Winds ; but the Shore on either side must be avoided as you go in, because of the Riffs which run out at both the Points.

The Land to the E. of *Cape de Verde* is low, and as far as you can see is grown over with low Bushes As you fall in with

Sailing Directions for the Western Coast

with the Cape you make it like two round Hills with low flat Grounds to the eastward, but to seaward it is steep, and you have 40 Fa. within 3 or 4 Ls of it. The two round Hills are not very high, tho they are above the Land in the Bay: There are abundance of Palm Trees upon the very Cape, and upon all the Land about it, which being always green and pleasant, 'tis suppos'd gave name to the Cape it self.

To the westward of the Cape the Land is all low, and so flat as not to be seen at a distance; and there are some Breakers all the way about it from the Cape, so that it is not advisable to stand in too near, not within 3 to 4 Ls; tho on Occasion there is deep Water within those Breakers, and you may, as Weather permits, run thro' between the Rocks and the Cape; but there seems no Occasion for it.

Betwixt the *Cape de Verde Islands* and the Main there is a large Shoal call'd *Purgat Bank*, just in the Middle of the Passage; it stretches from N. to S. about 60 Ls; the southermost end lies about 50 Ls due W. from the Cape, and the Waters near the Shoal mount upwards against one another with a prodigious force and noise.

As you come from the northward towards the Cape, it appears with the two high round Hills as before, the Sailors call them the *Womans Breasts*: The southmost of them is cover'd with Palm Trees, and to the northward of them are other smaller Hills; some of them have a few Trees, but most of them are bare. The S. side of those two Hills is exceeding steep, and from thence begins a Shoal which runs along to the very Cape it self.

These Islands take their name from this Cape; they are call'd in *Portuguese* *Ilhas de Cabo Verde*, in *Spanish* *Los Ilhas de St. Iago*, by the *Dutch* the *Salt Islands*, and by us, as above, the *Cape de Verde Islands*. Their Names are,

<p><i>Ile de Sal</i>, or of Salt. <i>Bona Vista</i>. <i>Ile de May</i>. <i>St. Iago</i>, or <i>St. James</i>. <i>St. Nicholas</i>. <i>Chaon</i>. <i>St. Lucia</i>.</p>	<p><i>St. Vincent</i>. <i>St. Antonio</i>. <i>Ile de Fuogo</i>, or of Fire; from the burning Mountain upon it. <i>Ile Brava</i>, or <i>Ile of Rogues</i>.</p>
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The *Ile de Sal* shews very high at a distance, as you come from the N.W. but as you come nearer appears lower, and the S. Point is low and round. There is a Rock at the S.E. Point, you must come no nearer to it than 8 Fa. but give it a good Birth. On the N. side is a River, and on the S.W. a small Haven, with a little Island just by it; also a good Road about Musket shot to the southward of the W. Point. The Ships ride by a long sandy Bay, and there is good fresh Water there, which comes down from the Mountains.

From hence to *Bona Vista* the Course is S.E. 9 Ls. 'tis known by several white Banks on the N. side; the Land is low and sandy next the Sea, but within Land it rises in high Hummocks and small Hills like Sugar Loaves. On the N. part the Shore is bold, but on the N.E. a low sandy Point runs out above a L. into the Sea. At the N. end a rapid River runs into the Sea, which makes such Rippings as are dangerous, especi-

Houses, it is as of that Head is *Ile of May* be there you have but you must know which the two get no Ground, 15 or 16 Fa. All the N. side of the Islands, is very rough about a mile low Water, and of the Sea upon Point bearing E. Ground and far about the Island

St. Iago is due high Land, and good Road. at the Island, and lies at 13 Fa. the Shore is but they must be which will run S.W. from that of that, *Port Brava* and beyond the but the Land is

13 Ls to the and 4 Ls from *Brava*, both little of several sorts of the S. side: there is a Haven for Ships, and safe *Ile de Fuogo*, 'tis difficult to W.S.W. from *Brava* Water, and is high upon it, Sailors concern is cover'd so as the Fair Way and Ships may from hence to *Caribbee* Island a large Buoy up

The Isle of *Perquica*; and the Island, lies the W. Point almost joyned

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Houfes, it is as good as a Wharf. A mile to the northward of that Head is the Road. Observe when the W. end of the *Ile of May* bears N. by W. and the S. end of *St. Iago* S.W. there you have 15 to 16 Fa. in the Road and good Ground; but you must keep a good distance from the Cape or Head on which the two ruined Houfes are, or else it is so steep you will get no Ground, for it lies so uneven, that when you have 15 or 16 Fa. a Head, you shall have above 100 Fa. aftern: All the N. side of the Island, and where you have some Shoalings, is very rocky: also to the northward there lies a Bank about a mile long, and a L from the Shore; 'tis almost dry at low Water, and may be known when cover'd, by the Breach of the Sea upon it. On the W. side of the Island, the sandy Point bearing E.S.E. 4 miles, you have a Bay, with 11 Fa. good Ground and safe Riding; and this is the only good Riding about the Island.

St. Iago is due W. from the *Ile of May* about 6 Ls; it is very high Land, and may be seen far off at Sea; it has also a very good Road, at *Port Praga*, which is the chief Town on the Island, and lies at the E. end, where 100 Ships may ride safe in 14 Fa. the Shore is muddy, and a Ship may lie close to the Castle Wall, but they must buoy up the Cables to keep them from the Mud, which will rot them sooner than would be thought possible. S.W. from that Road is *Tubaroa Point*, and to the westward of that, *Port Reybeirra*, a Harbour between 2 Mountains; and beyond that, about *Portalefa* Point, is *Port Canifou*, but the Land is very foul on that side.

13 Ls to the westward of *St. Iago* lies the *Ile de Fuogo*; and 4 Ls from the E. Point of *Fuogo* W.S.W. lies the *Ile of Brava*, both little rocky mountainous Islands, but full of Trees of several sorts. There is a Road at the latter, on the W. end of the S. side: there is good Watering also on the W. side, and there is a Haven on the S. where is Water enough for large Ships, and safe Riding: But there is no anchoring under the *Ile de Fuogo*, except on the W. side under the Caille, where 'tis difficult to come, and dangerous when you are come. W.S.W. from *Brava* 80 Ls, lies a Shoal which has but 3 Foot Water, and is not above 20 Fa. long: and the Sea rising very high upon it, there is the more reason to give a Caution to Sailors concerning it, not only as it lies in the open Sea, and is cover'd so as not to be seen at a distance, but because it lies in the Fair Way between these Islands and the Coast of *America*, and Ships may be in great Danger of striking upon it in passing from hence to the *Brazils*, or from the Coast of *Guinea* to the *Caribbee* Islands: for which Reasons it would be well to place a large Buoy upon it.

The *Ile of St. Nicholas* lies W. from the *Ile of Salt* 22 Ls. On the S. side of it, near the E. Point, lies the Road of *Port Perguica*; and to the westward of that, about the middle of the Island, lies *Port Fuder Sal*. The *Ile Chacon* lies off of the W. Point of *St. Nicholas* about half a L. being a small Rock almost joynd to the main Island.

N.W. from *St. Nicholas* 3 Ls, lies *St. Lucia*: On the S.E. side of it there is good anchoring, in a Bay which lying within the Rocks is thereby made a natural Haven: also on the S.W.

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St. Lucia.

Iſle Brava, or Iſle of Rogues.

The *Iſle de Sal* ſhews very high at a diſtance, as you come from the N.W. but as you come nearer appears lower, and the S. Point is low and round. There is a Rock at the S.E. Point, you muſt come no nearer to it than 8 Fa. but give it a good Birth. On the N. ſide is a River, and on the S.W. a ſmall Haven, with a little Iſland juſt by it; alſo a good Road about Muſket ſhot to the ſouthward of the W. Point. The Ships ride by a long ſandy Bay, and there is good freſh Water there, which comes down from the Mountains.

From hence to *Bona Viſta* the Courſe is S.E. 9 Ls. 'tis known by ſeveral white Banks on the N. ſide; the Land is low and ſandy next the Sea, but within Land it riſes in high Hummocks and ſmall Hills like Sugar Loaves. On the N. part the Shore is bold, but on the N.E. a low ſandy Point runs out above a L. into the Sea. At the N. end a rapid River runs into the Sea, which makes ſuch Rippings as are dangerous, eſpecially to Strangers. E. and E. by N. from the S. Point of *Bona Viſta*, there is a Riſſ of Rocks, which lie ſome above and ſome under Water for a L. or a L.; off from the Point. Under the S.W. Point is a very good Haven, where you may ride in 15 to 16 Fa.

About 14 Ls from *Bona Viſta* S.S.W. lies the Iſle of *May*. On the W. ſide of it is the great Salt Pond, it lies about a L. within the Land from the N. Point, the Shore being a white Sand; and hard by it is a ſteep Head, upon which are two old ruin'd

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Sailing Directions for the Coaſt of the River Gambia, a Roxo.

IN coming from *England* to *Cape Verde* it is to be obſerv'd, you firſt make the *Canaries*, the Courſe S.W. by S. or S.S.W. Then you muſt run between *Teneriffe* and *Palma*, or between *Teneriffe* and the *Grand Canary*; and then ſteering S.W. by S. you go away to the *Cape de Verde* Iſlands, and then away to the eaſtward to the *Cape Verde* it ſelf.

In this Courſe Care muſt be taken, after you are paſt the *Canaries*, to keep no farther to the W. than S.S.W. that you may get your Difference of Longitude, and likewiſe taking care that your Compaſs may not deceive you becauſe of the Variations; then you may run between the Salt Iſlands and the Main; taking care alſo to avoid the *Purgat Bank* above-mention'd.

At the end of the *Purgat Bank*, due W. from the Cape about a L, he 6 or 7 Cliffs or Rocks, call'd by our rude Seamen the *Beſbitten Iſlands*, nor do we know any other name for them: Of theſe, 2 are larger than the reſt, which at firſt View look like *Canoes*. you may go by them in about 7 to 8 Fa. at a

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W.S.W. from *Brava* 80 Ls, lies a Shoal which has but 3 Foot Water, and is not above 20 Fa. long: and the Sea rising very high upon it, there is the more reason to give a Caution to Sailors concerning it, not only as it lies in the open Sea, and is cover'd so as not to be seen at a distance, but because it lies in the Fair Way between these Islands and the Coast of *America*, and Ships may be in great Danger of striking upon it in passing from hence to the *Brazils*, or from the Coast of *Guinea* to the *Caribbee* Islands: for which Reasons it would be well to place a large Buoy upon it.

The Isle of *St. Nicholas* lies W. from the Isle of *Salt* 22 Ls. On the S. side of it, near the E. Point, lies the Road of *Port Pergnica*; and to the westward of that, about the middle of the Island, lies *Port Fuder Sal*. The Isle *Chaon* lies off of the W. Point of *St. Nicholas* about half a L. being a small Rock almost joyned to the main Island.

N.W. from *St. Nicholas* 3 Ls, lies *St. Lucia*: On the S.E. side of it there is good anchoring, in a Bay which lying within the Rocks is thereby made a natural Haven: also on the S.W. side you may anchor in 20 Fa. on that part next *St. Vincent*.

About 2 Ls N.W. from *St. Lucia* lies *St. Vincent*: There is good anchoring on the N.W. side of it in a large deep Bay, where you are shelter'd almost for all Winds and Weather, and clean good Ground, with from 8 to 20 Fa.

About 3 Ls N.W. from hence lies *St. Antonio*, the most northerly of all the *Cape de Verde* Islands: There are 2 very high Mountains on it, generally cover'd with Clouds. On the S.E. side there is a Bay, and a good Road for Ships in it.

Over Gambia, and from the River Senegal to Cape Roxo.

Gun-shot distance. The Sea makes a great noise here, with huge rolling Waves, all foaming and white: but there is Water enough, and if you keep a little off, you will have 10 to 11 Fa. Then run along easterly towards a small high Island, dist. about 2 Ls, and about a L and half from the Shore, call'd *Goree*, there you have 16 to 17 Fa. all the way: and thwart the Island towards the Main lies a Bay with a flat Strand reaching to *Cape Emanuel*, where is good anchoring.

When the *Goree* comes without the Point of *Cape Emanuel*, then it appears on the W. side with a high Mountain close to the Sea, and very steep, and yet very low on the Land side to the E. with a flat stony Strand: when you come from the westward, and would go in here, you must run seaward about the Point, and run under the Island on the inside, there you may anchor in 15 to 16 Fa. over against a sandy Bay. About a L and half N.N.E. of this Bay stands the Village call'd *Cape Verde*; and about 6 Ls to the westward from thence lies a little Town call'd *Refresco*. Here, and at almost all the places on the Coast near it, you may get fresh Water, and such Refreshments

freshments as the *African* Coast affords, particularly good Goats Flesh and Rice.

From the *Goree* to *Refrisco* you sail all along near the Shore, which is low, and has a fair Strand; there are several Towns, tho of no Importance, where you may get fresh Provisions. On the side of the Land beyond *Refrisco* westward, dist. 3 Ls, lie several Rocks call'd *Compans*, or the *Companian* Rocks; they lie close under the Land, and reach about a Gun-shot into the Sea, so you must keep a little off, and give them a Birth: If you pass by in the Night, keep in about 17 Fa. along Shore, heaving the Lead all the way; tho the Land will shew you the Rocks, for all the rest is as smooth as if levell'd by hand: when you come near the Cliffs, it suddenly dries 7 to 8 Fa. then come to an Anchor till Day, and you'll see the Ships in the Road, or at the Town; and then ride easterly according to the Season: If it be in the time of the *Travados* the Road is not good; then you must anchor in no less than 17 Fa. The *Goree* is the best Road at that time, and that is so bad, that sometimes all your Anchors and Cables will not hold your Ship, especially when a S.E. *Travado* blows; but in Summer the Road of *Refrisco* is best, where you may lie close to the Shore in 6 to 7 Fa.

From *Refrisco* to *Point Dalli* is 7 Ls; your Course is in 8 Fa. along Shore eastward; there is a Bay about 3 Ls onward of the way; and if you would put in there, you must keep off in 16 to 17 Fa. till you are at the full height of it, and then stand right in.

About half a L. to the southward it ebbs again suddenly 4 to 5 Fa. so that you must use your Lead continually. If you come from the westward, as soon as you see these Shoals, you will also see the little Houses of *Point Dalli*. The Road here is only for small Vessels which lie close to the Houses, between the Cliffs. If you come from the westward with large Ships, you must take heed of that shoaly part, keeing to seaward in 9 to 10 Fa. for this Road is not for large Ships. If you would anchor before *Point Dalli*, keep a high Tree call'd *Arbre de Canada* E.S.E. from you, and come no nearer the Land than 5 Fa. To the eastward lies *Ivala*, with a small Harbour close by the Land, where large Ships may ride with a Head-fast on Shore very secure in 5 to 6 Fa. nay, the Ground upon this Coast for several Ls is all so even, that close to the Shore, and within 3 Ls of it, you have still the same Depth, viz. 5 to 6 Fa. This is occasion'd by the Shoal of *Ivala*, which lies off from the Shore for a great length of the Coast, and being even Ground to the outer Edge, goes off at once into 5 or 6 Fa. so that you have that Depth close to the Shoal; and after that the Ground being so even below, the Water is very calm and smooth above, and a little Wind does not stir it as in other places. Nor does the Sea break here as in other places, unless it blows a Storm, that is, a mere *Travado* or *Hurricane*.

If you come from the westward, the Shoal dries up so, that at one Cast you will have 12 Fa. and at the next 7. It reaches half a L. from the Land: Go then S.S.W. a little from it, and

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The Mouth of the River *Gambia* is near 3 Ls broad, with about 5 Fa. in the Entrance : you may row into it with your Shallops against the Stream near 100 Ls : but then you meet with a great Waterfall, which with a violent Noise comes pouring off the Rocks, and is impassable.

The Channel is generally very broad, especially from the Gold Coast of *Cantore* to its Mouth ; and it falls into the Sea with so strong a Current, that you may take up the fresh Water above 5 Ls into the Sea. Some *French* Shallops, as also *Portuguese Barcelongos*, go up a great way, but no Ships.

Cape St. Mary is in Lat. 13. 40. upon the Coast the Ground is changable ; the farther to the southward, the whiter it is ; for first near the Cape 'tis a reddish Sand ; 2 or 3 Ls southward it is all grey ; and about *Cape Roxo* 'tis a fine white Sand fit for Hour-glasses. The Coast between them is very low, and cover'd with Trees and white Sand.

To sail from *Cape St. Mary* to *Cape Roxo*, keep along shore in 5 Fa. sandy Ground, till you come to the Shoal of *St. Pedro*, where you have but 4 Fa. and the Ground muddy : then you have 5 Fa. all along to the River *Casamansa* ; but within 3 Fa. Depth off shore 'tis very red Sand. About 3 Ls to the northward of *Cape Roxo*, thwart off of a steep chify Point, the Ground is so clammy and stiff for about 3 Musket-shot from the shore, that you can hardly draw the Lead out, and but two Fa. Water.

Sailing in 5 Fa. thwart off from *Cape Roxo*, and being bound towards *Katchee*, you run S.E. to the Shoal call'd *Tabua* ; but if it be Flood, steer S.E. by S. where you will find 4 to 5 Fa. When a high Tree in the middle of a rough Bay, between the Dry and Red Point, bears N. from you, then you are sure you are at a Shoal which lies off of the Bay.

Then as Wind and Tide serve, run southward, which you will find work enough to do, the Stream setting thwart to the shore : in that Tack you will see 3 Waves or Bars always mounting against one another, like the blowing of a Whale ; if you don't see them, you are sure to have a bad way, because 'tis dangerous to pass without seeing the Shoal, and you should rather lie by, or come to an Anchor till the Water falls, for then you will see it : As soon as it appears, break Ground, and go to the eastward, till the breaking of those 3 Bars appear behind you : Then, whether it flows or ebbs, run away E. by N. and keep in 5 Fa. at most in 5 and 4 ; if you come deeper than 6 Fa. you must tack about to the N. till you recover 5 Fa. which is the only right sailing Depth ; all deeper ways are wrong, and will end at some Shoal or Cliff : then with a falling Tide you will see the North Bank running E. by N.

If standing thus N. by E. you chance to come into 2 Fa. hard Ground, you must tack to the seaward, for there is a shoal call'd *Juan de Coimbra*, from which there shoots out a Riff, which you must pass before you come to the *North Bank* : Take care you do not edge too much to the southward of it, but the Breakings will guide you ; they begin before the Water is one third fallen.

anchor before *Pont Balli*, keep a high Tree call'd *Arbre de Gaudia* E.S.E. from you, and come no nearer the Land than 5 Fa. To the eastward lies *Iwala*, with a small Harbour close by the Land, where large Ships may ride with a Head-fast on Shore very secure in 5 to 6 Fa. nay, the Ground upon this Coast for several Ls is all so even, that close to the Shore, and within 3 Ls of it, you have still the same Depth, viz. 5 to 6 Fa. This is occasion'd by the Shoal of *Iwala*, which lies off from the Shore for a great length of the Coast, and being even Ground to the outer Edge, goes off at once into 5 or 6 Fa. so that you have that Depth close to the Shoal; and after that the Ground being so even below, the Water is very calm and smooth above, and a little Wind does not stir it as in other places. Nor does the Sea break here as in other places, unless it blows a Storm, that is, a mere *Tornado* or *Hurricane*.

If you come from the westward, the Shoal dries up so, that at one Cast you will have 12 Fa. and at the next 7. It reaches half a L. from the Land: Go then S.S.W. a little from it, and you have presently deeper Water; and when you are past it, you may go along Shore in 5 Fa. again to the Road of *Iwala*. You will know when you are past this Bank by the Ground; for on the Bank it is hard as Stone, but when you are nearer the Land than 3 Fa. it is soft Ooze above, and sandy under the Ooze; more easterly passing by *Iwala* it is red Gravel and very hard. Then to the S.E. you'll see a parcel of Palm-Trees under the Shore, which look as if they stood in the Water, the Ground being very low: at the same time will appear some Negroes Houses within the Land: then run towards the Shore in 4 Fa. Here you will find the Shoal run like a Tail from the Land, the Sea rippling upon it, and you will find your Ship driving, and the Sea weed floating upward, by which you will see the Passage or Fair Way in; but you must take care of the Tail of the Bank, and not steer farther northward till you see to the southward 2 high Palm-Trees call'd *Los Dos Imanos*.

When those 2 Trees are to the S.W. from you, you are in the Harbour, and may anchor in 5 Fa. To the northward within the Point is the Road of *Iwala*: From hence you may run along the Coast in 9 Fa. but more easterly it dries up to 1 Fa.

When you approach the River *Gambia*, the Ground is a muddy Sand, by which Token you will know you are right with the Mouth of the River: And at Cape *St. Mary*, which is the E. Point of *Gambia*, 'tis full of red Shells. You will know *Cape St. Mary* by a very tall Tree on the top of the Point; when that Tree is S.S.E. dist. 3 Ls, you may ride in 4 to 5 Fa. it flows there S.E.

To go clear of Shoals, and the southermost Land or Bank of the River *Gambia*, steer S.W. by W. and W.S.W. or if you can, steer W. till you have deeper Water; for in standing to the westward the Water deepens from 5 to 12 and 24 Fa. and about 16 Ls W.N.W. you have 38 Fa. If you come from the northward, you must not come nearer to the River's Mouth than 10 Fa. before you see the Cape; for the N. side of the River is so steep, that if you come but to 9 Fa. you will immediately run aground.

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There stands a high Tree upon the E. side of the Land that comes from *Cape Roxo*, 'tis call'd *Arbor de Casticuis*: when this Tree is N.E. and you have 3 $\frac{1}{2}$ Fa. run in towards it, and you will see the *North Bank*; when you have it, run along to it within Gun-shot; and when you have pass by it, run eastward a good way, if the Water be falling; if flowing, run E. by S. by which Course you will be sure to get the *South Bank*, where is always burns; run along the *South Bank*, keeping within 5 $\frac{1}{2}$ to 6 Fa. then go about a Tail that comes off from the *Southern Shoal*, and having pass it, you may run over the *South Bank* in 5 $\frac{1}{2}$ Fa.

When the Forest call'd *Ruy Perciva* lies northward, the W. Point of *Praya de Vacas* N.W. and the E. Point N.E. by E. from you, then you may run in 2 Fa. at the deepest, quite over the *Southern Bank*; and when you find but half a Foot deeper Water, you are quite over it and safe; then you go up the River with the Flood, and anchor before *Katchee*: But in using this *Faring Water*, you should always have an Anchor ready at the Bow, with the Buoys over board; nor must you come within 2 Fa.

Being past this Shoal, and bound to *Caravellas*, you go S.E. in 8 Fa. to the Islands *Los Illgetos*, all the way from 12 to 6 Fa. muddy Ground; then go about N. till the *Arbor Casticuis* stands right before you N. and keep thus till you are past the Bank: In this Course you have the *R. Aucras* and the Point of the last nam'd Land E.S.E. from you; and when you are past the Bank, you have *Praya de Vacas* N.E. right a head, till you are past the *Corra Ruyva*: then *Dos Vacas* shifts as you go into the *Streight*.

To go from *Cape Roxo* to the S. side of the *Los Illgetos*, go first to the southward into 6 or 7 Fa. the Ground slimy and soft: being then N.E. and S.W. with the Shoal, and Water flowing, you go S.S.E. but if the Water be falling, then S. eastward, according as you see the Breaking on the Shoal: then you run along by it with your southeasterly Tack in 5 Fa. muddy Ground; but if you find the Ground turn hard, then stand to the

Sailing Directions for the Western

the southward, keeping still in 5 Fa. The Distance from the Shoal to the Islands is 3 Ls S.E. and when the biggest of them is N.W. then you may run in.

There is a Bay in the middlemost of these Islands, where you may ride in 5 to 6 Fa. there is a large Point full of Palm-Trees, with a sandy Strand, and eastward from that a Riff lies thwart the Strand: From thence you may run with a latter Ebb to Point *Boflas*, round a Flat which lies between them both, and away by the Coast to the Strait of *Catabarina*. In going from *Cuja* to Point *Boflas*, your Course is S E. The Point is known by a great Wood on the Land, which appears right a head: you must not come near the Point for there is a Riff runs off to seaward.

From these Islands call'd *Cuja*, and 5 Ls without the Point, lies a Shoal: if you run about it, you must bring to, and come to an anchor till high Water, on the E. side of the Islands: Then weigh upon the Ebb, and run S. by W. thro' between Point *Baluma* and the Island *Galmes*. When the Island *Arcaffe* lies N.E. from you, then the Shoal of *Pedraira* lies N.E. and S.W. The said Shoal and Island lying N.E. and S.W. from one another. N. B. The *Fair Way* is in 4 Fa. but you need not fear if you find but 3 Fa. for the Ground is uneven, sometimes 4 and sometimes 3. In going thro' between Point *Baluma* and the Island *Galmes*, you find a great Rippling and Whelming of the Water, as if there was a Shoal; but it is only the thwarting of the Currents, the Water is deep enough.

If you anchor in any Bay on this Coast, take care the Ground be clean, and come not too near the Land, lest you run on Shore.

With the latter Ebb you run S.E. from *Baluma* to *Bisefgos*, till you come to the Point *Eselavos*, which is a part of *Bisefgos*, but broken off and looking like an Island: then passing by *Croas-Bisefgos*, you go between 2 stony Banks and Shoals which come from the northward: Then turn to the S. side of *Croas-Bisefgos*, and run N.E. to *Primero Point Bisefgos*, but come not near it, because of a Stone Bank which lies off: when you are past the Point, run boldly up the River, keeping the Mid Channel.

From *Baluma* to *Serra* you go S.E. right on a little Island on the S.E. side, with the same Tack: when you are within Gun shot of it, run on S.E. to the Ile of *John Viegra*, where you will have 10 to 12 Fa. along by some Shoals, which lie above Water on the Larboard side.

Bring the Point of the Island *Roxo* W. and W.N.W. As soon as you see the Shoals, it will change to N.W. when you must run to the S.E. so all the Shoals will be on your Larboard side. 'Tis deeper on the S.W. with some Riffs reaching to seaward. On your Starboard side, as you go on the southern Tack, you will see another Riff above Water, at the end of the Channel of *John Viegra*: which when you have past, you run S.E. keeping the Islands on your Larboard side, and passing by the Island *Poulou* as far as the *Island May*; that Tack S.E. will bring you to *Cape Verga*.

If you meet with a Shoal in any part of this Course, keep more easterly; and if you find above 10 Fa. stand to Sea-

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It is a broken low Land all the way betwixt *De las* and *Sierra Leon*, with several Rivers opening into the Sea, chiefly one called *Sierra Leona*, which runs to the northward of the Point. 'Tis easy to distinguish the Point of *Sierra Leon*, because 'tis full of little Hills cover'd with Trees, all the Land both on the N. and S. of it being very low and plain: As you come from the W. out of the Sea, it appears like an Island; but as you come from the N. it makes plainly to be a part of the Main, as it really is. If you come from the N. and W. to make *Sierra Leou*, keep in the Lat. 8. 21. and when you are by your Reckoning in that height, stand in for the Land, for then the Cape will bear due E. from you; but you must make Allowance in your Reckoning for the Current about a Point and a half S. When therefore you are in this Lat. you will have gradual Shoalings from 15 to 9 or 10 Fa. then you may boldly run in for the Cape: when first you make the Cape, you will see the low Land eastward of it, with a Clump of Trees on it, and 2 Rocks right before the Cape to the seaward, with some Shoals, which the Sea almost always breaks upon.

Keep the Breakers within 2 Cables length of you to Starboard, and run in, you will come into 9 and 10 Fa. the deepest Water is on the South Shore.

N. B. It is to be observ'd here, that by your Reckoning you shall not be able to make out the same Meridian Distance which the Charts make upon all this Coast, because the Current sets from the N. to the S. easterly; and the nearer the shore, the stronger the Current: therefore you should take care to work by your Lead, before you think you come near the Shore: for you will find where you are, by the Depth of Water, better than by casting up your Reckonings: for in this Lat. you will have 25 Fa. before you see the Land, nor will you see the Cape till you come into 10 Fa.

Cape Sierra Leon makes in high Hummocks, lying a L within, and on both sides of the Point; the Land about being cover'd with Trees. On the S. of the Cape to seaward, dist. about a mile from the very Point, lies a Rock under Water, which is dangerous to those who are bound in with the Flood; but at low Water it ebbs dry.

If you are bound for the River, you go in E. and E. by N. having in Mid-Channel 11 to 15 Fa. which Depth holds till you come to *Frenchman's Bay*, the usual place to wood and water in. In this Bay you may anchor in 10 Fa. close by the Shore.

If you would go higher up to the *English* Factory, you must come to an Anchor in *Frenchman's Bay*, and send your Boac up for a Pilot: the *English* Factory is in an Island up the River, call'd *Benzie*; it was formerly plac'd in an Island near the Shore call'd *Tercera*, but they were so harass'd with wild Beasts, that they were oblig'd to remove.

The Entrance into this River makes in 5 small Bays, and there is good anchoring in them all: The third is call'd *Frenchman's Bay*, where is good fresh Provisions, and plenty of very good Rice, besides Wood and Water.

In coming out here, you should be careful to watch for the Land breeze, for then you keep Mid Channel, and go out

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If you meet with a Shoal in any part of this Course, keep more easterly; and if you find above 10 Fa. stand to Seaward; but if the Water keep the same Depth, keep right on to *Cape Verga*. The main Land from *Poulon* to *Cape Verga*, appears low and full of Trees. But when you pass the *May*, you have some high Points of Land extending seawards, and soon continues southward a good way. Coming off from the River *Furno*, you have first 25 Fa. then 30, then 18. The Ground about *Cape Verga* is all little Stones among a red Sand.

From *Cape Roxo* to *Sierra Lem* you go S.S.W. and S.W. by S. in 19 to 20 Fa. On the out side of *Baxos de St. Pedro*; and from 19 Fa. you go southwesterly, having 10 to 11 Fa. not less than 9. When you come to 12 or 13 Fa. you know you are past *St. Pedro's* Shoal; and then you run towards the shore S.E. to 19 or 20 Fa. and then to 7 and 8 Fa. This shoaling to 7 and 8 Fa. is occasion'd by a Tail shooting out from an Island, which when you are past, you come into 19 and 20 Fa; again.

All the Summer from *March* to *September*, you may go with an E.S.E. Tack towards a Point which appears higher than the Main, and the Trees show as if they stood in the Water: From thence there runs a Flat to seaward, you may go over it in 3 to 4 Fa. but before you have 7 to 11 Fa. you must sail no nearer than due S. for tho the Point lies S.E. from you, yet 'tis dangerous with the southern Course to come too near it.

Soon after this you pass this Point; and S.E. from *Cape Verga* lie the high Islands of *Delos*, or more properly *Isles de Las*, which shew as if joyn'd to the Main; but you may sail between them and the *Main* coming from seaward; only bring the highest of them, which is *Tamara*, S.S.E. and S.E. by S. from you; and then run right upon it, within a Bow-shot of the shore: Then go by the N. side of it towards the Main in 4 to 5 Fa. till the inmost Island bears S. by E. from you, where you will see the Rippling right before it. Then you run the inside of it quite thro'; the nearer the Island, the Water is deepest: The Island is low and cover'd with Trees, and a good Road for Ships on the N.E. side.

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which lies off: cover'd with Trees. On the S. of the Cape to seaward, dist. about a mile from the very Point, lies a Rock under Water, which is dangerous to those who are bound in with the Flood; but at low Water it ebbs dry.

If you are bound for the River, you go in E. and E. by N. having in Mid-Channel 11 to 15 Fa. which Depth holds till you come to *Frenchman's Bay*, the usual place to wood and water in. In this Bay you may anchor in 10 Fa. close by the Shore.

If you would go higher up to the *English Factory*, you must come to an Anchor in *Frenchman's Bay*, and send your Boat up for a Pilot: the *English Factory* is in an Island up the River, call'd *Beuzie*; it was formerly plac'd in an Island near the Shore call'd *Tercera*, but they were so harass'd with wild Beasts, that they were oblig'd to remove.

The Entrance into this River makes in 5 small Bays, and there is good anchoring in them all: The third is call'd *Frenchman's Bay*, where is good fresh Provisions, and plenty of very good Rice, besides Wood and Water.

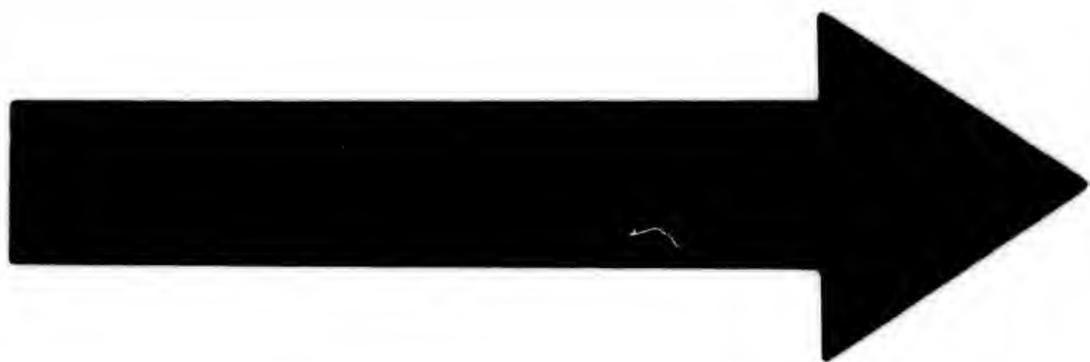
In coming out here, you should be careful to watch for the Land-breeze, for then you keep Mid Channel, and go out afore the Wind: but if you miss the Land-breeze and go out with the Sea-breeze, you must be careful to avoid the N. Shoals in turning, and come no nearer the Shore than 6 to 7 Fa.

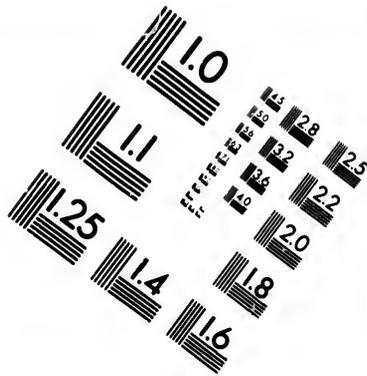
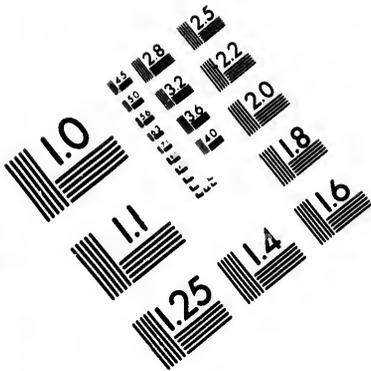
If you are bound to the southward, take care of the Shoals off *Sherburg River*. When you are to the westward of *Cape Sierra Leon*, keep your Lead going, and come no nearer than 11 to 12 Fa.

There are also several Shoals off of the Islands, call'd the *Bona's*: these Islands begin to the S.W. of *Sierra Leon*, and the Shoals still farther W. they are also call'd the *Bassaz's Shoals*, and run a great way out to Sea rounding and hollow, so that you must stand off quite out of sight of the Land to go clear of them. In this Course you will meet with several Overfalls and Whelmings of the Water; at one Cast you will have 11 to 12 Fa. and the next 5 to 6, then deep again, and so alternately many times. To go clear of these Shoals, steer away S.S.W. till you have no Soundings; and then steer away parallel with the Shore, till you find Ground again in 30 to 40 Fa. and then make the Land again as soon as you please, keeping in no less than 11 to 13 Fa. by your Lead. Thus you will be past the *Bona Shoals*, or the *Bassaz's*.

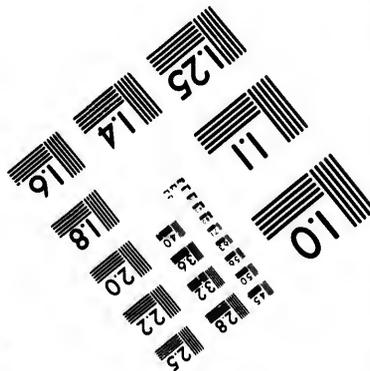
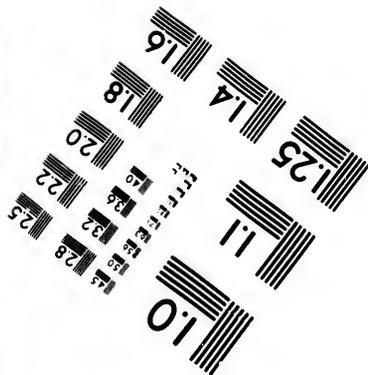
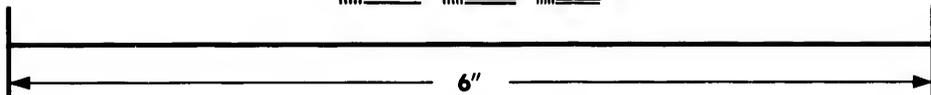
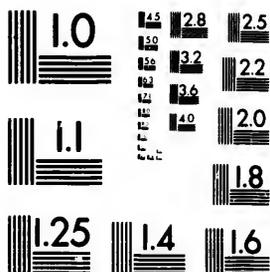
N.B. There is a great Sand, or Shoal, lies off of this Coast, between 20 and 30 Ls from the Shore W.N.W. 'tis a hard Sand, and lies N.W. and S.E. in length 30 to 40 Ls. and from 12 to 14 Ls wide. Towards the S.E. Point of it 'tis very shoal, and sometimes dry at low Water, and therefore it is to be taken great care of; all the N. and W. part has 18 to 20 and 22 Fa. so that there is no Danger there.

If you are not bound into *Sierra Leon*, but would go forward upon the Coast to *Cape Mount*, which is the next Cape, take care to come to Lat. 6. 37. then you are in the height of the Cape, and may stand in for the Shore; but be mindful to keep your Lead going.





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There are several Places on this Coast beyond *Sierra Leon* and *Cape Mount*, such as *St. Anne*, *Furnado*, *Gamboas River*, *Madra Bomba*, and the River *Cores*, call'd by our Sailors *Sherbro River*.

Within the Island *Bonas*, or *Buonas*, you see upon the Main a *Pico* or Hill, that seems of a monstrous height, and cover'd with Clouds, so that you seldom can see the top; 'tis a good Sea-mark for this part of the Coast, which is very difficult.

S. by E. from *Sierra Leon* lies *Cape St. Anne*, being the N.W. Point of the Island of *St. Anne*. This Island is a long narrow Slip of Land, stretching E. by S. and W. by N. near 80 miles in length: the Channel between it and the Land is uncertain, and in some places has Water enough; but in a place which they call the *Passe*, there is a Bar quite over the Passage, on which there is not above 10 Foot at low Water: And as there is but very little Tide there, it cannot be 3 Fa. at high Water. In sailing thro' here, you must take a Pilot, and there are *English* Pilots to be had at the Factory at *Serraloon*.

This Passage is call'd the *Furno of St. Anne*, from a Point and Creek (with a Negro Town) on the Shore, call'd *Furno*. There are abundance of Creeks and small Rivers, which fall in from the Shore in the Faring Way or Passage: the largest are the *Gamboa*, the *Madra Bomba*, and the *Sherbere*, or *Sherbro River*, which is otherwise the River *Cores*.

The River *Gamboa* is navigable for small Craft 30 to 40 mile up the Stream, to an *Indian Town* call'd *Rancho*, where the Trading with the Negroes is carry'd on. It would be needful to take a Pilot, if you would go up here; you may have one at the Factory's Houfe upon *St. Anne's Island*, call'd *Lembermans*, or at *Sherbro*.

The *Madra Bomba* is navigable also about 30 miles, and there is a *Portuguese* Factory within it; but you must take Pilots to go up.

If you come from the westward on the off side of the Isle of *St. Anne*, and are bound into *Sherbro*, keep the two Points of the Harbour of *Sherbro* open to run in at, till they come into one, and the Harbour bears N.N.E. and N.E. and then you may go in without Fear: but if you doubt the Direction, or do not find it practicable, as the Wind may stand, make a Signal, and the Factory will send off a Pilot to assist you.

The Ground in the Haven of *Sherbro* is very shifting and uncertain: the shoalest place is generally $2\frac{1}{2}$ to 3 Fa. but you would do well to sound it first with a Boat, and take a Pilot too. The Tide of Ebb runs so sharp, and the Water falls so soon, that it is not advisable to go in with an Ebb Tide: The Flood also runs very strong, but then the Danger is the less; for if you should touch, you will be off again immediately.

When you are in, you may anchor where you please; but generally the Ships run up to the Mouth of the *Madra Bomba*, which comes into the same River, and where is the chief Place for Trading; tho the Natives traffick upon both Shores, and the Ships may ride under the Land on both Shores; for the Land is high, and the Depth of Water sufficient; and with

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The *River Mount* at the Entrance has not above 7 to 8 Foot at low Water. The Sea breaks violently upon the Bar, especially when the *Souths* blow, which always come off the Sea; but when you are in, the Water is deeper and smooth: The Shore upon the Coast is steep too, for you have 15 to 17 and 20 Fa. close to the Shore.

There is a Town call'd *Chouca* 30 Ls up this River, where the *Europeans* find very good Trade; and therefore their Sloops go up as far as that Place, to load and bring Slaves down to the Ships.

The Cape is the eastward Point of the River, and bears the same Name (*Cape Mount*) as 'tis suppos'd, because there are two very high Mounts close to the Cape.

There is a very good Road without the Capes, under the Lee of the W. Point of the River: Keep the Point of the Cape bearing S. and S. by E. from you; there you have the best of the Road, and may anchor in 6 to 9 Fa. The Cape lying to seaward, breaks off the southerly Winds, and the Ground is a good hard Sand: This is your Road in Summer Season and fair Weather; but when the *Travadoes* and *Souths* blow hard, 'tis best to take more distance, and ride in 10 to 15 Fa. for here goes a great Sea when those Winds blow: Therefore bring the Pitch of the Cape due S. from you when you anchor.

From *Cape Mount* to the *River St. Paul*, or *Cape Monsfrado*, which is the easternmost Point of that River, the Course is S.E. by E. 12 Ls. The *River St. Paul* is but a small River; yet in the rainy Months, which are from *May* to *October*, the Water is very high, and pretty large Vessels may go in. You may anchor in the Mouth or Entrance of this River in 6 to 16 Fa. as near the Shore as you please.

During these Months there are frequent *Travadoes* and Storms, and the Sea goes Mountains high close to the Shore, so that it is not without extreme Hazard that Ships bear the Sea; and they find it very difficult also to get about to the southward. Nor is there any landing here in those Months, without the utmost danger of overletting.

From the *River of St. Paul* to *Cape Monsfrado*, or *Mesurado*, the Land forms a little Bight, being flat and grown with Trees: There is a good Road under the S. side of the Cape, where you may ride in 10 Fa. or within the Cape in 7 Fa. bringing the Point to bear full S. from you, for it breaks off the Sea, and secures you from a Wind off Sea.

From this Cape the whole Country is a Wood or Forest to *St. Mary's*, and is call'd the *Forest of St. Mary's*; and from thence to *Barracope* 'tis very full of Trees, which are always green: The Course is S.E. by E. dist. 7 Ls. Among the Trees are several *Negro* Towns, and some Trade, but not much.

From *Barracope* to the *River Junk* is 7 Ls, the same Course exactly, and the same kind of Coast, the Land full of *Negro* Villages and Clumps of Trees: You may wood and water any where upon all this Coast, if the *Souths* do not blow; but if they do, there is no bearing the Surge of the Sea upon the

St. Anne, and are bound into *Sherbro*, keep the two Points of the Harbour of *Sherbro* open to run in at, till they come into one, and the Harbour bears N.N.E. and N.E. and then you may go in without Fear : but if you doubt the Direction, or do not find it practicable, as the Wind may stand, make a Signal, and the Factory will send off a Pilot to assist you.

The Ground in the Haven of *Sherbro* is very shifting and uncertain: the shoalest place is generally $2\frac{1}{2}$ to 3 Fa. but you would do well to sound it first with a Boat, and take a Pilot too. The Tide of Ebb runs so sharp, and the Water falls so soon, that it is not advisable to go in with an Ebb Tide: The Flood also runs very strong, but then the Danger is the less; for if you should touch, you will be off again immediately.

When you are in, you may anchor where you please; but generally the Ships run up to the Mouth of the *Madra Bomba*, which comes into the same River, and where is the chief Place for Trading; tho' the Natives traffick upon both Shores, and the Ships may ride under the Land on both Shores; for the Land is high, and the Depth of Water sufficient; and with Sloops and Boats you may go trading up the River a great way on both sides.

N. B. A S.E. by S. and an E.S.E. Moon makes full Sea at *Sierra Leon*, and an E. by S. does the same at *Sherbro*.

N. B. If the Negroes here will traffick with you, they will make a great Smoke upon the Shore to invite your Sloops to anchor there; intimating that you may ride there, and come on shore: but 'tis best to sound the Depth and believe your Lead, rather than trust to them, for they are often treacherous and always ignorant. You may have plenty of all necessary Refreshments and Provisions here, especially Rice: and the Navigation is the more useful to be known, that the Sloops may go up from the Ships to fetch those Provisions.

As the shore now falls off to the E. the Course upon all this Coast alters very much. From the River of *Sherbro*, and the Island of *St. Anne* to *Cape Mount* is 14 Ls, the Course E. and E. by S.

Between these Capes are several small Rivers which come into the Sea; and some of them are navigable for small Vessels, Boats and Sloops, such as the *Gallinas*, the *Nou*, the *Palmas*, and the *Monos* or *Monte*, the S.E. Point of which is ordinarily call'd by us *Cape Mount*. Here begins that which the Sailors call the *Grain Coast*.

If you would anchor before *Cape Mount*, you may come as near the Shore as 6 Fa. as your convenience for wooding and watering may require: but then you must take care that it be when the *Souths* (as they call them) do not blow; but if it be the Season for those Winds, they make a great Sea, and you must keep farther off, at least in 13 to 14 Fa. the Point of the Cape bearing S.S.E. from you.

N. B. The Season for those Winds to blow here, which they call the *Souths*, is from *May* to *October* inclusive and exclusive.

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From the River of *St. Paul* to *Cape Monserado*, or *Mesurado*, the Land forms a little Bight, being flat and grown with Trees: There is a good Road under the S. side of the Cape, where you may ride in 10 Fa. or within the Cape in 7 Fa. bringing the Point to bear full S. from you, for it breaks off the Sea, and secures you from a Wind off Sea.

From this Cape the whole Country is a Wood or Forest to *St. Mary's*, and is call'd the *Forest of St. Mary's*; and from thence to *Barracope* 'tis very full of Trees, which are always green: The Course is S.E. by E. dist. 7 Ls. Among the Trees are several *Negro* Towns, and some Trade, but not much.

From *Barracope* to the River *Junk* is 7 Ls, the same Course exactly, and the same kind of Coast, the Land full of *Negro* Villages and Clumps of Trees: You may wood and water any where upon all this Coast, if the *Souths* do not blow; but if they do, there is no bearing the Surge of the Sea upon the Shore. If you would anchor before this River, you may ride easy in 12 Fa. the Mouth of the River bearing N.E. from you; and then the Indraft of the River a little abates the Swell of the Sea.

This River *Junk* is a furious Current, by reason of its coming from a mountainous Country: For which reason there is little Trade or Navigation in it, nor is there above 8 Foot Water in it.

On the S. Point are some Groves of Trees, and beyond them within the Land are three high Mountains which are seen a great way at Sea: Make the middle Mountain of the three right a-head, and keep it there, and you may anchor in good Ground in 11 to 13 Fa. or keep a Grove of high Trees, which stand E.S.E. from the River, bearing due S. from you, there you may anchor in 10 Fa. fair riding.

From the *Junk* to the River *Sestors* is 18 to 20 Ls, the Course S.E. by S. There are no Rocks on all this Coast before you come to the *Junk*: But 2 Ls. to the E. of the Trees mention'd before, lie several Rocks, some half a Mile, some a quarter from the Shore. On all the Coast from the *Junk* to the *Sestors*, you may anchor in the open Sea near the Shore, in 16 to 20 Fa.

Between the *Junk* and the *Sestors* lies the River *St. John*, S.E. by E. from the *Junk*, dist. 11 to 12 Ls. There is a Riff 2 Ls from the *Junk*, which runs off 3 Mile into the Sea; but you have 5 to 6 Fa. upon it, so that it is not dangerous. You may ride in the very Mouth of the *St. John*, in 10 Fa. good holding Ground.

Here are several Rocks on this Shore, which lie some under Water, some above: Give the Land a good Birth. Here you will see a Mountain within the Land, which makes at Sea like a Bow. Here is a Trading Place call'd *Tabee Canee*, where many *Negroes* live: And here begins the first Land of the Country call'd the *Grain Coast*. Here the Rocks seem to ceate,

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and the Land begins to appear low and plain, which reaches to the River *Sestors*; but there is no good anchor-ground, 'tis a foul Strand, stony at bottom, and very uneven: The Land is all covered with Trees, and seems to be full of Inhabitants, (*Negroes*) so that here is much Traffick. If you are bound eastward, 'tis a bold Coast, and you may run all along under Shore in 23 to 25 Fa. and have good Ground there, tho it is foul nearer the Main.

The Mouth of the *Sestors* is known by a high round Mountain in the middle of a plain low Country up within the Land, but seen a great way at Sea: If you would anchor at the Mouth of the River, bring the round Mountain E. half S. from you, there you may ride in 12 Fa. There is a Ledge of Rocks lying to the eastward of the River's Mouth, which shoots out a L into the Sea, and must be avoided.

Also at the Entrance into the River lies a Rock, but above Water and plain to be seen; you leave it on the Starboard side as you go in.

N.B. You cannot go far into this River with your Ship, only with Shallops and small Boats; the Ships go about 3 Ls.

West of the *Sestors* 1 L is a Ledge of Rocks, with a great Flat running out 2 Ls from the Shore; but you run over it in 8 to 9 Fa. and southerly from the *Sestors* is a great Riff which runs S.W. from the Shore 2 Ls into the Sea. The River has a strong Current, but not raging; the Channel being deep makes the Water still: The Ships that go in, anchor at the *King's Village*.

N.B. If you ride off here in the open Sea, you must observe your Times for going on Shore thus: Go on Shore in the Afternoon with the Sea-breeze, and come off the next Morning with the Land-breeze.

N.B. There are two Channels to go into this River; but venture not in without a Pilot.

The E. Point of the Entrance into the River *Sestors*, or *Sestor*, is call'd *Cape Baxos*, or the *Low Cape*. E. of this Cape lie many dangerous Rocks, several of them under Water: They are so much in the Fair Way of the trading Ships on this Coast, that ignorant People run great hazard in sailing near them.

Farther E. 2 Ls from the River *Sestors*, is the Island *Palmas*, call'd so from an exceeding large Palm Tree which stands singly upon it, and is a Sea Mark to know it by. It is an Island, but there is no passing between it and the Main. In sailing along all this Coast, you must not come nearer the Land than 20 Fa. all the Ground within 16 Fa. being foul; and if you are in a great Ship, come no nearer than 30 Fa.

Between the Island of *Palmas* and *Cape Formosa* lie two great Rocks call'd the *Cagados*; and from them lies a great Riff to seaward, which is the reason why you should keep out in 30 Fa.

Under *Formosa* lies the River *Sanwin*, or *Sanguin*, as our Pilots ignorantly call it: You may anchor in 23 to 25 Fa. but the Ground is rocky, and not very good for anchor-hold. This River is only navigable for large Boats and Shallops. *Balla* or *Balloz* is not a River, but a Place of Trade: In the

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groes cut the Wood, and bring it to your Boats very cheap; but if they do not, you must not trust your Men a-shore to fetch it. From *Bassu* to *Dassò* it is 3 Ls, and to *Cape Zino*, or *Swino* 6 Ls, the Course mostly S.E. by E. Here are two Villages of *Negroes*, viz. *Battow* and *Zino*; between them is a small River, fit for no Vessel bigger than a Yawl or a Canoe. You will know *Cape Zino* by the Breakers upon the E. side of it, where lie some Rocks out in the Sea, as well under Water as above, and by a very high Tree just upon the Point of the Cape. About 2 Ls from the Shore you have an apparent Current upon this Coast, which you do not meet with before: There is good anchoring a L to a L and half from the Shore off of this Cape. A little to the westward before the Town of *Battow* are three or four very great Rocks, the outermost makes like a Ship's Sail; they lie out near 2 Miles from the Shore, and distant from one another.

If you would anchor before *Battow*, bring the high Grounds about the Town to the N.E. from you, and the Rock which lies W. of it about a Leag N.N.E. from you; and there you will have good riding in 24 to 25 Fa. hard Sand: But all the riding on this Coast is in the open Sea. Here is no Shelter of Bays or Harbours.

Half a Leag. E. from *Battow* lie two Rocks more, quite under Water, very dangerous; but you may see the Breach of the Sea upon them above a L. off at Sea. These are the Breakers named above, and which you will know the Cape by.

Also N.W. from *Battow* lie two more great funk Rocks, no less than 2 Ls. from the Shore, on which there is always a great Breach of the Sea.

E. of this Cape 3 Ls is another high Tree, upon a black steep Point, which the Sea breaks upon, and comes rolling on with an unusual Noise, as if the Ground was rocky and uneven, but upon sounding 'tis all found a clear Sand. Within this Point comes in the River *Zino*, which is the largest River hereabout: There is near 2 Fa. Water in the Entrance or Bar, but within you have good anchoring in 8 Fa. so that this River is a good Harbour, if your Ship does not draw above 10 Foot Water. In this River you may have very good Water, but you must buy it.

If you chuse to ride off, bring the high Tree on the *Black Point* to bear from you N.N.E. you have good Ground, and 18 to 20 Fa.

About 3 Ls. eastward from the *Black Point* is a Place call'd *Citrie*, or *Setry*, 'tis a *Negroe Town*: there are two of the Name, viz. *Little Setry* which is the first, and *Great Setry*, 5 Ls farther: The *Negroes* and our Sailors call them *Pickinini* or *Piquino Setry*, and *Grande Setry*; and our *Pilot Books*, for what Reason we know not, call it *Krow* and *Crue*, and *Setry Crew*. The first, or *Little Setry* is known by a great Cape or Promontory running far out with three black Points, also by two great Rocks, one larger than the other, and standing far into the Sea. They are clean and steep, and you may run close by them without any danger.

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Between the Island of *Palmas* and *Cape Formosa* lie two great Rocks call'd the *Cagados* ; and from them lies a great Riff to seaward, which is the reason why you should keep out in 30 Fa.

Under *Formosa* lies the River *Sanwin*, or *Sanguin*, as our Pilots ignorantly call it : You may anchor in 23 to 25 Fa. but the Ground is rocky, and not very good for anchor-hold. This River is only navigable for large Boats and Shallops. *Bastla* or *Bastlow* is not a River, but a Place of Trade : In the Road before it you have 20 to 23 Fa. tolerably good Ground. Bring the Trees about *Sanwin* N. or N. by W. and a high Hill behind *Bastlow* E. by N. and the great Cliff just before the Town due E. then you are in the best of the Road ; but if you lie within half a L. of the Shore, the Ground is foul and rocky.

If you go a little farther E. you will have two Conveniences. (1.) You will have better Ground to anchor in, being a firm hard Sand in 15 to 18 Fa. (2.) You lie between two or three trading Places ; for 2 Ls to the eastward are two other Towns, *Dasso* and *Salerno* ; and being in the midway, the Natives will come off to you from all those Towns in their Canoes.

Between *Dasso* and *Salerno*, which are but a L asunder, you will see a very high Tree (among many lesser) which has two huge spreading Branches on the Top : This Tree is the Mark for anchoring in the Road : Bring the two Tops open to you, right a-head, and you may ride in 22 to 23 Fa. very good Ground.

Eastward as you ride you see a small Point of Land ; under the Point comes in a River they call *Master John*, the *Portuguese* call it *Juan* ; and 2 Ls farther E. comes in the River *Genovesos* not navigable for Ships : But the *Negroes* come out of both in their Canoes to trade for their *Mellegetta*, and the Ships ride in the Offing ; but you must not come nearer than 15 Fa.

There is a great Cluster of Trees upon a high Point near the Shore, and by them you will know when you are off of the River, for you cannot see the Opening.

Half a Leag. E. from *Genovesos* is *Cape Cavallos*, which is a Riff of high Rocks off of the E. Point of the River *St. Vincent* : The Sea breaks violently upon them, and makes a terrible noise. Sloops and Shallops usually go up this River to fetch Wood and Water, which is very good ; and the Ne-

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About 3 Ls. eastward from the *Black Point* is a Place call'd *Citrie*, or *Setry*, 'tis a *Negroe Town*: there are two of the Name, viz. *Little Setry* which is the first, and *Great Setry*, 5 Ls farther: The *Negroes* and our Sailors call them *Pickinini* or *Piquino Setry*, and *Grande Setry*; and our *Pilot Books*, for what Reason we know not, call it *Krow* and *Crue*, and *Setry Crew*. The first, or *Little Setry* is known by a great Cape or Promontory running far out with three black Points, also by two great Rocks, one larger than the other, and standing far into the Sea. They are clean and steep, and you may run close by them without any danger.

Here is a River, and a Riff of Rocks runs out from the W. Point of it; and the Town stands a little to the eastward of the Riff near the Point: It is the chief Place for Shipping and Trade on all the *Grain Coast*, the Land within is very high, and appears in many round Hummocks all the way, from the one *Setry* to the other.

If you would anchor upon this Coast, bring the Rocks off *Setry* to bear N.W. from you, and the Point call'd *Wappo* or *Wapen* E.S.E. and the Town of *Setry* N.E. then you have good Ground in 15 to 16 Fa. but if you go farther out into 20 and 30 Fa. the Ground is rocky and foul, and you will lose your Anchors.

From hence to the *Grand Setry* is 5 Ls. the Course E.S.E. You will see upon the Land near this Point several high Trees, naked without Branches, like Poles or Masts. Bring the River N. and N. by E. from you, and the high Trees N.E. by N. then you may anchor in 25 to 26 Fa.

From *Grand Setry* to *Cape Palmas* the Course is E.S.E. and S.E. by E. 22 Ls. This Coast has some little Creeks or Rivers where you may wood and water with your Boats; but as here is no Port for Ships, and that you generally ride off in the open Sea a L or two from the Shore, where you have no Rocks or Dangers but what are seen, it needs no more particular Description.

There is a great flat Rock off of *Wappo*, about 3 Ls to the W. the like is not seen on the Coast of *Guinea*; and the Coast from it is known by the Trees, which are shaped like Umbrellas or Bee-hives, as if they were cut by hand. This is the best place for the *Mellegetta* Trade; which makes the Ships always stop here, and anchor under that Lee of that great Rock.

N.B. At *Cape Palmas* you will find, in rounding the Point, there is a strong Current which sets to the S.E. and if the Weather proves calm, you will drive with it out of sight of Land. When you are about the Point, the Course should be E.N.E. but you must steer N.E. by N. or you will not be able to keep the Coast in sight.

There

There is a long Riff off of *Cape Palmas*, which runs out a L. at least into the Sea, and you must give it a good Bith: The Cape is known by three round Hills or Hummocks upon the very Point, and farther within by a round Clump of Palm Trees; they are seen a great way off at Sea. If you come from the western Coast, you must steer S.E. by E. to get round the Cape and the Riff.

When you are past the Riff, you steer in again E.S.E. for the Shore, till you find 21 to 28 Fa. and then you come off of *Sandy Bay*: But westward, and before you come to *Cape Palmas*, lies the River *Gojoven*, and a Town call'd *Garway*; you will know it by a little Hill, and 7 or 8 Palm Trees upon it just on the Strand. There is also a great Rock lies off of the Shore, and the Sea breaks upon it with great Violence near a L. from Shore.

If you would come to an anchor here, bring the Palm Trees on the little Hill to bear N. by E. and N.N.E. and the steep Point N by E. then you may ride in 20 to 21 Fa. about a L. from the Shore: The great Riff lies eastward of *Garway* River near 3 Ls. and 1 $\frac{1}{2}$ L. Off of *Cape Palmas*: you have a very uneven Shore; first the Current in passing between the Riff and the Cape runs with a prodigious force, the Riff casting the Stream inward: Secondly, The Riff lies under Water in 15 to 16 Fa. but nearer it lies so strangely foul and uncertain, that there is nothing to be done; it will be 12 Fa. at one Cast, and 20 at the next: Therefore when you find the Shoal by your Lead, steer no farther eastward than S.E. till you get in to 30 and 40 Fa. when you will find it fall deep at once to 60 Fa. and soon after to 100, and then to no Ground at 200 Fa.

A little beyond this dangerous Shore is the End of the *Grain Coast*; the last *Negro* Town is call'd *Robes*, where Ships ride for Trade, tho at great hazard.

It is proper to observe of the *Grain Coast* in general,

That from *January* to the middle of *May*, the Weather is moderate; and that notwithstanding the Lat. of from 4 Deg. 20 Min. to 5 Deg. 37 Min. the Heats are not excessive, the Air is clear, the Breezes cool, and the Winds generally blow westerly, loft Gales.

From the middle of *May* to the middle of *January*, the *Souths* begin to blow, and continue within the Points of due S. and S.W. blowing constantly off Sea with great Violence, and making a terrible Surge upon the Shore. Also they are very squally, and have frequent *Travadoes* and Gusts; by which those Ships that ride in the open Sea are in great danger of foundring at an anchor, or driving a-shore.

N. B. Those Months are call'd the rainy Months, and are generally attended with great and constant Rains, Lightning and Thunder.

E.N.E. from *Cape Palmas* comes in a little River call'd *Calwallia*, dist. 10 Ls. This is the first Place of Trade on the *Ivory* or *Tooth Coast*; it is but a small River, but opens very wide into the Sea. As you come from the westward, you will open the Mouth of it, when it bears N. westerly from

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E.N.E. from *Trallick*: 'Till you come to the Coast for 20 Ls. you come to Hummocks, high, between this and three or four Teeth, and the River: But considered many of them with them.

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Shore in 13 to 15 Fa. good Ground; but come not near the low Point that lies easterly, there 'tis very foul.

E.N.E. from *Berby* 4 Ls lies *Druin*, a Town of some good Traffick: 'Tis easily known, for that whereas almost all the Coast for 20 Ls is even and low; here, for near 10 Miles before you come to *Druin*, it is all hilly and craggy, full of Hummocks, high, and very uneven; higher than any where between this and *Cape Mount*. There is a River here, and three or four Towns, where our Ships come to trade for Teeth, and the *Negroes* bring them in Canoes far within that River: But take care not to go on Shore, for they have murdered many of all the *European* Nations that come to trade with them.

The *Negroe* Towns are known by a Thicket of Trees always about them; and wherever you see those Trees, you may anchor as you find the Ground, and make Signals to the *Negroes*, who will come off to trade.

Druin is known by three or four Trees on the Top of a Hill with two or three dead Trees without Leaves, and one without Branches, and one Hill with one Tree upon it W. of the rest. Bring that Hill and the Tree to bear N.W. by N. from you, and the three first Trees (bearing easterly from that Tree) N.N.W. and you may ride in good Ground, and 14 to 15 Fa. There are Marks for other Bearings, but this is sufficient.

There are some Rocks here, but they lie all close to the Shore, so that there is nothing in your way; for your Course is all along at 1 L dist. from the Shore.

From *Druin* to the *Red Land*, or *Red Cliffs*, is 3 Ls, E. by N. The *Red Cliffs* is a Name given to a long Tract of Land upon the Coast, and therefore is more properly call'd the *Red Land*; it holds for about 7 Ls. There is a great Trade for Teeth upon that Coast, which occasions many Ships to stop and anchor there; so that 'tis needful to know the Place very well. The first of these Rocks or Cliffs makes with a great white Spot in it. There is a River comes in among them, call'd *St. Andrew*, where there is good Traffick, but no Ships go up there, only *Negro* Canoes come down with Teeth to sell to our People.

The shore here differs extremely from all the rest of the Coast; for it is so flat and shoal, that you have but 10 to 12 Fa. at 2 Ls. dist. from the Shore, and you may anchor close under the Point of *St. Andrew*, in 3 Fa. You may wood and water here, but you will get nothing to eat. The River parts into two within a L from its Mouth, but both so shallow, that even Canoes cannot go far up in them, except in the rainy Seasons.

You may anchor under any of the *Red Cliffs*, in 7 to 8 Fa. The Coast is all even, and the Fair Way lies under Shore in 5 to 6 Fa. passing the River *Frifco*, with the *Negroe* Towns *Tabaterra*, *Domera*, and others, till you come to *Cape Lebou*.

From *Druin* to *Lebou* is 20 Ls E. and E. by S. In the way is the River *Cutro*, or *Catreboe*, and *Catelaboe*, and other small places, but none of Note till *Cabo la bou*; 'tis known by

That from *January* to the middle of *May*, the Weather is moderate; and that notwithstanding the Lat. of from 4 Deg. 20 Min. to 5 Deg. 37 Min. the Heats are not excessive, the Air is clear, the Breezes cool, and the Winds generally blow westerly, loft Gales.

From the middle of *May* to the middle of *January*, the *Souths* begin to blow, and continue within the Points of due S. and S.W. blowing constantly off Sea with great Violence, and making a terrible Surge upon the Shore. Also they are very squally, and have frequent *Travadoes* and Gusts; by which those Ships that ride in the open Sea are in great danger of foundring at an anchor, or driving a-shore.

N. B. Those Months are call'd the rainy Months, and are generally attended with great and constant Rains, Lightning and Thunder.

E.N.E. from *Cape Palmas* comes in a little River call'd *Cavalia*, dist. 10 Ls. This is the first Place of Trade on the *Ivory* or *Tooth Coast*; it is but a small River, but opens very wide into the Sea. As you come from the westward, you will open the Mouth of it, when it bears N. westerly from you: It goes in N by E. between two steep Capes, and there lies a great Rock due E. from the Entrance; and E. from the Rock 5 Ls lies a flat Point, to be known by a high naked Tree upon it, like a Mast of a Ship.

One L. from the Mouth of *Cavalia* due E. lies *Growa*, a *Negroe* Town, with 5 or 6 great Rocks just before it, and by which it is known: several of them lie under Water, and are therefore dangerous; but the Sea breaking upon them, discovers where they are, and that is the Mark to know the Town by. Also there is good riding beyond those Rocks in 17 to 18 Fa.

From *Growa* the Coast draws in to the northward, and trends away E.N.E. to another *Negroe* Town call'd *Taba*: the Coast is good even Land, only a little double toward *Taba* it self: There is very good anchoring all along in the Fair Way, keeping 2 or 3 Gun-shot from the Shore in 20 to 22 Fa. In the way you will see two little Mountains like Sugar Loaves close together, and on the very Edge of the Strand, the farthest is the highest: To the eastward of those Hills is a low flat Point running out into the Sea, with a Tree on the very Pitch of the Point, and two or three Rocks close to it on the Strand. The *Negroe* Village *Tabo* lies behind some Trees which appear just beyond the Point.

There is good anchoring before *Tabo*; bring the flat Point N.E. and N.E. by N. and the Rock on the Strand N.N.E. from you; and then you are in the best of the Road, with 21 to 22 Fa. very good holding Ground.

N.E. from *Tabo* lies *Thabo* in a Bight, where there is clean Ground and good anchoring. The Fair Way all along this Shore is keeping about a L. off; but at *Thabo* you run into a Bight, and anchor in 13 to 14 Fa. good Clay-ground, just before the Village.

E. by N. from *Thabo* 6 Ls is another Town, call'd *Berby*, lying behind a Point, easterly from the Hills; for all the Shore is mountainous: You may anchor here also at a L. from the

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Spot in it. There is a River comes in among them, call'd *St. Andrew*, where there is good Traffick, but no Ships go up there, only *Negro* Canoes come down with Teeth to sell to our People.

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You may anchor under any of the *Red Cliffs*, in 7 to 8 Fa. The Coast is all even, and the Fair Way lies under Shore in 5 to 6 Fa. passing the River *Frisco*, with the *Negro* Towns *Tabaterra*, *Domera*, and others, till you come to *Cape Lehou*.

From *Druin* to *Lehou* is 20 Ls E. and E. by S. In the way is the River *Cutro*, or *Catreboe*, and *Catelaboe*, and other small places, but none of Note till *Cabo la bou*; 'tis known by a very high Tree standing to the E. of it with a forked Top, one Branch standing E. the other W. The Canoes come on board you here from the River *Catreboe*, and the Cape it self, and bring Teeth in great Quantities: but you must beware of them, for they are all Thieves and Murderers.

N. B. This Cape is the easternmost Land of the *Tooh* Coast, and here begins the *Quaqua* Coast. *N. B.* Off of this Coast the Current sets gently, not above a mile an hour, to the N.E. by E. *N. B.* You must not venture near this Shore in thick hazy Weather, for you have no Soundings, but may be upon the Land before you are aware: you will have no Ground at 2 Ls from the Shore, and 45 Fa. within 1 $\frac{1}{2}$ L of the Shore.

You may ride under *Cape la bou* as near as you please in 8 to 14 Fa. strong holding Ground. E. from *La bou* 5 Ls lies *Jaco la bou*; and 8 Ls beyond that, in the same Courle, is a place call'd the *Bottomless Pit*, from the Depth being so great, that you can find no Bottom with the longest Line: some say they have cast 600 Fa. and found the Lead draw. 'Tis also 50 Fa. deep within Musket-shot of the Main; and when you come to that Depth, you must anchor as soon as you can, lest you run right ashore; but 'tis 35 Fa. in one place 2 miles from the Shore, and there is the best riding. E. from *Jaco la bou* is *Corbe labou*, and one L short is a little Creek, which the *Negroes* call *Jackee Jackee*; of no Note, but that it is the first place where you begin to trade for Gold, tho the Gold Coast is not yet, and they do not get much; however our Ships generally anchor here for the sake of it.

At *Corbe la bou* the Land is so steep, that within a Stone's-cast of the Shore you have 50 Fa. It lies due E. from *Jaco la bou* dist. 16 Ls; and 17 Ls from *Corbe la bou* still E. lies a little River call'd the *Costa*, with a Rock on the W. Point, being the first Rock on all the *Quaqua* Coast.

Between these lies a Trading Town call'd *Dorpin*, 5 Ls E. of *Corbe la bou*; and at the E. end of the Well, that is what

Sailing Directions for the Western

is call'd the *Bottomless Pit*, you ride very near the Shore, and get Slaves, and some little Gold also.

E. from *Cabo la bou* 36 Ls, and from *Dorpin* 15, is *Affine*, or *Afshinie*: There are 2 Negro Towns of the same Name, *Affine Piquino*, and *Affine Grandee*, they are 2 Ls asunder: At the first begins the Gold Coast, or the Land properly called *Guinea*; it is low here, but the Woods are very thick and the Trees high, and you see the Negro Hutts as you sail by the Shore. You have very good anchoring off of *Affine Piquino*, or *Little Affine*, in 10 to 15 Fa. Water.

To the eastward of *Little Affine* stands a great round Tree, among several Clusters of others not so high; thence you have low Land for upwards of 2 Ls to the greater *Affine*, call'd by our Pilots *Albine*; it stands close to the Water's Edge: off of this Place you may anchor in 12 Fa.

From this Town, or a little Point just by it, your Course is E. S. E. to Cape *Plaine* 10 Ls, a large Cape, with a Riff of Rocks running out from it. When you come in from the Sea, and the Cape bears with you due S. and N. then be sure to keep off in 14 Fa. at least, for you cannot anchor nearer.

From *Affine* to Cape *St. Apollonia* is 18 Ls. There are several Villages between, as *Batto la ben*, *Tebbo Boggio*, &c. and the River *Cobra*, of which the Cape is the easternmost Point: From all these the Negroes come off to you in Boats, and bring you Provisions, and some Gold.

St. Apollonia is a high Cape, and makes a Sea in 3 round Hummocks; the middlemost very high: they may be seen a great way, especially westward. There is no good anchoring nearer this Cape than 15 Fa. the Ground being very rocky and foul.

From Cape *St. Apollonia* the Coast trends into a Bight, in which is the Town of *Axime* or *Atzin*: the Course is E. by S. 5 Ls; the Land is low, and you may run along in 8 Fa. but must come to an Anchor no nearer than in 16, for the Ground is very foul. Here is the first Factory and Fort belonging to the *Europeans*; possess'd by the *Dutch*. There is a River here, but 'tis of no use in Navigation.

From the Town of *Axime* to Cape 3 Points, or *de Tres Pun-tas*, the Course is E. by S. This is by observation 10 Ls; tho' the Pilots say 'tis but 6 Ls, and the Course E. S. E. I take the first to be the most exact Account. This Cape derives its Name from its Appearance, for it makes in 3 Points into the Sea. Near this Point the Subjects of the King of *Prussia* have a Factory and Fort, on a Point formerly call'd *Unipacke*, 2 Ls short of the Cape *Three Points*: The *Prussians* by their Fort command the Watering place at *Three Points*; the Water is good indeed, the best on all the Coast, but very hazardous in the rainy Months, and when the *Souths* blow, which is several Months in the Summer.

If you would anchor here, bring the Tree which stands on the southernmost or middlemost Point E. S. E. of you, and the *Prussian* Castle N. E. by N. and you may anchor in 19 Fa. pretty good Ground.

From Cape *Three Points* to *Aquida* is 2 Ls E. by N. here the *Prussian* Fort was first built, but the *Dutch* got it from them, and made them go to the other side of the Cape. This place may be known by a Point which stands out a little to the

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E.N.E. from *Secunda* 3 Ls. the River *St. John* comes in, on the W. Point of which is a Village call'd *Suma*, or *Shuma*: Here is also a *Dutch* Fort and Factory. Here you ride off the Castle E.S.E. from the little Fort, and have 7 to 8 Fa. having the outermost Rock S.W. and S.W. by S.

On most of the Ports on this Coast, a N.E. by E. and E.N.E. Moon makes full Sea.

From *Suma* it is 3 Ls to *Akitaki*, otherwise *Little Commenda*: There are many small places between, such as *Low Strand*, the *Red Lands*, *Cotobery*, *Filbers Village*, *Aroby*, *Ballast Hook*, and several others; at most of which there is some Business.

There is a Riff of Rocks in the Fair Way of this Coast, call'd the *Black Riff*, which the Sea breaks upon very violently: the Rocks lie about Cannon-shot from the Shore, most of them under Water, and therefore very hazardous.

From *Commenda* to *Ampenie* is $1\frac{1}{2}$ L E.N.E. Your Mark for all this Coast is the great Mountain call'd *Great Commenda*, which stands N. far within Land, but is seen near 20 Ls off at Sea: bring this Hill due N. from you, coming in from the Sea, then you are sure you are right thwart of *Little Commenda*; you see it also all the way from *Atxum* to *Cape Corse*. To anchor before *Little Commenda*, bring the Town to bear N.W. from you; and being in 6 Fa. run a little to the eastward, and there anchor, you have clean sandy Ground.

From *Ampenie* there runs out a Riff not far to seaward, but rather along with the Shore: Within it is good anchoring for small Vessels in 4 to 5 Fa. But if you come from the westward, or from *Cape three Points*, especially also in this Weather, you must not run within the Riff, but keep out in 15 to 16 Fa. and if it be dark, heave your Lead; if you find red Sand and 15 Fa. Water, and hear the Sea breaking upon the Rocks, fail not immediately to come to an anchor, lest you are driven past your Port, for the Current sets here very strong to the eastward.

Easterly from *Commenda*, and from *Ampenie*, E.N.E. 3 Ls, stands the Castle *de Minas*, or of *St. George*; 'tis situated on a small Crook of the River *Benja*. Easterly from the Castle is a little Fort call'd *St. Iago*: Here lies the Road, dist. from the Castle about a Cable's length and half, there you have 8 Fa. good Riding.

This is the Metropolitan Factory of the *Dutch*, and where their Governor resides: There are 2 Castles which overlook one another, and both command the Ships in the Road. There are several little places on the Coast, between *Commenda* and the Castle of *Minas*, which we have not nam'd, *viz.* *Mina*, *Terra Pequina*, *Monte Fotu*: the Coast is full of Rocks and Riffs all the way.

From *Castle Minas* E. by N. $2\frac{1}{2}$ Ls, stands the principal *English* Castle and Factory call'd *Cape Corse*, or as we call it *Cape Coast*: it makes from the west like a Hill close to the Water's edge; 'tis seated on a Rock called *Taborough*, which lies far out into the Sea N.W. by N. and you have 8 Fa. just by it, with good riding under the Guns of the Castle. The Ground on all the Coast is good holding Sand, so that if you

From the Town of *Axime* to *Cape 3 Points*, or *de Tres Puntas*, the Courſe is E. by S. This is by obſervation 10 Ls; tho the Pilots ſay 'tis but 6 Ls, and the Courſe E. S. E. I take the firſt to be the moſt exact Account. This Cape derives its Name from its Appearance, for it makes in 3 Points into the Sea. Near this Point the Subjects of the King of *Pruffia* have a Factory and Fort, on a Point formerly call'd *Unipacke*, 2 Ls ſhort of the Cape *Three Points*: The *Pruffians* by their Fort command the Watering place at *Three Points*; the Water is good indeed, the beſt on all the Coaſt, but very hazardous in the rainy Months, and when the *Souths* blow, which is ſeveral Months in the Summer.

If you would anchor here, bring the Tree which ſtands on the ſouthermoſt or middlemoſt Point E. S. E. of you, and the *Pruffian* Caſtle N. E. by N. and you may anchor in 19 Fa. pretty good Ground.

From *Cape Three Points* to *Aquida* is 2 Ls E. by N. here the *Pruffian* Fort was firſt built, but the *Dutch* got it from them, and made them go to the other ſide of the Cape. This place may be known by a Point which ſtands out a little to the eaſtward, having a very high Tree upon it.

From *Cape Three Points* to *Dicky's Cove*, or *Dick's Cove*, is 5 Ls; and from *Aquida* it is 3 Ls E. N. E. Here is a Creek or ſmall Inlet of the Sea, fit only for ſmall Craft, as *Shallops*, *Long Boats*, &c. In the middle of the Paſſage in, is a great Heap of Stones, which you muſt leave on the Larboard ſide.

Here is a good *English* Fort, with a large Factory, and many *English* Ships go in to load Rice here.

From *Dicky's Cove* E. by N. it is 2 Ls to *Batterow*. Here is another *Dutch* Factory, but no good Fort; it lies on the ſteep ſide of a high Cliff next the Sea: you muſt not come to an anchor here, but almoſt a L ſhort, between that and *Dicky's Cove*, where you have 14 Fa. good Ground, and good Buſineſs for the Ships loading Rice.

From *Batterow* to *Ayoba*, which is the W. Point of the River *Antem*, the Courſe is N. E. by E. and N. E. 9 Ls. There are many ſmall places between, but of ſmall import, as *Pomponc*, or *Ponde Tagarado*, where there is a Point ſtretching out a great way into the Sea: You cannot ride well before *Tagarado*, but muſt run on a little beyond it towards *Secunda*, which is 5 Ls.

At the River *Antem*, or rather at the Point of *Ayoba*, the *Dutch* have a Factory with conſiderable Traffick: you may come to anchor before it in 14 to 15 Fa. But there are ſo many Dangers, and the Ground is ſo foul, that it requires your utmoſt Care, or you may loſe all your Anchors. There is a great Riff on the W. ſide of *Antem*; you muſt take care, and come no nearer to it than 14 to 15 Fa. You will ſee it by the Breach of the Sea upon it.

From *Antem* the Courſe lies E. to *Secunda* 4 Ls; it lies in a fine clean Bight. Here are 2 Factories, one of *English*, the other of *Dutch*; which cauſe much Shipping to ride there at

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From *Castle Minas* E. by N. $2\frac{1}{2}$ Ls, stands the principal *English* Castle and Factory call'd *Cape Corse*, or as we call it *Cape Coast*: it makes from the west like a Hill close to the Water's edge; 'tis seated on a Rock called *Taborough*, which lies far out into the Sea N.W. by N. and you have 8 Fa. just by it, with good riding under the Guns of the Castle. The Ground on all the Coast is good holding Sand, so that if you are but sure of your Cables, you need not fear your Anchors.

From *Cape Corse* to the *Danes Hill* is 1 mile; 'tis an old Fort that formerly belong'd to the *Danes*: it is that good Factory, which the *English* bought from the *Danes*, and it makes the Capital Fort of *Cape Coast*. One L E.N.E. is *Frederick's Bay*, which was call'd so by the *Danes*, but 'tis now *English*.

Here is a very good Road between Fort *Nassau* and Fort *Maur* in 7 to 8 Fa. 2 Ls from *Cape Maur* lies *Cormantin*, the Course E.N.E. Fort *Maur*, or *Maurice*, belongs to the *Dutch*.

From Fort *Maurice* to *Anisbam* is 2 Ls N.E. by E. here is a small Factory belonging to the *English*: From thence to *Animabo* is 1 L N.E. by E. and here is a Fort and Factory belonging also to the *English*: bring the westernmost of 4 Hills, which are seen above *Cape Corse*, to bear N.W. from you, then you may anchor in 7 Fa. good Ground; 'tis a Factory of good Business for Slaves as well as Gold, and many Ships ride here.

From *Animabo* to *Cormantine* is 2 Ls E.N.E. 'tis the best Road, as it is the best Country on all the Coast, and was once the chief Factory of the *English* on all the Gold Coast of *Africa*. There are 2 good Roads, and you may ride nearer and farther off in the same Road: The *English* have a very strong Fort there, which also commands the Road, and protects the Ships that ride there; and therefore the Ships ride for Safety sometimes close under the Guns of the Castle in 7 to 8 Fa. good Ground, the Fort bearing N.W. by W. from you.

N. B. This was once the place where the best Negroes were had; and therefore in the *West Indies*, to this Day, they call the Gold Coast *Negroes*, *Cormantine Negroes*: and this is as needful to be known for guiding Pilots and Captains in their Trade, as the Sea-marks are to pilot them into a

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Port. *N. B.* This Road of *Cormantine* is the best on all this Coast, for the easiness of going in, and of putting to Sea again; which may be done here almost with any Wind.

From *Cormantine* to *Taçon*, or *Dajou*, the Course is E. by N. 5 Ls, the Negroes call it *Dajou*, our People call it *Taçon*, and the Point under it to the E. they call the *Rough Point*, because it is craggy, and full of Rocks and Bushes: and the Road is used chiefly by Fishermen. Between *Cormantine* and this Point lies *Amiffon*, or *Miffereen* Corner, where there comes in a River, but 'tis useless in Navigation, except for Canoes; neither is there any Riding in the Mouth of it.

From this Point the Shore falls off a little northerly, trending N.E. so that the Course from hence lies N.E. by E. to the *Devil's Hill*, as the Seamen call it, dist. 2 Ls; 'tis a prodigious high Mountain close to the Strand; and they call it the *Devil's Hill*, because they say many have gone up to the top, but none ever return'd: Others give a better reason, because great Travadoes and Gusts of Wind come down from it, by the Hill intercepting the Clouds.

Under the E. side of this Mountain comes in a small River, where our Ships get good Water, which makes the Road frequented, notwithstanding the Squalls which come from the Hill: The Road is good in 8 to 9 Fa. on both sides the *Devil's Hill*; but if you go off into 18 or 20 Fa. 'tis foul, and no good anchoring at all. The Road before this Hill is call'd *Mangoo*; the Land belongs to the *English* Factory at *Acra*.

E.N.E. and E. by N. from *Mangoo* is *Berka*, or *Berku*, but the Sailors call it *Barraccoo*; 'tis to be known at Sea by 2 very high Mountains behind it, whereof one is double at the top with a Saddle: they are almost as high as the *Devil's Hill*, but full of Trees. Here is a kind of a Haven made by some Rocks, which lie off in the Sea just before it.

From *Barraccoo* the Coast trends away still northerly, and 'tis 6 or 7 Ls to *Acra*, the Course E.N.E. *Acra* is not a Factory, but a Seat of Factories, being in a Bay, where there are 5 Forts and Factories adjoining to each other, one *English*, one *Dutch*, one *Danish*: The westernmost is the *English*, and here you have a good Road in 7 Fa. good Ground; whereas farther eastward it is foul and rocky. Bring the red Spots, which you will see on the rising Land by the Sea-side, to bear due N. from you, there you have the best of the Road.

A little I. W. of *Acra* is a small River, but no fresh Water: the little hill near it is call'd *Cooksbreed*, which is a good Seemark, and well known.

N. B. All the way from *Acra* to *Ningo* there is no fresh Water to be had. *N. B.* This is the easternmost part of the Gold Coast, adjoining to the Slave-Coast.

From *Acra* all the Coast is cover'd with Rocks, so that they are like a Wall or Fortification; no Vessel, no not a Boat, can come on Shore, except where any Creek opens into the Sea.

From *Acra* the Course is E.N.E. 4 Ls. to *Ningo Piquino*, as the *Portuguese* call it; but the Negroes, and our Sailors from them, call it *Pikinine Ningo*: Thence to a Negro Town call'd

for the Western Coasts of Africa.

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From *Puny* to *Ningo Ground* is 3 Ls, and thence to *Baya* 8 Ls E. and E.N.E. There are many small places between these two, where the Ships go a slaving, as they call it, and ride generally in the open Sea, sending their Shallops in to wait the Orders of the great Negro *James*, who directs where they shall ride. These places are *Pram Pram*, 2 Ls. from *Puny*, and *Agrico*, 2 miles from *Pram Pram*, and *Alampo*.

All along the Coast before these Towns you may anchor in 8 to 9 Fa. and send your Boats, but come no nearer, because the Ground is foul. *Alampo* is a good Anchoring-place, in particular; bring *Seghill* to bear N. by W. a little westerly, then you are off of *Alampo* a little to the W. The Land is all along from *Acra* hither full of *Palmetto-Trees*.

From *Baya* to the River *Volta* is E.N.E. 4 Ls; but the Land is all low and marshy, without any Towns or People, till you go up the River.

The *Volta* is the first River of any long Course on all these Coasts, from Cape *Sierra Leon* hither.

You will know the Mouth of the *Volta* by the fresh Water far off at Sea; for the Channel is so great, and pours down such prodigious Floods or Freshes of Water, that it preserves its Taste a great length into the Sea; it also discolours the Sea Water for many Ls. Moreover, the Marks for the *Volta* are thus, as you come from the westward, you will see a long Point full of high Trees stretching W. from the Main, and within the Land a round Hill like a Haycock, and beyond that another.

When you are in the Mouth of the River, you will see strange Whelmings and Breaches of the Water stretching away eastward; these are occasion'd by a very great Riff of Rocks which lie off from the W. Point of the River, thwart part of the Channel, and which the Water comes rolling over like a Cataract or Waterfall.

Within this River are many Negro Towns, and much Trade; but you must run over the Mouth of the River in 8 to 9 Fa. at a sufficient Distance from those Whelmings; and when you come to the E. Shore, the Stream is quiet and smooth, and you will run easily up the River to what place you please.

Needful Observations and Directions particular to this Coast.

As 'tis already observ'd, that the rainy Seasons begin upon this Coast in *January*, and hold on till *May*, attended with Tempests, Hurricanes, Travadoes, and violent Gulls of Wind, it is needful to add, 1. That these Storms and Hurricanes hold the same upon all this Coast from that part noted before to this great River *Volta*, and farther also, as shall be seen in its place; also that towards the *Volta* and the Country of *Benin*, they have also frequent Earthquakes with those Storms, especially with the *Travadoes* or Hurricanes.

2. The Land-winds seldom blow during those rainy and stormy Seasons, but it blows all off Sea from S.W. S.W. by W.

Dutch, one *Danish*: The westernmost is the *English*, and here you have a good Road in 7 Fa. good Ground; whereas farther eastward it is foul and rocky. Bring the red Spots, which you will see on the rising Land by the Sea-side, to bear due N. from you, there you have the best of the Road.

A little L. W. of *Akra* is a small River, but no fresh Water: the little hill near it is call'd *Cooksbreed*, which is a good Sea-mark, and well known.

N. B. All the way from *Akra* to *Ningo* there is no fresh Water to be had. *N. B.* This is the easternmost part of the Gold Coast, adjoining to the Slave-Coast.

From *Akra* all the Coast is cover'd with Rocks, so that they are like a Wall or Fortification; no Vessel, no not a Boat, can come on Shore, except where any Creek opens into the Sea.

From *Akra* the Course is E.N.E. 4 Ls. to *Ningo Piquino*, as the *Portuguese* call it; but the Negroes, and our Sailors from them, call it *Pikinine Ningo*: Thence to a Negro Town call'd *Trimine*, where the famous Negro Merchant Captain *James*, manages all the Trade, and directs all the Ships; he is Factor, Broker, and Merchant for all Nations; and if the Ships act without him, they may as well steer without a Helm, or ride without an Anchor; so they call the Road *Captain James's Bay*. The Course hither is N.E. by N. 2 Ls. This *Trimine* is call'd falsely *Tena*.

From *Trimine* to *Puny*, or *Pomperny*, is 2 Ls E.N.E. Here is a *Dutch* Factory, and a good Road in the Bay, where the Sloops go up to bring Slaves on board: Here are 2 small Creeks also for Boats, which go in to fetch Slaves and fresh Water, but not far in.

Sailing Directions for the Coasts of Africa, from the River of Gabon on the Frontiers of

 FROM the River *Volta* the Coast continues to *Benin*, and first it stretches E. by N. about 2 Ls to *Cape Montego*, the Land being low, and the Coast appearing full of Trees, all along; thence to *Cape St. Paul* 3 Ls E. *Cape St. Paul* is a low Cape also, falling off with a Tail of dry Sand, into the Sea; and the Land seems to be broken and uneven betwixt them, so that the dry Sand appears like an Island.

From *Cape St. Paul* the Coast lies N.E. easterly; and at the dist. of 5 Ls lie three or four Hills close together, call'd *Quatra Montes*: And 2 Ls farther is *Cape Baxos*, a well known Point to our Traders in Slaves. E.N.E. 5 Ls farther lies a River stopt up with Sand, with some high Trees on its E. side; 'tis call'd the dry River, but in rainy Months it has Water enough.

Then you steer N.E. by E. close by the Shore to *Popon*, a little Village standing on the Sea-side, dist. from *Cape Montego* 19 Ls.

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*Needful Observations and Directions particular to this
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with the *Travadoes* or Hurricanes.

2. The Land-winds seldom blow during those rainy and
stormy Seasons, but it blows all off Sea from S.W. S.W. by W.
W.S.W. and the easterly and southerly Points; and therefore
those Winds are call'd the *Souths*.

3. The Winds abate in *July*, and the Rains cease in *August* ;
tho the Sea will not be quiet for several Weeks afterward : But
in *September* it clears up quite, and gentle Breezes only succeed,
and the greatest Heats are in *December*, when the Sun is at the
southern Tropic.

4. On all these three Coasts they have two different Winds
every Day, viz. the Land Breeze beginning early in the Morn-
ing, and the Sea Breeze which begins at Noon.

*of Africa, from the Slave Coast on the River Volta, to
the Frontiers of the Country of Loango, exclusive.*

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From little *Popou* N. easterly about 4 Ls, stands *Great
Popou* : And about 8 Ls N.E. by E. from thence, lies *Whidab*
or *Arava*. The Coast all along between is low Land, with
Trees here and there.

There stands three or four Clusters of Trees 3 Ls westerly
from *Whidab*; the westernmost is the largest: one of those
Trees is of prodigious height, appearing at a distance like a
Tower; and about a L. westerly from *Whidab*, close to the
Sea, are two Trees more, with great round Tops, which
some call the *Two Brothers*.

If you would anchor before *Whidab*, you must bring the
two great thick Trees, that stand within the Village N. by E.
and N.E. from you; then anchor in 7 or 8 Fa. you will have
good hard Sand.

Eastward from hence the Land is like a Forest of Trees,
reaching along for a great way upon the Coast, and seen far
off at Sea, the Trees growing upon high Grounds.

From

Sailing Directions for the Western

From *Whidab* you have a fair Coast, bearing N.E. by E. about 8 Ls to the *Cape Lagoa*, and 5 Ls more to the Passage call'd the Channel of *Lagoa*. Here the *Tornadoes* are very frequent, and may be foreseen by the rising of black Clouds in the W. and S.W. which commonly precede them; which when you see, you should immediately hand all your Sails except your Foresail, which you may keep in the Brails to command your Ship, and run before the Wind, if you find occasion, during the *Tornado*; for what you get is to windward.

From *Lagoa*, about a L. westerly, stands a double topt Tree, by which you may know the Coast; and before the River a great Shelf that quite choaks it up, except at the E. side, where you may row in with a small Shallop or Longboat, tho not without danger of being overset neither.

This Channel alters five or six times in a Year: For sometimes 'tis deep on the W. side, then on the E. side, and sometimes in the middle; but when at shoalest, you have 7 or 8 Foot Water.

In coming in you must take care that you be not overset by a rolling Sea: Keep to the eastern Shore, whether you come in or go out, because it always breaks very much upon the western Shore; but within there's depth enough for Sloops and Yachts: Then run along (having on the western side some Rivers, as the *Albo*, and the *Doda*) till you come before the City of *Caran*: From thence the Channel runs E. by S. very broad, and so full of Stakes for Fishers Nets, that you can hardly pass thro' with Sloops, and not above 14 or 15 Foot deep.

Caran is a great Town, encompass'd with double Palisadoes, with Centinels continually watching at each Gate; it flows here much sooner than it ebbs, and it falls about 6 Foot up and down: The Ground is muddy above and sandy below.

From the River of *Caran* to *Jabum* your Course is E. by S. about 13 Ls. This Town is likewise surrounded with Palisadoes, and the Land thereabouts is broken and overwhelm'd by the Sea; having several small Rivers on the main Coast, and the Sea-side full of Trees. Your *Fair Way* lies in about two Fa. muddy Ground, and Sand underneath.

From *Jabum* the Course is E.S.E. about 9 Ls to the River *Primeira*, which is a wide flat River, the Ground all slime and muddy, and not navigable but for small Boats.

Twelve Ls to the eastward of this River the Land is all Islands and Creeks, and for the most part drown'd, either by the Sea's overflowing, or by the great Rains which always fall there in *August* and *September*.

From *Primeira* the Course is S.E. 11 Ls. to the great River *Formosa*, or *Beniu*; on the W. side of which you'll see many small Rivers making their way to the Sea.

Before the River 'tis flat for above 2 Ls and half over the Channel, having at the highest Flood not above 14 or 15 Foot depth, with muddy Ground, and dangerous.

But your Way in, is on the other side, close by the S.E. Point, the great Shoal lying then on the Larboard side: Being in the narrowest place, you'll have on the right Hand a little sandy Bay; and when you are at the Point within it, you may ride in 8 Fa. and Water enough all the way.

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by E. dition from the River *Forcades*, and not easily distinguished when you come from seaward, except, as above, by the two Trees on the Point of the former; so that many Pilots have been deceived in running up into it, till they came a-ground upon the Shoals; when too late perceiving their Error, the Ships have been lost, and the Men endeavouring to save themselves have been devoured by the ravenous *Negroes*, who are all *Cannibals* upon those Rivers.

S. by E. from this fatal River about 20 Ls is *Cape Formosa*, the Coast all along low and full of Trees, the Ground muddy, and no good anchoring any where.

The Land on one side of the Cape stretches N. by E. on the other side eastward, running into the Gulph among several Islands unknown to us, the Passages between them being impracticable, muddy and shoal.

The Cape lies so very low, and as it were even with the Water, that the Trees upon it seem to stand in the Sea, and you see them before you see any Land: But in 15 Fa. you can see neither Trees nor Land, so that you know not where you are, till you are almost on Shore.

There always runs about by the eastward of the Cape a very hard Stream of fresh Water, during the Months of *July* and *August*; so that those who sail upon this Coast at that time, should come no nearer than 8 Fa. which is about a L from Land: The Ground is so muddy that you can hardly get your Lead out of it, much harder to get your Anchors out; and they will hold no purchase neither, the Mud is so soft tho heavy.

Seven Ls from *Cape Formosa* E.S.E. lies the River *Nor*, a little narrow River of no use to Navigation: And eastward 5 Ls from thence lies the River *St. Ilde Fanza*, or *Ildephonfa*, and 2 Ls and half farther, is the River *Juan Dias*, running along by the Sea side, just within a narrow Slip of Land not half a Mile broad.

And farther again, about 2 Ls and half, lies the River *St. Barbara*, or *Mea*.

From the River *Mea* 6 Ls easterly lies the River *Barabalenno*, on whose E. side stand two Stakes like Masts of Ships, by which you may know the Place. All these Rivers flow into this opening, S. of the Cape; and sometimes Ships Boats go in for trade, but 'tis very hazardous as well as difficult, because of the *Cannibal Negroes*. You pass along by them all in 8 Fa. and at the dist. of 2 or 3 Ls from the Shore.

From hence is no manner of Traffick on this whole Coast; for the Ground is so very foul, and the Inhabitants such Monsters, that there is no coming among them.

From thence you come to the River *Sombrero*, before whose Mouth it is so flat, that you must keep off to seaward, quite out of sight of Land.

You may run along from *Cape Formosa* to the River *Sombrero*, in 8 Fa. Clay Ground; but near the River it breaks 2 Ls off from the Shore, and is flat and shoal 5 Ls more: But there is nothing lost by it; for as the Shore is bad, so the People are worse, and you can have no Business among them; and our Sailors always knock 'em on the Head when they meet with them.

the Sea-side full of Trees. Your *Fair Way* lies in about two
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From *Jabum* the Course is E.S.E. about 9 Ls to the River
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Point, the great Shoal lying then on the Larboard side: Being
in the narrowest place, you'll have on the right Hand a little
sandy Bay; and when you are at the Point within it, you
may ride in 8 Fa. and Water enough all the way.

The Village *Analambana* also stands on the western Shore
of that Bay. There are two other Rivers fall into the great
River on that side; the first you pass by, the second is a con-
siderable River, and has a deep tho narrow Channel; you may
fall up into it 25 Ls: On the Bank of this River stands the
City of *Argua*.

And about 13 Ls farther up the River *Benin*, on the E. side,
stands the great Town of *Gaton*, or *Benin*, the Capital of the
Country, and Seat of their King: Hither our Shallops go freely
up, and the Channel is good.

From the River *Benin*, about 4 Ls southerly, lies the River
Rogocam, a little shallow River, on whose N. side stands the
Negro Town call'd *Rogocam*, and on the S. side the Village
Arobo.

From *Arobo* about 2 Ls and a half, lies the River *Esclavos*,
from whose S. Point falls off a very large Riff, or Shoal of
Sand, reaching 4 Ls to seaward, being not above 3 Fa. at the
deepest, and in some places not above 3 Foot: so that with a
great Ship on this Coast, you cannot come so near as to see
the Land, without danger of running a-ground.

From the River *Esclavos* 5 Ls to the southward, lies the
River *Forcates*; in the *Fair Way* there is 12 Fa. good anchor-
ground, but on the S.E. side there's a Flat falling down from the
Land, with a Riff reaching off from the N. side about a L.

When you come into this River, avoid the S.E. side which
is flat, and the N.W. which is shoal; and run easterly into it,
in the Mid-channel.

The River has two Branches reaching up to landward; but
6 Ls up in the Left hand Branch, lies the Place of Traffick.

The River is known only by two Trees greater than the
rest, that stand on the S.E. Shore.

To the southward of this River, about 12 Ls from hence,
lies the River *Lamas*, not much differing in Depth and Con-

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From the River *Mea* 6 Ls easterly lies the River *Barabalemo*, on whose E. side stand two Stakes like Masts of Ships, by which you may know the Place. All these Rivers flow into this opening, S. of the Cape; and sometimes Ships Boats go in for trade, but 'tis very hazardous as well as difficult, because of the *Cannibal Negroes*. You pass along by them all in 8 Fa. and at the dist. of 2 or 3 Ls from the Shore.

From hence is no manner of Traffick on this whole Coast; for the Ground is so very foul, and the Inhabitants such Monsters, that there is no coming among them.

From thence you come to the River *Sombbrero*, before whose Mouth it is so flat, that you must keep off to seaward, quite out of sight of Land.

You may run along from *Cape Formosa* to the River *Sombbrero*, in 8 Fa. Clay Ground; but near the River it breaks 2 Ls off from the Shore, and is flat and shoal 5 Ls more: But there is nothing lost by it; for as the Shore is bad, so the People are worse, and you can have no Business among them; and our Sailors always knock 'em on the Head when they meet with them.

Eastward 8 Ls off from the River *Sombbrero* lies the River *Royal*, whose Mouth is about 7 Ls wide, and 'tis 2 Ls wide within at the E. Branch, and 1 L at the W. Branch, some Miles up the Stream, and deep Water too.

As you come along in 8 Fa. from the W. towards the Opening of this River, so you must go in by the W. Point of the River in 5 or 6 Fa. but take care to go about a little Sand Bank which falls off from the Point; it may be seen by the Breakings of the Sea upon it, and you must therefore keep to seaward round it, and that not in less than 3 Fa. Then run N.W. along, still keeping in the same depth toward the *Dead Island*; call'd so, because here the Christians bury their dead. Then steer to the W. Shore, to the Island of *Foche*, where you may come to an anchor with more Satisfaction; for there you'll meet with peaceable and rational *Negroes*, and you may put into their Rivers with safety, and have great Traffick for Slaves.

In coming from seaward to *Bany*, a Port on this Coast, you must be very cautious of the Shoals and Sands which lie thwart along the Mouth of the River: You may avoid them by running to the eastward, till you come near the River *Andony*; then keeping in 6 Fa. by the Shore, run along till you are in 4 Fa. near, and past a Cape call'd the *Rough Point*. When you are got about the Point, you may come to an anchor in 10 or 12 Fa. sheltered from easterly and southerly Winds.

In this River *Bany* is the Island call'd, as above, the *Dead Island*; you may be supplied there with Water and Wood at pleasure: But you must run above the Island, sounding thro' as you go between the Banks in about 2 and half to 3 Fa.

At the N. side of the eastern Branch of this River, you'll find a Road or Haven fit for Ketches; and many such put in here for Trade, coming from *Cape de Verde* Islands: Near this Haven stands the Village of *New Callabar*, the chiefest Place

Place for Merchandize in all the Country : The Trade is for the most part in Slaves, and the Village is surrounded with Palisades after the Country manner.

N. B. At *Carau* an E. and E. by S. Moon makes high Water.

At the River *Benin* an E. and W. Moon makes high Water, where also it flows in 3 Hours, but ebbs out 9.

The rainy tempestuous Seasons are the same here, in the southern Latitude, as in the like Degrees of Latitude N. on the Coast of *Guinea*.

Sailing Directions from the River Andony to the River Gabon.

ABOUT six Ls eastward from *Andony* comes in a great wide River call'd *Callabare* ; in the Mouth of it lies a Sand Bank to seaward, reaching off a great way : It may be known, as you come from the westward, by the breaking of the Sea upon it ; however, you may go on, keeping off from it in 5 to 3 Fa. on either side of it.

About 9 Ls eastward from thence lies the River *Rey*, or the *King's River*, which is very great and wide, but extreme muddy and shallow, not above 3 Fa. Water at the deepest.

In coming from the westward to the River *Rey*, you may found over the Banks of the River *Callabare*, in 3 to 5 Fa. then with an E.N.E. Tack you fall exactly before it : As you go you'll see abundance of Stakes to which the Fishers fasten their Nets, but they stand all in 5 Fa. so that you may boldly sail between them, and they serve instead of Buoys.

The Town of the same Name lies on the W. side of the *Rey*, at the Point of a small River : You may ride close to it, in 3 and 3 1/2 Fa. and if you please you may run half a L higher to another small River, from whence the *Blacks* bring down Teeth and other Commodities, as also from another River higher than that.

In sailing from the W. Point of the River *Rey*, steer E.S.E. over a slimy muddy Ground, in 4 Fa. along the Coast : But if you go by the *Amboises*, W. of the Island, then you must keep in 8 to 12 Fa.

From the high Land of the *Amboises* to *Camaroon*, you sail along by 3 or 4 Rivers, with several small Villages inhabited by Fishermen ; and farther you'll see abundance of Nets hung upon Stakes on the said slimy Ground : Also you'll see several Cliffs upon the Main, as also others among the Islands, all of prodigious steepness and height ; but you must make your way between the Islands, and if you must anchor let it be in 7 Fa. at least.

As you sail from the high Cliffs to the Island of *Amboises*, you must steer S.S.W. to reach *Point Bato* ; and when you are in 8 and 9 Fa. above that, you must run towards *Cape Camaroon*, whereby you may get into the River.

The easternmost of these Islands is of such great height, that it is supposed to be as towering as the *Pico Teneriffe* : It yields abundance of Provisions, good Palm Wine and Fish,

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come to the Mouth of the River at the *Steep Point*, keep to the southward till in 4 Fa. then W.S.W. if it be a Land Wind, you may go right out to Sea, but with a Sea Wind you must be careful, for about half way into the River lies a Bank of hard Sand, which tho it is but about two Ships length broad at low Water, is very long and shoal, especially at that End which lies up the River, where at low Water there is but 3 Foot upon the Sand; however, on both sides you will have about 4 Fa. When you are as far out as to see *Buff's Island*, you must be very cautious, for then 'tis of such uncertain depth, that at one Cast you have 5 Fa. and at the next you'll be aground: But on the N. side you can receive no harm, for it's flat far to seaward quite to *Buff's Island*. so that you may run as shoal as you please: 'Tis also flat soft Ground 9 or 10 Ls off.

S. by E. southerly from the River *Camaroon*, near the Shore, stands the small *Island Branca*, having all about it soft and flat Ground, but with good Soundings; so you have nothing to do but to keep the Lead going.

From *Camaroon* the Shore trends away S. by E. 7 Ls to the River *Borea*, a shoal River, only passable with small Boats, which draw not above 4 Foot Water.

Then you get the high Land again, lying in Lat. 2. 45. N. Here 'tis flat to a great distance off, but not so flat as before the *Camaroon*, your Lead will direct you.

From the *Island Branca* the Course is most S.S.E. 7 Ls, to an Island call'd *Pan Navia*, the Coast bearing on the same way; and between them upon the high Lands, you'll see abundance of Cypress or Palm Trees. There lies a great Bight on this Coast, behind the *Island Pan Navia*, call'd the *Bight of Pan Navia*, where there's very good Ground, as there is also between the S. side of the *Island Pan Navia*, and a Point on the Main call'd *Gayara*: You may pass along to the seaward of this Island in 15 Fa. being then not far from a Sand call'd the *Sture*, which for the most part is very steep; but there's a Foot Strand betwixt the *Island Pan Navia* and *Point Gayara*.

Southward from *Gayara* comes in the River *Campo*, on whose S. Point lies a Stone Bank or Shoal; the Sea breaks on it with great violence, and it appears dry at low Water: From thence you'll see to the landward, on the Main of the Coast, two round Hills; and a little farther another long Hill, by which you will mark the Coast.

On the S. side of the River *Campo* lies a great Bight, wherein there's good anchor-ground in 6 and 4 Fa. as also good Ballast and fresh Water may be had: There stand a few Houses here and there close to the Water-side, and you'll see to the Land Seven ill-shaped Hills lying in a Row: The Coast all along is very low and bare, and the Strand is seen at low Water to be a clean hard Sand.

From the aforesaid Bight it is 7 Ls S. by W. to the River *St. Bennet*, a very shoal River, on whose N. Point stands a great Hill call'd the *Haybarn*: There also trends a Riff along the Coast on the W. side of the River, with some Cliffs both above and under Water, to the inward part of the River.

over a slimy muddy Ground, in 4 Fa. along the Coast: But if you go by the *Amboises*, W. of the Island, then you must keep in 8 to 12 Fa.

From the high Land of the *Amboises* to *Cameroon*, you sail along by 3 or 4 Rivers, with several small Villages inhabited by Fishermen; and farther you'll see abundance of Nets hung upon Stakes on the said slimy Ground: Also you'll see several Cliffs upon the Main, as also others among the Islands, all of prodigious steepness and height; but you must make your way between the Islands, and if you must anchor let it be in 7 Fa. at least.

As you sail from the high Cliffs to the Island of *Amboises*, you must steer S.S.W. to reach *Point Bato*; and when you are in 8 and 9 Fa. above that, you must run towards *Cape Cameroon*, whereby you may get into the River.

The easternmost of these Islands is of such great height, that it is supposed to be as towering as the *Pico Teneriffe*: It yields abundance of Provisions, good Palm Wine and Fish, but no great Trade: Yet Ships ride at anchor before it to buy Slaves and Teeth, brought hither from *Cameroon*, as also sometimes for the sake of good Shelter in case of contrary Winds.

Bato lies between two Points behind the Island of *Amboises*, and thereby stand some Palm Trees, with one in height exceeding all the rest: you may anchor before it, but it would not be amiss to moor the Ships, because of the Whirl-winds and sudden Gusts from the Mountains.

From the *Amboises* the Course is S.E. by E. to the River *Cameroon*. You may sound the Sand Bank mentioned above from the N. Point, and go over it with safety, in 4 Fa. then run on till you come into 8 or 10 Fa. then sailing farther up, you will have 3 or 2 Fa. at low Water, all soft Ground, and 2 more at high Water.

When you are past *Mount Sieras*, you must edge again toward the northern Shore, to avoid a Bank that lies at the E. side, and reaches above half way over the River: Then keep the N. Shore, till the little River that comes out of the Foreland, call'd the *Old Hole*, opens. Then keep over again to the S. Shore, to another little River with an adjoining Village call'd *Monombas Hole*; you may anchor in 3 Fa. within or without it, and in soft ouzy Ground, this being the usual Place of Trade for this part of the Country.

Opposite to *Monombas Hole*, on the N. Shore, lies another anchoring-place call'd *Teeth Hole*, where you have good Ground in 5 to 7 Fa.

About 10 Ls and half out to the Sea, S.W. from this River *Cameroon*, stands the Island *Fernando Poo*, being a high Island commonly covered with Clouds, but well inhabited with *Negroes*; there grow abundance of Sugar Canes, but you must be careful if you go a-shore for Wood, &c. for the Inhabitants are very barbarous and treacherous.

As you come out from *Monombas Hole*, if in still Weather, you must have your Boat a-head of your Ship, to avoid a Bank which comes off from the southern Shore: And when you

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The Country from this Place appears full of high Hills, and the Coast all over Trees; nor are you far from it, when in 18 or 20 Fa. You go into this River between two steep Points, having 4 or 5 Fa. at the Entrance.

From this River *St. Bennet* the Coast trends S. by E. and then E.S.E. being all in the Bight: The Land is even and plain; but to landward, easterly from you, lie three high Rocks or Cliffs all in a Row, whereof the northernmost is the highest.

The Coast runs from hence for the most part S.W. to *Cape St. John*, with a Bank reaching off along the Shore; and about a L to the seaward off the Cape, lies another Bank, ha- ving 7 or 8 Fa. Water upon it, which when you are past, you have 14 and 15 Fa. all the way.

About 5 Ls southward from *Cape St. John* lies the Island *Kerisco*, or the *Island of Lightning*: The Land towards the Sea Coast is generally sandy, except to the N.W. where it is stony. The Country within is overgrown with high Trees; but the Land is so low, that the Trees seem to stand in the Water. Coming from seaward approach no nearer than 9 Fa. because of a Stone Riff which runs off from the S. side; and as you sail thro' betwixt the Cape and the Island, nearest to the Island, you have shelly and gravelly Ground; but when near the Cape, you have stony Ground.

Cape St. John is block'd up with a Ridge of Rocks lying just before it, so that it has no Foot-strand. Off at Sea from this Cape the Currents or Tides meet with great violence; and the Ground being very foul and clifty at Bottom, the Wa- ter coming from the S. beats very hard against this Point, and then runs along to the northward. When you have past this Cape, the Coast falls to the S. eastward, without any consider- able Hills, for a great way.

W. by N. and W.N.W. distance about 24 Ls from *Cape St. John*, lies the *Prince's Island*. The Land is high and full of Trees, with a very fine Bay at the N.W. side of it, where there is good riding, and you may lie as near as you will.

There

Sailing Directions for the Southe

There lie three small Islands on the E. side, and another on the W. side. This Island affords good Refreshments in abundance.

In sailing from the River *St. Bennet* to *Cape Lopez Gonsales*, you must mind which way the *Travadoes* drive the Water; for the Sea flows from whence they arise: And if you lie at anchor when the *Travadoes* begin, you must weigh with all speed, and get off: If it be in the Morning, keep to seaward till Noon; then make again to the Shore with the Sea Wind; but if the Winds do not alter at Noon as usual, you must (for all that) tack about for the Shore if possible, and anchor as well as you can: But approach no nearer the Shore than 12 Fa. for 'tis very foul upon all this Shore, and in the time of the *Travadoes* the Water runs about by the North.

In sailing from *Cape St. John* and the Island *Korisco* into the River *d'Angra*, or *Angra*, as some ignorantly call it, the Course is E.S.E. till past *Korisco*, keeping a good Offing all the way, because of the Rocks towards the Cape: Thus you'll come to *Little Korisco*; and when past that, keeping still in 4 or 3 Fa. you will see a little River on your Starboard side, which you pass, and so along, till you get another River near a high Point on the Starboard side: This River draws you in very hard, so that in still Weather you run into it with Ease, and sometimes whether you will or not.

In sailing from the River *d'Angra* to the southward, some say the shortest and best way is to go thro' between *Korisco* and the Main, southerly from the River; for there is a hard and swift Stream, so that you may run freely that way: nor need you question the Depth; but there are some Islands on this Coast between *Korisco* and the main Land, which are dangerous.

Cape Lopez Gonsales is a low Land, with a very long Point shooting out to the westward. If you would anchor here, bring the Pitch of the Cape N.W. half W. and the S. Land S.E. half S. and you may place your Anchor in 6 or 7 Fa. but the Ground is very steep, and the Currents very variable, so that they ought to be carefully observ'd and allow'd for.

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	<i>Bato</i> ——— E. and W.	
	<i>R. Camaroon</i> ——— E. and W.	
	<i>Monombas Hole</i> E. and E. by S.	
	<i>R. D'Angra</i> ——— Easterly,	

Sailing Directions from the River Gabon inclusive, to Cape Lopez Gonsales, thence to Loango, Congo and Angola, and on Southward, to the Cape de Bonne Esperance, also inclusive.

The S.W. side of the Shoals of the Island *Korisco* lies almost E. and W. of *Cape Estiras*, which is the S. Cape of the River *d'Angra*. *Cape Estiras* bears N. by W. and S. by E. with *Cape St. John* dist. 7 Ls: From the Cape the Shore trends away S. making another Cape, pointing S.W. by S. dist. about 5 Ls; from whence falling off again into the Land E. by S. it makes a deep Bight, call'd the Bight or Bay of *Estiras*. In the Entrance of this Bay is an Island cover'd with Trees, within which there is good Anchoring: The S. Point of this Bay is

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There is a Bank or Shoal of Sand on the S. side of the Entrance, which lies very flat, and has not above 2 Fa. stretching out in a long Tail to seaward. On the N. side of this Sand it is steep, but on the S. side very flat, as above.

Bring the S. Point of the River to bear E.S.E. and S.E. by E. and then you may stand boldly in towards it, to keep clear of the said Sand; for then the Point is steep enough, and as you go off from the upper Corner of the Bank to the River, the Water will deepen to 6, 7 and 8 Fa. Keeping thus off from the S. Point, and clear of the Bank, you will have the Fair Way open to you, to sail between the Islands. 'Tis also deep and wide enough to turn it up, if there is occasion.

You may anchor under *Parrots Isle*, and lie safe at the E. end of it, so as to wash or clean, or mend your Ship's bottom; the Ground is soft and good: there is a Sand lies off indeed from the W. end of the Island, which you must take care of; but you will easily find it by founding with your Boat. But if you would lay your Ship on Shore at the E. end, as above, observe that there stands a great Tree on a Point to the N. of the E. End, which you will leave on the Starboard side; and then run along between two Stone Points, dropping one Anchor to seawards, and the other on the Land side to haul in by: then as the Tide rises, you haul in gradually, till you come aground, fastning with 4 Ropes to the Cliffs.

The Tide rises here 8 to 9 Foot. Having finish'd what you had to do here, you haul off; and running along the S. side of the Island, you anchor again in 10 to 12 Fa. to take in Wood and Water. From hence you must watch the Land Winds, which come in the Morning, to go out to sea, keeping close under the Shore: you have 3 to 4 Fa. a Gun-shot from the Shore.

N.B. The Bank on the S. Shore of the River *Gabon* wears out every year; it is not so shoal by almost a Fa. now as it was formerly: the Sea ripples much upon it, and makes a very great Noise there, especially on the Ebb.

Due W. from the Mouth of this River out at Sea, dist. 40 Ls, lies the Isle of *St. Thomas*: Tho the Equinoctial Line crosses its Center, yet the Air is moderate, and it yields abundance of Cattle and Refreshments. At the E. side of it is good Anchoring; the Road is called the Road of *Anne Chares*, being under the Lec of a great Rock called the Island of *Anne Chares*. At the S. end of the main Island is another little one call'd *Rotes*, but by our Sailors the *Isle of Rats*: there is a small Riff off of the E. end of the Island; and eastward of the main Island a Cluster of Rocks above Water, called the *Irmooes*. Between thote Rocks and the Riff is a very good Road in 25 to 30 Fa. hard Sand.

To sail from the *Cape de Verde*, or from the Coast of *Guinea* to this Island, you must mind the proper Season, viz. During the *Vintanies* and Land Breezes, which last from *Abril* to *September*, steering W. and W. by N. till Night, because of the Currents, and stand in with the Shore in the Day.

To anchor in the Road off *Rotes*, bring a great Tree which you will see upon the Island, and the S.W. Point to bear southerly from you; then you are in the best of the Ground.

If you come in at the N. end of the Island, you make the

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N.B. At	R. <i>Cameroon</i> ——— E. and W.	
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Sailing Directions from the River Gabon inclusive, to Cape Lopez Gonzales, thence to Loango, Congo and Angola, and on Southward, to the Cape de Bonne Esperance, also inclusive.

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The *Gabon* lies directly under the Equator, and right E. and W. with the Island of *St. Thomas*. The Entrance into it is very wide, and as you come from the northward very uneven, rocky and stony; so that at one Cast of the Lead, you have 15 to 16 Fa. at the next 5, and at the next fast a Ground. But the Entrance is so wide, that you have shifting enough, and your work is to stand over to the S.E. and S.E. by E. and then you have Depth enough: If you come from the southward, and are about the S. Point, keep the S. Shore aboard as you go up: and tho you may have some foul Ground here and there, as you come about, yet you may ride with great Security almost where you please on that side.

When you are run up some length into the River about 2 to 2 $\frac{1}{2}$ Ls. you will see two Islands, one called the *Poppingjay* or Isle of *Parrots*, and the other the *King's Island*; they lie abreast of one another, and you may run in between them E S.E. in 7 to 8 Fa. but keep off from the N. Shore, for the Island is foul. The Anchoring-place is known by a Cluster of high Trees, and a Bush standing under them; there you have 3 $\frac{1}{4}$ Fa. good Ground, but soft; if you go into the River by the S. Shore, keep off from the S. Point, at least in 3 to 3 $\frac{1}{4}$ Fa.

Cape *Clara*, which, as before, is the N. Point of the Entrance of the River, is very high Land: you have fair Ground, and may come as near the Cape as you please in sailing along, but come no nearer than 10 Fa. to anchor.

N. B. The Flood in the River *Gabon* sets up E.N.E. and the Ebb sets out S.W. and W.S.W. and the Stream runs exceedingly strong, especially out.

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If you come in at the N. end of the Island, you make the Land as if it were two Islands: Keep your Course E. by S. till you have brought the Castle W. by S. and then you go fair with the Road. You must not go right in with the Castle, for there you will find a very uneven bottom, some times 30 to 40 Fa. and at the next Cast no Ground, and then as suddenly 15 to 25 Fa. or perhaps so shoal, that you may see the Breakers upon the Rocks.

Between this Island and the Main is 40 Ls, and the Course due E. but to *Cape Lopez* the Course is two Points to the S. cross the Current, which sets strong to the N.N.E. at the rate of 5 miles a Watch. The Coast is very steep and uncertain.

If you would anchor at *St. Thomas's* to ride for any time, the best place is about Gun-shot to the northward of the Castle in 5 to 6 Fa. or if with a small Vessel, in 3 to 4 Fa. there you have good Ground and secure Riding.

From the Island of *St. Thomas* to *Cape Lopez Gonfales* the Course is E.S.E. 37 Ls.

The Island of *Simas* lies S. from the River *Gabon* 6 to 7 Ls, the Shore between cover'd with Trees. Then begin the *Flats*, which lie out to seaward between the River *Nazar* and *Angra*; where Caution must be used, especially with great Ships, not to come nearer than into 10 to 12 Fa. Small Ships may venture indeed into 5 to 6 Fa. but no nearer. S. of those Flats you'll see an Island with a white Sand-Bank very shoal, running out a L. from the Main. There is not above 2 Fa. upon that Bank, therefore come not within 5 Fa. of it; then go away W.N.W. to get above the Riff which shoots off from the Island: being past it, you have *Cape Lopez* in sight, bearing W.S.W. from you, according as you lie off.

Cape Lopez is so low and flat, that the Trees seem to stand in the Water; but 'tis free from Shoals and Riffs, and you may come as near it as you please, for 'tis steep too. When you come near, and would go to the Road, run S.E. as high as you can. There is a very high Tree at the Creek, which as you come from the Cape shews higher than all the rest; but in com-

ing from the E. you don't see it at all. Here you anchor in 8 to 10 Fa. and your small Bower carry'd to seaward will lie in 12 Fa. From *May* to *October* exclusive you need not moor, for the Wind blows always S.

The place of Trade here is call'd *Papos Casus*: To go from the Cape thither, they run to the Shoal or Bank, which trends to seaward off from the watering-place; it is a Bank of white Sand, having not above 5 to 8 Foot Water on it, and steep too; 'tis to be seen at a distance, and it runs farther out to seaward, for it deepens to 7 or 8 Foot at half a L. and not to above 2 Fa. at 2 Ls: the shoalest place is when the Watering-place bears S.S.E. from you.

There is a Sand-bank in the *Fair Way*, as you come from the northward: 'tis so shoal, that you can not go over it, nor is it soon seen, for 'tis so steep that but one L from the Cape N. you'll have 30 Fa at one Cast, and at the next be fast a ground: The sure way to avoid it, is to keep the Cape aboard, and then you are safe. When you are easterly from it, between it and the Main, with a little Island on your Starboard-side, then you may run into the Bight of *Olebatto*: Going in there, keep on E. by S. till you are also past the Watering-place Sand, then keep on to the high Trees, and there you may come to anchor with Safety.

S. westerly from *Cape Lopez* in Lat. 1. 15. S. lies the Island of *Amabon*. Those who sail for *Europe* from the *Cape of Good Hope*, generally make this Island, it has some small Islands lying close together on the S. side of it, and the Road is on the N. side, having 6 to 7 Fa. good Ground. N.E. $1 \frac{1}{2}$ L. from the Island lies a large Cliff or Rock, and half way to it another less, and even with the Water; you must run between this last and the Island; but if you turn to seaward towards the great Rock, you may very well sail thro' with the Wind at E. in 7 Fa. as far as a Village on the N. side of the Island, where you may ride in 15 Fa. E.N.E. from you, dist. 1 L. and about Musket-shot from the Shore, lies another Cliff or Rock, which you must avoid; but on the N.E. side of the Bay 'tis all clear: there are some Houles on or near the Cliff, where is good watering.

From *Cape Lopez* S. 10 Ls lie the Bights of *St. Mexios*, where is good anchoring in 18 Fa. and thence to *Cape St. Catherine* is S.E. by S. 6 Ls. Between both lie the Rivers of *Fernandas* and *Canonas*, and good anchoring in either of them in 10 Fa.

There is a great Tuft of Trees upon the Point of *Cape St. Catherine*; but the Land within is low, and also cover'd with Trees. To the N. the Coast trends S. and N. but more southerly it trends S.E. and N.W. to the River *Seste*.

The River *Seste* is so clifty, so full of Rocks and foul Ground, especially the N. Point of it, that you must not come nearer than 9 to 10 Fa. From the S. Point the Coast goes away due S. 16 Ls to *Cape Aljumba*; some of it bears a little inward, and there are some high Hills with tall Trees on them like Pines, and some Bushes; other high Grounds look as

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To ride at *Loango*, you must go to seaward till you come into 13 and 14 Fa. till the great Cattle lies S.E. by E. from you; then stand in again to the Shore, till you come into 4 and 5 Fa. where you will have good Ground. When you are within the Riff, keep a Village called *Pine*, which lies on the high Land, E.S.E. from you, and the S. Point S.W. southerly also from you; and then you will be in 3 to 4 Fa. good Ground. N. B. The Sea runs very high and hollow on all this Coast.

From the high Point of *Loango* there is a great Riff called the *Indian Bar*, which runs W.N.W. 2 $\frac{1}{4}$ Ls to seaward; and southward from it 8 Ls runs the River *Cacongo*, between *Loango* and *Moleomba*; and at the Entrance of it easterly from the *Indian Bar*, dist. 6 Ls, are 4 Islands which look like a Riff; reaching along the Coast about 1 L. from the Shore: the Sea breaking upon those Islands makes a horrible noise.

To the southward of the River you see the high Mountains of *Cafes* sloping to seaward: The Land is low, but the Coast is dangerous, and you must not come nearer than 10 Fa. All the way from *Cape Lopez* to this place, you come with great Difficulty, turning sometimes against the Wind, sometimes against the Streams and Currents, and sometimes forc'd to anchor because of both being against you together. In the Night you anchor, and in the Morning stand off to Sea till near Noon, especially if the Wind is S. and S.E. and even when 'tis still you must do the same, tho you should be in 80 Fa. except you will lose Ground: But if you lose Ground, you must come to an Anchor; for if the Weather be still and you cannot hold a Head, you will find it very hard to pass the Mouth of the great River *Cacongo* or *Cocongo*, for the Stream runs with a terrible Force, and most part of the year shoots towards the N.E. and N.N.E. tho in Summer, if the Wind blows S. or S.S.W. the Current of the River will vary, and run S.W. but in both Cases you must keep off as before.

The Sea beats with greater Fury upon this Coast from *March* to *September*, than it does all the rest of the year; you must therefore keep farther off to Sea at that time.

The next River is call'd the *Cabinda*, or by some *Duos Montes*, which comes into the Sea S.S.E. easterly from the *Congo*, dist. 9 to 10 Ls. The Coast is sandy and stony, and full of Palm-Trees: you may run along in 6 to 7 Fa. the Land plain and bare. On the N. side of the *Cabinda* lies the Town of *Lemba*, and on the S. side *Cabinda*. The Land makes a large Bay: as you go in, keep a Gun-Flot from the Point, and run northerly about it; and when the Point bears S.W. from you, anchor then in 5 Fa. over-against a great Tree which stands near the Sea-side. If you keep the Point S. and S.W.

Houles on or near the Cliff, where is good watering.

From *Cape Lopez* S. 10 Ls lie the Bights of *St. Mexios*, where is good anchoring in 18 Fa. and thence to *Cape St. Catherine* is S.E. by S. 16 Ls. Between both lie the Rivers of *Fernandas* and *Camona*, and good anchoring in either of them in 10 Fa.

There is a great Tuft of Trees upon the Point of *Cape St. Catherine*; but the Land within is low, and also cover'd with Trees. To the N. the Coast trends S. and N. but more southerly it trends S.E. and N.W. to the River *Septe*.

The River *Septe* is so clifffy, so full of Rocks and foul Ground, especially the N. Point of it, that you must not come nearer than 9 to 10 Fa. From the S. Point the Coast goes away due S. 16 Ls to *Cape Majumba*; some of it bears a little inward, and there are some high Hills with tall Trees on them like Pines, and some Bushes; other high Grounds look as if they were plow'd, with white Spots like Chalk upon them. The Shore is so rocky that you must come no nearer than 12 Fa. You may fish all along this Coast to *Cape Majumba*, but you will find a stony Riff tending to seaward from the Point of the Cape.

The Coast trends next E.S.E. and W.N.W. from *Cape Majumba* to *Alvara Martens Bay*, the N. and S. Points of which make a very fine fair sandy Strand. There lie two Villages on the S. side of it, by which you may anchor in 3 to 6 Fa. good Ground.

From hence to *Cape Sellage* the Coast trends S. and N. 10 to 11 Ls, the Shore very high, with several white Hills. The Shore is steep too, so that you may ride in 10 Fa. close under the Land, and very good Ground: To the southward and near the Shore, there is a small Island, which must be avoided, because the Ground is foul. About $2\frac{1}{2}$ Ls more southerly lies the Riff of *Sellage*, W. by S. from the Main dist. 3 Ls. This Riff has abundance of Rocks and Cliffs, and the Sea breaks on them with great Violence and Noise.

From the Cape southward the Coast is low and even, only some little Hills near *Black Jalumba*. Thence for about 4 Ls it appears like Sand-hills, all double, and some Palm-Trees scatter'd about here and there: the Strand looks reddish, but is chiefly Stone and Sand. Come no nearer than 9 Fa. ouzy Ground, the shoaler the worse; 'tis also the same to the little Hills called *Womous Breasts*, and the S. Point of the *Rio Montes*; they look like Islands, but are not so as you pass by them: Come no nearer than 2 Fa. tho your Vessel be small, for there runs off a very stony Riff from it about by the southward, and the Strand is also dangerous. You have the Land even and bare from the River to the S. for 2 Ls, to a high Point sloping from seawards, with red steep Land hanging over, and small round Hills at the Top. From this Point S. 'tis all even Land, pretty high, till you come to *Loango*, which appears as a high Cape with a great Row of Palm-Trees upon it.

Farther within the Land is the Village *Awayy*; and southward from that you will see two Box-Trees call'd the *Castles*;

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The Land is steep and broken, like the Ruins of old Castles, all the way southward from the River *Duos Montes*: it has also a great many Hummocks upon it, cover'd with Palm-Trees: also there is a Forest or Wood, which shews regular like a Fortification.

You must not come nearer this Coast than 18 to 20 Fa. for 'tis full of Rocks under Water in 15 Fa. and under shore there is a great Shoal runs off, which has not above 6 Foot Water at high Tide: also the Sea runs very high here, especially with a Spring Tide. From hence southerly the Coast lies low and broken, except the Mountain of *Cascais*, and the Shore is very stony for 10 Fa.

Beyond the said Mountain the Land seems to be all drown'd, and abundance of Water continually running out of it; and sometimes 'tis all under Water, occasion'd by the Freshes, which run with such a rapid Current, that sometimes they bring with them huge pieces of solid Land, which like floating Islands drive into the Sea with strange Fury. This is the great River *Congo*, so fam'd in the World, and which is so great, that as it enters the Sea in two Branches, the southermost is called the *South Sea*, and the northermost *Zair* or *Sair*; and from hence some call the whole River the River *Zair*, but that is by mistake.

This great River empties it self into the Sea at a Mouth of above 30 Ls broad, and with such great Force, and so prodigious a Quantity of Water, that the Fresh coming down W. N. W. and W. by N. tinges the Water of the Sea for above 12 Ls; and even when you are out of sight of Land, you know where it is by the Water being black and foul, full of Reeds and other Trash floating together, which the Force of the Stream pouring down such high Rocks, tears out of the Country, and hurries into the Ocean; so that without a stiff Gale of Wind you can scarce sail cross it, the Stream being violent against you for above 15 Ls

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Sailing Directions for the Southern

Yet you may at certain times sail into this mighty River under the northern shore, when its Mouth is much narrower, and may anchor at *Malmirino*; but the Ground is so muddy, that your Anchor will hardly hold. Coming into 3 and 4 Fa. you will be in danger of losing Ground by the Current; but after about half a L, you must shoot cross the River, and then you will come into 10 and 12 Fa. on the other side. In this Course you are oblig'd to keep close to the Shore of the Point, otherwise 'twould be impossible to get into the River, much less to sail up the Channel; for the Stream is so furious, you could never stem the Force of it, nor, for the same reason, can you go above 6 to 7 Ls up the River at all.

The S. Point of the Branch called the *Zair*, is called *Point Padron*: The Coast is mountainous, and great steep Hills appearing like the Sail of a Ship; it trends S.E. by E. to the *Green Coast* on the N. side of *Point Palmar*.

Point Palmar is low Land, and to the N. of it you have a great Bay, where you may anchor in 5 to 6 Fa. good Ground; and near it is a Bay called *La Funta*: To go into which you must keep a Gun-shot from the Point, then you will see a large Tree on the Sea-side, which is your Mark to run into the Bay.

On the N. side of *Point Palmar* you may ride in muddy Ground W. and W. by S. round the Point there is a great Stone Riff. Here stand on your Guard against the Negroes, as well as against the Rocks, equally dangerous and fatal.

If you are bound to the S. keep not too far off to Sea, lest you meet with a Current, which is very strong in the Offing, and sets to the northward; you may easily know it by observing those red flat Hills called *Barrier a Vermillas*, there you are right against it. Then run in towards the Shore in 10 Fa. and keep along by it right S. for 8 Ls. You may anchor any where upon the Coast in 10 Fa. clean Ground, and the Land in view: When you are past the S. Point, the Land falls S.E. by E. into the Bay of *Funta*, and so to the River *Ambriſe*.

This River *Ambriſe* has a very flat low Land on the S. side, and the Sea breaks violently on the Point of the Land: you may come as near the Coast at 8 Fa. but not nearer. On the Land you see a close green Forest Country, but not many great Trees.

About a L to the S. of this River lies a rocky Point, which the Breakings of the Sea make a prodigious Noise upon; and 4 Ls to the S. of that is a Hill called *Bamba*, which looks like an Island. About a L S.S.E. from the Hill you have a hard Sand and good Anchoring.

Farther S. you see *Marbamba*, and still more southerly the seven Hills lying close together like Islands near the Sea-side; and at the southermost end of them the River *Danda* falls into the Sea with a very sharp Stream. The S. Point of the River is very high, and falls steep like a Tail: you have good Riding all along here in 12 and 15 Fa. soft Ground.

From the S. Point of the *Danda* to the River *Bengo* is about 8 Ls S.E. the Land low, and the Shore steep; and to the S.S.W. from the *Danda* is *St. Paul's Island*: A S. by W. Wind carries you thither, if it does not over-blow; but if it does, you must run into the Bay of *Bengo*, where you may ride in 10 Fa.

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ver *Loanzo*, between *Cape Sambras* and *Cape Ledo*; 'tis about half a L over at the Mouth, and you may run with a good Ship 20 Ls up the River. The Water of this River is of several Colours, and the Stream so swift, that it is perceived 4 or 5 Ls at Sea.

From *Loanzo Bay* S. lies *Cape Ledo*, call'd by the Seamen the *Merry Point*, *Ledo* in the *Portuguese* signifying Mirth or Joy: 'Tis low, and runs far out into the Sea. On the N. of it the Coast is full of Hills, and steep for 4 Ls; on the S. 'tis green and smooth.

From hence to *Cape Negro* 'tis all a hilly Coast and white Sand: And the Coast is so fair, that you may run along without fear within a L of the Shore.

There is a great Bay 5 Ls to the S. of *Cape Ledo*, call'd *Palm Tree Bay*, the Shore cover'd with Trees: And about 5 Ls farther S. is another Bay, near which is *Cape Talo*: In this Bay you may ride without fear all Weathers. From thence is *Cape Brasfo*, near which are some black Hills; and then the Coast is all equal again, with Trees upon it, till you come to the Bay of *Benguela*, where the Land is all low, except one Hill falling steep to the Sea-side. Thwart of this Bay you have not above 6 Fa. and half, but as you sail by *Cape Benguela*, you have 17 to 18 Fa. muddy Ground; and near the Shoals the Cape is low, even with the Water, and full of Trees; to the southward of which lies *Hens Bay*, and the Mouth of the River *Tonge*, where is 20 to 25 Fa. muddy Ground. From *Cape Benguela* to *Fort Benguela* is 5 Ls S.E. by S. Thence *Point Francesco* lies S. by W. 13 Ls; between which and the N. Point of another Bay, is a Bay which has a Flat in the middle of it, and therefore call'd the *Flat Bay*: The other Bay is large, and has at the S.E. side of it a sandy Shore with good Ground, but no fresh Water.

From *Point Benguela* S. 10 Ls lies *Sombreiro*, shaped like a three corner'd Cap, with a River running into the Sea S. by it, and a Salt Pond: Thence 5 Ls S.W. lies *Point Francesco*, and a fine Bay S. of the Point, with two Rivers running into it. In this Bay also is a small Fort, call'd *St. Francisco*, where you may run in with small Vessels; 'twas formerly *Spanish*, but 'tis now *Portuguese*.

From hence you go S.W. by W. to the *Three Fryars*, a broad Point on the Coast, dist. 13 Ls. Between both is the *Swedes Look-out*, with a small Bay to the W. where is 8 to 12 Fa. good Ground; and another larger Bay a little to the W. call'd *Claymuls*, somewhat narrow at the Entrance, but very large within, and has 10 to 20 Fa. in the Entrance: Then the Land bears W.S.W. to the *Three Fryars*, as above; and from thence S. by W. to *Sheeps Bay*, from the S. Point of which lies a little Riff trending off to seaward.

S. from *Sheeps Bay* 20 Ls, is *Tygers Bay*, where is good Ground. *Point St. Nicholas* lies between these two Bays, from whence a great Riff full of Rocks and Cliffs shoots out to seaward: And from *Tygers Bay* to *Mount Negro* the Course is S.W. by S. 20 Ls; and the *Old Mau*, a very high Mountain, lies in the midway.

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S. from *St. Paul's* you see Point *Palmerina*, being low Land with some dead Trees without Boughs upon them; and southerly from thence lies the Bay *Loanzo*, which you will know by a close Wood of Trees that lies against the middle of it, and two round Hummocks northerly; and there you may anchor in 6 to 7 Fa. good Ground. Into this Bay falls the Ri-

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From *Mount Negro* to *Cape Negro*, or the *Black Point*, is S.W. The Coast lies most due N. and S. being so steep too, that you may sail along close by the Shore; the Land high sandy Hills, and the Strand a white Sand all the way. A little S. from the Cape lies a low Sand Bank, which looks like an Island, and is call'd *Tygers Island*; but the middle being join'd to the Main, makes a Bay, where is a good Road. The Island is about 6 Ls long, the inner side broad like a half Moon; and there are several wooden Crosses on the Point of the N. side. If you go into this Bay, there are some Flats to be taken care of; but in the S. Bay it is deep Water. There is a Riff which lies off from the S. Part of the Island, and reaches southerly almost round it, which you must find out by sounding carefully.

After you are past *Cape Negro*, till you come to 20 Degrees S. Lat. the Coast is very fair; and if you come from the S. you may sail all along within a L. of the Shore. Here the Land forms a great Bay to *Cape Ray Pierez*, with some Hummocks; and from the Cape towards the Gulph *Trio* southward, 'tis all high, and a fair sandy Shore, trending S.E. by S. 9 to 10 Ls; and you have so bold a Shore, that you have 13 to 14 Fa. within a L. of the Land.

All the way to the Gulph of *Frio* the Shore is plain and sandy, but to the northward 'tis high, and there are three Hills or Hummocks, the midmost is the biggest: And from the N. side of them their tends a stony Point off to seaward.

Near the Gulph of *Trio* the Land trends S.S.E. and N.N.W. The Coast is low, yet steep, so that you have 30 Fa. within a L. of the Shore, soft ouzy Ground. The next Point is *Praga Niozes*; the Coast is S.S.E. easterly, dist. 6 Ls, the Shore fair, full of Trees and little Sand-hills, 16 to 18 Fa. within 2 Ls and half of the Shore.

From thence southward the Coast runs S.S.E. till past 20 deg. Lat. a fair Strand, and steep too, having 14 Fa. within a L. and half of the Shore, black sandy Ground.

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Near this is the open Haven of *St. Ambrose*: From thence to *Cape Sierra* is all a fair bold Shore, even Land, with white Sand hills. In sailing northerly here, great care must be taken of the southward side of *Cape Sierra*; for hard by a Place call'd *Fartlons*, lies a very bad flat Shoal near the Shore; and a little more southerly near *Cape Rostra* a worse runs far off to seaward, so that you must not come too near the Land, till you get northward as high as 20 deg. S. Lat. and then you may run away N to *Cape Negro*, as above, where the Coast is fair, tho it does not seem so; and then you may run along within a L. of the Shore.

But if you are sailing to *Angola*, and take this Course in 17 to 18 deg. S. Lat. then beware of the Shoal call'd *Antonio Viana*, which lies 80 to 90 Ls from the Shore, due W. from *Cape Negro*. This Shoal is very dangerous, there's but one Rock call'd the *Mexes Cliff* to be seen upon it above Water; but there are abundance under it, and 'tis so exceeding steep, that you may be a-ground upon it on a sudden; but you have this help, that in the night you will know it by the loud Noise of the Sea, which you will hear a L off; and in the day you will see the prodigious breaking of the Water.

On this Coast is a foul Island call'd *Secos*, which trends off to seaward from *Cape Vistas*; and the Bay of *St. Helena* is at the N.W. Point very clifly.

The Bay of *Solabana* lies to the southward of this Island, having a very fair Road; and to the southward, about 2 Ls and half from the Main lies *Elizabeth's Island*, or *Dassens Island*, about a L. in length, the Shore very clifly and foul on the W. side, but fair good Ground on the E. You may anchor about Gun-shot from the Shore in 16 Fa. good Ground and white Sand.

Robben Island, or as some call it *Cornelia*, lies 6 Ls S. from *Elizabeth's Island*, in compass 2 Ls, and the Land something higher than *Elizabeth's Island*. Half a L. from it lies a great Stone, which the Water breaks furiously upon.

This Island assists to make the famous *Table Bay*, and lies in the Mouth of it. Here a large Fleet of Ships may ride with safety, land-lock'd from all Storms and Winds except a

Sailing Directions for the Eastern Coasts of Africa Cape Guarda Fue, or Guarda Foy, at t

THE Cape of Good Hope is in the Lat. of 34 $\frac{1}{2}$ S. If you purpose not to anchor at the Cape, but proceed to *India*, and especially if you come from the Coast of the *Brasil*, your best Course is to give the Cape a good Birth, at least of 20, or if you please 30 Ls; you will find the Seas less turbulent, and the Air more moderate than nearer the Land, where the Wind from the Mountains comes in Gales and Tornadoses very frequent.

Having pass the Cape in that Latitude, and being bound for *India* or for *Mocha*, and so designing to pass between *Madagascar* and the Coast of *Africa*, call'd there *Sassalo*, you must

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From thence N.W. having 3 to 4 Fa. under the Shore, and very good Ground.

And here you are in sight of the *Cape of Good Hope*, which appears from this side like a hanging Island, with a small Neck of Land joining it to the Main between two Bays: It has several very high Mountains upon and near it, whereof two are particularly remarkable, namely the *Table* and the *Lion Mountains*. From this last the S.W. Point of *Table Bay* is call'd the *Lion's Tail*, because it slopes away from the Mountain.

The *Table Mountain* has its Name from its Shape, which is flat on the Top like a Table, and lies about the Point, within Shore southward, between two Rivers, one fresh, the other salt. From the Bank of the last they climb up this Mountain by a Cliff, being inaccessible any other way: Its height is so great, that 'tis seen 10 Ls at Sea; but at the approach of bad Weather 'tis so cover'd with Clouds and Mists, that the Top of it cannot be seen at all: At other times it may be seen to the westward near 15 Ls at Sea.

There is another Hill near this call'd the *Wind-bill*, because it is said always to blow very hard there. Above the *Salt River* 4 or 5 Ls, lies a great Flat or Sand, whereon sometimes in hot Weather there will lie hard Salt 2 or 3 Inches deep.

In the Months of *October*, *November*, and *December*, they have cold Seasons here, and sometimes great Storms of Wind out of the S. and some Years it continues so till *April*: At these Times the Sea runs very hollow upon the Point, and off of the Cape. There are several good Bays and Creeks in this W. part of the Coast, and very good Havens, much better than the wild Road of the Cape.

Eastward of the Cape 7 Ls appears *Cape Falso*, which may be known by three high Hills near one another, of which the two outmost are the highest. Next to that is the *Needle Point*, call'd so because of its sharpness: And this is the southernmost Land of *Africa*.

A little farther E. is *Flesh Bay*, call'd so from the abundance of Cattle to be had there: And from thence the Coast bears away N.E. and then due N. towards the Seas of *Suffalo* and *Mezambique*, being the eastern Coast of *Africa*, of which in its place.

Coasts of Africa, from the Cape of Good Hope to Garra Foy, at the Entrance into the Red Sea.

In this Course you lose your Soundings; for tho' you have Soundings in Lat. 37. yet in running up so far W. you lose them again, for here you are past the Point of the great Riff of the Cape, which runs 40 Ls to the eastward of *Cape Aquillus*, and where you have Ground; but off of *Cape Falso* you have no Ground, and hardly any along by the Cape it self: and here it is the same.

You may stand in as near *Cape Aquillus* as you please, and so upon all the Coast within a L. of the Shore, from the *Cape of Good Hope* thither, but no farther. In the Course to the Island of *Madagascar* there is a strong Current lets S.W. or

Sailing Directions for the Eastern Coasts of Africa Cape Guarda Fue, or Guarda Foy, at

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Having past the Cape in that Latitude, and being bound for *India* or for *Mocha*, and so designing to pass between *Madagascar* and the Coast of *Africa*, call'd there *Sufalo*, you must shape your Course N.E. easterly toward *Los Bassos de India*, as the *Portuguese* call them, or as our Pilots call them, *the Shoals of India*.

You will know your being upon the Coast, by a certain kind of small white Birds which fly in little Flocks close together, and are always upon that Coast, but never farther off than 20 Ls or thereabouts: They are so certainly there, that if you are in the Latitude and do not find them, you may depend you are too much to the eastward, and may run upon the Island of *St. Lawrence* before you are aware; in that case luff up to the westward, and go away N.W. by N. and N.W. till you meet with those Fowls, or have some other Certainty where you are.

As soon as you see the Fowls, and are thereby sure of your Coast, go away N.E. and N.E. by N. till you come into Lat. 16 S. *N. B.* The *Shoals of India* lie in Lat. 22. 40. Being in Lat. 16. you will meet with other Fowls called *Alcatrazes*, about 8 or 10 in a Flock; and then you are certain not to be above 10 or 15 Ls from *St. John de Nova*: then steer away N.W. which brings you to the Island *Angaxor*, onwards to the *African Shore*; the more northerly you go, you are the surer to make the Coast of *Mozambique*.

When you are upon the Coast, give the Land a large Birth, and come no nearer than 25 Fa. that Coast being very foul, and full of broken Ground and Shoals, which lie far out to Sea.

The first Land on the E. Coast of *Africa*, after you are past the Cape, that we have any exact Survey of, is the *Cape de Aguillas*. This and the *Cape of Good Hope* lie E.S.E. and W.N.W. and from the Cape the Shore trends away E.N.E. shooting out into the Sea eastward, as it does on the W. side of *Africa* westward, thereby widening the *Terra Firma* of *Africa*, which is very narrow at the Cape: The Land continues to thrust out thus till you come to *Cape Firme* or *Cape Corran-tes*, so that in Lat. 24. 10. the Shore by that time lies almost E. and W.

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Coasts of Africa, from the Cape of Good Hope to Arda Foy, at the Entrance into the Red Sea.

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You may stand in as near *Cape Aguillas* as you please, and so upon all the Coast within a L. of the Shore, from the *Cape of Good Hope* thither, but no farther. In the Course to the Island of *Madagascar* there is a strong Current sets S.W. or S.W. by W. if you can get a large Wind, so as to go away E. or E. by N. you may avoid it at least; the farther you are from the Shore, the less you will feel of this Current.

The best way to make the Island of *Madagascar* in this Run, is by steering N.E. till you come into Lat. 23. to 24 $\frac{1}{2}$, then you are past the *Shoals of India*; having then made the W. Coast of *Madagascar*, you will the better set your Course to *St. John de Nova*.

N. B. At *St. John de Nova*, there is a strong Current in Lat. 17. which runs no less than 2 Ls in 24 Hours, and holds it southward to Lat. 16.

After you are past *St. John de Nova*, haul away N. for *Alobilia* or *Mebilla*; it is one of the Islands of *Cumaro* in Lat. 12 15. S. Due N. from this lie the Islands of *Sacatra* upon the Coast of *Arabia*, and almost in the Mouth of the Opening to the Gulph of *Mocha*, or the *Red Sea*; they lie in Lat. 12. 40. N. so that the Run is no less than 24. d. being 1440 miles. To go right with *Sacatra*, you ought first to make *Cape Bissas* on the Coast of *Africa*. Lat. 4. N. and go on N. by E. with the Coast to 8 d. N. then steer N.E. by N. for the Island.

On the W. Coast from *St. John de Nova* lies the Shore of *Mozambique*: if you would go thither, steer from *St. John de Nova* N.W. by N. and if you would go into the Gulph of *Mozambique*, you must pass the two little Islands of *St. James* and *St. George*, which lie at the Entrance into the Gulph or Bay, leaving them on the Larboard side, and keep in 6 to 7 Fa. also take great care of the Shoals of *Cavesera*, which you may see by the Sea breaking upon them; then you may have Pilets to carry you up to the Island and Fortrels of *Mozambique* it self.

N. B. Upon all this eastern Coast of *Africa*, about 5 Ls due N. from *Cape Corrautes* in Lat. 24. S. to the *Barras Vermulas* in Lat. 16. 20. being at least 400 miles, there lies a Shoal or Flat of Sand from the Shore: at first for about 65 to 70 miles N. it is not above 3 to 3 $\frac{1}{2}$ Ls broad; at *Cape St. Sebastian*, the Land falling back, it widens; and at the River *St. Maria*

it

Sailing Directions for the Island of

it is 8 Ls wide; thence it makes a kind of Bay, the outer Edge lying very even, tho the Land within is quite otherwise, sometimes running far out, so that the Sand is not above 2 Ls wide, as at *Bango*, and 5 Ls, as at *Rio Suffalo*; and at other places falling back, so as to make it 12 and 15 Ls wide, for still the outer Edge of the Riff or Bank is the same. It begins to be thus broad at *Rio de Mata*, *Rio Camala*, and the *Boccas de Cuama*, or Mouths of the River *Cuama*, which is the greatest River in all that part of the Country: here the Shoal is 15 to 17 Ls broad, and continues so to the northernmost Opening of that River in Lat. 19 to 17 $\frac{1}{2}$. There are indeed some deep places in the Shoal, but then they are mere Pits or Lakes, tho some of them are very large, being 3 to 5 Ls long, and 2 or 3 broad, there being no Channels to come to them by. There are also some Islands upon it, and a great many scatter'd Rocks; but the Water being shoal they are all seen. The Depth of Water varies upon this vast Shoal very much; in some places it is 1 Fa. in some not above 3 Foot, in others 2 to 4 Fa. and nowhere above 5 Fa. and that is uncertain, that all Navigation upon this whole Coast is intercepted except for small Craft; neither is there any Sound or Channel in the whole Sand for 380 miles, till you come to the *Rio de Fugas* at *Quiliamo* in Lat. 16. 50. where there is a clear Channel thro' the Riff from the Mouth of the River, being 12 Ls; then the Riff begins again and goes on, as above, to the *Barras Vermulas* in Lat. 16. 20

As the outer Edge of this Sand makes an even sweep like a

Bay, so the Depth is much, having 30 Fathoms for 300 miles.

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Sailing Directions for the Island of Madagascar, or Islands adjoining.



HE East, South, and North-west part of *Madagascar* are the particular Coasts, where the Navigation being most practicable, the *Europeans* have traded and conversed with the Natives, and by that means became acquainted with the Coast.

The first Place we usually make, being bound from the *Cape of Good Hope*, is the *Bay of St. Augustine*: To make which keep in Lat. 24. 20. steering from the Cape N.E. When you are in this height, go away E. directly for the Island: there you will find it bold and no danger; but farther N. the Shore is foul, and you must be more cautious.

When you have made the Land, go away N. or N by E. with the Shore, till you see a Point with a high sandy Hill on it, like the *Table-hill* at the Cape, and some Trees by the Hill.

N. by E. from this Point dist. 13 Ls lie the Island and Shoal in the Mouth of the *Bay of St. Augustine*: You may go boldly up to them, as above, keeping in 4 Fa. but no nearer, nor must you anchor near them at all, for the Ground is full of Rocks of Coral, which will cut your Cables, and hold fast your Anchors, as bad as a Rock of Marble: Haul away therefore E. to the Channel which leads in, and go up till you come to two Hills which open like the Entrance into *Dartmouth*, and another high Land which shews like *Westminster-*

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outer Bay, so the Curve or Arch goes very little inward; and the Depth is much the same all the way, for it is bold and steep, having 30 Fa. generally all the way, no where above 32 to 34, for 300 miles of its length.

From the N. Point of this Riff or Shoal, the Land is clear, and the Ground good, to the Entrance into *Mozambique*: there are several very good Roads and Harbours also; but the principal are *Mozambique* in Lat. 15. *Mombas* and *Melinda* in Lat. 5. 3.

If you sail upon this Coast farther N. than *Mozambique*, and design to put into any of the Ports possess'd by the *Portuguese*, for here are no other, you must lie by and fend in a Boat for a Pilot; or if the Sea goes too high for your Boat, fire three Guns each at 2 or 3 minutes distance, and Pilots will come off: if you are in Distress, you must run in at all hazards, but the Ports are generally bold, till you are within some Shelter.

There are some Islands on the E. side of *Madagascar*, which were much us'd for taking in Provisions and fresh Water, before the *Dutch* made a Settlement at the *Cape of Good Hope*, such as the Isle of *Bourbon*, possess'd by the *French*, and the Island or Islands of *Mauritius* by the *Dutch*, nam'd after their Prince *Maurice*, and by our Seamen corruptly called the *Morusshoes*: These Islands, are now render'd almost usele's by the *Dutch* being planted at the Cape, and having no considerable places on their Coasts, I need say no more to them than this, that there is but one Harbour of note, and there you may have a *Dutch* Pilot.

Madagascar, or St. Lawrence, and of the other lands adjoining.

Mada N. B. It flows here E. by N. and W. by S. and the Tides are very regular: At Full and Change 'tis full Sea at 5 a-clock.

You ride here very easy in 9 Fa. Clay Ground and good Shoalings, so that you may lie as deep or as shoal as you will; the Coast is S.W. and N.E.

Upon the W. side of the Island, and N. from *Youngoule*, their lies a Flat or Bank all along the Shore, like that mention'd above on the *African* Coast, tho' nothing so large; you may run within it almost all the way, and there are many good places to anchor in, as well as to trade in. This Shoal or Flat is call'd the *Bassias de Procellas*, and runs up N. and N. by E. above 80 Ls, but there is depth of Water sufficient in most places on this Bank, only that at the S. end for 20 Ls, there are abundance of Rocks under Water, and so steep, that at the very outer edge of this Bank there is no Ground at 200 Fa. It ends at *Cape St. Andrew*.

At the N. end of this Bank begins the Trading Coast again; the first Place from *Cape St. Andrew* is *Balley-head*: *Balley* River lies N.N.E. from the *Head* dist. 1 L; the Coast is clean, with good Soundings, from 12 to 5 Fa. When you are thwart the River, the Head bears N.W. by W. and S.E. by E. The Land lies low, and appears full of Trees; the Soundings different, 14 to 16 Fa. 3 Ls from the Land, but 10 to 12 at 6 Ls off.

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The southermost Point of the Island is call'd *Cape St. Sebastian*, in Lat. 26. 15. Here is good riding in several places, and the *European* Ships commonly use those Roads for fresh Provisions, when they go to *India* by the S. of the Island.

There are also several secure Roads as well on the W. as E. side of the Island, between this Cape and *St. Augustine* on one side, and between it and *Port Dauphine* on the other, and a bold Shore all the way to both.

N. of *St. Augustine* dist. 5 Ls, lies the Bay of *Tullea*; there is a good Commerce with the Natives, but 'tis bad wooding or watering, the River being too shoal even for a Ship's Long-boat: The Road is good, but you must anchor within the Breakers. There are a Ledge of Rocks which lie off from the Shore at about a L distance: The Passage is good between them all the way from the *Bay of St. Augustine*. Bring the *Table-hill*, or that call'd *Westminster-hall*, to bear S.E. from you, then you are fair with the Passage, and may go in S.E. You have every where Water enough, and may anchor within in 12 to 14 Fa. or you may ride in the Mouth of the Passage 2 Miles in: If you want fresh Water, you must send back to *St. Augustine* for it.

N. from *Tullea Bay* you have no Place of Trade, or any Road or Port, till you come to *Toungoule*, or *Mandeota*, and the *Terra del Gada*; 'tis a very good Port, there is no considerable River, but there is an Inlet or Sound, with a Bar, on which is but 2 or 3 Foot at low Water, but 14 or 15 at high Water; so that your Boats may go in for Wood and Water, and there is an excellent Road for great Ships in the Bay; but you must dig Wells for your Water, tho you need not dig above 3 or 4 Foot.

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The next Head-land is *Cape Table*, the Course E. by N. dist. 7 Ls : The Land rises like two long Tables, and from thence has its Name ; the northernmost is far the longest, and is the most useful Sea Mark upon all this Coast.

Four Ls and half off of this Shore, westward, you will find a large Bank of Sand in 7 Fa. in Lat. 15. 40. the *Table* bearing S.E. by E. and the Island *Maraponi* S.E. half S. This Island lies $1\frac{1}{2}$ Mile from the Shore, and has some Flats about it which are under Water at high Tide, but dry at low Water ; you will see them when you are but a Mile E. from it, where you have 9 to 11 Fa. E. of the Island is the River *Maraponi*, where our Ships trade for Provisions and Salt.

N.E. from *Maraponi* is *New Masseleige*, and close beyond it the Indraught of *Manigaro*, two very considerable Rivers and Harbours, just together ; the Opening of *Manigaro* is 2 Ls wide, it shews by the rippling of the Water as if it was barr'd, but the Bar (if it is so) has 6 to 7 Fa. upon it, and when you are over it, 8 to 12 Fa. and you have 7 to 8 Fa. 3 Ls up the River.

There are two Channels into *Masseleige* ; if you would go in there, keep to the Island *Jamigamy*, and there you shall have 7 to 12 Fa. but between the Island and the Main is no passing, there being not above $3\frac{1}{2}$ to 4 Foot Water. There is an inner Haven beyond the first, you must go close under the Point of the Island, and borrow of *East Maren*, there you have 3 to 4 Fa. upon the Point, and 7 to 9 Fa. afterward.

Masseleige is an Island lying E. and W. 1 Mile and half in length ; and at the E. Point is the Bay with 10 to 15 Fa. very convenient for a great Ship to winter in. The Country abounds with all manner of the best Provisions, and exceeding cheap ; it is a very good place also to fortify upon, and secure both the Land and the Port.

From hence to *Old Maffeleige* the Course lies N.E. by N. distance 55 Miles; two Ls off Shore you have 6 to 7 Fa. Water, at the going in lie two high Rocks, the Islanders call them *Pannoa*, you must leave 'em on your Starboard side. E. from it distance 2 Ls is the River *Didame*, where is good fresh Water, but the River is not navigable except for small Boats.

Five Ls E. from *Didame* lies the great Indraught of *Mozumgany*; 'tis a double Opening, having the great River *Sundges* running into the Sea with it; also several Islands lie in the Mouth: you may anchor at the E. Point of the Entrance: Bring a little Island that makes like a Rock, and the W. Point of the Main bearing E. and W. and you ride within 3 Miles of the Point.

The River is navigable for small Vessels, as *Mozumgany* also is: bring this Island to the S.W. from you distance 5 Ls, there you may anchor in 20 Fa. close to the Main.

This Coast is full of Islands; and unless you are well acquainted you cannot venture in, for here are no Pilots to be had. At the End of these Islands lies the Harbour of *Moringambo*, half a Mile within the Opening; you may anchor in 15 Fa. good Soundings quite to the Shore, onzy Ground: There is a Sand Bank in the Entrance like a Bar; but there is 6 to 7 Fa. upon it, and all within it deep Water from side to side, so that it is an excellent Harbour for all Vessels and all Winds, it lies in Lat. 13. 40. S.

N. from this Harbour 4 Ls and half lies another Island greater than any of the others, except the biggest: It rises like two Tables, and is low and smooth: There is a Rock on the N.W. end of it, which makes at Sea like a Sail: and by this Island you may know the Harbour of *Moringam*.

Off of these Islands there runs a long narrow Bank of Sand parallel with the Shore for more than 30 Ls, but 'tis needless to describe it, for there is every where Water enough upon it for the greatest Ships, having 4 to 5 Fa. at least, and within it 10 to 10½ Fa. you may know it by the Rippling of the Sea upon it.

Farther N.E. 6 to 7 Ls lies *Astada*: At the Point of the Entrance lie three small Islands, one call'd *Summeretto*, or the *Sugar Loaf*, from its Shape: There is a small rocky Island close to it next the Main; you may pass between the *Sugar Loaf* and the Main in 11 Fa. it lies in Lat. 13. As you enter the Road you will see the great Island of *Nosse* lying E.N.E. and W.S.W.

Seven Ls S. of *Nosse* is another round high Island 5 Miles long, and a lesser 1 L. Keep off between them both, and go on with the Shore bearing S.W. at least 7 Ls, then anchor in 18 Fa. and you will have a very good Road.

This Indraught of *Astada* lies in N. by E. and S. by W. to *Mangabelly Road*, which lies in the Bottom of it; you have 10 Fa. and nothing to fear all the way.

Mangabelly rises with Peaks and Flats easterly and westerly, and is a kind of an Island, for at high Water the Tide flows and is a kind of a Bay, the W. Point of the Entrance, and the S. end

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There are five several Islands in the *Fair Way* between *Ma-*
dagafcar and the Coast of *Africa*, besides Shoals.

1. *Comaro*, which lies in 11. 25. S. Lat. and is the nearest
to the Coast of *Mozambique*.

2. *St. Christophers* in 17. 20. bordering upon the *Bassos de*
India.

3. *Mobilla* in 12. 24. distant from *Comaro* 14 Ls S.E. and
from *Joanna* E. by S. 20

4. *Joanna* in 12. 12. The Road is very good, lying in a
fair Bay on the N. side of the Island; but if you come to it on
the S. side, you must stand off at a great distance to make the
N. Shore where the Road is; for the Flaws from the Land,
(which is mountainous) are very strong and dangerous. You
are supplied here with excellent good Provisions, Wood and
Water, very reasonable.

5. *Meortey* in 12. 56. It is a high *Pico*, and may be seen
15 to 20 Ls at Sea.

On the E. side of *Madagafcar* are only two Places of Trade,
that have been founded and survey'd: First *Port Dauphine*;
the Coast lies along from *Cape St. Sebastian* N. by E. 'tis a bold
Shore, and you have 30 Fa. within 1 L and half from the
Land; it has a low pleasant Prospect, till you come near *Port*
Dauphine, there the Land rises a little.

Point Pier shews it self before you make the Port; 'tis a
low rocky Cliff, breaking off as it were from the Main about a
Mile and half. From this Point your Course is W.N.W. then
you see a round bold Point, which looks reddish, but when
you come nearer 'tis white, and the *French* Fortrels stand up-
on it a little to the N. side: Here you anchor in 6 to 7 Fa.
within a Cable's length of the Shore.

There is a false Bay before you come to the Point, which
is very foul and dangerous.

N. B. It flows but 7 Foot here.

It is good Weather here generally from *July* to *February*,
but rainy and stormy from *February* to *July*.

In the fair Months you may sail with the Wind at E.N.E. and
S.W. all along the E. Coast of *Madagafcar*: In Lat. 16. 15. S.
lies *Autongal Bay*, a fair clear Gulph, keeping the N. Shore
as you go in. The Entrance is 7 Ls wide from Cape to
Cape, and the Bay is 20 Ls deep: At the Bottom there is an
Island 10 Miles in Circumference, with an excellent Har-
bour in it; here you may careen, wash, tallow, and do any
thing as in a Dock, and there is good fresh Water on the
Island.

From the northermost Cape of this Bay to *St. Mary's* the
Course is N.W. dist. 12 Ls. *St. Mary's* is an Island also, lying in
16.48. S. and dist. 2 Ls from the Main; it is surrounded with a Riff
of Rocks lying out half a mile from the Shore, so that you can
not go on Shore, no not with a Boat, without Difficulty and
Danger; but on the W. side is such a Harbour as is not to be

Further N.E. 6 to 7 Ls lies *Astada*: At the Point of the Entrance lie three small Islands, one call'd *Summeretto*, or the *Sugar Loaf*, from its Shape: There is a small rocky Island close to it next the Main; you may pass between the *Sugar Loaf* and the Main in 11 Fa. it lies in Lat. 13. As you enter the Road you will see the great Island of *Nosse* lying E.N.E. and W.S.W.

Seven Ls S. of *Nosse* is another round high Island 5 Miles long, and a lesser 1 L. Keep off between them both, and go on with the Shore bearing S.W. at least 7 Ls, then anchor in 18 Fa. and you will have a very good Road.

This Indraught of *Astada* lies in N. by E. and S. by W. to *Mangabelly Road*, which lies in the Bottom of it; you have 10 Fa. and nothing to fear all the way.

Mangabelly rises with Peaks and Flats easterly and westerly, and is a kind of an Island, for at high Water the Tide flows round it: Bring the W. Point of the Entrance, and the S. end of *Ciffy* which is another Island, into one, and they will be S.E. by E. and N.W. by W. 9 Ls dist. from one another: *Nosse* is an Island 5 Ls in length N. and S. To the S. of it is another round high Island call'd *Nossegunby* about 2 Ls long; there you may have fresh Water, but must fetch it 4 Miles: Southward of this is the high Point call'd *Ciffy*; it rises high, and looks like an Island, but it is a Cape from the Main.

The high Lands of *Mangabelly* are next to this, where there is a Head Land on an Island, and an Entrance in behind it with a Bay: And this is the Road where the Ships usually lie that Trade here. You have good riding here in an ouzy Sand, and what depth you please from 5 to 30 Fa. It ebbs and flows 2 Fa. therefore you must not come within 8 to 9 Fa. at high Water; there a good Ship may ride boldly: The Trading Place is on your Larboard side going in.

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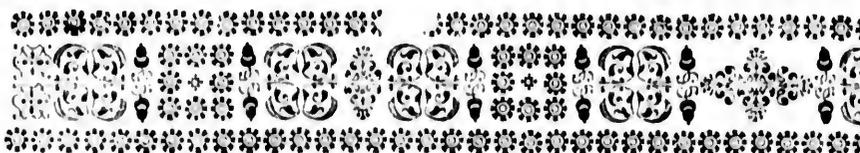
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not go on Shore, no not with a Boat, without Difficulty and
Danger; but on the W. side is such a Harbour as is not to be
seen on this part of the World; there is good Riding in every
Part of it safe as a Millpond, deep and clean; so that a Ship of
1000 Ton may moor, with her Broadside to the Shore, as by a
Wharf. To go in here, fall to the southward in 17. 10. and
run boldly in afore the Wind. Here you may cut good Masts
and Yards, and also Careen, Wash, &c. have fresh Water easy,
and a vast Plenty of Provisions of the best kinds. We pass
now again to the Coast on the *Terra Firma*, on the opposite
Shore, West from *Madagascar*. There is a *Portuguese* Fac-
tory on the Coast of *Africa* in an Island called *Mombass*, about
180 Ls N. by W. of *Mozambique* in 5 d. S. Lat. where is a very
good Port and Harbour; but as Pilots are there ready to
carry Ships in, I need only name it.

Sailing



Sailing Directions for the Coast of Asia, Persia, beginning at the Gulph of M ending at Balsora, at the bottom of



S the Coast of *Africa* from *Melinda* northward is not concern'd in Trade with any *European* Nation, so we have no exact Survey of the Coast from the *Portuguese* Settlement at *Melinda* and *Mombass*, to the Point called *Guardaseu*, or *Guardasoy*, at the Entrance into the *Red Sea*, or of any part of the *African* Shore of the *Red Sea*: so that the Account of the Sea Coasts of *Africa* must end with *Madagascar*, which we suppose to belong to *Africa*.

There is a Comm'ce indeed into the *Red Sea*, or the *Arabian Gulph*, on the Side which belongs to *Asia*; yet that part relates only to the passing the Straits of *Babelmandel*, and sailing to the City of *Mocha*: for we know nothing of Navigation any farther.

They that are bound in here, must particularly observe the Seasons of the year: The Month of *March*, or the middle of *April*, is the particular time to go in here, not only for the Commerce, but for the Winds which are to carry you in or out, which are very doubtful.

The Winds generally blow fresh up the Gulph at S.S.E. to the end of *April*; if they hold it any time into *May*, 'tis counted late, and must not be depended upon. From the end of *April* to the middle of *August* they blow Trade from the N.W. and W.N.W. out of the Gulph, and then they turn to the S.E. again.

If you reach the Islands of *Sacatra* in the Mouth of the Gulph by the beginning of *April*, you are secure of your Voyage to *Mocha*, and may sail in Mid-Channel, or under either Shore as you will, but chiefly on the *Arabian* side: But if you are later, then you must keep the *Ethiopian* Shore on board, and going in by *Cape Guardaseu*, keep under the Shore till you get so high, that stretching over, you may fetch above the Port of *Aden* in *Arabia*, allowing for the Current, which sets down very strong at that time of year out of the Gulph.

The *Ethiopian* Shore is bold, you may run along within a mile of the Land from *Mount Felix*; there are no Dangers but what are above Water: there are some Flaws of Wind, which when the westerly Winds blow are dangerous, but that is not at the time you should come there.

Aden lies 32 Ls without the Strait of *Babelmandel*; it makes suff like an Island, the Coast high with ragged Rocks:

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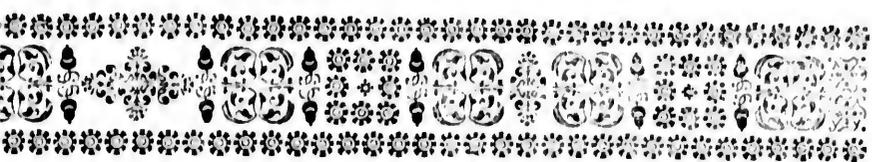
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From the beginning of *April* to the middle of *August* a S.S.W. and S.W. and variable to the West, with Squalls and Gusts, and sometimes much Rain.

From the middle or end of *August*, to the later end of *March*, E.S.E. and S.E. by E.

The Point of *Aden* is seldom touch'd at by the *Europeans*, because of the constant Wars between the People of that Place and the neighbouring *Arabs*; else the Coffee might be had, and the whole Trade manag'd here as well as at *Mocha*; which would be of great Advantage to Navigation, this being a much more commodious Harbour and of easier Access than that of *Mocha*.

There is a Light-house upon the Mountains on the Larboard side, and some Batteries of Guns planted there; but the Light-house is uncertain, sometimes having a Fire in it, and sometimes none. There is a Road also under the Batteries, where Ships ride in $\frac{1}{4}$ Fa. close to the Castle, with a Cable on Shore and 2 out to Sea: The Entrance into the Harbour is about half a mile over.

You may ride also in the Mouth of the Harbour in $\frac{1}{4}$ Fa. either under the Command of their Guns, or out of reach of them, as you please. Ships of Burden may have Depth of Water enough here, from $3\frac{1}{2}$ to 5 Fa.

There is another Bay eastward of *Cape Aden*, which is often mistaken for the Harbour of *Aden*, and which is very large, being 7 Ls deep within Land, and 12 broad, with above 60 Fa. Water, in the Bay it self; so that it is really a dangerous place, having no Anchoring in it that may be trusted to: you should therefore keep a Man always at the Mast-head, to see that you be not embay'd, or in danger in such a Gulph, for the Currents and Indrafts may otherwise deceive the best Mariner in the World.

When you are got 3 Ls W. of *Cape Aden* onward of your Course to the Strait, you will have good Soundings in 23 Fa. grey Sand with Shells, within 3 Ls of the Land; and your Course lies W. and W. half S.

Midway between *Old Aden*, and a Hill on the *Arabian* Coast call'd *Mitre Hill*, there is 21 Fa. bold Soundings, good holding Sand, with a bluish Ouze: you may know the belt of the Road by a *Trankey* which stands on the Shore, and some very remarkable great Trees by.

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Aden lies 32 Ls without the *Strait of Babelmandel*; it makes first like an Island, the Coast high with ragged Rocks: as you come nearer, it makes like two Islands; but when you close in with the Shore, 'tis evident to be no Island, but a low Strand among high rising Lands. Being shot over to *Aden*, you may keep on under Shore, in 30 Fa. when you stand off, and 10 to 12 Fa. when you stand in.

Your Course from *Aden* to *Babelmandel* is S.W. by W. half W. 32 Ls: the Point of *Babelmandel* makes like a Quine. When you are off of the Point, you will have sight of the Island, which bears the same Name, the Hills on both sides our Sailors call the *Babbs*. This Island makes the Entrance into the Gulph be called a *Strait*, or rather *Two Straits*.

The narrowest of these two Passages is that between the Island and the *Arabian* Shore: To go in here, you must run up with the Point of *Babelmandel* till you open the Strait; then stand boldly in, only giving the Island side a small Birth, because of uneven Ground; but the usual Depth is 8 to 14 Fa. and Coral Rocks at the bottom. In the great Strait between the Island and the *Ethiopian* Shore, there is no Ground at less than 40 to 50 Fa. and therefore it is the worst Strait, especially for Strangers; the Current out, is also stronger there.

Being past the Strait about a mile, your Course is N.W. half W. for 6 Ls in 10 to 12 Fa. within 4 miles of the Shore; then N.W. by W. 8 Ls in from 4 to 20 Fa. That Course brings you fair up with the Shoal, which lies to the southward of the Road of *Mocha*.

You must not come nearer to that Shoal than 11 Fa. the Soundings being uneven; but keep in 11 Fa. and bring the highest Mosque in *Mocha* to bear E. by S. southerly; then haul in for the Road, where you may anchor in 5 Fa. or as you please: the distance from the Strait to the Road is 40 miles.

N. B. Here are no Tides, but a constant Current either into the Gulph or out, as the times of the Year happen when you are there. *N. B.* The Streams set as the Winds blow.

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N. B. A *Trankey* is a kind of smaller Religious House for a recluse People call'd *Dervizes* among the *Mahometans*, and something like a Cell to a Monastery. *N. B.* The Tides and Currents run very sharp, as you approach the narrow Strait of *Babelmandel*: you must be very cautious here, for these Currents setting hard into the Bays and Gulphs on the Shore; if you mistake any of those Bays for the Strait, you are on Shore without Remedy. A *Dutch Ship* was lately lost so in a little Bay on the S. side of the *Babbs*. Observe also, if a Ship is lost on the Shore, the *Arabians* have no more Mercy than the Canibals of *Callabar*. *N. B.* When you are within 5 Ls of *Babelmandel*, and in 5 Ls Offing from the Coast of *Arabia*, your Depths will rise 4 to 5 Fa. at a Cast, *viz.* from 30 to 35, and from 35 to 40 Fa. and by that Token you may know you are near the Strait.

From the Strait to the Port of *Mocha* are very good Soundings, and you may anchor any where in 8 to 10 Fa. the narrow Strait is but 2 mile broad, the broad Entrance is 7 Ls over: it is very hard anchoring, whatever the Necessity may be, in the broad Passage; for there is 40 to 60 Fa. and you may judge the Difficulty of weighing your Anchors in such a Depth, and so fierce a Current as runs there.

Mount Felix is a Hill on the Coast of *Ethiopia*, between the Entrance into the Gulph and the Point called *Guardafoy*, lying with the latter W. by N. and E. by S. making properly the S. side of the Mouth of the *Arabian* Gulph.

N. B. *Aden* lies 16 Ls farther within the Gulph, than any of our Pilot-Books place it: 'tis also a general mistake, which many of our People have, that the Straits are the Entrance into the Gulph, for that the *Red Sea* or *Arabian Gulph* begins far without the Island of *Babelmandel*, and without the Port of *Aden* it self. *N. B.* It flows in the Strait of *Babelmandel* due N. and S. On Full and Change, the Current runs after the Rate of two and a half Mile an hour.

If you come from *Mocha*, and are bound to *India* or the Gulph of *Persia*, as late as the beginning or Middle of *August*, you must keep off from the *Arabian* Coast, and run away to the southward, to take the Benefit of the *Monsoons* or Trade-Winds which are then set in S.W.

The first Place of note on the *Arabian* Coast, after you are come out of the Gulph, is *Maculla Bay*, in 14. 16. N. Lat. The Mouth of the Bay is 6 Ls over, and the Bay it self is 3 Ls deep : At the N.E. Point is a very high Mountain, under which is a good Road. secure from E. N. and N.W. Winds : 'Tis a safe Road, and the Ground good ; but if the *Souths* (as they are call'd) come to blow, especially S.W. you must take care of your self, for they bring in a terrible Sea : And this is the reason why here is so little Shipping upon this Coast ; for as the Winds are generally one half of the Year S.W. or between the S. and the W. and the other half Easterly and N.E. the Case is very difficult to a Sailor ; for one half of the Year you cannot come at the Coast, and the other half you cannot get off from it.

N. B. From *April* to *July* there goes such a raging Sea upon all this Coast, that no Art can deal with it, no Ship can live in it : For the Winds blowing constantly from Sea at S. and S.S.W. and the Sea so deep, that at 2 Ls from the Shore there are no Soundings ; and there being not one Harbour or Road upon the whole Coast secure from these Winds, the poor Sailor's Case is next to desperate, if he happens to come there at that time.

To anchor in the Road at *Maculla Bay*, bring the easternmost Point S.E. and the westernmost S.W. and you are in the best of the Road in $3\frac{1}{2}$ Fa. In the Bottom of the Bay you have 15 to 20 Fa. good Ground, but open to all Winds except a due North, which seldom blows here.

E. by N. from the E. Point of *Maculla* dist. $12\frac{1}{2}$ Ls, lies *Shabar*, in Lat. 14. 52. You may run along Shore here in what depth you please, from 9 Fa. to no Bottom. You may know the Place by two Hills, one to the northward and the other to the S.W. of the Town : Here is a good fair Weather Road, but no Harbour, being a mere Strand or plain Shore. Bring the northernmost Hill to the N.E. by N. and the westernmost Hill to bear W. then you may anchor in 9 Fa. a good sandy Ouze.

E. from *Shabar* 15 Ls lies *Cape Bagatbusa*, and nothing between to do a Sailor any good : You may anchor under the Lee of this Cape, the Ground is good ; but if the Winds blow from the S. you must be gone, for a L off Shore you have from 9 to 20 Fa. but after that 50, 60 to 100 Fa. and then no Ground at 200. Fa.

From hence to *Kaysun* is 29 Ls, all a plain Strand ; the Land behind is high and mountainous, and may be seen 10 Ls at Sea, but low by the Shore, and full of Villages, but an inhospitable starving Country, Provisions bad, scarce, and dear, and even fresh Water at an exorbitant rate : The Place is

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Town, to bear E. half S. and a high House in the Town to bear N.N.E. easterly, and your Ship lying one Mile from the Shore; then you have 5 $\frac{1}{2}$ Fa. hard Clay Ground.

E. from *Dofar* about 9 Ls lies *Moribatt*, the best Road on this Coast for the easterly *Monsoons*, and therefore many *European* Ships run thither, when being bound from the *Arabian* to the *Persian Gulph*, or to the *Indian Shore*, they have been taken short by the easterly Winds, and have lost their Passage.

N. B. There are no certain Tides upon this Coast, yet sometimes the Water will rise and fall 7 or 8 Foot. Generally the Water flows as the Winds blow, and change their Course with the *Monsoons*.

N. B. Sometimes upon Full and Change, the Waters for 3 or 4 Days will run strong to windward.

If you are upon this Coast labouring to get to the eastward with an easterly *Monsoon*. be not afraid to keep the Shore aboard, when the Water thus presses against the Wind; but watch the Occasion, and keep along under Shore for the Advantage of the Current at those times: And by this Help skilful Steersmen have gain'd the Height of the *Gulph of Persia*, and saved their Passage, when otherwise they must have lain by at all Hazards, or have run back none, knows whither.

From *Moribat* the Coast continues, without Shelter, Road, River, or Harbour, to *Cape Resulgat*, or *Roselgate*, 120 Ls, the Course N.E. by N: No Wonder few Ships care to come upon this Coast; for if a Storm from Sea happens to blow, there is nothing but present death, if you cannot keep the Sea; the Shore being all over Rocks and Riffs. This *Cape Resulgat* is the eastermost Point of the *Arabian Coast*, it lies in 22. 20. N. Lat. There are some sandy Bays to the westward of it, with good riding in fair Weather; but that's no Comfort to the poor Scaman, while there is no Shelter against foul Weather. If you are bound from hence for the *Persian Gulph*, keep the Shore aboard as much as you can, especially from *April* to *June*.

From hence to *Muscat* the Land falling off to the N. the Course lies N.N.W. tho the Shore goes in N.W. by W. the distance is 27 Ls, so that from *Mocha* in the *Arabian Gulph* to *Muscat*, at the Mouth of the Opening to the *Persian Gulph*, is about 320 Ls, or 960 Miles from W. to E. and N. or N.E. a tedious Coast, without Shelter and full of innumerable Dangers and Hazards from contrary Winds and want of good Harbours, as above.

Before you come to *Muscat*, about 12 Ls short, are two Hills which make like *As's Ears*, and they are call'd so by the Seamen: After you pass those *Ears*, you open the Towers and Walls on the Tops of the Hills at *Muscat*, which you see between the broken Cliffs of the Point before you; also you make an Island which lies off shore, a little to the northward of the Harbour of *Muscat*.

This is a terrible Shore too for the Sailors: For in some places you have no Bottom within half Musket-shot of the Shore,

the S.W. of the Town: Here is a good fair Weather Road, but no Harbour, being a mere Strand or plain Shore. Bring the northernmost Hill to the N.E. by N. and the westernmost Hill to bear W. then you may anchor in 9 Fa. a good sandy Ouze.

E. from *Shabar* 15 Ls lies *Cape Bagatbusa*, and nothing between to do a Sailor any good: You may anchor under the Lee of this Cape, the Ground is good; but if the Winds blow from the S. you must be gone, for a L off Shore you have from 9 to 20 Fa. but after that 50, 60 to 100 Fa. and then no Ground at 200. Fa.

From hence to *Kaysun* is 29 Ls, all a plain Strand; the Land behind is high and mountainous, and may be seen 10 Ls at Sea, but low by the Shore, and full of Villages, but an unhospitable starving Country, Provisions bad, scarce, and dear, and even fresh Water at an exorbitant rate: The Place is known by two Starts of Land upon the Point, which the Sailors call the *Affes Ears*, and at first indeed they make like such; they may be seen near 12 Ls off. When the Point bears N. by W. from you, and the *Ears* E. by N. half N. you will see the Town of *Kaysun*, and another to the E. of it call'd *Darja*; there you may ride a little to the N.W. in what depth you please.

From this Road to *Cape Fortuack*, or *Cape Futtock*, is 14 Ls, the Course E.N.E. the Shore just as before, low and plain, but the inland high and mountainous, and all truly barbarous.

Here you have the Coast a little more favourable, the Soundings fair at a distance, having not above 37 Fa. at 2 Ls off shore, tho 40 to 50 under the Cape, and a Mile and half from it. The Cape is so high 'tis seen 20 Ls to Sea.

To the northward of this Cape the Land falls in, and makes a deep Bay, not less than 10 Ls over. Just under the Cape, N.E. from the outermost Point of the Land, is good riding for a N.W. and westerly Wind, and tho bare, may be some Shelter from a S.W. (the best upon all the Coast) but to a S. or S.E. or even S. by W. Wind 'tis all open. There is good holding Ground, as a strong Clay, and a sandy Ouze, and what depth of Water you please, but 'tis a barbarous Place on shore. You are here in 15. 48. N. Lat. On the E. side of the Bay there is no riding, the Land high, the Shore dreadfully steep, and in many places no Ground within half a Mile of the Rocks.

From *Cape Futtock* the Course is over the Bay N.E. by E. and E.N.E. 47 Ls, a long Run upon a wild Shore, nothing between to yield either shelter or comfort. There is a high bluff Land 3 Ls short of *Dofar*: When you come up with this Point, you will see the Port of *Dofar* lying E.N.E. half N. from you about 10 Miles: There is a Road indeed to anchor in, but no Harbour, nothing but a plain Strand: There is a deep Bay likewise on the Shore about 10 Ls short of *Dofar*, but no Road, no Shelter, and generally no Soundings. To anchor in *Dofar* Road bring the round high Point to bear W. by S. and a Point making a little low Hook on the E. of the

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From hence to *Muscat* the Land falling off to the N. the Course lies N.N.W. tho the Shore goes in N.W. by W. the distance is 27 Ls, so that from *Moccha* in the *Arabian Gulph* to *Muscat*, at the Mouth of the Opening to the *Persian Gulph*, is about 320 Ls, or 960 Miles from W. to E. and N. or N.E. a tedious Coast, without Shelter and full of innumerable Dangers and Hazards from contrary Winds and want of good Harbours, as above.

Before you come to *Muscat*, about 12 Ls short, are two Hills which make like *Aff's Ears*, and they are call'd so by the Seamen: After you pass those *Ears*, you open the Towers and Walls on the Tops of the Hills at *Muscat*, which you see between the broken Cliffs of the Point before you; also you make an Island which lies off shore, a little to the northward of the Harbour of *Muscat*.

This is a terrible Shore too for the Sailors: For in some places you have no Bottom within half Musket-shot of the Shore, and yet no Harbour or Port to run into in case of a Wind off Sea; so that if you chance to be upon the Coast when it is a Lee-shore, your Anchors and Cables are of no use, and you must stretch off to Sea on one Hand or other, or you will be inevitably lost.

When you make the Mouth of the Port of *Muscat*, if you intend to anchor in the Entrance, and not go within the Harbour, keep to the southward side, there you will have 15 Fa. hard Sand.

N. B. The Variation of the Compass in this Port is 10 Deg. 35 Min. West.

This Port is call'd the *Key of the Persian Gulph*; but as the Navigation is chiefly carried on by *Arabian* Pirates and Rovers, they either take no Survey of the Coast, and so keep up no Sea Marks or Directions for sailing; or they communicate none to the *Europeans*. The Port is good, but as the Country is mountainous, (for the Hills and Rocks hang over the very Houses in a frightful manner) so the Gusts of Wind which come off from those Hills are dangerous, and sometimes as frightful to the Marines as the Rocks themselves, many of which lie under Water close to the Shore.

But the danger of this Port is as much from the Treachery of the *Arabs* as from the Storms and Rocks of the Coasts; for they are not only Pirates and Thieves, but Cheats in every thing wherein you can deal with them.

They are good Pilots for the Gulph, tho not to be trusted, and are valued by all but the *Portuguese*, betwixt whom and them there is such an Aversion, that a *Portuguese* Commander dare not trust his Ship with one of their Pilots; and the *Portuguese* have of late so terrify'd them, that they hardly dare look out to Sea.

The Anchorage about this Port is very dangerous, lying so near the Rocks, and the Water so very deep; and even in the Road it is little better: The Mole or Basin is indeed safe, but is a Cove rather than a Mole: In a word, 'tis a Road no body goes to, but those that are oblig'd to it by Business or Distress.

From

Sailing Directions for the Coast

From *Muscat* the Land trends away up towards the Gulph, not so mountainous as before, but a desert wild Coast, few Towns, not one River or Harbour for a great way; nor have we been able to obtain any exact Account of the Soundings upon the Shore, or any Survey of the Coast.

Muscat is a good Port on many Accounts, especially compared with the Coast mention'd above. The *Mole*, as it is call'd, is able to receive 50 to 60 sail of stout Ships: 'Tis a strange Coast for depth; for within a Mile of the Mouth of the Port there is no Ground, within half a Mile 35 Fa. and in the Harbour 3 and half, and 3 Fa. clean Sand. It is known by some Islands which lie 2 Ls to the N.W. as also by Watch-Towers and little Forts upon the Rocks; those Rocks are black, as are all the Rocks which the Country is full of; for on the Sea Coast for above 40 Ls there is neither Tree, Bush, or Shrub, nor any Land-Mark to guide Sailors by.

Muscat is just under the Tropick, in Lat. 23 and half, N. From hence, I say, the Coast of *Arabia* is not survey'd farther on that side, nor is there any Course for Shipping employ'd by the *Europeans* on that side, to the Entrance of the Gulph: If you are bound to the *Gulph of Persia*, you must keep the Shore on board as long as you can, and stand then over to the eastward for the *Indian Shore*, or for *Diu Head* on the Coast of *Guzurat*.

From *Diu Head* your best Course for the Gulph is first N.W. by N. to *Cape Goadswell* in 25 d. 40 m. N. and from the Meridian of *Diu* 6. 10. or thereabouts. In this Course you cross the Tropick, *Diu Head* being in Lat. 20. d 40. m. If you meet with variable Winds in this Passage at W.N.W. and N.N.W. or thereabouts, your best way is to stand in for the Shore, and ply it up by help of the Land Breezes which you will have in the night, and also a Current which sets into the Gulph: Only do not stand too near the Shore in the night, lest being deceived by the low Lands, you run on Shore, when you think you have given the Land birth enough.

From *Cape Goadswell* the Course is W. by N. to the Point of *Jasques*, the Variation of the Compass being allow'd: The E. Point of the Road lies in Lat. 25. 30. N. low Land, and not easy to be seen at a distance, or to be known when it is seen. About 8 Ls short of it, there is a very great round Mountain call'd *de Ebowers*, with a Swamp and Trees on the Middle of it very singular: This will guide you to the Coast, for 'tis seen all the way, but it stands within the Land.

There is a *Pagode*, or little Idol house on the E. Point of the Bay; and on the Cape it self is a white square Rock like a Tomb-stone, but it is not seen as you ride in the Road. You may run right into the Road, and anchor in 4 to 5 Fa. off of the low Point, or when a Gap in the doubling of the Land bears N.N.E. then the E. Point of the Bay bears so also, and you are in the best of the Road.

To the northward of *Cape Jasques* comes in a River dist. about 5 Mile: Any Vessel not drawing above 10 to 11 Foot,

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may run into it as a good Haven; 'tis as secure as a wet Dock. When you are in, there is 4 Fa. and half at low Water; but the Entrance is barr'd with only 5 Foot at low Water, and the Tide does not rise above 7 Foot.

N. B. The Tide flows here N.E. and S.W.

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From *Cape Jasques* the Course is N. by W. and N.N.W. into the Gulph; and if you are bound for *Gombaroon*, your business is first to make the low Point of *Combarick*, or *Bombarique*, then your Course is N.W. 7 Ls.

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N. B. Between these two Points the opposite Coast of *Arabia* is the narrowest part of the Entrance into the *Gulph of Persia*, where it is not more than 12 to 15 Ls over E. and W. The depth of Water is from 20 Fa. on the *Persian Shore*, and 40 on the *Arabian*, to 90 Fa. in the Middle of the Entrance.

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Point Bomberique has a Rock on it, which makes like a Castle, when it bears N. by W. half W. There is a Shoal lies off from the Point full a L from the Shore: You have 3 Fa. upon it at the shoalest; but it is so steep too, that there is 24 Fa. within half a Mile of it. It may be known by the Water changing its Colour upon it: In the night it is dangerous for great and deep Ships. To shun this Shoal keep off the Shore in 20 Fa. till you are sure you are past it; then you may come in again into 10 Fa. or less, as you please: The rest of the Shore in this Course is all clean, and without any danger, being steep too all the way to the Isle of *Ormus*.

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From this Cape to *Ormus* your Course lies N. by W. half W. 30 Ls. and from the S. side of the Island of *Ormus* to *Gombaroon* is N.W. half N. 20 Ls.

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S.W. from the Isle of *Ormus* is an Island called *Larack*, dist. about $1 \frac{1}{2}$ L. you may go between them without any Danger, only give a Birth to the S.W. Point of *Ormus*, because 'tis shoal for about 2 miles off, and steep too, having not full 3 Fa. upon it, and 10 within 2 Cables length of it: But your better Passage is between *Ormus* and the Main, where you have every where from 5 to 7 Fa.

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From *Gombaroon* to *Cong*, a *Portuguese* Factory on the same Coast, the Course is S.W. between the Island *Chisnie* and the Main dist. 25 Ls. At the S.W. Mouth of the Passage next to *Cong* lies a Shoal which reaches quite over from the Point to the Island: Keep to the side of the Main, and you have 6 to 7 Fa. upon it, and on the side of the Island 4 to 5 Fa.

At the bottom of this Gulph lies the City and Haven of *Bassora*, at the Mouth of the great River *Euphrates*: There are also several Islands on the *Persian* side of the Gulph, where some *European* and Country Ships often trade; but as the Shore is difficult, and that no Ships venture without Pilots, who are to be had at *Gombaroon* or at *Cong*, no farther Description need be given of this Coast.

River dist.
to 11 Foot,

N. B. At the Isle of *Carack*, where the best Pearl are fish'd for, the Gulph is 60 Ls broad; and from *Cape Jasques* to *Bassora* is 210 Ls N.W. by W.

Jafques, the Variation of the Compals being allow'd : The E. Point of the Road lies in Lat. 25. 30. N. low Land, and not easy to be seen at a distance, or to be known when it is seen. About 8 Ls short of it, there is a very great round Mountain call'd *de Ebowers*, with a Swamp and Trees on the Middle of it very singular : This will guide you to the Coast, for 'tis seen all the way, but it stands within the Land.

There is a *Pagode*, or little Idol-house on the E. Point of the Bay ; and on the Cape it self is a white square Rock like a Tomb-stone, but it is not seen as you ride in the Road. You may run right into the Road, and anchor in 4 to 5 Fa. off of the low Point, or when a Gap in the doubling of the Land bears N.N.E. then the E. Point of the Bay bears so also, and you are in the best of the Road.

To the northward of *Cape Jafques* comes in a River dist. about 5 Mile : Any Vessel not drawing above 10 to 11 Foot,

Sailing Directions for the Coast of India Proper, of Persia, and also the Coast of Malabar, to Cape of Ceylon exclusive.

AVING directed your sailing into the Gulph of *Persia*, it is proper to add here for your Direction in coming out of the Gulph again, that having repast *Cape Jafques*, being bound for *India*, you must give the *Indian Shore* a fair Birth : As for the *Arabian Shore*, you come no more near it. Begin this Caution in Lat. 24. 30. and keep so off from the Land till you are within 16 to 20 Ls of the River *Sinda*, which we suppose to be part of the *Indus*.

The Reason is not, that the *Indian Shore* is not bold and clean, but that as long as you are to the N. of the Tropick you will find the Winds northerly ; whereas after you have past the Tropick, especially come on as far as 20 d. S. of the Tropick, afterwards you will have the Winds easterly.

When you are come the length of *Sinda*, go away S.E. and S.E. by S till you reach the Land to the Westward of *Diu Head* in 20 d. 50 m. you will have there 28 Fa. black ouzy Sand, and 8 Ls from the Shore, by which you will know the Coast ; the Water thick and slimy.

The River *Sinda* lies in 24 d. 45 m. N. Lat. the Land to the southward is very low, and not above 4 to 5 Fa. at 4 miles from the Shore : The Mouth of the River has a Bar, with not above 13 to 14 Foot Water at full Sea ; if you would go in, bring an old white Monument to bear N.E. from you, and steer directly with the Mark for the Bar, where if you find needful you may anchor without the Bar in 3 ½ Fa. good Ground ; then you may go over it at your Leisure, bringing the Monument half a Point more E. To go over the best of the Bar, steer away N.E. by E.

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From *Gombaroon* to *Cong*, a *Portuguese* Factory on the same Coast, the Course is S.W. between the Island *Chifimic* and the Main dist. 25 Ls. At the S.W. Mouth of the Passage next to *Cong* lies a Shoal which reaches quite over from the Point to the Island: Keep to the side of the Main, and you have 6 to 7 Fa. upon it, and on the side of the Island 4 to 5 Fa.

At the bottom of this Gulph lies the City and Haven of *Bassora*, at the Mouth of the great River *Euphrates*: There are also several Islands on the *Persian* side of the Gulph, where some *European* and Country Ships often trade; but as the Shore is difficult, and that no Ships venture without Pilots, who are to be had at *Gombaroon* or at *Cong*, no farther Description need be given of this Coast.

N. B. At the Isle of *Carack*, where the best Pearl are fish'd for, the Gulph is 60 Ls broad; and from *Cape Jafques* to *Bassora* is 210 Ls N.W. by W.

India Proper, from Diu Head at the Mouth of the Gulph Malabar, to Cape Comereen inclusive, and to the Coast

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The first Port of Trade within the River is *Laribundare*; but there is another place higher up, which is a large City, called *Tatta*: any Ship that can go over the Bar, may go up to the Port, for there is more Water within the River than upon the Bar by a great deal.

From hence to *Diu Head* the Course is S.E. by E. *Diu* is in 20 d. 52 m. it is a good Harbour, having 3 ½ Fa. between the Island and the Main. *Gogo* lies 10 Ls within the Gulph of *Cambaya*: if you would go up thither N. by W. from the *Dood Point* at *Gundeck*, which is the westernmost Point of the Gulph of *Cambaya*, bring the Island of *Peram* to bear W. from you at the dist. of 3 miles, and steer in with it N.W. directly for the Road of *Gogo*, where you will have 3 ½ Fa. good Ground, and 2 miles from the Shore.

N. B. Here the Tides run very strong, especially Spring Tides, there being a very great Indraft.

From *Gogo* the Course to *Suratte* is S.E. by E. if you go within the Shoals, you keep a little more to the E. to *Swalley Hole*.

The first Mark for this part of the Coast is a great broad Tree standing within the Land N.E. above *Swalley Hole*; our Sailors call it the *Devil's Tree*. From this place you go away S. till you see another broad Tree with a House, which they call a *Pagoda*, about a mile to the northward of it.

The River of *Suratte* does not open till you are to the southward of it a good way, the N. Point of the River stretching thwart the Mouth of it S.W. you will see the Town over the Land, and before you see the Land. Three Ls from the

River of *Suratte* lies *Swalley Hole*, nam'd above: If you would anchor before *Suratte*, bring the two great Trees S.S.E. and anchor in 8 Fa. just by the Bar; you have but $3\frac{1}{2}$ Fa. upon the Bar at the best of the Tide.

Due S. from *Sandy Point*, or *Sandy Island*, which lies at the Mouth of the Bar of *Suratte*, lies the Island, Factory and Town of *Bombay*, dist. 125 Ls. There is no Factory of the *English*, or any other *European Nation*, in all the Country between them, except a small *Portuguese House* at *St Johns*, of very little import but to wood and water ar, in their Run to the Gulph of *Persia*, and except *Jarapore* of the like use.

The Town and Castle of *Bombay* is on the S. side of the Island: just within that which they call *the Old Woman's Island*, and S.E. from the *Old Woman's Island* there is a dangerous sunk Rock, which lies very much in the *Fair Way* to the Harbour. There are abundance of Marks to know the Entrance into *Bombay*, and to shun this Rock.

First, observe the 7 Trees above the Cape called *Malabar Point*, standing on the highest Land of *Bombay*; 3 stand to the E. and 4 to the W. of the Opening to the Island: Then observe a single Cocoa-Tree standing on the *Old Woman's Island*; bring that Tree into the opening between the 7 Trees, that brings you just upon the sunk Rock in the *Fair Way*; but bring the single great Tree, which stands on the highest Land of *Bombay*, on the middle of a second Range of Trees, on the *Old Woman's Island*; these bring you clear of the Danger.

Also to know when you are clear of it, bring the great Tree upon the *Old Woman's Island* to the westward of all the 7 Trees first mention'd; then you are certainly to the northward of the sunk Rock; and if you are to the eastward of the seven Trees, you are sure that you are to the southward of it.

But if you would go to the eastward of this Rock, bring *Mazagon House* open to the eastward, and right with the easternmost Angle of the N.E. Bastion of the Town; and keep that Course till you bring the great Tree to the westward of the seven Trees; then you may be sure you are to the eastward of the Rock.

Bombay is in an Island Lat. 19 d. there is an Island to the N. of it called *Salfet*, but the Passage between them is difficult. N. of *Salfet* there is another Island, on the N.E. Point of which there is a small Fort, or House rather, within which Ships may run up and anchor in a Road 5 Ls within the Channel; but they must take a Pilot to go in. On the S. Point is a Church formerly built by the *Portuguese*, called *Ecclesia Paloremo*.

There are 4 Forts upon the Island *Salfet*, whereof 3 are seated upon the Passage between the Island and *Bombay Island*, and is called *Colay*: One is at the S.E. Point; keep off from the Point at this Fort, for the Shore is foul, and many Rocks lie off in the Sea: the next is called *Bandura*, from thence you have 3 to $4\frac{1}{2}$ Fa. all the way to the third Fort, which is called *Salfet*, at the Mouth of a Creek; there

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From *Tamana* to *Goa* the Water is deeper, but the *Fair Way* is interrupted by a great Cluster of Rocks called the Rocks of *Vingrola*, or the *Camartbes*.

From the Island of *Choul* to *Goa* is 85 Ls, the Course generally S S.E. In the middle of the way between is another *Rogipore* in 16. 37. N. Lat. where there is a *French* Factory. The River is navigable a considerable way up; but under the N. Point, or N.W. is a very fine Bay within the River, where there is 7 to 8 Fa. good Ground, and secure from all Winds: if you would go farther up, you may have a Pilot.

From *Rogipore* to the Island of *Salfet* S. of *Goa* is 40 Ls, the Course S.E. by S. *Goa* stands in an Island, with an Inlet of Water on both sides; so that the Harbour, which is the most capacious in all *India*, is as it were a double Port: there are many Anchorings and Roads in the Bay, as well on the side of the City as of the Island *Salfet*, too long to describe here: All Ships that go in here take a Pilot, unless extremely well acquainted with the Place: The biggest Ship may ride in great safety in the Bay.

From *Goa* the Course is S.E. to *Carwar* 12 Ls. This is an *English* Factory. When the Islands or Rocks of *Carwar*, call'd the *Duckey*, bear N.N.W. half N. and a small Rock which lies in the Road opens with the Island *India Diva* N. by W. half W. dist. 2 Ls, then you are in the best of the Road; or you may anchor abreast of *Divia*, the Body of the Island bearing N.E. by E. about 2 miles and half off; there you may lie in 10 $\frac{1}{2}$ Fa. the S. Point of *Carwar* bearing N. by E.

The Passage into *Carwar Bay* is between some craggy Rocks which they call *Duckey*, and the Island near the S. Point: In the Bay there is a small Cove which goes in S.E. $\frac{1}{2}$ E. Here small Ships lie secure from all Winds; and near the Entrance of it there is a little Hook, where Ships may ride very safe in 4 Fa. and may be secure from all the westerly *Monsoons*.

N. B. You may go in and out here on any side of the *Duckey* Rocks, without a Pilot, and without any Danger. There is 7 to 8 Fa. in either Channel oazy Ground.

From *Carwar* to *Annanore*, a *Portuguese* Fort and Factory, the Course is S.E. half easterly 9 Ls. Off of *Annanore* W. by S. lie a Cluster of small Islands, which they call the *Pigeon Islands*; they lie from the S. Point of *Annanore* S. by E. about 5 Ls. Off of the Point which the *Portuguese* Castle stands upon, lies a Shoal or Riff of Sand running out far to Sea, which must be carefully provided against.

From *Annanore* the Coast goes away still S.E. by S. 18 Ls to *Basselore*, or *Bagua*, a Factory of *Dutch*, and another *Danish* being upon the same River. There is good anchoring at a L off Shore without the Rocks in 7 $\frac{1}{2}$ Fa. good Ground: But from the northernmost Point of the Creek there runs out a dangerous Riff of Rocks, so that there is no coming near them. Here is a Creek or Harbour, but the great Ships do not chuse to go in there: The *English* Fort here is called *Moor's Fort*, lying to the S.E. of the other *Dutch* Fort.

the Rock.

Bombay is in an Island Lat. 19 d. there is an Island to the N. of it called *Salfet*, but the Passage between them is difficult. N. of *Salfet* there is another Island, on the N.E. Point of which there is a small Fort, or House rather, within which Ships may run up and anchor in a Road 5 Ls within the Channel; but they must take a Pilot to go in. On the S. Point is a Church formerly built by the *Portugueje*, called *Ecclesia Palorema*.

There are 4 Forts upon the Island *Salfet*, whereof 3 are seated upon the Passage between the Island and *Bombay Island*, and is called *Colay*: One is at the S.E. Point; keep off from the Point at this Fort, for the Shore is foul, and many Rocks lie off in the Sea: the next is called *Bandura*, from thence you have 3 to 4 Fa. all the way to the third Fort, which is called *Salfet*, at the Mouth of a Creek; there you have 5 Fa; but when the Passage widens, you come to 1 Fa. and 2 Fa. at low Water; so that you must be careful here, and not go thro' without a Pilot. The 4th Fort is called *Trombay*, on the N. side of the Island; there the great Ships go to ride when they winter in the Country.

N. B. There is a strong Castle at the Town of *Bombay*, and good Riding before it, in 4 Fa. well shelter'd from most Winds that blow.

Due S. of *Bombay*, or S. by W. in the *Fair Way* along the Coast lie *Hannary* and *Cannary*, two little Islands, in Lat. 18. 51 dist. from *Bombay Castle* 11 miles; on the outermost is a small Fort or strong House: They lie a L. alunder E. and W. but there is no passing between them, the Ground is allso rocky and foul; nor is it safe, unless you are well acquainted, to go between them and the Main. The *Fair Way* lies without them both in 8, and 9 to 12 Fa.

From these Islands the Coast trends away S.S.E. to *Choul*, a *Dutch* Fort and Factory, dist. about 6 or 8 Ls. This Fort stands at the Mouth of a large River navigable, far up, and a very good Channel, having 8 to 9 Fa. in the *Fair Way*; the *Dutch* have also 4 little Forts more, and 2 of note, several Ls within the River, viz. *Dunde* and *Rogipore*, &c. There is 7 to 8 Fa. Water higher up, and a very good Channel all the way, clear and good anchoring Ground; they that go in here, and are not acquainted, take a *Dutch* Pilot.

From *Choul* the Coast lies E.N.E. to *Dabul*, another *English* Factory, dist. 10 Ls: here also is a good River, the Entrance wide and deep, but not so clear as the other, for a large Riff of Sand runs out from the N. Point of the Entrance almost half thwart the Mouth of the River; also the S. side is rocky and foul, and therefore the *Fair Way* is in the Mid-Channel: However, if you are bound in, 'tis best to call for a Pilot. Upon all this Coast you have a variety of good Roads; but in sailing along the southward you must give the Shore a Birth of 2 or 3 Ls, and then you have in the *Fair Way* an even Shore, and an equal Depth of from 7 to 8 Fa. seldom more, seldom less, all the way from the Island of *Choul* to the Watering-place at *Tamara*.

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From *Carwar* to *Annanore*, a *Portuguese* Fort and Factory, the Course is S.E. half easterly 9 Ls. Off of *Annanore* W. by S. lie a Cluster of small Islands, which they call the *Pigeon Islands*; they lie from the S. Point of *Annanore* S. by E. about 5 Ls. Off of the Point which the *Portuguese* Castle stands upon, lies a Shoal or Riff of Sand running out far to Sea, which must be carefully provided against.

From *Annanore* the Coast goes away still S.E. by S. 18 Ls to *Basselore*, or *Bagua*, a Factory of *Dutch*, and another *Danish* being upon the same River. There is good anchoring at a L off Shore without the Rocks in 7 + Fa. good Ground: But from the northermost Point of the Creek there runs out a dangerous Riff of Rocks, so that there is no coming near them. Here is a Creek or Harbour, but the great Ships do not chuse to go in there: The *English* Fort here is called *Moor's Fort*, lying to the S.E. of the other *Dutch* Fort.

S.E. by E. from *Moor's Fort* the next *European* Factory is *Manquilore*, being the Frontier or first Port on the Coast of *Malabar*; it belongs to the *Portuguese*: Here is a good Harbour, but a foul Road, and Ships which are bound along the Coast give it a good Birth, and keep off in 15 to 21 Fa. 'tis dist. from *Moor's Fort* 12 to 13 Ls.

From *Manquilore* to *Cannanore*, a Fort belonging to the *Dutch*, the Course is also S.S.E. Here is a very good Road in 7 to 10 Fa. a L. or two off Shore, as is usual on this Coast.

Five Ls from *Cannanore* S.E. lies *Tellechery*, an *English* Factory; it lies in a Bay into which two Rivers empty themselves, but there are so many Rocks lie in the Entrance, that great Ships chuse to ride in the open Sea 3 Ls from the Port; if you would go in in smaller Vessels, you had best call for a Pilot at the Factory. From hence it is S.S.E. to *Calicut* 10 Ls. From *Goa* to this Port is 82 Ls along the same Coast, and the Course the same almost all the way, namely S.S.E.

Calicut is also an *English* Factory, and much visited by the *English* Ships, tho you have no Harbour here; but in this Port, as has been often observ'd on this Coast, the best Riding is about 3 Ls in the Offing from the Shore. Bring the Fort to bear N.E. by N. from you; and being 3 Ls from the Shore, then you will have 13 Fa. good cozy Sand: you will know the Town, tho you can not see it in the Road without the help of Glasses, by 3 white Spires at an equal distance one from another, the like is not upon all the Coast.

If you have a mind to ride nearer, you may come into 5 Fa. in the same Road and good Ground; bring the 4 Tombs to the northward of the Town to bear E.N.E. from you half N. and the northermost Land in sight N. by W. half W. at the dist. of 2 or 3 miles from the Shore, and you will have a good Road.

In Lat. 11. 29 N. lies the *Sacrific'd Rock* N.E. by E. a great Rock, or rather a Ledge of Rocks, in the *Fair Way*, for all this Coast: a mile and half from them is 15 Fa. Those Rocks lie not much above 1 L from the Shore; they are only a Stone Riff or Reef, pretty high; you may go safe between them

Sailing Directions for the Coasts

them and the Shore with some Caution. They are so high, that you may see them at least 4 or 5 Ls off at Sea.

These Rocks are the only Interruption to the sailing along the whole Coast of *India* and *Malabar*, at a L to 2 Ls dist. from the Shore, and at an equal Depth of Water: but here you must either run in nearer, as above, to pass between the said Rocks and the Main, or keep a large Offing to give the Rocks a Birth, in 14 to 15 Fa.

After you have past these Rocks, you stand in to the same Courſe again, and keep the same dist. from the Shore, viz. 2 Ls, and so go on S.S.E. to *Cocheen* 33 Ls.

Cocheen is a *Dutch* Factory between *Calicut* and this Port: There are two others, where there are also good Roads for Shipping, viz. *Panian* in Lat. 10. 45. and *Cranuanera* in 10. 20. they are small places, but there are very good Harbours or rather Roads at both of them. From *Panian* there runs a Shoal off from the Shore, which reaches to *Cochin*; but as it is no where above a L wide, the Ships ride very well without it, especially at *Cranuanera*, where they ride in 5 to 6 Fa. within a mile of the Shoal.

This Shoal ends in a large round Riff of Sand, just on the N. side of the Entrance into *Cochin*; and tho the Riff has 5 to 9 Fa. on it, in one part gradually shoaling to 3 Fa. and then becoming dry towards the Shore, yet it makes an excellent Harbour at *Cochin*, for within the Channel you ride close under the S. side of the Riff in 6 to 7 Fa. within 2 miles of the Town. If you would anchor in this Harbour, bring the Town to bear E.N.E. or N.E. by E. from you, or bring the Windmill on the Shore, and the Flagstaff on the Fort shut into one, and then you are in the best Anchoring-place, where you have good ouzy Sand, and 7 Fa. to 7 $\frac{1}{2}$ Water.

When you open the River from the N. the City or Town makes a very handsom Appearance, and the River seems capable of great Ships; but the Channel is uncertain and shoaly, so that you must not run up any farther than 6 Fa. as above. There is no Bar in the Harbour, but the River is shut up with a Bar, on which there is not above 4 Foot Water at low Tide, and about 14 on the top of a Spring.

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Sailing Directions from the Cape of Good Hope to Suratte, on the out or South side of the I

HAVING directed the Sailor in his Course within the Island of *Madagascar* by the N.W. and from the *Arabian* Gulph to the Coast of *India* by the Coast of *Arabia*, it is needful to observe that many Navigators think it more convenient, as their Business requires, to go on from the Cape directly and without the Island of *Madagascar*, and perhaps without touching upon it; which is more frequent also, since being by the new Settlement at the Cape sup-

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high, From *Cocbeen* the next 2 Factories are also *Dutch*, viz. *Carnapole* and *Quilon*, besides a small Fort and Settlement upon the Island at *Porcat*, or as it is called by the *Portuguese*, *Lâbra de Porcas*, the Island or Colony of *Hogs*: The Water which makes this an Island is an Inland Branch of the Sea, not a River; but it runs parallel with the Sea, from the Harbour of *Cocbeen* to *Carnapole*, where it takes in the River, and then opens together into the Sea, making a very good Harbour. Small Vessels may pass thro' this Channel, but not great Ships; it is in length about 70 miles.

There is one Outlet in the middle, or rather $\frac{1}{2}$ d. of the length to the northward, which comes in to the Sea just by the Castle, and makes a good Road in the Offing, which is called *Moody's Bay*, and where you may ride in any Depth from 12 to 28 Fa. hard Ground, and where Ships often ride to get fresh Water and fresh Provisions.

From this Harbour of *Cocbeen* the Shore falls off more to the E. and the Course lies to *Quilon* full S.E. as it does also to *Anjengo*, which is the next Factory.

N. B. There is a good Road in the Mouth of the Opening mention'd above at *Carnapole*, in 12 Fa. and farther out also in 25 to 30 Fa. Likewise at *Quilon* a *Dutch* Settlement is very good Anchoring all along the Coast S. in 10 to 16 Fa. almost to *Anjengo*.

Anjengo is an *English* Factory, the farthest S. upon this Coast; it lies in Lat. 8. 48. and dist. from *Cocbeen* 30 Ls or just $1\frac{1}{4}$ deg. If you would come to an Anchor here, bring the Flagstaff on the Fort N.N.E. from you, and the northermost Land in sight N.N.W. half W. and there you will have 11 Fa. good Ground; or you may go with the Land as above, and the Flagstaff N.E. half N. both give you a good safe Road, and within 2 miles off Shore. Between this and *Quilon* in *Edarway*, belonging to the *Danes*.

From *Anjengo* the Land trends away to *Cape Comareen* or *Comaroon*, being the southermost Land of the Coast of *Malabar* and *India*, in Lat. 7. 40. N. opposite to the Island of *Ceylon*, and opening with the Channel leading between *Ceylon* and the Main.

Good Hope to the Coast of India and the Port of the South side of the Island of Madagascar.

Shore aboard by Night or Day, till you draw near *Point de Galla*; then you must keep in 24 Fa. by Day, and 30 by Night; for to the southward of the said Point runs off a Ledge of Rocks about a mile and a half into the Sea.

As soon as you have doubled the said *Point de Galla*, there being no other Danger, you ought to keep the Shore close on board till you come up as high as *Columbo*, which is the chief place on the Island; it lies in about Lat. 7 d. N. before you

a Bar, on which there is not above 4 Foot Water at low Tide, and about 14 on the top of a Spring. Ceylon, and the Main

Sailing Directions from the Cape of Good Hope to Suratte, on the out or South side of the I



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To steer this Course you must sail from the Cape S.S.E. till you come into Lat. 37. S. and this is needful, that you may meet with westerly Winds, which you are more likely to do in that Course than by the other way, and for want of which many Ships have lost their Passage.

When you come into Lat. 37 d. S. shape your Course E. or thereabouts, and keep it so till you have made about 61 to 62 d. Longit. from the Cape, endeavouring in that Course to make the Islands of *St. Paul* and *Amsterdam*: This is of the utmost Importance for the shaping your Course afterwards. Being in that Latitude, go on still N.N.E. easterly, till you have by an exact Reckoning only 15 d. S. Lat. and 72 or at least 71 d. Longit. from the Cape.

Then steer due N. till you cross the Line; and continue your Course till you come into 7 d. N. Lat. minding to keep the aforesaid Longit. of 72 d. taking great care that you are not set to the westward by the Current which sets out of the Bay of *Bengal*; and being arriv'd in the aforesaid Lat. of 7 d. and keeping in 72 d. Longit. you must steer W. to get sight of the S.E. end of the Island of *Ceylon*; and being in sight of the Island, and in the Lat. 7 d. as above, you are to the northward of the *Abasses*, or *Baxios*, which are 2 Parcels of Rocks, lying the one in 6 d. 10 m. and the other in 6. 25.

In sailing from hence to the southward, if in the Night, you must not keep less than 3 Ls off the Shore, in which Offing you will find no less than 25 Fa. but in the Day-time you may keep the Shore nearer aboard; these Rocks shewing themselves by their much breaking, may be easily shunn'd. Between the Shore and the great *Bassias* is 11 and 12 Fa. sandy Ground. Being to the southward of these Rocks, you may keep the

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As soon as you have doubled the said *Point de Galla*, there being no other Danger, you ought to keep the Shore close on board till you come up as high as *Columbo*, which is the chief place on the Island; it lies in about Lat. 7 d. N. before you cross over for *Cape Comareen*, for that the N. easterly Wind blows fresh, and the Current between *Tuttacorine* and *Ceylon* sets extraordinary strong to the N.W.

If by any Shifts of Wind, or by the Current setting out of the Bay of *Bengal*, or any other Accident, you fall in with the S. end of *Ceylon*, or any part of the W. side of it, as high as *Columbo*, or thereabouts, there is no Danger, for you may boldly come near it in 25 Fa. but as the S.W. Point of the Island lies in 5. 50. N. you ought to take great care to make the Island if possible on the S.E. side, in about 7 d. as aforesaid; otherwise it may happen that the Current which sets strong to the westward, may occasion the Loss of your Passage.

From *Columbo* you must steer N.W. to get sight of *Cape Comareen*, which lies in Lat. 7 d. 45 m. N. The Cape is to be known at a great distance by several high Mountains to the N.E. of it: the Pitch of the Point it self is very low Land. As you come near it, you ought to look out for two Rocks which lie just at the S.W. part of the said *Cape*: you may also know this Cape by a single high Mountain which is right over it, and under which stands a great Range of Trees of an equal height. You may sometimes find it difficult to double *Cape Comareen*, tho you have it close aboard, by reason of a Wind and Current that always sets to the southward there: But you must take the Opportunity, when the Winds as well as the Currents are not against you, and anchor from 35 to 40 Fa. until Night, when the Wind will come about to the E. and E. N.E. for in the Day-time near this Cape the Wind is always N.

When you are past the Cape, you ought to keep the Shore as close aboard as you can in 12 Fa. and there anchor till Night, waiting for a Land-Breeze, with which you must stand off to 30 Fa. where you must anchor again to wait for the next Sea-Breeze; and when that comes, make sail along the Shore in 12 Fa. then anchor again, and so on, minding always not to be under sail while the Tide of Ebb sets to the Southward.

Sailing

*Sailing Directions for the Coast of Coromandel, from
of Malabar, to Sugar Loaf-hill and Visigapatam
Kingdom of Golconda, exclusive.*



AS *Cape Comareen* is the southermost Point of *Malabar*, so before we leave it we ought to take notice, that W.N.W. from the Cape 20 Ls, there lies an unhappy Rock in the Sea, not above as big as the Hull of a good Ship, and even with the Water's Edge, so that it cannot be seen till you are just upon it. Many a good Ship has been lost upon it, and therefore 'tis needful publick notice should be given of it on all proper Occasions.

Hammon Hiel, and *Mannare Hoil*, are the first Lands on the South Coast of *Coromandel*; and being near the W. end of the Riff of *Mannare*, which blocks up the Navigation between *Ceylon* and the Main, from the Point of the Island call'd *Hammon Hiel* by the Pilots, to *Aderanpatanam*, the first known Place upon the Main, is 17 Ls, the Course N.W. by N. Between them is a place call'd the Cage, 20 Miles from which lies a Bank of Sand, on which there is not above 10 Foot or 2 Fa. Water at most.

The whole Shore is a flat Bight or Bay quite to *Calimere Point*: The Strait Course to the Point from the *Hiel*, and not to go into the *Bay of Aderanpatanam*, is N. by E. and S. by W. 15 to 16 Ls; so 'tis nearer to the Cape than to the Bottom of the Bay.

In the Fair way of this Course you have 8 to 10 Fa. till you come near the Riff, then it shoals gradually; but with great Ships you must come no nearer than 5 Fa. When you are past the Riff, and about the Point, you may keep the Shore as close aboard as you please, that is, in 4 and 5 Fa. As soon as the *Calimer Pagod* bears W.S.W. and S.W. by W. from you, you may depend that you are past the Riff to the northward, and safe: If you are still to the southward of it, the *Pagode* will bear N.W. from you; you have not then above 4 to 5 Fa. at 4 Ls from the Shore, but very good sandy Ground.

If you come from Point *Pedro* on the Island of *Ceylon*, and would make *Cape Calimere*, your Course is N. by W. half W. or N.W. by N. about 13 Ls: You have 8 to 10 Fa. all the Course, till you come to the Shoalings of *Calimer Riff*; as soon as you find the depth abate, you must stop your Course, and come no nearer than, as above, in 5 Fa. unless you are in a small Vessel, then do as you please.

Being now entred upon the Coast of *Coromandel*, and to sail to the N. the first Place of note is the River and Port of *Negapatam*, a Factory belonging to the *Dutch*, 9 $\frac{1}{2}$ Ls distance from *Calimer*, the Course due N. for the Coast lies here N. and

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Directions for the Coasts of India.

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Six Ls from *Porta Nova* lies *Tegapatenam*, or *Fort St. David*, Lat. 12. 4. N. a strong Fort and Factory of the *English*, the Course N. half E. or S. half W. Keep an Offing of 4 Miles, where you will have 8 to 10 Fa. all the way good Ground, and good anchoring, wherever your Occasion requires it ; farther out you have 17 to 25 Fa. and then any depth whatever.

Fort St. David may be known off at Sea, by a Fort built of red Stone on the other side of the River, belonging to the *Indians*, as also by a great *red Pagod* which stands on a Hill 4 Miles up the Country. From the N. Point of the River runs out a Spit of Sand, which you must take care of ; it runs out directly E. into the Sea. To the northward of the Fort the *Dutch* have also a Factory within Gun-shot of the River ; this River here is larger than any before it, but yet of no use for Navigation, except for fresh Water : You may anchor before the *Dutch* Factory also in 4 to 5 Fa.

Four Ls from *Fort St. David* N.E. by N. half N. lies *Pullicbery* : Here is a Trade, but no Factory ; and a small River but no Harbour. The River is on the S. side of the Town, and on the N. there runs off a high Ridge ; 'tis above Water, and is call'd the Ridge of *Pullicbery* : You need not be directed to go without it, seeing you can't go near it ; but keep off 4 or 5 Miles from it in 6 to 7 Fa. because there are Shoalings nearer to it. This Ridge runs into the Land also, and makes there like a Mountain, and is call'd by the same Name.

From *Pullicbery* to *Calmore* is 12 short Miles N.E. it is known by a white *Pagode* or Idol Temple near it : Here you keep still the same Offing of 4 Miles, but have the Water somewhat deeper to 10 and 12 Fa. good hard Sand.

From *Calmore* to *Conimore* is 9 Ls ; there are some Villages on the Shore between, and a long Grove with a *Pagode* at the End of it, which is a Sea Mark to the Coast : But here are no Creeks or Harbours, only a clear Strand as before, and the same Offing ; only that off of the Grove there lies a Riff of Sand which stretches a Mile into the Sea, and lies to the northward ; the Grove and *Pagode* is your Mark to know it by, and you have nothing to do but to keep your Offing, and not run in there. There is another *English* Factory at *Conimore*, and a good Road before it : You have there also a thick Grove, and two *Pagodas* to know the Place by ; there is a River at *Conimore*, but you may ride beyond, or to the north-

and sail if you are run to the southward of it, the *Pagode* will bear N.W. from you; you have not then above 4 to 5 Fa. at 4 Ls from the Shore, but very good sandy Ground.

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Being now entred upon the Coast of *Coromandel*, and to sail to the N. the first Place of note is the River and Port of *Negapatam*, a Factory belonging to the *Dutch*, 9 $\frac{1}{2}$ Ls distance from *Calimer*, the Course due N. for the Coast lies here N. and S. Your Course runs along by the Shore, which is all good and clear, and you have nothing to do but to keep the depth of Water, viz. 4 to 6 Fa. The Place is known by a *Pagode* which stands about 4 Miles to the northward of the River, and is seen in the Offing very fair. Here is good anchoring in the Road before the Town, but no Haven; for the Rivers here are all small, being but of a short Course.

Fourteen Miles from *Negapatam*, the Course N. half W. lies *Kavical*; 'tis a small place upon a little River, and Ships ride sometimes there as Occasion requires: You go to it all along Shore, only keep towards the N. Point a little off the Shore, being somewhat S. The River here is of small use, being often dry.

From hence, the Course being the same, you go on to *Tranquebar* 8 Miles all along Shore: Here is a *Danish* Factory (or Colony rather) for they seem to plant the Country there. Near it is a River, and sometimes fresh Water, but no Navigation, for sometimes it is quite dry also: You may ride very easy here in 6 to 7 Fa. off of the Factory.

From *Tranquebar* to *Calderon* the Coast is still the same due N. distance about 6 Ls. There are two small Places and dry Rivers between, but of no import, call'd *Laurepatenam* and *Trumeldeanes*; there is a River too, but 'tis dry. At *Calderon* lies off a Riff of Sand, which you must take heed of, that is, keep off in 9 to 10 Fa. for tho' it runs off far, yet it sinks down into 5, 7 to 9 Fa. at last, and so you lose it. There is a River within the Riff, or on the W. side of it; but you must go about the Riff to the northward, before you can come at the River: You may turn up within the Riff to the Mouth of the River, but you cannot go far in, only to take fresh Water, which is very good here. The Riff is steep on both sides, so you must not dare to come nearer to it than 6 to 7 Fa. At the End of this Riff, N.N.W. from *Calderon* 4 Ls, lies *Porta Nova*; the Mark to know it by is four *Pagodas* on the Shore: In the way between bring *Porta Nova* due W. from you. When you are 3 Ls off Shore, and the two fourthernmost *Pagodas* shut into one, so that you can see but three, then you have a good Road just before the Mouth of the

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known by a white *Pagode* or Idol Temple near it: Here you keep still the same Offing of 4 Miles, but near the Water somewhat deeper to 10 and 12 Fa. good hard Sand.

From *Cabmore* to *Conimore* is 9 Ls; there are some Villages on the Shore between, and a long Grove with a *Pagode* at the End of it, which is a Sea Mark to the Coast: But here are no Creeks or Harbours, only a clear Strand as before, and the same Offing; only that off of the Grove there lies a Riff of Sand which stretches a Mile into the Sea, and lies to the northward; the Grove and *Pagode* is your Mark to know it by, and you have nothing to do but to keep your Offing, and not run in there. There is another *English* Factory at *Conimore*, and a good Road before it: You have there also a thick Grove, and two *Pagodas* to know the Place by; there is a River at *Conimore*, but you may ride beyond, or to the northward of the Riff of Sand in 7 to 8 Fa. within a large Cannon-shot of the Shore; so that 'tis all one with a Harbour, the Sand breaking off the Sea. Near *Conimore* is a small Factory of the *Dutch* at *Saderassapatenam*, where the Road is under shelter of another Riff of Sand lying N. from it: The *Dutch* call it *Coveloing*.

Seven Ls distance from *Conimore* lies *Cabelon*, another *Dutch* Factory, the Course still N. easterly or N. by E. Between them are the seven *Pagodas*, a known coasting Mark to know the Places by. Thwart from these *Pagodas*, as if set on purpose to warn you, take care to keep a larger Offing than before, the Ground being foul and stony; nor must you anchor any where thereabouts, till you are at least 1 1/2 L from them to the northward: Beyond them the Coast varies a little to the E. and you go away N. by E. and N.N.E.

From *Cabelon* to *Fort St. George*, or *Madraffapatam*, is 5 Ls; there is a Place between call'd *St. Thome*, formerly *Portuguese*, since *French*; but it has no relation to Navigation, neither Road, nor Creek, nor any Business done there lately. The Road at *Fort St. George* is well known, being the chief Factory of the *English* on the whole Coast; yet here is no Harbour for Ships of burden, but they load and unload in the open Road, which is very good, hard and holding Sand, and 8 to 9 Fa. Water.

Here you meet with the first Sand or Shoal that you will have on the whole Coast, lying off in the Sea; this is call'd the Riffs of *Natoer*, and the *Manoes*; they lie N.N.E. from *Fort St. George*: There is a Land-Riff and a Sea-Riff; the Mark for them is a small Grove of Trees on the Shore, the Top of them growing flat and even: By these, which they call the *Table*, you sail along Shore, keeping without in 9 to 10 Fa. In about the usual 4 Miles Offing you have 12 to 13 Fa. Bring the Flag-Staff on *Fort St. George* to bear W.N.W. 1/4 N. And you may anchor secure at a Mile and half distance from the Riff.

The Sea-Riff is in the same Point of the Comps from the Land-Riff, as the Land Riff is from *Fort St. George*, and the same distance, viz. 8 Miles: Keep your Lead going while you

Sailing Directions for the Coast.

are in the Offing, and keep in 9 to 12 Fa. till you come into stiff Clay Ground: Then go on in the same Course N.N.E. till you bring 2 Cocoa Trees, which you will see upon the Coast, in one with a small Grove which you will see there also: There if you are in 3 or 4 Miles Offing, you are at the End of the Land-Riff; then keep on the same Course, till you open the two Cocoa Trees again from the Grove about a Hand-spike's length; and then go away N.E. into 5 or 6 Fa. and hold that Course and Depth till you find 7 to 9 Fa. stiff Clay Ground, and some Sand: Then you may be sure you are past the Sea-Riff also, and may stand in towards the Shore in the usual Offing of 4 Mile, which is as a *Fair Way* to all this Coast.

As you sail along this Shore, you must take special care, and mind the Marks of this Land-Riff, for it is very deceitful, and shoals all of a sudden by whole Fathoms, as fast as you can heave the Lead; but if you mark the Alterations of the Depths, you may be sure you are drawing near the Riff, of which those Trees will give you notice: You must come no nearer it than 15 or 8 Fa. if you come nearer you will find your self at a loss; for if you come into 6 Fa. your next Cast will be but 3 Fa. or 17 Foot; so that with a great Ship it is very dangerous, tho it is not shoaler than 14 or 15 Foot: This Depth is about two Miles off Shore, and it is in breadth about two Musket-shot over; the Soundings within it are as uneven as the afore-said, *viz.* 2, 5, 6 and 7 Fa.

Note, That the Ends of the Land-Riff and Sea-Riff bear from each other N.E. by E. and S.W. by W. near 2 Miles: The Sea-Riff lies along the Shore N.E. by N. and S.W. by S. about 8 Miles Offing will carry you without it; you may keep along the Edge of it, in 8, 7 and 6 Fa. but come not any nearer, before you have the Flag-Staff W. and by S. from you; and then you may safely stand over the Riff towards the Shore with a southerly Wind, but with a northerly Wind the Flag-Staff must bear due S.W. from you, with Ships that draw from 13 to 16 Foot Water; but with small Craft of 9 or 10 Foot, you need take no notice of the Sea-Riff at all, for there is no less than 16 or 18 Foot upon it: Yet for those that are not well acquainted, 'tis safest to keep the open Course, and go without all, rather than over the Riff.

From *Fort St. George* to *Pullacat*, not reckoning your going about the Sands and Riffs above, the Course is N.N.E. northerly. *Pullacat* is a *Dutch* Factory in a little Inlet of the Sea, where two Rivers come into the Gulph of it; yet here is no Harbour worth naming, but the Ships ride in the Road, as at *Fort St. George*, in 5 to 8 Fa. good Ground, and tolerably well shelter'd. The Rivers are not navigable here, or any where on this Coast, at least not for a great way.

To the N. of this Port lies another Sand-Riff running out into the Sea, much larger and longer than the Sea-Riff of *Monnoes*, and stretches farther along the Shore, as well as farther into the Sea: It lies off of a small Place call'd *Cycaraboeric*; the Course to it is N. by W. distance from *Pullacat* 8 Ls; and from the N. end of this Riff, with a wide Channel between also, there begins another, not to be call'd a Riff but a large

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From *Caletore* the Shore makes a large Sweep, not deep enough to be call'd a Bay, and yet a little like a Crescent, or like the Moon when near the Middle of the second Quarter. In this Bending are several small trading Places, tho no Factories, as follows. From *Caletore* to *Montipoli* dist. 31 Ls, the Course between N. and N.E. by N. Between them are the small Places of *Penny*, *Carera*, *Gondegam*, or *Goedegan*. At *Penny* there is a dangerous Riff lies off Shore, running out into the Sea at least 4 Miles ; keep in 14 to 16 Fa. there, and you are sure to be without it, and to be in 6 to 8 Miles Offing. There lies another Shoal off of *Goedegan*, a little way from the Shore ; but as there is Water enough for small Vessels to go over it, and great Ships have no Business there, or if they had do not come near the Shore, there need no other notice be taken of it.

When you are at *Montipoli*, you come into your old *Fair Way*, distance, and depth again, which is 4 Miles Offing, and 8 to 9 Fa. Water ; and so you keep on E.N.E. to *Petipoli*, distance 7 Ls.

N. B. From *Montipoli* S.E. by E. 16 Miles off in the Sea, lies a Shoal or Spit of Sand, stretching in length S.W. and N.E. for about 8 Ls ; There is no danger on it for depth, for the Soundings are gradual and good ; the southermost end is the shoalest, and no where less than $3\frac{1}{2}$ to 4 Fa. so that as you find it shoaling by your Lead, you may keep an Offing according to what Water your Ship draws : Also you may go within it in 8 to 10 Fa. stiff Clay ; but if you go near the Riff, you will find it sandy, and by the Change of the Ground you will know you are coming towards it, and so may keep off again as you please.

You will know the Coast between *Montipoli* and *Petipoli*, that is, *Great* and *Little Poli*, by a very remarkable Grove of Cocoa Trees, which lie along the Shore from right over the Town westward ; they grow even and flat on the Top like a Table, and it is call'd the *Table of Petipoli* : Here you keep a large Offing, viz. to 8 Miles. and in 6 to 7 Fa. the Shoalings being more gradual. At *Petipoli* the *Dutch* have a Factory, the last where they have any Fort on this Coast, till you enter the Coast of *Orissa*. Off of *Petipoli* there is another Bank of Sand, but it lies farther out, and there is a larger Channel between it and the Main.

That Riff of Sand lies E. from *Petipoli* almost 4 Ls off from the Main, and is generally 2 Ls broad, sharpening to the N. end in a Point ; one part of it towards the sharp N. end is dry at low Water : The Riff has generally from 3 to 7 Fa. over it, and there is from 8 to 11 and 12 Fa. in the Fair Way between, good strong Clay Ground. Towards the inner Edge of the Shoal is 10 Fa. steep, and good hard Sand. From hence you steer to *Due Point*, or, as others call it, the *Point of Metha*. When you go from *Petipoli* for the *Point*, the Course is W. or at most W. by N. If from the N.E. end of the Shoal or Riff spoken of, then 'tis N. by W. and N.N.W. The former is 13 Ls, the latter but 18 Miles, but with this difference, that in the first Course you make only the *Metha Point*,

is no less than 16 or 18 Foot upon it: Yet for those that are not well acquainted, 'tis safest to keep the open Course, and go without all, rather than over the Riff.

From *Fort St. George* to *Pullacat*, not reckoning your going about the Sands and Riffs above, the Course is N.N.E. northerly. *Pullacat* is a *Dutch* Factory in a little Inlet of the Sea, where two Rivers come into the Gulph of it; yet here is no Harbour worth naming, but the Ships ride in the Road, as at *Fort St. George*, in 5 to 8 Fa. good Ground, and tolerably well shelter'd. The Rivers are not navigable here, or any where on this Coast, at least not for a great way.

To the N. of this Port lies another Sand-Riff running out into the Sea, much larger and longer than the Sea Riff of *Mon-roos*, and stretches farther along the Shore, as well as farther into the Sea: It lies off of a small Place call'd *Cycaraboeric*; the Course to it is N. by W. distance from *Pullacat* 8 Ls; and from the N. end of this Riff, with a wide Channel between also, there begins another, not to be call'd a Riff but a large Bank of Sand, stretching about 10 Ls in length, and in some places 3 Ls to 3 $\frac{1}{4}$ broad: There is not above 1 $\frac{1}{4}$, and at most 2 Fa. Water upon it, so that no great Ships must come near it.

In the Channel just mention'd, between the Sea and the Land-Riffs, you may go thro' with a great Ship in 3 $\frac{1}{4}$ and 4 Fa. but when you go on northward, between the great Bank and the Main, you must borrow of the Main, for the Riff is very uncertain, and sometimes steep too, sometimes flat off; therefore you must keep your Lead carefully going.

If you are at *Pullacat*, bound N. and would go without the Riff, as is far the safest way, keep heaving your Lead, and come no nearer than 8 to 12 Fa. of the outer Edge of the Riff; but steer on with the Edge of the Riff, distance as above, N.N.E. If you have deepen'd your Water on any Occasion to 12 Fa. you must edge in again to 9 Fa. which will keep you enough off from the Riff; and it is needful to keep the Riff aboard, which is best done in that Depth.

Also if you would go to *Macklepatanam*, 'tis needful to keep as near the Riff as may be with safety, because of the Currents, which in *July* to *August* set to the N.E. and N.E. by N. easterly: But if you go right on, then steer due N. after you are past *Petipoti*, which is beyond the Riff.

This great Sand is call'd the Riff of *Armygoon*, from a Village of that Name upon the Shore W. from it: This Village lies N.N.W. from *Pullacat*; and N.N.W. from that, distance 8 Ls, on the N. side of a River, is a small Hill up in the Country, from whence you may see the high Land of *Pullacat*, which is a Mark for the Place from the Off-side of the great Riff.

From hence to *Caletore* the Course is N. easterly. Keep but 2 Miles Offing in this Course, because of the Riff without, and you will have as good a Depth of Water in that Offing as you need, being 9 to 12 Fa. good hard Sand.

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That Riff of Sand lies E. from *Petipoli* almost 3 Ls off from the Main, and is generally 2 Ls broad, sharpening to the N. end in a Point; one part of it towards the sharp N. end is dry at low Water: The Riff has generally from 3 to 7 Fa. over it, and there is from 8 to 11 and 12 Fa. in the Fair Way between, good strong Clay Ground. Towards the inner Edge of the Shoal is 10 Fa. deep, and good hard Sand. From hence you steer to *Due Point*, or, as others call it, the *Point of Metha*. When you go from *Petipoli* to the *Point*, the Course is W. or at most W. by N. If from the N.E. end of the Shoal or Riff spoken of, then 'tis N. by W. and N.N.W. The former is 13 Ls, the latter but 18 Miles, but with this difference, that in the first Course you make only the *Metha Point*, or *Due Head*, whereas in the last Course from the Sand-head you keep off, and go about into *Methlepatam* Road, which is round the Point.

When you are in *Masulapatam*, or *Methlepatam* Road, bring the great Tree, which stands over the River S.E. from the Town, to bear due W. from you; there you have a good Road, hard Sand, and 4 to 5 Fa. Water. There is both a *Dutch* and an *English* Factory at this Place, but the *English* is the chief; it lies in a deep Bight, which goes in N.W. of *Due Point*. There are two Rivers here on the N. side of the Point, but neither of them navigable: The Point is in 16 d. 8 m.

All along this Coast to the *Point*, there is a Flat or Shoal of Sand runs along the Shore, which they call a Land-Riff, but very improperly: At the *Point* indeed it runs out like a Riff; you must keep off at the distance of 8 Miles at least, and in going round the Riff, come no nearer than 6 Fa. with a great Ship.

From *Methlepatam* Road it is 14 Ls to *Nagpore*, the Course E.S.E. it is at the N. Point of the Bay. On the N. of the River at *Methlepatam* is another Land-Riff, which runs out into the Sea 4 Miles; but you may run over it without danger, with your Lead, in 4 to 7 Fa. but come no nearer the Land than 4 Fa. at your peril: The River is larger than usual for Rivers on this Coast, but not navigable; not often above 7 Foot Water, never above 12: And on the W. side of the Channel there is a great Shoal; small Vessels may go by it, and great Ships cannot go in at all, so you must try it with your Lead.

When you are in the Bay thwart the River, you will see a very great Tree to the eastward of the Town; bring the Tree N. by E. from you, then you are in the Mouth of the Channel. 2 Ls W. of this River lies the Nook called *Ombeld*, or *Hamel Hole*, where the *Europeans* frequently haul up their

Ships upon extraordinary Occasions to careen, clean, tallow, grave, and sometimes even to sheath them; the place being as convenient for that purpose as can be where the Tide rises so little upon the Flood. It is shoal off here, for at 8 mile from the Land, you have but 3 to $3\frac{1}{2}$ Fa. loft Ouzé; so you have nothing to do but mind your Lead Night and Day upon all this Coast.

From *Nassipore* to *Point Goordeware* is 15 to 16 Ls, the Course E.N.E. it is all along a clean Shore; keep in 12 to 16 Fa. and $2\frac{1}{2}$ L. offing. Four miles short of the Point you will see three *Payas*, which is the Mark to know the place by; they stand on the E. side of the River *Visceram*, the first River we meet with on this Coast that has a Name. Off of *Goordeware Point* lies a Riff, which runs $\frac{1}{2}$ long mile into the Sea; you must come no nearer it than 12 Fa. the Riff being steep, and the Soundings very uneven, especially coming from the westward: on the other side 'tis better, and you may come within 6 or 7 Fa. with your Lead.

From *Goordeware* to *Watsfare Point* the Course is N.E. measuring in a Line, fair cros the Bay, it is but $13\frac{1}{2}$ Ls from Point to Point: But to go round the Bight it would make 25 Ls at least. Here you have high Land and deep Water, the first being hilly and the latter 30 to 35 Fa. deep at 5 Ls offing; also in 2 miles you have 14 Fa. good sandy hard Ground.

From *Watsfare* the Coast goes away N. by E. and N.E. by N. and N.N.E. rounding to *Bamlepatam* $20\frac{1}{2}$ Ls; the Course is along Shore here, with an offing of but 2 miles, till you come over against *Panary* or *Poady*, where there are 9 or 10 great

Sailing Directions for the Coast of Orixá, and of the great River Ganges, vulgarly called the R



Stisigapatam is the last Factory on the Coast of *Coromandel*; so whatever trading places there may be on the Coast of *Golconda*, we see no Factories for a great way together: *Canare Hill* or Point we take to be first; there is a small River, but with no Navigation.

From *Canare Point* it is a strait Coast, with small Variation, to *Comparre*, or *Comparre*, dist. 46 Ls; the Course all the way N.E. not above $1\frac{1}{2}$ a Point varying. Neither are there any Towns or Trading-places of note on the Shore, or any Shoals or Sands, Sea-Riffs or Land-Riffs, sunk Rocks or open Rocks, that are considerable in the whole Course; no nor any Harbours or Bays. Rivers or Bights, Inlets or Openings worth notice on the Coast, except a few Rocks above Water off of *Pandy*; but 'tis all an even Strand, the Depths and Offings almost equal, from 12 to 14 and 15 Fa. at from 1 L to 2 Ls off Shore, and very much equal and alike all the way.

From *Carreparre* to *Manchepatam* the Coast varies 1 Point to N.E. by E. the dist. 8 Ls. Here the Land is less even, and

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Rocks in the Sea, but they are high out of the Water, and so there is no Danger of them: Also there lie 3 or 4 great Rocks upon the Strand, which serve as a Mark to know the Town by. There is an *English* Factory at *Vishagapatam*, 14 miles short of *Bimlapatam*. There is a good Road at this Town, but nothing else in the Sea, or on the Shore, worth your notice: you ride in 6 to 8 Fa. soft Ground, the Factory bearing W. by S. from you.

From hence to *Canare Point* is 4 Ls, the Course N.E. by E. Keep along Shore in 7 to 9 Fa. no farther out, for next this *Fair Way* lie the well known Rocks of *Santipelle*, 2 Ls out in the Sea: You will know them by a great Thicket of *Palmeta* Trees to the eastward of the Town; they bear N.W. by W. from you; also by a small round Hill up in the Country, and another like it on the Strand.

If you would go between the Rocks and the Main, you must keep no farther offing than in 9 or 10 Fa. and no nearer the Shore than 5 or 6 Fa. the best is to keep in 7 and 8 Fa. between both: Then there is no Danger. If from *Bimlepatam* you will go without these Rocks, you must come no nearer than 16 or 17 Fa. but the best Depth to keep in is 20 Fa. and so you will be sure to pass 2 Ls off them, because near the Rocks the Current sets strongly off and on, so that there is no Security in borrowing any thing near them.

Here by our Account ends the Coast of *Coromandel*, and the ancient Empire of the great *Mogul*; and here begins the Kingdom of *Golconda*, and the Country of *Orixa*, whose Coast continues to the Mouth of the *Ganges*.

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There is indeed a Land-Riff or Sand at both the false Cape (*Palmas*) and the true; the first is of no Consequence, having a good Depth over it, and not running out so far as the other; but that at the true Cape or Point must be avoided by all means, for it is shoal and dry in some places at low Water; and besides coming too near, you will be oblig'd to stand off again E. by S. If you are bound to the N. about the Point, you must come no nearer than 10 to 11 Fa. at least not with great Ships, the Soundings of the Shoal being very uneven, especially in 7 to 8 Fa. differing 2 or 3 Fa. at a Cast: 'Tis therefore best going about the Point in 12 to 13 Fa. which you will find at about 2 Ls from the Shoal.

The next Station is from the small Rivulet to the small Point, called the *Falſe Point*, which is called by the Natives *Carregarran*, or *Carrogarre*. Here your Course is E.N.E. for 12 miles; the Land is level, but cover'd with Trees and Bushes, till you come near the Point, and then the Trees make a ta distance like a parcel of small Islands, by which the false Point is known. Keep 2 Ls Offing in 20 and 21 Fa. soft Ground, that you may keep without the Flats upon the Coast.

For a great way together: *Canare Hill* or Point we take to be first; there is a small River, but with no Navigation.

From *Canare Point* it is a strait Coast, with small Variation, to *Carreparre*, or *Comparre*, dist. 46 Ls; the Course all the way N.E. not above 1/2 a Point varying. Neither are there any Towns or Trading-places of note on the Shore, or any Shoals or Sands, Sea-Riffs or Land-Riffs, funk Rocks or open Rocks, that are considerable in the whole Course; no nor any Harbours or Bays. Rivers or Bights, Inlets or Openings worth notice on the Coast, except a few Rocks above Water off of *Pandy*; but 'tis all an even Strand, the Depths and Offings almost equal, from 12 to 14 and 15 Fa. at from 1 L to 2 Ls off Shore, and very much equal and alike all the way.

From *Carreparre* to *Manchepatam* the Coast varies 1 Point to N.E. by E. the dist. 8 Ls. Here the Land is less even, and more baying, as it's coarsely call'd, so that it ought to be shunn'd in case of Winds off Sea, there being no good Ground to anchor in here, as is on all the rest of this Coast. Also on the S. side of the Creek there lies a Shoal of Sand stretching out into the Sea 2 miles, but there is 4 Fa. Water upon it: you may know the Place or Port by a *Pagode*, which you may see over the Land, which overhangs as if it would fall.

From *Manchepatam* the Course varies again, and goes away E.N.E. half E. to *Cape Palmiras*: it may differ a little, but is much the same Course N.E. or within a Point of the N.E. one way or other. There is no Place very remarkable on the Coast, or any thing to be observ'd for the Sailor's Directions in the sailing by it.

There are several places between, which our Pilots indeed think fit to name, but do little more than name them; as *Jean Gamel*, or, as our Seamen call it, *Jackaranat*, *Cameron*, or the *Black Pagode*, the *Small Pagode*, *Massipore*, *Ausipore*, the *Rivulet*, *Cape Falso*, or the *False Point*. In all these the Directions given are only to the 3 first, *viz.* to keep the same Offing, of about 3 miles, and you shall find the same Depth, *viz.* 12 to 13 Fa. In others, *viz.* the last 4, to keep 2 Ls Offing in 2 to 2 1/2 Fa.

There is a high white Pillar like a Mast at *Massipore*, as a Mark to know the Land by, but there are very few Sea-marks any where else upon this Coast.

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but that at the true Cape or Point must be avoided by all means, for it is shoal and dry in some places at low Water; and besides coming too near, you will be oblig'd to stand off again E. by S. If you are bound to the N. about the Point, you must come no nearer than 10 to 11 Fa. at least not with great Ships, the Soundings of the Shoal being very uneven, especially in 7 to 8 Fa. differing 2 or 3 Fa. at a Cast: 'Tis therefore best going about the Point in 12 to 13 Fa. which you will find at about 2 Ls from the Shoal.

The next Station is from the small Rivulet to the small Point, called the *Falsè Point*, which is called by the Natives *Carregaran*, or *Carrogarre*. Here your Courle is E.N.E. for 12 miles; the Land is level, but cover'd with Trees and Bushes, till you come near the Point, and then the Trees make a distance like a parcel of small Islands, by which the falsè Point is known. Keep 2 Ls Offing in 20 and 21 Fa. lost Ground, that you may keep without the Flats upon the Coast.

From the *Falsè Point*, or *Flat Point*, to *Cape Palmiras* is 9 Ls, the Courle N.E. but you must sail N.E. and by E. to avoid the aforesaid Sand of *Cape Palmiras*: for coming near, you will be forced to stand off E. by S: If you are bound about the Point, come no nearer than 10 or 11 Fa. with great Ships; for in 8 and 7 Fa. are very uneven Soundings, sometimes differing $1\frac{1}{2}$, or 2 or 3 Fa. at a Cast, but it is best, doubling the Point in 12 or 13 Fa. Clay Ground, which you will find at about 2 Ls Offing. When you have doubled the Point, haul away N.W. by N. 2 miles, and then N. a small matter, and you will find the Tail of a Bank, on which is 9 or 10 Fa. (Sand) for 2 or 3 Cables length; and then you will have again 13 or 14 Fa. Clay, and 17 and 18 Fa. Sand, mixt with small Stones. Then haul away N.W. or a little more westerly: but if the Flood draws you to the Eastward of the North, you will miss *Ballafore*. When you have sailed N.N.W. 2 or 3 miles, you will see a Shoal, on which the Sea breaks: Come no nearer it than 12 or 14 Fa. for it is steep too. When you have this Shoal W. and by S or W.S.W. then steer N. from *Piply*, and N.N.W. from *Ballafore*, taking great care to keep your Lead going.

N. B. *Cape Palmiras* is in Lat. 20 d. 45 m

Sailing

Sailing Directions for the River

*Sailing Directions for the Coast of the Kingdom of
Hugeley, or Gang*

WHether this or that Port or Road be in the Kingdom of *Golconda*, or of *Bengal*, is not our business in our Directions to the Sailors; but we are obliged to mention it, because Places of the same Name are distinguished by the Country where they are situated: I take *Bengal*, as a Coast, to lie from *Cape Palmiras*, on the N. of the Coast of *Golconda*, and to extend only to the Entrance into the River *Ganges*: where it reaches farther, we shall show by it self.

From the Point of the Sand off of *Cape Palmiras* to the River *Ballafore*, or to the Road before the River, taking cross the Bay, as the Ships ordinary sail, the Course is N. by W. or N.N.W. dist. about 13 to 14 Ls. Some have told us of another Shoal or Bank in this Course, *viz.* E. by S. from *Cape Palmiras*, dist. 28 Ls; so that by their Account it should be found in your standing off from the Riff or Shoal of *Cape Falso*, to go round that of *Cape Palmiras*, or to stand away to the S. Entrance of the River *Hugeley*: others say there is no such Sand at all.

Which ever of these be right, one may be assured the Ground has been carefully sounded all the way on both sides the Sand of *Palmiras*, and for 30 Ls off the Point of it; and no such Sand has been found, or any Shoal or Bank, but gradual Soundings from 7 Fa. on to the Sand-edge, and to 18, and on to 30 Fa. in the Offing.

However, the vigilant Mariner, if he is in the least doubtful, will be sure to keep the Lead constantly going, for his better Satisfaction, all the way, while he is rounding the said Sand, as also when he is Coasting at a distance.

In going from *Palmiras* to *Ballafore* you must be careful to observe the Tides; for your Course may alter a Point or two, as you sail with the Flood or against the Ebb: If with the Flood, which sets strong into the Bay, you will go with the Stream of the Tide N. by W. as above; but if upon the Ebb, you will bear into the Bay a Point or two, that you may have command of your Course, and not be put by the Road of *Ballafore*.

The Road of *Ballafore* is at least 3 to 4 Ls off from the Mouth of the River: for the Shore being flat off, you have Water no farther in for a great Ship; and at that dist. you anchor in no more than 5 Fa. The River is barr'd, and you cannot go in with great Ships; there is but 3 Fa. without the Bar, and but 4 above a L. off. *Ballafore* lies in 21. 16. N. Lat. there is an *English* Factory here: from hence to the W. side of the Shoals of *Hugeley* the Course is E. by N. easterly.

From the dry Sand above-nam'd to *Pipley* the Course is due N. the dist. 17 Ls: but you must have a little respect to the Tides in this Course also, as above; for if you go with the Ebb, you must go more to the W. but come no nearer the Bay

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Kingdom of Bengal, to the Entrance of the River Hugeley, or Ganges.

Kingdom soft, then you need not fear the Sand upon that Point. Thence the Depth will shoal upon you gradually till you anchor in *Ballafore Road*, where you may ride in 6 Fa. Or if the Winds blow hard easterly, take more Depth of Water. *Pipley* is a *Dutch Factory*, and lies at a dist. up the River: 'Tis a barr'd Port, having indeed a double Bar, so the great Ships ride without, but not so far off as at *Ballafore*; for on the E. side of the Passage over the Bar, about 2 miles from the Bar, there is good anchoring in 5 Fa. if you are in a small Vessel that may venture, there are *Dutch Pilots* to carry you in.

N. B. Here, in order to what follows, take some needful Observations of the Tides and Ground in this part which is properly called the Bay.

1. In the Road of *Ballafore* your Mark for the best Ground is the *Tamarin Trees*, which stand on the Starboard side of the second Reach in the River, bearing N.N.W. from you; or the W. Point of the River, called by the *English Point Bankfal*, bearing N. These Marks make the full Extent of the Road.

N. B. *Bankfal Point* is known by an *English Set of Warehouses* built upon it, and a *Dutchman's Tomb* who lies buried there.

2. The Full and Change of the Moon, Day 10 $\frac{1}{2}$ Hours long, makes full Sea off of *Pipley*, the Trees on the W. Point of the River bearing N.W. by N. from you.

3. In an Offing of 6 Fa. at low Water, 9 Hours $\frac{1}{2}$ Day, Full and Change makes high Water off *Pipley*.

4. Day 9 Hours, 45 Min. the Full and Change of the Moon makes high Water at the Foot of the Westernmost Brace, called the outermost Brace in the Mouth of *Hugeley*.

5. Day Full, 12 Hours, makes High Water Full and Change in the great Swatch between the Shoalings of the *Parabulho* and the *Long Sand*, either towards *Cock's Island*, or *Kedjare River's Mouth*.

6. The first Quarter Flood from the Road of *Ballafore*, and as high as *Kedjare*, sets due N with great Force; the half Flood in the same Situation N.E. and the first of the last Quarter E.N.E. the Ebb just the Reverse.

7. In the same Situation the Springs rise 15 Foot right up and down, Neap-Tides 6 Foot, off of *Pipley* 11 Foot and 7 Foot, and on the outer Brace 12 Foot and 8 Foot.

8. There is no less than 13 $\frac{1}{2}$ to 14 Foot Water upon the said outer Brace.

N. B. In the middle of it 'tis $\frac{1}{2}$ Foot deeper than at the outer Edge, either going on or off.

All these things being duly consider'd, you may weigh from the Road of *Ballafore* upon the first of the Flood, Wind at S.W. and steer due E. 9 $\frac{1}{2}$ Ls which will carry you half a L. beyond *Pipley*, and 2 $\frac{1}{2}$ Ls short of the *Brace*.

Note. It has been reported, that from *Point Palour* S. E. by

observe the Tides; for your Course may alter a Point or two, as you sail with the Flood or against the Ebb: If with the Flood, which sets strong into the Bay, you will go with the Stream of the Tide N. by W. as above; but if upon the Ebb, you will bear into the Bay a Point or two, that you may have command of your Courle, and not be put by the Road of *Ballafore*.

The Road of *Ballafore* is at least 3 to 4 Ls off from the Mouth of the River: for the Shore being flat off, you have Water no farther in for a great Ship; and at that dist. you anchor in no more than 5 Fa. The River is barr'd, and you cannot go in with great Ships; there is but 3 Fa. without the Bar, and but 4 above a L. off. *Ballafore* lies in 21. 16. N. Lat. there is an *English* Factory here: from hence to the W. side of the Shoals of *Hugeley* the Courle is E. by N. easterly.

From the dry Sand above-nam'd to *Pipley* the Course is due N. the dist. 17 Ls: but you must have a little respect to the Tides in this Course also, as above; for if you go with the Ebb, you must go more to the W. but come no nearer the Bay than 7 to 9 Fa.

To sail from *Ballafore* to *Pipley* the Course is E.N.E. 20 miles; you may keep along Shore in 5 and 6 Fa. according to the Burden of your Ship: You may know *Pipley* by a *Pagode*, standing on the W. side of the River; near to which stand 2 or 3 great Trees which almost cover it, so that it is hard sometimes to see it. There stands also a Flag-staff, and when you have that N.W. and N.N.W. in 5, 6, or 7 Fa. then you are in the Road: but coming from the Westward along the Shore, you must have a care of the *West Bank*, which tails out at least 4 miles to seaward, upon which there is but 3 and 4 Fa. Water. Then is the Flag-staff N.N.W. so that you must keep a little farther out.

When you luff in for the Bay of *Bengal* about *Cape Palmira*, as soon as you have hard Ground be sure bear off, keeping your Lead constantly going, one Cast hard and the other

Sailing Directions for the Entrance into, and sailing from the Road of Ballafore, and of Pipley, and several Channels, or so many of them as have been



HE River *Ganges*, commonly called by our Sailors the River *Hugeley*, as it is the most frequented by *European* Ships, and is now made the Centre of their Commerce for the whole Kingdom of *Bengal*, it is requisite the Directions for sailing into and out of it should be the more particular; especially,

1. Because it is a River of the most difficult Entrance for a Stranger, has the greatest Variety of Channels, and is the most blockt up with innumerable Sands and Shoals of any River in this part of the World.

2. Because notwithstanding this, it has been surveyed and founded with the utmost Exactness, and divers safe and good

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5. Day Full, 12 Hours, makes High Water Full and Change in the great Swatch between the Shoalings of the *Barabullo* and the *Long Sand*, either towards *Cock's Island*, or *Kedgare River's Mouth*.

6. The first Quarter Flood from the Road of *Ballafore*, and as high as *Kedgare*, sets due N. with great Force; the half Flood in the same Situation N.E. and the first of the last Quarter E.N.E. the Ebb just the Reverse.

7. In the same Situation the Springs rise 10 Foot right up and down, Neap-Tides 6 Foot, off of *Pipley* 11 Foot and 7 Foot, and on the outer Brace 12 Foot and 8 Foot.

8. There is no less than 13 $\frac{1}{2}$ to 14 Foot Water upon the said outer Brace.

N. B. In the middle of it 'tis $\frac{1}{2}$ Foot deeper than at the outer Edge, either going on or off.

All these things being duly consider'd, you may weigh from the Road of *Ballafore* upon the first of the Flood, Wind at S.W. and steer due E. 9 $\frac{1}{2}$ Ls which will carry you half a L. beyond *Pipley*, and 2 $\frac{1}{2}$ Ls short of the *Brace*.

Note, It has been reported, that from *Point Palmaras E.* by S. 28 miles in the Sea, on the Bank mention'd before, a Ship was lost: but others question the truth of it, as they do of there being such a Sand there, Search having also been made for the Wreck as well as the Sand, but not found: however, it cannot be amiss, as I said above, to keep the Lead going, for fear of the worst.

From the dry Sand Bank to *Ballafore* the Course is N. and by W. and N.N.W. about 12 or 14 Ls; but you must mind the Tide, and shape your Course according to the Ebb or Flood: you may fail in from 6 to 4 Fa. as your Vessel requires. Here it flows 12 or 13 Foot right up and down: *Ballafore* lies in Lat. 21 d. 16 m.

From the dry Sand to *Pipley*, the Course is N. about 17 Ls; but you must have respect to the Tides.

into, and sailing up the River *Hugeley*, especially *Pipley*, and likewise out of the said River by the *m* as have been discover'd and surveyed.

Channels discover'd and mark'd out; so that the greatest Ships, that use the *India Trade* may sail up to the farthest parts of it, which are practicable, or which the Commerce requires; there being generally 5 to 7 Fa. Water in those Channels within a few miles of *Hugeley* it self, which is from the Entrance of the Braces and other Channels at least 150 *English* miles, and much more, if the Reaches and Turnings of the said Channels are reckon'd in.

3. Because tho' 'tis a River of very good Business, and much frequented by our Ships, yet we do not find that Pilors are easily to be had, or that there is Business enough to make it worth their while to be always attending it.

Supposing

Supposing then a *European* Ship bound into *Ingeley* is lying at *Ballafore*, or in *Pipley Road*, waiting for a Wind; it is needful to give some general Instructions for their getting into the Channel of that River, that part being almost as difficult as all the rest: If the Ship lies in 6 Fa. at low Water, let them weigh at the first of the Flood, and go away due E. $9\frac{1}{2}$ Ls. This Course will carry them half a L beyond *Pipley*, being $2\frac{1}{2}$ Ls short of the outermost Brace, when the Trees on the Star-board side of *Pipley River* mention'd before will bear N.W. by N. There let them anchor in $7\frac{3}{4}$ to 8 Fa. at high Water.

N. B. There they are sure of 6 Fa. at low Water, and they must anchor here to wait for the next Day's Flood, to carry them over the *Braces*.

But if the Wind chances to blow more out of the Sea, that is, any where to the S. or near it, they may steer from *Ballafore* with the first of the Flood E. by S. or E.S.E. to the same Station as before: the Reason is, because otherwise the Flood Tide and Out-Wind will hoist them up too near the Shore.

N. B. The distance from *Pipley* to the *Outer Brace*, as above, is not above 5 Ls; and this makes the Riding there necessary, because 'tis not convenient on any Account to anchor near the *Brace* in the Night, lest by the sharpness of the Current and the stillness of the Gale they should over-run their length, and come upon the *Braces* out of time.

For this Reason let them keep the Lead carefully going, till they are 5 Ls to the eastward of the Road of *Ballafore*; then take exact notice of the Sand upon their Lead: When the River of *Pipley* bears due N. there will be a fine light brown Sand without fail for three or four Casts, then Ouze again; then let them anchor; only so as to be sure of 6 Fa. depth at low Water.

N. B. Tho there is not less than 13 to 14 $\frac{1}{2}$ Foot Water upon the Edge of the *Brace*, yet in blowing Weather the Sea runs very high there, and sometimes is all on a Breach; so that if the Ship draw deep, and the Wind blows hard, they ought not to stir to weigh till two Hours Flood: Then with an easy sail they may steer away E. by S. till they find by their Lead they are upon the *Brace* it self: Then let them crowd all the Sail they can make, till they are over, and entered into the first Channel, call'd the *Small Swatch*.

N. B. The *Small Swatch* is a narrow Channel between the two *Braces*.

As soon as they find themselves entred, and in soft Ground, they will have $5\frac{1}{2}$ to $5\frac{1}{4}$ Fa. Water: Then let them steer E. by N. and E.N.E. to pass the second *Brace*, and get into the *Great Swatch*; and being advanced about 2 Ls there, and the Tide spent, or the Ebb made, then let them anchor, which they may do very securely, so as to have $4\frac{1}{2}$ to 5 Fa. at low Water, and to be ready to go on again with the next Flood.

This being a very nice and difficult Course, the following Observations may be added, and should be regarded carefully.

1. That if you weigh from *Pipley Tree* at two Hours Flood

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Directions for the River Hugeley.

Swatch is part of the main Channel) the farther Directions are as follow.

As soon as entred the *Swatch*, steer away E.N.E. and N.E. by E. to avoid the dry End of that dangerous Sand just named, called the *Long Sand*, keeping a Man always upon your Fore-yard or Bow-sprit to look out for the Breakers.

1. In case you happen to be any thing near them before you discover them, which you may perceive by having deeper Water, you must steer off for a while to the northward: But the safest way is to range the *Barabullo* in 5 Fa. Water; and if it happens that the Wind being slacker, or the Night come on before the Flood be spent, you must haul up E. and E. by S. for half a Glas's time, into 6 or 6 $\frac{1}{2}$ Fa. Water, loſt Ouzé, and there anchor to meet the next Day's Flood.

N. B. Hereabouts there is no sailing by night in great Ships tho with the most experienc'd Pilot.

2. Supposing you cannot get so far as to be a-breast with the Head of the *Barabullo*, you may with the first of the Flood, before the Tide makes strong up, or that your Ship winds to the Tide, get up your Anchor, and continue your Course N.E. by E. and N.E. until the N. end of the *Segar* bears E. by N. or that the *Barabullo Tree* on the W. Shore (which makes like an Umbrella spread open) bears N.W. Thence you ought to steer N. and N. by W. leaving the Breakers of the *Barabullo* on your western side at least $\frac{1}{2}$ of a Mile: And this Course will carry you to the Mouth of *Kidgare* River. You ought also to take notice that the Breakers of the *Barabullo* lie about 4 Miles off the western Shore, and bear S.E. and N.W. with the *Kittefale* or *Umbrella Tree*, and N. and S. with the Grove of Trees call'd the *Long Wood*, which stands to the westward of the Entrance of *Kidgare* River.

3. Off of the E. Point of *Kidgare* River runs a Flat, a full quarter of a L into the Oſſing, which is steep too; and therefore as soon as the River is open, you ought not to come nearer the Shore on that side than within $\frac{1}{2}$ of a L. at least: But when you have pass the River's Mouth, you may edge in again towards the Shore 1 L. Before you come up with the River of *Cowcolle*, you may not be more than a Mile off the Shore.

4. The Head or N. end of the *Long Sand* lies 2 Miles E. by S. from the Mouth of the said River *Cowcolle*; and between that Head and the Shore lies the Passage, but close aboard the *Long Sand*; for that of late a Bank of Sand is hove up betwixt the *Long Sand* and the River's Mouth, which is dry at low Water upon the Springs, and renders the Passage both narrow and dangerous; so that before a Vessel of burden ventures thro', it will be requisite to order your Shallops to attend you, one of which to anchor upon the Pitch of the *Long Sand-head*, and one of the Ship's Boats to be placed at a Grappling on the E. Edge of the said (lately hove up) Bank; and to the Ship at half Flood may pass between them with Satisfaction, knowing the Depth to be sufficient.

This is one way to go safely thro' tho you should get no Pilot; the other is thus: Supposing a great Ship to have ne-

by S. till they find by their Lead they are upon the *Brace* it self: Then let them crowd all the Sail they can make, till they are over, and entred into the first Channel, call'd the *Small Swatch*.

N. B. The *Small Swatch* is a narrow Channel between the two *Braces*.

As soon as they find themselves entred, and in soft Ground, they will have $5 \frac{1}{2}$ to $5 \frac{1}{4}$ Fa. Water: Then let them steer E. by N. and E.N.E. to pass the second *Brace*, and get into the *Great Swatch*; and being advanced about 2 Ls there, and the Tide spent, or the Ebb made, then let them anchor, which they may do very securely, so as to have $4 \frac{1}{2}$ to 5 Fa. at low Water, and so be ready to go on again with the next Flood.

This being a very nice and difficult Course, the following Observations may be added, and should be regarded carefully.

1. That if you weigh from *Pipley Tree* at two Hours Flood, the E. by S. Coast will carry you directly to enter the *West Brace*, at $3 \frac{1}{4}$ Ls distance from the nearest Land, bearing N.N.W. or thereabout; and therefore that is the best Offing.

2. You should not enter upon the *Brace* in less than $3 \frac{1}{2}$ Ls from the Shore, because you will else have 3 Foot less Water, and because if the Wind happen to blow more out from the Sea than S.S.W. with the Flood, you will be let into the Bight, and not be able to weather *Salt River Point*, and so unavoidably lose your Passage.

3. Nor must you go beyond $4 \frac{1}{2}$ Ls distance, because you cannot be secure in dark Weather, tho' you may have Water enough upon the *Brace*, that you shall not be embay'd, when you are pass'd it, with the *Breakers* on the other side of the *Small Swatch*, (which is what they call the W. side of the Sea-Riff) or with the dry part of the S. end of another Sand call'd the *Long Sand*, and which lies on the E. side of the *Great Swatch*. This *Long Sand* is a dreadful place; 'tis sleep too, and lies very near the Sea-Riff.

N. B. The *Long Sand* or *Dry Bank* lies E.S.E. and W.S.W. with the S. Point of the *Island Sager*, and right up and down the Stream, distance from the Shore near $4 \frac{1}{2}$ Ls.

You must by no means come nearer this Sand than 6 to 7 Fa. for 'tis to sleep, especially on that side next you, that at one Call you may have $7 \frac{1}{2}$ Fa. and before you can heave again, be fast upon it; and having once struck there's no getting off again, but you will be inevitably lost.

4. When you have pass'd the first *Brace*, and got into the *Small Swatch*, the *Bluff Tree* at *Salt River Point* will bear N. half E. and you will find soft Ground; so that you may be sure, by following the Course directed above, you shall not fail to hit the Edge of the *Brace*, and pass well over.

5. As soon as you have got into the *Great Swatch*, the *Nut River Tree*, and a white sandy Down to the W. of it, will bear N.W. by N. from you.

Having noted all these things by way of Precaution, and being entred the main Channel of the River (for this *Great*

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4. The S. from th that Head *Long Sand* twist the low Water row and thro', it you, one *Sand-beach* Grappling and to the tisfaction,

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Cowcolle, you may not be more than a Mile off the Shore.

4. The Head or N. end of the *Long Sand* lies 2 Miles E. by S. from the Mouth of the said River *Cowcolle*; and between that Head and the Shore lies the Passage, but close aboard the *Long Sand*; for that of late a Bank of Sand is hove up between the *Long Sand* and the River's Mouth, which is dry at low Water upon the Springs, and renders the Passage both narrow and dangerous; so that before a Vessel of burden ventures thro', it will be requisite to order your Shallops to attend you, one of which to anchor upon the Pitch of the *Long Sand-head*, and one of the Ship's Boats to be placed at a Grappling on the E. Edge of the said (lately hove up) Bank; and to the Ship at half Flood may pass between them with Satisfaction, knowing the Depth to be sufficient.

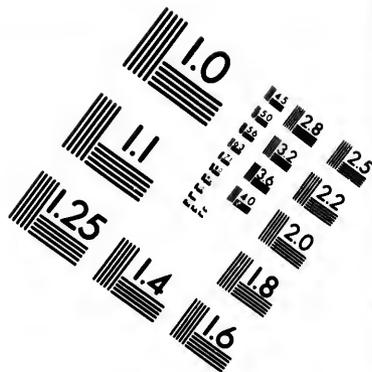
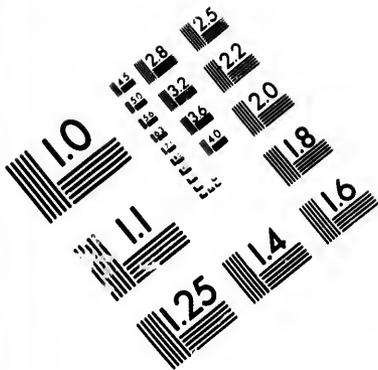
This is one way to go safely thro' tho' you should get no Pilot; the other is thus: Supposing a great Ship to have never a Shallop to attend her, (indeed I take it to be far the safest way, tho' she had one) let the Ship stay at an anchor about a Mile and a half short of *Cowcolle* River until 4 Ebb, at which time the *Long Sand* will discover it self, being dry at that time; you must order it so as to be under sail before it be quite low Water, and range the dry Head of the *Long Sand* fair aboard, in 5 and 4 $\frac{1}{2}$ Fa. Water, I say keep that depth at least; for if you edge off to the shorewards but a Cable's length, you will shoal your Water to 3 Fa. on the Edge of this aforesaid new Sand; but the *Long Sand-head* has Water enough close aboard of it, where it lies highest and driest, and at the Time of a slack Tide has no danger, provided you mind your Steerage.

5. So soon as you have past the *Long Sand-head*, you will find 10 Fa. Water; then you must immediately haul in for the western Shore towards *Kidgare* River, that so you may avoid the Peak of the *Mixon*, which is that part of the Sand that lies open with the said River's Mouth, about a short Mile and half in the Offing, and which is very steep on the S.W. side of it, lying E. by N. and W. by S. with the great Trees that encompass *Kidgare-Fort*.

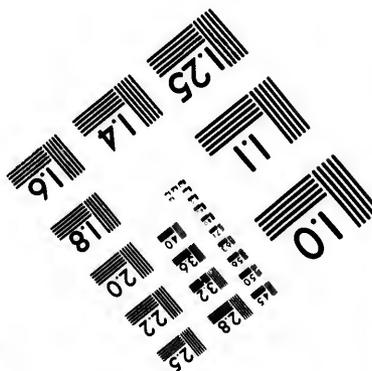
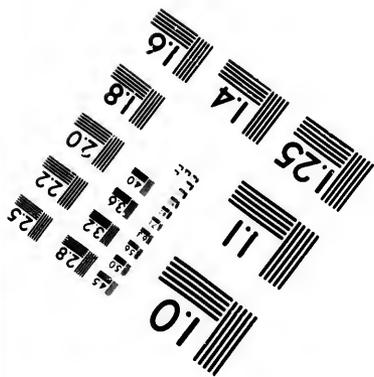
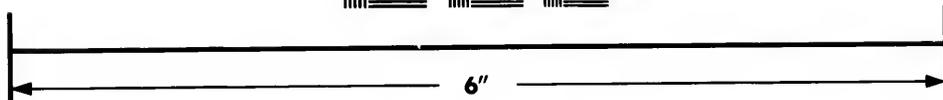
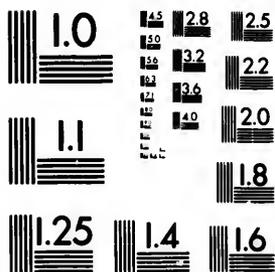
So soon as you have the aforesaid Trees W.S.W. from you, put over immediately for the eastern Shore, steering with the Tide of Flood under Foot E.N.E. or E. by N. until you get hold of the *Mixon* or *Mizen*, which will be a Weather Sand, and conduct you with all Security over the eastern Shore, only passing along by it with Discretion, according as the Wind is scanty or large: Your Course being not so much to be minded, as the careful edging on or off from the said Sand, which with the Flood has no danger on this side of it, only when *Gallin-gan* River bears N. half E. to N. by W.

This Sand has but little Water on it at low Water: it shoals very gradually, so that you may edge off from it as Occasion may require, and always be able to fetch close under the eastern Shore, at least a Mile and half, before you come up to *Jessore* River, formerly call'd the *Channel Creek*: For this last Year, as the N.E. Point of the *Mizen* is much worn away, so the





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Sailing Directions for the

the *Gillingam Sand*, which formerly reach'd no lower than *Jessore River*, is now so increas'd, that it comes down as far as the small Creek next to *Kidgare River*, and has rendred the Channel so very narrow, that with the Flood on the *Mizen* it would be impossible for you to keep in the Channel. or prevent being hors'd upon the *Gillingam Sand*, whence there will be no getting off with the Flood; and besides the danger, you will find Difficulty enough to get off with the first of the Ebb.

6. From above a Mile and half below *Jessore River* the Channel lies close aboard of the Main, between the eastern Shore and the *Gillingam Sand*, and has no danger at all with the Flood, provided you be not spew'd off from it, for it must not be left until you have past the River of *Rongusoula*, which lies in the Bight about half way between *Jessore River* and the River of *Culpe*: And then so soon as you have past *Rongusoula River*, you will have the Middle of the Grove on *Buffalow Point* bear N.N.W. from you, and you ought to stand over for it, and anchor there, for on the N.E. side there is good riding in 5 $\frac{1}{2}$ or 6 Fa. in the S.W. *Monsson*, if you have no Inclination to venture your Ship any higher up; but if you are resolv'd for the River of *Hugeley*, then only stop at the Point for the next Day's low Water, that so weighing with the first of the Tide, you may be sure of Flood enough from thence to enter the River of *Hugeley* with, and not be obliged to let go your Anchor in the *Narrows*, where there is deep Water, and an excessive Tide to strain your Cable.

7. To sail from *Buffalow Point* upwards, it is necessary to range the eastern Shore far aboard, to avoid the Point of the *Diamond Sand*, which lies within a Cable's length of a small Creek on the said Shore, and is not to be come nearer to than 7 Fa. As soon as you have past the said Creek, you must trim sharp, and haul up N.W. by W. for the lower Point of the *Narrows* on the southern Shore; which said S. Shore with the S. westerly Winds, it will be necessary to range, until you begin to open *Hugeley River*, and then put directly in N.N.E. having a care of the eastern Point of the said River, and of the Eddies which commonly at half Tide are very troublesome thereabouts, by reason of the Division of the Stream into that and the River of *Tumberlee*.

Directions for carrying up great Ships from Ballalore Road into the River of Hugeley, thro' the new Deeps, provided they have no less than two Shallops to attend them.

I know it is very difficult to persuade Men to any new Undertaking: And as often as it has been propos'd by Men of Skill as the latest way to carry *European Ships* of the greatest burden this way into the River *Hugeley*, it has been objected that it was a thing had never been done, and that the Entrance into the Deeps lay so far from the sight of Land, that it would be hard to place any Buoys on the outer Heads of the Sands, to guide them in: Tho' some skilful Pilots think that the Opinion of those Men proceeds chiefly from their unwillingness to leave sight of the Land among so many Difficulties, as also from their not knowing the true Position and Shoaling of the

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4. When the two Shallops are join'd, and day-light pre-
sents, let them both weigh, and according to the Tides under
foot, stand thwart the *Swatch*, the innermost Sounding in
about 7 Fa. and the outermost in 9, until the innermost finds
hard Ground upon the Edge of the eastern part of the Sea-Riff:
And then let that Shallop endeavour to round the S. end of it,
without coming into soft Ground, whilst the outermost Shallop
finds her self in about 10 Fa. but no less, and until the innermost
makes Signals that she has rounded the S. end of the Sand, and
finding soft Ground, tacks again to come to an anchor upon
the Sand; which when she has done, the outermost may come
to an anchor in 11 Fa. N. and S. from it.

5. These Shallops being thus posted, will have the Entrance
into the new depths sufficiently open, so that the Ship has no-
thing to do but to bear up to the outermost of them, and then
stand in to the northward; she that was upon the Head of the
Sand, always keeping upon her Larboard Bow, along the Edge
of the Sand, in at least 4 Fa. be it what time of the Tide it
will; and the other Shallop upon his Starboard Bow at such a
distance, that they may make Signs to the Ship what depth of
Water she has, as also if she should meet with any sandy
Ground upon the Edge of the *Sagor Shoal*.

6. The Entrance in this Channel call'd the *New Deep*,
which is bounded on the W. side by the eastern part of the Sea-
Riff, and on the E. side by the *Sagor Sand*, lies 12 Ls from the
Island *Sagor*: The Channel stretches nearest N. and S. and has
12 Fa. at the Entrance into it; it is 6 Ls over from Sand to
Sand; so that you may expect to be in 5 Fa. at low Water soft
Clay, before you can expect to see the Island from the Fore-
yard in fair Weather; and until you come into $4\frac{1}{4}$ at low
Water, you will hardly be able to see it on the Deck: But let not
this startle you, for the Channel thereabouts is 3 Ls and half
broad at least soft Ground; and tho you must expect no more,
yet you will find no less betwixt that and the *Sagor*, provided
always that you leave the southermost end of the Island a L
upon your Starboard-side: And when the said Point bears E.
from you at that distance, let one of the Shallops keep be-
tween the Ship and the Sea, and keep *Caspet* and *Long Sand*
to the westward Offing, and the other upon the Seaboard be-
tween you and the small *Middle Ground*, until you get up as
high as *Cox's Island*; and there if the Night draw on, or the
Flood be almost spent, let them anchor till the next day abreast
with the Body of the Island, in 7 to 8 Fa.

7. When the next Day's Flood presents, let them weigh
from *Cox's Island* at the first Quarter's Flood, and steer N. or
N. half W. keeping the *Long Sand* aboard, until they get over
within a Mile of the other Shore, and about half a Mile short
of the lower Point of *Kidgare* River, and thence proceed as
has been already directed, in the Instructions for great Vessels
that came thro' the *Middle Channel*.

If Ships of great burden were thus strictly attended with two
Shallops, I dare affirm there is much less danger in entering the
River thro' the *New Depths* than over the *Braces*; nor need
they fear ever coming into less than 4 Fa. at low Water upon
the Springs; only if the Night or want of Wind happens, it
may occasion their anchoring when they come a little short of

and of the Edges which commonly at half Tide are very troublesome thereabouts, by reason of the Division of the Stream into that and the River of *Tumberlee*.

Directions for carrying up great Ships from Ballasore Road into the River of Hugelley, thro' the new Deeps, provided they have no less than two Shallops to attend them.

I know it is very difficult to persuade Men to any new Undertaking: And as often as it has been proposed by Men of Skill as the safest way to carry *European* Ships of the greatest burden this way into the River *Hugelley*, it has been objected that it was a thing had never been done, and that the Entrance into the Deeps lay so far from the sight of Land, that it would be hard to place any Buoys on the outer Heads of the Sands, to guide them in: Tho' some skilful Pilots think that the Opinion of those Men proceeds chiefly from their unwillingness to leave sight of the Land among so many Difficulties, as also from their not knowing the true Position and Shoaling of the outer Sands; for otherwise, having two Shallops to a Ship, there cannot be any absolute Necessity of Buoys, or any great Difficulty, much less Danger, in carrying of Ships that way: The manner we may suppose to be thus.

1. Let the Ship and two Shallops keep company to *Pipley* Road, I mean to the forementioned place of anchoring, 2 *LS* $\frac{1}{2}$ to the eastward of *Pipley*, as in the former Directions for Ships that were to have gone over the *Braces*; and there the Ship coming to an anchor, let the Shallops steer E.S.E. half S. until they get the Soundings of the western *Brace*, then let one of them keep along the W. side, until he gets to the southward end of it, and the other keep a-breast of his Companion, but farther off in 8 *Fa.* soft Ground: then let them both anchor, the one upon the very S. Pitch of the *Brace* in 4 $\frac{1}{2}$ or 5 *Fa.* sandy Ground, and the other E. from them, in 8 or 9 *Fa.* *Ouze*; and there both stay till the Ship comes to them, or broad side with and between them.

2. The next Morning, whether Ebb or Flood, the Ship may weigh and steer to find out the Shallops, with the Ebb E.S.E. and with the Flood S.E. by E. but so as never to come at less than 8 *Fa.* at low Water, in whatever depth the Shallops may lie.

3. As she steers towards the outermost Shallop, the innermost, which anchored at the S. end of the *Brace*, ought to make all possible haste to get the Sounding of the westernmost part of the S. end of the *Sea-Riff*, and stand along the end of it, in 5 and half and 6 *Fa.* until he finds he is past the first Branch of it, and got into soft Ground: Let him then tack, and stand back into hard Ground, and there anchor in 6 *Fa.* Whilst this is doing, the other Shallop may keep a Mile or two a-head of the Ship in soft Ground, 10 *Fa.* and when they are a-breast of the Shallop that rides upon the Head of the western part of the *Sea Riff*, let the Ship anchor, and dispatch that Shallop to her Companion for her farther proceeding:

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7. When the next Day's Flood presents, let them weigh
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If Ships of great burden were thus strictly attended with two
Shallops, I dare affirm there is much less danger in entering the
River thro' the *New Depths* than over the *Braces*; nor need
they fear ever coming into less than 4 Fa. at low Water upon
the Springs; only if the Night or want of Wind happens, it
may occasion their anchoring when they come a little short of
the *Sagor*, or between the small *Middle Ground* and the *Long*
Sand, which cannot be said of either of the other Entrances in-
to the River.

Take also the following Directions to go up along the western
Shore.

Being come up as high as *Gillingam*, be sure you mind to
give the upper Point of the River a Birth, for the *Gillingam*
Sand lies off from above the said Point of the River, half a
Mile to the eastward, and there is but a very narrow Channel
between it and the *Middle Ground*: Which Channel is not to
be entred into but with 1 quarter Flood, with a Vessel of Charge,
and lies about a quarter of a Mile Offing from the Main, until
a certain round bushy topp'd Tree half a Mile to the north-
ward bears W.N.W. and then the nearer the Shore the bet-
ter the Channel, until you pass the River of *Tyggers*: You
may begin to edge over towards the River of *Rogues*,
above the Head of the *Grand Middle Ground*; and when
Buffelox Point bears from you half or a quarter of a
Mile, steer directly over for the E. Shore E.N.E. and that
will carry you in 5 to 7 Fa. Clay Ground, till you come
under the Shore, which to prevent the danger of the Point
of the *Diamond*, you must keep fair aboard, until past
the small Creek; this Channel affords not room to turn
it up.

Particular Directions for sailing with great Ships down the
Ganges, and bringing them out into the Sea, according to
the Draught given by Mr. Herring an able Pilot

Supposing your Ship to be up at her Moorings at the Facto-
ry, below the Town and Port of *Hugley*, bound down:
First note, That from *Gull Gat* in the height of the River, as

far as from the Town of *Hugeley*, till you come below the *New Chaney*, lies a Sand stretching two thirds or more thwart the whole River, almost as far as the *Dutch Bungelo*: To avoid this Shoal, keep on the Starboard side of the River, where you will have $3\frac{1}{2}$ to 4 Fa. till you are below the next Point, and below the usual *Dutch Moorings*; after which you will have $4\frac{1}{2}$ and 5 Fa. keeping the same Shore close aboard, till you come a little short of the Point opposite to the *Dutch Bungelo*: Then you will be past all the Danger of the Shoal.

When you are below the *New Chaney*, and past a little Houle on the *Bunger* side, short of the *Bungelo*, there you will find a Sand, being a Branch from the *Boxey Sand*, but discontinued by a small Channel of but 4 Foot Water; it is steep too, and reaches within a little Stone's Throw of the *Bungelo*.

Whereas then you are obliged to put over to the Western Shore, because the Point opposite to the *Bungelo* is flat off, you must put over so, as that you may not fall below the *Bungelo* because of the steep Shoal, which lies so near it as above; and then you will be out of Danger of any of those Shoals. For from the *Bungelo* it self there is a Depth of Water sufficient, viz. 5 to 7 Fa. according to the time of the Tide; keep it on board therefore, till you come near the upper Point of the *Devils Reach*.

The *Devils Reach*, besides its perplexing Crookedness, from whence it has its Name, has its share of a Shoal and Eddy on the Starboard side: the first lies from the upper Point, stretching two thirds over the River, or more. To avoid that Danger, stand over from a little above the upper Point, with a great Tree on the eastward side, being the lowermost Tree of a large Garden which it stands in; and with the Tree next the upper end of the plain Ground on the eastern Shore, and keep that Shore fair on board to the lower end of the Reach.

From the lower Point of the *Devils Reach* keep the middle of the Channel, or a little nearest the Starboard Shore (the Larboard side being shoal) till you just enter into *Pulta Reach*; and there a little below the Town of *Pulta*, edge over to the eastern Shore again, and a-breast with a great single Tree.

From the back of the Point on the Western Shore of *Pulta Reach*, 'tis all shoal more than half the River over, till you come to the *Elephant Tree* at the upper end of the Town of *Degon*.

In this Reach you must keep Mid-Channel till you are past the Town; for in the Bight of *Degon*, where the Town stands, 'tis all deep Water, but then 'tis never without a strong Eddy: and on the opposite Point of the Reach 'tis all shoal off a good way. When you are below *Degon*, keep the W. Shore on board, till you are almost at *Channock*, or *Chanoc*.

There are 2 Shoals in *Channock Reach*, one on the side of the Town, the other on the opposite side: The first reaches from half a mile above to $\frac{1}{4}$ of a mile below the Town, and is called the upper Shoal: To avoid this, keep the western Shore aboard, till you come to a single Tree on the lower end of the

Directions for the River Hugeley.

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Being come thus far below the House on the W. side, stand over again towards the *Salt Banks* on the eastern side; and then go rounding *Chitty Poe* Bight, down as far as *Chitty Nutty Point*; only mind to keep out of the *Eddy*, which you will find a little short of the Point, and which will set you strong upon the upper side of it.

N. B. If you have a large Ship, that draws from 15 to 18 Foot Water, you must not weigh to stand into the Bight of *Chitty Poe*, till about an hour before high Water.

N. B. The Starboard Shore in *Chitty Poe* Reach is all shoal above; Channel over; therefore (however long it may seem) be sure to keep in with the Land quite at the bottom of the Bight on the other side.

From *Chitty Nutty Point*, even from the first Pitch of the Land, you must not fail to stand off, giving the Point it self a large Birth; and endeavour to keep over at least as far as Mid-Channel, or rather nearest the Starboard Shore; and hold this Course till you come almost to the next Point on the eastern Shore: This Course is necessary to keep you clear of a Sand which lies all along on that side, almost from Point to Point, viz. from a little below the great Tree at *Chitty Nutty Town*, to a good quarter of a mile below the Town it self.

From the next Point on the western Shore below *Chitty Nutty Town*, you must make back to the Larboard Shore again, and keep that side aboard as low as *Gover-Napore*: for the other Shore, (which is there N.W.) has another Sand which runs along half Channel over, and reaches right down the Stream of the River, till you are past *Gover-Napore Town*: That Shoal is very dangerous, 'tis steep too, and not to be borrow'd upon with the Ebb nearer than $\frac{1}{4}$ Fa.

From the Town of *Gover-Napore*, you must stand over to the N.W. Side again, and keep that Shore on board, till you come almost as low as the Point against *Kidderly Poe*: The reason is, because the Bight below *Gover-Napore* is shoal, and has a strong Eddy also; reaching till after you are past the Shoal, and which will set you back upon the Point of the Shoal it self: so you must stand over; but then take care to keep the western Shore on board no lower than to the Point as above; for below the Point there is another great Shoal, which lies two thirds of the Channel over: As soon therefore as you are a little short of that Point, stand directly over with the Flag-staff upon *Kidderly Poe Fort*; then go on rounding *Kidderly Poe Bight*, till you are past the Town; only be careful of Eddies, and when you find them, keep a little off, but not above a Ship's length or two; and if you find the Water shoaling in the Ossing, stand out no farther.

From this Bight you may make the Head of a Reach called *Great Tanna*, in the Entrance of which run two Eddies, one from the lower side of *Kidderly Poe Point* above-named, and the other from the Point of the Starboard Shore: The first spreads almost thwart the whole River, therefore as well in the Entrance as all along the Reach, you must keep the Starboard Shore aboard. The Reach is bold, without any Shoals,

and there a little below the Town of *Pulta*, edge over to the eastern Shore again, and a-breast with a great single Tree.

From the back of the Point on the Western Shore of *Pulta Reach*, 'tis all shoal more than half the River over, till you come to the *Elephant Tree* at the upper end of the Town of *Degon*.

In this Reach you must keep Mid-Channel till you are past the Town; for in the Bight of *Degon*, where the Town stands, 'tis all deep Water, but then 'tis never without a strong Eddy: and on the opposite Point of the Reach 'tis all shoal off a good way. When you are below *Degon*, keep the W. Shore on board, till you are almost at *Channock*, or *Chanoc*.

There are 2 Shoals in *Channock Reach*, one on the side of the Town, the other on the opposite side: The first reaches from half a mile above to $\frac{1}{4}$ of a mile below the Town, and is called the upper Shoal: To avoid this, keep the western Shore aboard, till you come to a single Tree on the lower end of the clear Land; or if that Tree should be gone, observe the said plain Ground, and when you come near the lower end of it, steer over with some Trees about *Channock House*; but go no farther over than Mid-Channel, for then you are exactly between the two Shoals.

Keep on then in the Offing of the Channel, heaving your Lead, and so you will go clear of the lower Shoal; then you must edge over gradually towards the Shore of *Channock*, right with two Bluff Trees, near to which, and between them and the Water-side, stand two Palmetta Trees, and under them a small House bearing E. and W. with a *Pagode* on the Western Shore.

From these Trees and the House keep the eastern Shore close aboard into the next Reach, which is called *Titegar* or *Tiltigar Reach*: The Town of *Titegar* is a small Village by the River side, at the Entrance into the Reach.

When you are enter'd into *Titegar Reach*, keep the Mid-Channel as far as the *Slipper Tree*; then from an old Brick *Pagode* opposite to the Tree, begin to edge off to the Western Shore, with a great Tree opposite to the Town of *Puddrest*; and from thence keep the W. Shore on board, till you come almost to the Point on the same Shore, and at the lower end of *Slipper Reach*; and then edge over to the eastern Shore again, with 2 great Trees; then go rounding the Bight on the same side, (for the other Shore is shoal off $\frac{1}{2}$ over the whole River) till you come over to the *Dutch Lamp*, and there you will find deep Water, in but a Pistol Shot offing from the Shore.

Thus you must continue rounding the Bight, till you come within less than $\frac{1}{4}$ of a mile of the upper Point of *Barnagar Reach*: This Reach is (on the *Barnagar* side) flat all along; therefore from a little above the upper Point on the E. Shore (which in coming down the River must be with your Larboard Tack) you must put over for the western Shore, keeping it fair aboard, till you come about $\frac{1}{2}$ of a mile below the white House of *Barnagar*, or *Barnagull*.

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Shore on board no lower than to the Point as above; for below the Point there is another great Shoal, which lies two thirds of the Channel over: As soon therefore as you are a little short of that Point, stand directly over with the Flag-staff upon *Kidderly Pore Fort*; then go on rounding *Kidderly Pore Bight*, till you are past the Town; only be careful of Eddies, and when you find them, keep a little off, but not above a Ship's length or two; and if you find the Water shoaling in the Offing, stand out no farther.

From this Bight you may make the Head of a Reach called *Great Tanna*, in the Entrance of which run two Eddies, one from the lower side of *Kidderly Pore Point* above-named, and the other from the Point of the Starboard Shore: The first spreads almost thwart the whole River, therefore as well in the Entrance as all along the Reach, you must keep the Starboard Shore aboard. The Reach is bold, without any Shoals, with 5 to 7 Fa. from side to side: All the Dangers there are from the Eddies, especially that in the Bight, between it and the Fort, where if you do not keep to the eastern Shore, the Ebb will be apt to horse you upon the other Shore; and there's no carrying an Anchor out in the Tide in that Reach till the next high Water.

When you come past the Point at the bottom of this Reach, you enter upon *Little Tanna Reach*: Here from behind the Point on the eastern Shore, lies a Shoal; to shun which stand over from the S. Point directly to the Town of *Little Tanna*, and keep the same Shore on board afterward, till you come to the lower Point of the Reach.

This is a safe Shoal; you will find its farthest Extent thwart the River is towards a small Creek below *Little Tanna*; when you bring a single great Tree standing on the W. Shore open on your Stern about a Handspike's length, off of the Tower in *Great Tanna Reach*, then you are clear below the Shoal.

N. B. The same Tree is a good Mark also in going up the River with the Flood, and standing about *Little Tanna Point*; directing you not to venture any farther towards the eastern Shore off of the Point, than while you can see the Sand off of the aforesaid lower Point of *Great Tanna Reach*; for if the Flood shut in the Tide with the Point, the Current will horse you too fast upon the Sand, so that you will not be able to fetch *Little Tanna* again in time; for the Shore of *Little Tanna* ought to be kept close aboard in coming up as well as in going down.

On the Back of *Little Tanna Point* in the same Reach, a little below a Village call'd *Morneck Pore*, or *Manneck Pore*, on the western Shore, lies another Shoal, which runs at least 3/4 cross the Channel: You must not at your Peril come nearer to it than 5 Fa. upon the Ebb; and in doubling the Point, you must take great care of it, as also of an Eddy in the Bight opposite to the Point: when you are about the Point, you are in that which the Pilots call *Crown Reach*, which is a bold Reach;

Sailing Directions for the River

Reach; and you have no Dangers but from the Eddies, which you may avoid by keeping a Mid-Channel Course, the Eddies run chiefly close under some Bushes, which you will see upon both Shores.

William and *John's Reach* is next: The upper Point of this Reach, on the W. Shore as you sail down, is flat about a Stone's Cast from the Shore; so you must give the Point a small Birth: On the other side there comes in a River called *Nutty Bungelo*, the Opening is flat like a Bar to the Entrance, for about a Stone's Throw; so is a little Bight below the S. Point of the Opening or Mouth of the River: you must therefore edge over towards the W. side of the great River, till you are below the small River, and the Bight also, but you must not keep the W. Shore on board; for as soon as you are past the Back of the upper Point, that Shore lies shoal also, till you are above half thro' the Reach, and the Shoal spreads for more than half Channel over.

The next Reach is *John Padre's*, or *Father John's Reach*; others call it *Pedro's Reach*, others *Sumatra Reach*; 'tis called so from an Island which lies in the *Fair Way* of the Channel, and which is an ugly dangerous Island, because the Current sets upon the Point, which you must be careful to shun: you may sail on either side of it: Some of our Pilots say 'tis best to leave it on the Starboard or Western side; I think (says Captain *Herring*) the other the best, because on the Larboard side of the Main from the Point next above the Island, to the lower end of the Reach, it is all along flat off a great way, which makes the Channel narrow, and it lies close under the Island, having no where above $3\frac{1}{2}$ to 4 Fa. therefore (says the same Author) upon Experience of both ways, the Choice has been, with the Ebb and in great Ships, to leave the Island on the Eastern or Larboard side; to which end, as soon as you have a fair sight of the Island, and are below the Shoal last mention'd, you must stand over to the Starboard Shore; and to prevent being horrid by the Tide upon the Point of the Island, you must keep the upper Point of the little River (called *John Perdoe's River*) to close aboard, as that you might leap from the Yard-Arm on Shore upon the Steep of the Point; and as you open the River, endeavour to check the Ebb which comes out of it as much as you can, till you find your self shot below the other Point.

If you are not in very great haste of your way, it would be prudent always to contrive to pass by this Island at the first of the Slack; and to that end, if you are upon an Ebb Tide to come to an Anchor about $\frac{1}{2}$ a mile above the Island, till the next Flood is spent: but then you must be sure to ride under the Starboard Shore, because there you have the Slack half an hour, before 'tis high Water in the Stream of the Tide, or under the other Shore: when you are under Sail, keep the same Shore till you find the Tide is spent in the Offing; and even then, go but a little out, till you come down as low as the *Rangumata Point*, which is quite clear of the Island. In this Course, and by this Caution, you will have a fair Channel and deep Water, without Ridges or Shoals, till you are quite below the Island.

When you are cautious, and on any occasion here the River otherwise than you down to *ley Point*.

Being past the Passage called by S. and W. deep from the deep enough places are,

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The *Diadema* low the *Narrows* lying about which Creeper Tree and thence. This with the Ebb means, especially observe

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When you come to the Point of *Hugelley River*, be very cautious, and come no nearer than 7, or at farthest 6 Fa. upon any occasion whatever; but stand over to the S. Shore (for here the River lies E. and W.) to the *Dutch Rendezvous*; otherwise the Ebb of both Rivers joining will certainly push you down upon the Shoal, which runs out from behind *Hugelley Point*.

Being past the Mouth of the *Hugelley*, you come to the Passage called the *Narrows*; they lie winding, but nearest E. by S. and W. by N. The Passage is not every where alike deep from side to side; but where there is shoal Water, 'tis deep enough for most Ships that come that way. The shoalest places are,

1. Just behind the Point of *Hugelley River*.
2. In the Bight of the second Reach on the Larboard Shore.
3. On the Starboard Shore, about 1 1/2 mile short of the lower part of the Channel called the *Narrows*. The Tide runs so very strong in this Passage, as well the Ebb as the Flood, that it is more prudent to lose an hour or two of the Tide, whether going up or down, than to run the hazard of anchoring in such a place; the best of the Course (go at what time you will) is in the Mid-Channel, because of the Eddies, which especially on the Ebb are very strong in several places on both Shores, and chiefly on the Larboard Shore, where they will entangle your Ships so that you will hardly get thro' the Passage, till you clear your self of the Eddies, and get first out into the Channel. Bring a single Tree which stands on the Western Shore, and which is the Mark of the *Diamond Sand*, to bear S. by W. from you; then you may know you are in the middle of the Mouth of the *Narrows*.

The *Diamond Sand* stretches from the Western Shore below the *Narrow Point* E.S.E. the E. Point of the *Narrows* lying about Musketshot short of a little Creek on the E. Shore, which Creek is directly opposite to the aforesaid Tree; the Tree and the Creek bearing due E. and W. without one another. This Sand is dangerous and steep, and in going down with the Ebb, you must take care not to borrow of it by any means, especially with a great Ship: For your safety in that case observe,

1. From a great spreading Tree at the lower Point of the *Narrows* on the Starboard Shore, be sure to stand directly over to the E. Shore, steering E. by S. or E.S.E. not farther to the S. but so as to get over with a Tuft of Bulkes higher than the rest.
2. Then keep the Eastern Shore close aboard, till you are past the Creek above named, and afterwards also, allowing only a small Birth to the Point of *Rogues River*, call'd by the Country *Adegom*. Hold this Course, if the Wind will permit, to the place called the *Channel Trees*.
3. Going down with the Ebb, it is not safe to come too near the Shore, till you are near the Creek; then you may stand boldly in with your Lead, till you come to 3 Fa. or while you can keep the two Points of the *Narrows* open, but no nearer.

Verdoe's River) to close aboard, as that you might leap from the Yard-Arm on Shore upon the Steep of the Point; and as you open the River, endeavour to check the Ebb which comes out of it as much as you can, till you find your self shot below the other Point.

If you are not in very great haste of your way, it would be prudent always to contrive to pass by this Island at the first of the Slack; and to that end, if you are upon an Ebb Tide to come to an Anchor about $\frac{1}{2}$ a mile above the Island, till the next Flood is spent: but then you must be sure to ride under the Starboard Shore, because there you have the Slack half an hour, before 'tis high Water in the Stream of the Tide, or under the other Shore: when you are under Sail, keep the same Shore till you find the Tide is spent in the Offing; and even then, go but a little out, till you come down as low as the *Rangumata Point*, which is quite clear of the Island. In this Course, and by this Caution, you will have a fair Channel and deep Water, without Ridges or Shoals, till you are quite below the Island.

From *Rangumata Point* steer over to the eastern Shore, for there is a Shoal below the Point from a Place called the *Chocky*, where at low Water you have not above 1 $\frac{1}{2}$ to 2 Fa. Water. When you go for the eastern Shore, make for the Mouth of the River *Kullkully*, or *Kiloula*: from thence keep that Shore on board quite thro' the Reach, there you will never have less than from 6 to 9 Fa.

When you come to the lower end of the Reach, stand over again to the W. Shore directly with two Trees, which you will see almost close together: bring those Trees into one, then you are clear of a broad Shoal, which lies off from the E. side of the River two thirds over it.

N. B. The best of the Tide here runs on the Starboard side.

There is a small River comes in here called by the *Dutch* *Ferken's Sprent*, and the Reach they call *Porkus*, because they used to fetch Hogs down that Stream: The Reach is bold from side to side, except a small Shoal in the River's Mouth, and another in the Bight over against the Point of the *Rasp House Reach*.

This is called the *Rasp-house Reach*, from another little River which the *Dutch* also named so, for what Reason we know not, which comes in just at the Head of the Reach: Before you open the River, you may know where it is by a great spreading Tree which stands on the Point of it. It shoals half Musket-shot or more into the great River, and the Shoal begins above the Point a quarter of a Mile or more; but the Mid-Channel of the main River makes you amends, for there all is bold, and you have 15 Fa. thro' the whole Reach.

From the *Rasp-House River* keep the same Shore aboard, till you come to a plain spot of Ground, with a round bushy Tree near it, higher than all about it: from that Tree stand over to the other Shore, which bears there S.E. from you, then keep the Shore aboard till you come almost to the Mouth of the River *Hugeley*, a little short of *Tumberly*, or *Tomberlick*, or *Cockeley*.

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1. From a great spreading Tree at the lower Point of the *Narrows* on the Starboard Shore, be sure to stand directly over to the E. Shore, steering E. by S. or E.S.E. not farther to the S. but so as to get over with a Tuft of Bushes higher than the rest.

2. Then keep the Eastern Shore close aboard, till you are past the Creek above-named, and afterwards also, allowing only a small Birth to the Point of *Rogues River*, call'd by the Country *Adegom*. Hold this Course, if the Wind will permit, to the place called the *Channel Trees*.

3. Going down with the Ebb, it is not safe to come too near the Shore, till you are near the Creek; then you may stand boldly in with your Lead, till you come to 3 Fa. or while you can keep the two Points of the *Narrows* open, but no nearer.

A little short of the *River of Rogues* lies a Bank of Mud, not Sand, running out from the Shore: you must give it a small Offing: At the upper end of that Bank upon the Shore, stands a single round Bush, by which you will know it.

From this River, if you have a great Ship, keep the Western Shore close aboard all along as low as the *Channel Trees*; for here you meet with a great Obstruction in the Mid-channel, that is to say, the great Sand call'd the *Middle Ground* lies full in your way: also remember, that about $\frac{1}{4}$ of a mile from the Shore, just against the River of *Rangafula* in the Bight, when *Bassalore Point* bears from you N. by W. $\frac{1}{2}$ W. lies a Shoal extending a mile and half in length, and half a mile in breadth, which you must take care to avoid: keep in between this Shoal and the Main in 5 to 6 Fa. the Shore close aboard; small Vessels may indeed go without it, between it and the Grand Middle Ground, till they come that way to the *Channel Trees*, but it is not safe for great Ships.

When you make the *Channel Trees*, bring them to bear S. by E. or S.S.E. from you, and stand in a little below the Creek, and there you may anchor about a Cable's length from the Shore in very good Ground, and wait there for the next high Water, especially if your Ship draws much Water: Then weigh at high Water, and keep the best of the Channel between the Head of the *Mixen* or *Mixen Sand*, and the lower side of the great *Middle Ground*.

Then if you have a leading Gale, steer over W. and W. by N. so as to keep the said Channel E. from you, or a-stern of you if you can, but not more southerly than E. by S. lest you are carry'd down by the Force of the Tide of Ebb upon the *Mixen Sand*.

N. B. By this Course you will keep the best of the Channel, and have 4 Fa. on the first Shot of the Ebbs.

When you are come about half way over, steer away for the Western Shore, so as to fall in with it about $\frac{1}{2}$ of a mile below *Gallingham River*; there you will have 5 to 6 Fa. flint Ground;

Ground; then keep along the Shore in about half a mile Offing, as well to avoid a small Ridge a mile and half below *Callingham*, and about $\frac{1}{4}$ of a mile from the Shore, as also to give the upper Point of *Kedgare River* a sufficient Birth.

When you open *Kedgare River*, keep still the same Offing, to avoid being carry'd into a deep Water a little short of the *Long Sand Head*, and till you come almost to the false Point of *Kedgare*: then being got a little within the Shoot and Outlet of the Tide, come to an anchor till next high Water, to wait the Opportunity of going down the inner Channel; but order your Matters so, if possible, that you may go that way by Day-light, for 'tis a very difficult Passage.

Your next Difficulty is to pass the Shoal of *Cockoly*: For this you must be sure to take the top of high Water, and a leading Gale; and tho' the Ebb makes violently down, yet venture to weigh, and keeping about Saker-shot from the Shore, stand fair down with the Current, till you bring a bushy Tree (which is higher than the rest, and stands between the false Point of *Kedgare* and the upper Point of *Cockoley River*) to bear N.W. a little westerly; then you will begin to find the Soundings uneven, and they will hold so, till you bring the Tree N. by W. from you, and a ragged Tree on the N.W. side of *Cockoly* N.W. somewhat northerly.

In this Offing, the least Water you will find will be from $3\frac{1}{2}$ to 4 Fa. with the aforesaid Offing of half a Mile from the Shore.

N. B. *Engely Sand* begins at the white broken Cliffs below the Town, and reaches to $\frac{1}{4}$ of the River's Mouth, lying thwart in, as you approach the upper Point, half a Mile from Shore.

When you are past *Engely Sand*, you may take a larger Offing, that is, $1\frac{1}{2}$ Mile or 2 Miles from the Shore, not more: Then you will be safe from the *Barrabullo-head*, which will bear S. from you 4 Miles from the long Grove. Keep on thus, till you come below the *Barrabullo*, and bring the *Kittesfall Tree* N.N.W. from you; and then keep with $1\frac{1}{2}$ Mile Offing in $3\frac{1}{2}$ Fa. soft ouzy Ground.

When you are come almost as low as the *Salt River*, you must edge farther from the Shore, to avoid a Ridge of hard Ground which lies about the Offing in that River; then you will enter the *Swatch* between the *Braces*: When you find your self there, as you will know by the Soundings, and by the *Salt River Tree* bearing N.N.W. or N. by W. about 4 Mile from the Shore, and the Ground soft, in 3 to $3\frac{1}{2}$ Fa. at low Water, then let go your Anchor, and stay till high Water, to go over the *Braces* upon the first of the Ebb.

When you weigh, steer away W. by S. and W.S.W. not more southerly, because the first Shot of the Ebb sets wholly off from the Shore: With this Course you will not have less than 3 Fa. over the *Brace*, and when you are over, you will be no less than 4 Ls from the Shore, and have a fair Opening into the Bay of *Bengal*, and where else you please to go.

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may go above the *Nicobar Islands* N. and below the *Adamans* S. having Sea-room enough between, and so go away to the *King's Channel* (as 'tis call'd) within the *Isle le Grand*, and to the Coast of *Mergi* N.E. by N. If you are bound to *Pegu* it self, keep a more northerly Latitude, and stand over in 15 d. to *Point Negrais*, and the *Diamond Islands*.

Some advise, in sailing to the Coast of *Pegu*, to pass between the *Coros* and the most northerly of the *Adaman Islands*: The Reason indeed is good, if you are sure to hit the Passage, *viz.* Because the Winds generally blow there hard at S. which join'd with a very strong Current setting hard into the Bay, makes it dangerous to go lower or farther S. among the *Mortavan* and *Adaman Islands*, which are very difficult Places; and yet they say, if you keep a more northerly Latitude, it may endanger losing your Passage, and being push'd up too far into the Bay.

This Passage is fair enough, if you steer a due Course from the W. that is, go away E. by N. from Lat. $12\frac{1}{2}$ on the Coast: When you are thro' this Passage, you must steer N.E. by N. for the *Point Negrais* on the S.W. Coast of *Pegu*, or N.E. if you would make the *Diamond Islands* and Rocks, or E. by N. and E.N.E. if you would go for the Gulph and River of *Pegu*.

If you go away for the *Cape Negrais*, or the *Diamon's* as above, be very careful of the *Preparies* Rocks, or, as our Seamen call them, the *Peperies*, which are a great Cluster of Rocks in the Fair Way: If you are bound to *Isle le Grand*, you leave them on the Larboard-side a great way; but if you go for the *Diamonds*, you leave them on the Starboard-side, and go sometimes just by them. 'Tis true, they are in sight above Water and to windward, so the danger is the less: They make at Sea like so many Ricks of Hay, and must be carefully look'd for in the Night.

As I have said, the Ships may be in danger upon this Coast of losing their Passage, or of being driven up the Bay; so it must be observ'd, that in such Case they usually make the Port and River of *Negrais*, and run in there: 'Tis needful therefore to give what Directions can be had in case of that Distress.

Being at *Diamond Point*, the Course is N.E. by E. and N.N.E. to *Red Point*; from whence keeping the Shore close on board, let the Land be your Guide, keeping within the Island of *Negrais*, and go directly for the Harbour. Note, You may go within Pistol-shot of the Shore; 'tis all a clear Strand till you come a-breast of the sandy Point of the Island *Negrais*; there you may anchor under the Island, land-lock'd and secur'd from all Winds, and in from 4 to 10 Fa. soft souzy Ground. When you break Ground from thence, you will see a small Island lie about 2 Ls off, bearing S.S.E. from you; take heed of a dangerous Shoal which runs out from that Island W.S.W. into the Sea, 'tis very broad and dry at low Water: You may run between it and the Sand, but then take care to give the Island a Birth of 2 Miles at least on your Larboard-side. 6 Ls from this Sand also lies the Channel between the *Diamond Island* and the Main, leading to the River of

Tree N.W. from you; and then keep with 1 1/2 Mile Offing in 3 1/4 Fa. soft ouzy Ground.

When you are come almost as low as the *Salt River*, you must edge farther from the Shore, to avoid a Ridge of hard Ground which lies about the Offing in that River; then you will enter the *Swatch* between the *Braces*: When you find your self there, as you will know by the Soundings, and by the *Salt River Tree* bearing N.N.W. or N. by W. about 4 Mile from the Shore, and the Ground soft, in 3 to 3 1/4 Fa. at low Water, then let go your Anchor, and stay till high Water, to go over the *Braces* upon the first of the Ebb.

When you weigh, steer away W. by S. and W.S.W. not more southerly, because the first Shot of the Ebb sets wholly off from the Shore: With this Course you will not have less than 3 Fa. over the *Brace*, and when you are over, you will be no less than 4 Ls from the Shore, and have a fair Opening into the Bay of *Bengal*, and where else you please to go.

Thus we have given full Directions for sailing both up and down the River *Hugeley*; It cannot be expected we should do the same for those Parts which are not known to be practicable. The Entrances up the *Ganges* are many; and that part call'd *Hugeley River* is but one; But we do not know any of the rest to be navigable, as we know this part to be, which has been survey'd and founded with great exactness by the most experienc'd Pilots both *English* and *Dutch*.

From the Mouth of this great River, the richest for Commerce in all that part call'd *Eastern*, we have no exact knowledge of the Coast, only that the *Nicobar Islands* are beyond the Coast of *Pegu*, and in the Fair Way of our Trade to *Sumatra*: We know little of them, and have little business with them, and therefore no exact Survey has been taken on that side.

Nor do we know any thing of the Coast of *Bengal* on the eastern side of the Bay: The Charts and Maps indeed describe a Coast here, and they plant great Cities and Rivers upon the Shore, in particular a capital City call'd *Bengal*, which upon Examination cannot be found.

Nor have we any exact account of the Seas on this Coast that may be depended upon, from the Coast of *Bengal* to the City *Achin* or *Sumatra*, or to the Straights between *Malacca* and *Sumatra*; therefore all we can say upon that Head, is to direct our Ships not to venture upon the Coast, or to sail for *Achin* within a considerable distance of that Shore, or of the Islands that lie upon it; for all the Coast of *Pegu*, and of the Land S. of it to the Latitude of 7 or 8 deg. N. is throng'd with Islands and Rocks numberless and undescrrib'd, and that to an Offing of 20 to 30 Ls from the Shore.

If indeed you are bound into the River of *Pegu*, or to the Coast of *Mergim* and the *Isle le Grand*. Places much out of the way of Business, as the Trade now lies, then you must go away from the Bay or Coast, according to what Latitude you are in; suppose you are upon the Coast of *Coromandel*, or of *Goleconda*, the best Latitude to make the Coast of *Pegu* in is that of 12 d. 30 m. or 11 d. 10 m. in either of which you

Sailing Directions for the

River's Mouth : You leave the Island upon the Starboard-side, that is the best Channel, call'd the *New Deeps* : You must be very cautious in trading here, and carry on all your Business on board your Ship. Going into *Negrals* you have from 6 to 16 Fa. and at *Arracan* from 4 to 8 Fa. the Land low, except *Cape Negrals*, and a Saddle-Hill upon the Island.

As you turn in, *Great Negrals* stands upon the S. Point ; it is built on a small Hill, a little *Pagode* and four *Teddy Trees* standing singly upon the same Hill, and all to be seen ; which, is very remarkable. The Point is bold going in ; and within by *Little Negrals*, as well as in the River at *Great Negrals*, are several very good Harbours.

You see the Town and Harbour of *Little Negrals* before you go in to the River ; it is call'd also *Dear Island* : It stands without, on a small Island about 3 Miles long and one broad ; at the Entrance of the large River *Negrals*. This Island lies in 16 d. 12 m. N. and distant from the southermost part of the *Great Negrals* 4 Ls ; they bear from one another S. half W. and N. half E. On the northermost end of this Island is a large high Hill, and on the Top of this Hill a Rock, whence arises a Spring of good Water. Some part of the N.W. end of this Island at Spring-Tides is cover'd with the Sea.

The *Salt-water River*, in the Mouth of which this Island lies, is navigable far up for Ships of the greatest burden ; but on the Larboard-side going in, lies a Ledge of Rocks about a Pistol-shot from the Shore, dry at low Water ; and if you have need, you may keep them close on board, without danger ; but standing over to the eastward, you will have 4 Fa. Water : But if you should be forced to stop a Tide, under these Rocks is the best Ground to ride in, there running but little Ebb or Flood ; from *Great Negrals* it is very flat.

N. B. It ebbs and flows here but 2 Foot N. and S.

As you sail up the River, you will have 16 to 6 Fa. various Soundings, especially if you keep the great Island on board, but it is all clean Ground ; the best anchoring is near the low sandy Point, on *Little Negrals* : By this Point there is a little Creek running up into the Island, whereby it may be known ; and when you are within a Cable's length of the Shore, you will have 6 Fa. land-lock'd from all Winds : Also there is good ways for laying Ships a-shore : The watering place is at the Foot of the Mountain, at the N. end, as aforesaid : Here you may ride in 5 Fa. ouzy Ground, half a Cable's length from the Shore.

Sailing Directions for entering into the Opening of the Great River of Pegu over the Bar.

Being off of the Opening or Entrance of the River, first bring the *Bowl-of-Punch Trees* to bear N. by W. half W. and steer right with them in that manner : This carries you over the best of the Course ; then you come into 5 Fa. and so haul up N.W. and N.W. by N. edging on and off on the western Sand, between 5 and 4 $\frac{1}{2}$ Fa. all Sand and Ouze : From thence keep the Channel, till you bring the W. Point of the River to bear S. by E. then will the *Bowl-of-Punch Trees* bear N.E. half N. The first Reach lies N.E. half N. you must keep the Larboard-side on board, in from 5 to 16 Fa. gradually,

Starboard-side, You must be your Business have from 6 to and low, except and.

the S. Point; it is *Teddy Trees* are seen; which, in; and within *Great Negrais*,

Negrais before *land*: It stands one broad; at this Island lies in most part of the other S. half W. this Island is a Rock, whence the N.W. end of it.

which this Island is a burden; but Rocks about a and if you have without danger; the 4 Fa. Water: Under these Rocks at little Ebb or

N. and S. to 6 Fa. various Island on board, near the low there is a little may be known; the Shore, you so there is good place is at the said: Here you's length from

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the River, first W. half W. and carries you over Fa. and so haul on the western: From thence of the River to *Trees* bear N.E. must keep the Fa. gradually,

will shoal your Water to 2 1/2, and 3 1/2 Fa. but presently deepen again to 6 and 7 Fa.

On the E. side of the southernmost of the *Cocos Islands*, which lies in the Lat. of about 14 d. 20 m. N.E. by N. from the N.E. end of the *Great Andaman*, is very good anchoring, in a sandy Bay, where is Wood and Water easy to be come at.

Along the W. side of the *Andaman Sand* are many Coral Grounds, and in some places other large Rocks and great Overfalls; in some of which is ouzy Ground, but very little. Here is much Rock-Fish.

Here follow, from Mr Davenport, the latest Directions for the Entrance into the Negrais.

It has been affirmed by several who have been at this Harbour, that from the W. Point of the Island call'd *Little Negrais*, or *Dear Island*, which lies on the S.E. side of the Harbour, there runs a great and dangerous Riff quite over to *Diamond Island*; which with sunken Rocks, and Breakers by them, renders the Opening unpassable, even by a small Boat: From whence they seem to infer, not only an Impossibility of going to the Island, but also an absolute Necessity of keeping the W. part of *Great Negrais* on board at their Entrance into the Harbour; and indeed I cannot but own, that whether you come from the eastward between the *Legeade* and *Diamond Island*, or from the westward out of the Sea, it is best, if you have a leading Gale, to bring *Diamond Island* E. from you about 6 or 7 Miles distance; at which time you will have 12 to 13 Fa. sandy Ground, and the *Pagode Point*, or *Westmost Bluff Point*, on the opening of *Negrais*, bearing N.E. from you: So you may securely steer in for the Point, and giving the Rocks that lie a small distance both off that and the next *Bluff Point* a Birth of about half a Mile, you may boldly stand in for the River, and not expect less in the Entrance than 4 Fa. and half at low Water: Nor can I think that Course, with a westerly Wind and a Tide of Flood to be too venturous, with regard to the easterly Flat at the Entrance into the Harbour: And those Assertors of an unpassable Riff or Ledge, lying between these two Rocks, must give me leave to say they are mistaken, having by Experience found the contrary: And as I perceive they speak by guess, I can with more certainty say, I have found that those Breakers, which with the S.W. *Monsoon* appear very high and dangerous, do neither render the Opening unpassable, nor proceed from any shoal Ground or sunken Rocks, but from a Sand which lies 4 Miles and half into the Sea from *Dear Island*, being a level Sand, and affording among the highest of those Breakers 3 Fa. at low Water: Not that I would have any one be too bold with it, by reason of the untoward Seas which often run upon it with the first of the Flood, especially if an out-wind blow fresh. Nor, on the other side, are you tied up at the Entrance into the Harbour to keep close on board the *Pagode* Rocks: For if the Wind blow westerly off Shore, or easterly, so that you cannot lead it in upon a Stretch, you may stand over as far as you please toward *Diamond Island*; but then you must be sure to keep the *Pagode* and the Rocks, with the Red Cliff on *Pagode Point*, in one, or very little open to the eastward of the said Cliff;

Creek running up into the Island, whereby it may be known ; and when you are within a Cable's length of the Shore, you will have 6 Fa. land-lock'd from all Winds : Also there is good ways for laying Ships a-shore : The watering place is at the Foot of the Mountain, at the N. end, as aforelaid : Here you may ride in 5 Fa. ouzy Ground, half a Cable's length from the Shore.

Sailing Directions for entring into the Opening of the Great River of Pegu over the Bar.

Being off of the Opening or Entrance of the River, first bring the *Bowl-of-Punch Trees* to bear N. by W. half W. and steer right with them in that manner : This carries you over the best of the Course ; then you come into 5 Fa. and so haul up N.W. and N.W. by N. edging on and off on the western Sand, between 5 and 4 $\frac{1}{2}$ Fa. all Sand and Ouze : From thence keep the Channel, till you bring the W. Point of the River to bear S. by E. then will the *Bowl-of-Punch Trees* bear N.E. half N. The first Reach lies N.E. half N. you must keep the Larboard-side on board, in from 5 to 16 Fa. gradually, and then shoaling to 14, 11, and 9 ; at which time you will enter the second Reach. Then steer N.W. keeping the Larboard-side of the River in the depth of 8 to 8 $\frac{1}{2}$ Fa. Water, which will bring you in sight of *Paguing Pagode*, bearing N. from you : In this Reach you will have from 8 to 10 Fa. and thence to 6 and half, then 6, hard Ground : And then you will enter the third Reach, which lies N. by W. the depth on the Larboard side gradually from 4 and half to 16 Fa. As you sail along to the fourth Reach, you will find on the Starboard-side a very long Sand, so that you must stand over for the Larboard-shore again, where you will have 7 Fa. but if the Tide heave you up to the westward, and the Wind falls off, you will

Sailing Directions for the Coasts of Sumatra, and the Streights of Sunda, as the Eastern Coast, and the Streights of Singapore inclusive.



FROM the River of Pegu to the City of Achin on the N. Point of the Island of Sumatra, as we have no Commerce with the People, so we have no Survey of the Coast of their Country : Our Maps and Pilot-Books call it the Country of *Tannasary* ; the only Part we know of it is the Coast of *Mergi*, or *Mergim*, and the Island *Grande*. where our Ships sometimes put in to Trade, and which is mention'd above.

The *Nicobar Islands* lie off and parallel with this Coast, being situate about 100 to 120 Ls W. and if we begin at the Island *Cocos* N. and measure to the main Island properly call'd *Nicobar S.* (for they are all, tho' falsly, reckoned to the *Nicobar Islands*) they are in length N. and S. 150 Ls, but very

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Our Ships often put in at the southermost of these *Nicobars* for fresh Provisions, and sometimes for Shelter in strong southerly Winds; the Island call'd *Nicobar* in particular, having a good Bay and good anchoring on the N. side, and a good Channel thro' between it, and another Island due N. from it. Here they ride in 12 to 15 Fa. good holding-ground, and perfectly secure from all Winds that blow except the N.E.

From the Road on the N.E. Point of *Nicobar Island* to *Achin* on the Island of *Sumatra*, the distance is 40 Ls. the

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Course lies S. by E. and S.S.E.. *Achin* lies in Lat. 5. 40. N. at the Extremity of the Island of *Sumatra*, distance from the Island of *Junkfeylona* N.E. by E. and S.W. by W. 80 Ls, and from *Queda* E. by N. and W. by S. 110 Ls: 'Tis a safe easy Port, well frequented; the Road is to the eastward of the Castle; you have 7 to 8 Fa. at high Water, and 5 to 6 at low Water: And if you are willing to go farther in, there are Pilots to be had, as well *European* as *Natives*.

If from *Achin* you would sail down the W. Shore towards the Streight of *Sunda*, either to *Priaman* or *Bencoulin*, which are the usual *Pepper Ports*, as the Sailors call them, and whether our Ships chiefly if not only sail, you are to be told in general, that it is a most dangerous Coast, full of Islands, Rocks and Shoals, subject to long Calms and fierce Currents, especially between the Islands and the Main: For this Reason, and as we know nothing of the N.W. and W. Coast of *Sumatra*, and have not the least Commerce with the People, till you come to the Port of *Priaman*, which is almost directly under the Line, 'tis best to go away from *Achin* W. then about the Point of *Dama* S.S.W. Then go away out to Sea, till you come into 5 deg. N. keeping off from the Coast of *Sumatra* at least 35 to 40 Ls; then steer S. by E. and S.S.E. keeping the same Offing, till you come within 1 deg. of the Line; then go a Point more to the eastward, till you cross the Line, and come a breast of the Streight between the Island *Nautian*, or *Nantom*, and the Island of *Good Fortune*. *Note*, You are not to come nearer the Main than the distance mention'd above, till you come into the Lat. of these Islands, then stand in till you see them.

Keep in Lat. 1. 20. and you'll fall in with the N. end of the largest of the two Islands, call'd the *Good Fortune*, which is near 20 Ls long. There are many small Islands about it, but they are bold, and there are no Dangers but what are seen. The Island of *Good Fortune* is the boldest of the two; but 'tis safe to keep your Lead going, and go on in 10 Fa. then you can be in no danger of a Surprize. When you are shut within these Islands, your Course is E. by N. directly, and a clear Coast: However, it is not advisable to make too fresh way in the Night on this Coast, but rather Hull and lie by, and go on in the day. The distance from these Islands to *Priaman* is about 18 Ls.

Tho the Course generally in this Run is W. by S. (for *Priaman* and these Islands lie W. by S. and E. by N.) yet you must steer away E.N.E. and N.E. by E. till you make the Hummocks on the Main, which you will see before you can see the Shore, which is low flat Land. When you have sight of these Hummocks, stand right in for *Sumatra*, you will soon come to the sight of the Main.

When these Hummocks bear N.E. from you, look out well, and keep your Lead going, for there are several stony Banks, and some Shoals just there, to be discover'd by the Lead. When you find these Shoals, and have 6 Fa. Water, then you

Directions for the Coasts of Sumatra.

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E. from you; then you may edge off to the Starboard towards those Islands. They lie about 13 Ls from *Priaman*. There is a Road on the S. side of those last Islands, which has but 4 Fa. foul stony Ground; but keeping to the Main as above, you will find 12 to 16 Fa. Nor are there any dangers on that side, only observing your Depths by your Lead, which you must keep going all the way.

Being in this Latitude your Course is S. by E. along Shore, till you come into 2. 30; then S.E. till you are in 3. 10. then S.E. by S. to 5. The Land is all the way very high and mountainous. In the way, that is to say in 4. 10. there is a very good Road under an Island hard by the Main, and not far off of the Entrance into *Benoulin*; here you may ride secure in 7 Fa. good holding-ground, and may steer in from hence E. by S. to *Benoulin*.

But being bound for the *Streights of Sunda* as before, your Course is along S.S.E. About 2 Ls W.S.W. from the last mention'd Island, there lies a very dangerous Shoal of Sand off in the Sea: You have no other way to know it by, but seeing the Sea break most violently upon it; you cannot come near the Soundings of it, for it is all uneven and very hazardous; but keep near the Island, giving the Point of *Sellabir* a good Birth, and to keep along Shore, as above, S.S.E. easterly, till you make a little Island close to the Main, in the Lat. of just 6 deg. Then you will see a round Hill due E. from you on the Main of *Sumatra*; keep on in sight of the Hill, till you come a-breast of three Islands which lie off of the Point of *Sumatra*: When you are up with these Islands, the round Hill will bear due N. from you.

Those three Islands are distant from the above little Island about 4 Ls, they lie E.S.E. and W.N.W. The Land on the Water's Edge is moderately low, but within the Country it is exceeding high and mountainous. The depth of Water increases here, for you have 54 Fa. close by the Shore: But E. and W. from the three Islands you may anchor in 16 Fa. and farther up, when the round Hill bears due N. you have 30 Fa.

Within those Islands is the Road of *Marrongh*: If you are bound thither, you may bear in boldly between the Islands; the Channels in all are good, steering N.E. by E. till you come to the Main; there you will have 20 to 30 Fa. and no Dangers but what are seen, so you have nothing to do but not to run up in the Night.

When you are come in with the Main, you will be 4 Ls W.S.W. from the Head-land, or Cape call'd *Marrongh Point*. Keep on then E.S.E. to the Road, for that lies along Shore from the three little Islands mention'd above, till you come almost to the S. Point of *Sumatra*, which makes the Entrance into the Strait of *Sunda*. In all this Course you will see the Land to the northward very low, and the Shore spread with little Islands; but you must make up to the Head-land of *Sumatra*, and then keep on under shore, as above.

When you come into this Road, which is very good for 3 or 4 Ls, give the Shore a fair Birth, and anchor where you

within these Islands, your Course is E. by N. directly, and a clear Coast: However, it is not advisable to make too fresh way in the Night on this Coast, but rather Hull and lie by, and go on in the day. The distance from these Islands to *Priaman* is about 18 Ls.

Tho the Course generally in this Run is W. by S. (for *Priaman* and these Islands lie W. by S. and E. by N.) yet you must steer away E.N.E. and N.E. by E. till you make the Hummocks on the Main, which you will see before you can see the Shore, which is low flat Land. When you have sight of those Hummocks, stand right in for *Sumatra*, you will soon come to the sight of the Main.

When those Hummocks bear N.E. from you, look out well, and keep your Lead going, for there are several stony Banks, and some Shoals just there, to be discover'd by the Lead. When you find those Shoals, and have 6 Fa. Water, then you have but just 6 Ls to *Priaman*. The Land about it is high, and like a Saddle; the Middle of those high Lands bears N.E. by E. from you, when you are at anchor in the Road.

There are four Islands before the Road; you cannot open those Islands as you come from *Achin* N.W. and therefore take care not to go within them on that side: But when you come from the Sea more southerly, you have a good Opening, and may sail between, leaving two of them on one side and two on the other: But be sure to give a good Birth to the little outmost Island towards the main, for there is a Sand lies off on every side of it; come no nearer to it than 8 Fa. at the nearest, till you get up with the other three Isles which lie all in a Line: Then keep to the southward of the northermost of the three, and under the Island is the Road, where you may come to an anchor in good Ground, and well secured: You may run bold in, and anchor where you please in 4 or 5 Fa.

Between this Island and the Mouth of the River, which is the Port and comes down from the Town, the Channel is but narrow, about the same breadth as the *Thames* is at *Blackwall*. Be sure to moor your Ship well, for the Currents and Freshes run sharp: On that Island you may have good fresh Water, but trust none of the People. You are 7 Ls distance here from *Tecou*.

When you weigh from this Road of *Priaman*, go on within the Islands to the southward, keeping the Main on board: Venture not in among any of the Islands, for the Channels between them are full of Shoals and foul Ground; but keep in 5 to 6 Fa. the island of *Sumatra* under your Larboard-Bow. Nor is it convenient to sail by Night upon this Coast, but rather come to an Anchor till you have more Sea-room, which will be when you come into Lat. 2. 13. The Reason is, that when you sail thus under the high Mountains of *Sumatra*, and the high Lands which lie a little off of *Priaman*, you have frequent Gusts and Squalls of Wind, especially in the Night; so that you had better keep all close, and lie still in the Night. Then in the Day keep on under the Shore, till those high Lands bear

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When you are come in with the Main, you will be 4 Ls W.S.W. from the Head-land, or Cape call'd *Marrrough Point*. Keep on then E.S.E. to the Road, for that lies along Shore from the three little Islands mention'd above, till you come almost to the S. Point of *Sumatra*, which makes the Entrance into the Streight of *Sunda*. In all this Course you will see the Land to the northward very low, and the Shore spread with little Islands; but you must make up to the Head-land of *Sumatra*, and then keep on under shore, as above.

When you come into this Road, which is very good for 3 or 4 Ls, give the Shore a fair Birth, and anchor where you please in 10 to 12 Fa. The Ground is very good, and here the People are conversible, and you may get good Refreshments and Provisions.

N. B. Here you are in 86 deg. of Longit. from the *Cape de Bonne Esperance*.

N. B. At the Entrance of the Streight of *Sunda* lies an Island call'd the *Salt Hill*, rather nearer to *Java* than to *Sumatra*.

When you come open with the Streight, if the Weather is clear, you may see both Mains at once, that is, the Islands of *Sumatra* and *Java*.

The Stream in the Streight sets 12 Hours in and 12 Hours out, and runs with very great force, so that sometimes you cannot stem it, no not with a very stiff Gale: In which case you must make to one side or other, as the Wind lies, 'tis no matter which, and anchor under the Islands till the Tide turns.

If you put over to the *Sumatra* side, go in a little between the Island that makes the Streight and the Main, keeping nearer the Main than the Island, because there is a Rock in the Fair Way W. by N. from the Point of the Main: But you will see it either above Water, or by the Breach of the Sea if the Water be over it. Here you lie fair to take the first turn of the Current eastward thro' the Streight, either to run thro' between the Island and the Main, or about the Island to the S. and so take the best of the Streight in the main Channel, the Course to the Islands *Cracatoa* is E. by N.

If you are bound to *Bantam* on the N. Coast of *Java*, keep to the *Java* side of the Streight, till you make Point *Palimbang*, which is the farthest Head of the Island of *Java* N.E. As you go about, give the Cape a large Birth, then stand away E.S.E.

N. B. Point *Palimbang* lies S.E. by S. from the Head-land of *Sumatra*, which makes the Streight: About 6 Ls. dist.

From your Offing N.E. from Point *Palimbang*, stand away S.E. by E. till you make the flat Island call'd *Pulo Teuyong*,
or

Sailing Directions for the Coast.

or *Panjang* : This Island is distant from the S.E. Land of *Sumatra* 9 and half to 10 Ls S.E. by E. and lies in the Entrance to the Bay N. by W. from the Port of *Bantam*.

Having made the Island, come no nearer to it than 5 to 6 Fa. then look out for the Main, there you will make a round Hill bearing S. or S.S.W. from you, then you will know how to steer for the Road, for the round Hill stands within the Country, right with the City and Harbour of *Bantam*.

If the Hill bears due S.S.W. from you, go right in with it, till you see the *Pulo Hemas* : These are five little Islands just in the Fair Way to the Road : And just within them you will see the Town, and the Ships riding under the Islands before it : You may anchor there, where and in what depth you will, from 4 to 16 Fa. good ouzy Ground.

N. B. The Tide rises here upon the Flood at ordinary Tides 5 Fa. right up and down.

From this Road of *Bantam* to the Road off of *Batavia*, inclusive of the deep Bays in both the Ports, the distance is 22 Ls.

From this Road to the S.E. end of the Island of *Banca* the distance is 60 Ls, the Course N.N.E.

From *Point Palimbam* at the E. end of the Streight of *Sunda*, to the Port of *Old Brandermaffiu* on the Island of *Borneo*, is 175 Ls E. by S. and E.S.E.

But we must go back now to the N. end of the Island of *Sumatra*, viz. to *Achin*, in order to give some Directions for the E. Coast, and for sailing down the Coast of *Malacca* to the *Streights of Singapore*, &c.

When you come out of the Road of *Achin*, you must go away N. half E. to keep clear of a Rock which lies in the Offing, and bears N. from you, being 7 miles, or 2 Ls and a half from the Points : your Course then is E. by S. to the *Diamond Point*, or *Point Panjang*, which is a little to the S. of old *Queda*, dist. 42 Ls : it is indeed very rare to lead it thro' this length along Shore, the Winds being so variable and unsteady on this Coast ; when therefore you are come about half the Course, let it be in what Latitude it will, keep an Offing of 5 Ls, but no farther, for fear of a northerly Current ; and if the Wind fails, and the Tide be out, come to an Anchor there, till the Flood.

When you are fair with *Point Panjang*, haul in within 2 Ls of the Land, keep your Lead going constantly, because the nearer *Point Panjang*, the deeper is the Water, tho the Channels are uncertain. S.E. by E. from *Point Panjang* there lies an Island called *Pulo Varror*, or *Vereur*.

N. B. The Word *Pulo*, or *Poulo*, in the *Malayan Tongue*, which is chiefly used on all these Coasts eastward as far as *China*, is understood to signify an Island ; 'tis also so understood by the *Siamese* and the *Chinese* of *Cochin China*, as well as by others.

This *Pulo Varror* is distant from the Point above *Achin* S.E. about 28 Ls, and lies in Lat. 3. 59 N.

N. B. Here the Tides are very particular ; the Flood runs much stronger than the Ebb ; it flows in the open Sea

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Sand, yet you will have 8 Fa. over it, and after that 17 to 18 Fa. gradual Soundings quite to the Shore.

Pulo Parcelare and the Point *Jarroe* lie E. and W. dist. from one another 20 Ls. Upon the Main of *Malacca* stands a Hill called also *Parcelare*, and from which the Island is supposed to take its Name; it stands upon a Point or Neck of Land, all the Country being flat and level round about it.

From *Pulo Parcelare* the Coast lies along S.E. half E. to *Rachado*, dist. 12 Ls: The *Fair Way* lies close under Shore part of the way, and no where in above 2 Ls Offing; yet N. of *Cape Rachado* there lies a Sand Riff, which shoals upon you from 20 to 9 Fa. in half a Glass's running, and sometimes the Sea breaks violently upon it.

From *Cape Rachado* to the Entrance into the Port of *Malacca* is 9 Ls, the Course is nearest S.E. and you steer all the way within a L or two thirds of a L from the Shore; 'tis a fair clean Strand, and all secure. S.E. from the Cape, and on the N.W. side of the Road of *Malacca*, lies the *Wood Island*, called so because the *European* Ships take in Wood there, and because 'tis very plentiful. Leaving the Island half a L, you presently open the Road, and have the Town of *Malacca* fair in view; the Road is very good and late, and you may anchor in what Depth you please: The best of the Road is in 5 Fa. You may have more Water farther S. but then you lie open to frequent Gusts and Squalls from the N.W. from off the Hills, and which may endanger your running upon the *Wood Island*, which is very foul for half a L off on that side.

There is another Channel on the W. side of the Sands, and between them and the Coast of *Sumatra*; but the Soundings are very uneven, nor is the Course thorowly surveyed. Some Ships have been forced thro' on that side, and have done well with the utmost Care and Toil, keeping at least 2 Boats always a head, sounding the Ground to an Inch, and placing themselves as Buoys on either side to mark out the Shoals and the Channels.

If you would go from *Malacca* thro' the *Streights of Dryon*, on the W. side of the Islands of *Malacca*, you must steer away E S E. for those Islands bear E.N.E. from *Malacca*: Keep that Course till you bring them to bear N.W. by N. dist. 5 Ls. Then *Cape Formosa* will be 6 Ls dist. bearing E. by S. from you: then go away S.E. till the little *Crimon* or *Carimon* bears S.E. by E. About 12 Ls from you, and *Point Pefang* E. by S. half S. when 'tis likely you will have but 6 to 7 Fa. but keep on, and it will quickly deepen to 22 and 23 Fa. Then in the same Course your Depth will shorten again to 4 or 5 Fa. and if it is in the Night, you would do well to come to an Anchor; and if you can, be sure to ride so as to have *Point Pefang* bearing E. by N. and *Pulo Carimon* S.E. there you will have from 3 to 5 fa. not less than 3 any where.

The Islands of *Carimon* are 3 or 4, all close together, and the Land very high; the southermost is the highest. Having past the Islands where you anchor'd to the southward, or S.E. by E. go on so till you see the southermost *Carimon* bearing due S. about 5 Ls. from you: in the *Fair Way* you will have

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Ls, but no farther, for fear of a northerly Current; and if the Wind fails, and the Tide be out, come to an Anchor there, till the Flood.

When you are fair with *Point Panjang*, haul in within 2 Ls of the Land, keep your Lead going constantly, because the nearer *Point Panjang*, the deeper is the Water, tho the Channels are uncertain. S.E. by E. from *Point Panjang* there lies an Island called *Pulo Varror*, or *Vercur*.

N. B. The Word *Pulo*, or *Poulo*, in the *Malayan Tongue*, which is chiefly used on all these Coasts eastward as far as *China*, is understood to signify an Island; 'tis also so understood by the *Siamese* and the *Chineses* of *Cochin China*, as well as by others.

This *Pulo Varror* is distant from the Point above *Achin* S.E. about 28 Ls, and lies in Lat. 3. 59 N.

N. B. Here the Tides are very particular; the Flood runs much stronger than the Ebb; it flows in the open Sea W.S.W. and yet upon the Island the Flood sets S.E. by S.

The Watering-place (for here is very good Wooding and Watering) is on the S.W. part of the Island; the whole Island is steep on every side, and almost all Rocks.

8 to 9 Ls, S.S.E. from *Pulo Varror* lies the *Water Island*; and between, E. by S. and E.S.E. 20 Ls farther, lies the Island of *Arroes* or *Iakroes*, which is rather a great Rock than an Island: when this Rock bears W. by S. 7 Ls from you, then you will get sight of *Pulo Parcelare*, lying at the nearest E. by S. half S. from you 11 to 12 Ls; if it should not bear thus exactly from you, steer either W. or E. as occasion requires, to bring it to the Position and to that Distance also; which you may easily do; for if you have the Channel open, the Tide of Flood sets strong S.E. by S. at the Rate of 2 miles an hour, and the Ebb sets N.W. or N.W. half W. tho the Tides change frequently here, as the Freshes come down from the Rivers upon the Main of *Malacca*, for these Islands lie near in with the Shore.

Between the *Pulo Arroes* and the Sands off Shore is a fair Channel and deep Water, 30 to 50 Fa. in the Channel, tho at such a Depth you have soft Ouze, but on either Shore good hard Ground: The Sands are so steep too, that you have at one Cast 30 Fa. at the next 13, at the next 7; and then if you do not come about immediately, you'll be fast aground. Also in the Channel the Soundings are as uneven, from 50 to 35 and 25 Fa. and between the Sands, the like, from 19 to 13 Fa. If you come to 10 Fa. stand no nearer for fear of the northernmost Point of the Sand, for there you have but 5 Fa. when the Island bears E. half S. and at the next Cast may be fast aground. You will see the Breakers upon it at a distance, reaching 2 or 3 miles in length.

When you are past these Difficulties, and are got within the Sands, you will find deeper Water; till you come to 22 Fa. soft ouzy Ground; and tho you should be so far eastward as to see the Trees on the *Pulo Parcelare*, where there is a Bank of

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new side of the Islands of *Malacca*, you must steer away E S E, for those Islands bear E.N.E. from *Malacca*: Keep that Course till you bring them to bear N.W. by N. dist. 5 Ls. Then Cape *Formosa* will be 6 Ls dist. bearing E. by S. from you: then go away S.E. till the little *Crimon* or *Carimon* bears S.E. by E. About 12 Ls from you, and *Point Pefang* E. by S. half S. when 'tis likely you will have but 6 to 7 Fa. but keep on, and it will quickly deepen to 22 and 23 Fa. Then in the same Course your Depth will shorten again to 4 or 5 Fa. and if it is in the Night, you would do well to come to an Anchor; and if you can, be sure to ride so as to have *Point Pefang* bearing E. by N. and *Pulo Carimon* S.E. there you will have from 3 to 5 Fa. not less than 3 any where.

The Islands of *Carimon* are 3 or 4, all close together, and the Land very high; the southermost is the highest. Having past the Islands where you anchor'd to the southward, or S.E. by E. go on so till you see the southermost *Carimon* bearing due S. about 5 Ls. from you: in the *Fair Way* you will have the Island; but if the Tide take you short, so that you miss of it, bring to and come to an Anchor in 20 to 21 Fa. *Point Pefang* bearing N.N.W. half W. and the little *Carimon* S. by E. the latter lying 5 mile from you. When you weigh again, stand away E. and E.S.E. to double *Carimon*, and till you see it bearing due W. dist. 3 miles. Then you are clear of all the Islands abovemention'd, and may go directly down the *Streights*, keeping in between 12 and 16 Fa. till you make the Shoal called the *Middle Ground*, where you have a safe Channel: There's no break upon the Channel, but there are 2 Rocks both above Water, and 7 Fa. close by them.

There runs a great Current, which sets upon this *Middle Ground*: the Shoal being founded, is found to be almost all sharp Rocks; but there is Water enough over them, and abreast of them 15 Fa. within 2 Cables length of them.

There are 3 small Islands lie off, as if in the *Fair Way*; but the Channel is between the Islands and the Shoal, about a mile and half broad: bring these 3 Islands in one, and then you are abreast of the Shoal. Then bring the Shoal and *Little Carimon* in one, and you will open a very good Road called the *Twins*, where the *European* Ships sometimes ride, and where you will have 17 Fa. well shelter'd from almost all Weathers. From this Road you have a Fair Course down the Channel of the *Streights* S.E. without any more Obstruction S.

There are some Ripplings, but they are of no importance, the *Streights* are perfectly open and clear. When you come off of *Great Drions*, there is a great Rock like a Boat, with some sunk Rocks about it; but you have room enough to go clear of it: If the Tide takes you short here, you may anchor against it in 16 Fa. good safe Riding, the *Twins* bearing N.E. by N. and the Shoal above-mention'd N. by W.

From this Situation you weigh, and quit the *Streights*; and going away S.E. between two little Islands, and another Shoal called *Sabone*, you may kedge out between these Islands and a

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Point called *Pulo Pantos*; then lay it about between *Little Dryons* and the *Oyster Islands*, keeping off from the latter, because they are foul: then bringing the *Carimon*, the *Middle Ground*, and the foul *Oyster Islands* in one, stand over to the *Great Dryons* as near as 14 or 12 Fa. then tack, weather the little round Island in the Mouth of the *Streight*, and stand away S by E. and S.S.E. 10 Ls, and there come to an Anchor.

N. B. In this Passage you must avoid the Breakers between the little *Round Island* and the *Oyster Islands*, but more among the *Oyster Islands* themselves, and a single Rock visible half a mile to the W. of them: go on then till *Lingim* bears S.E. by S. from you at the dist. of 7 Ls, then go away as before.

When you weigh again, steer S. by E. and S.S.E. keeping in 11 to 13 Fa. till you bring the 2 Peaks of *Lingim* to bear E. by N. 4 and a half Ls from you: there the Tide being spent, anchor again, where you will have 12 Fa. ouzy Ground, the *Pulo Calcutigas* lying half a L. dist. from you, and bearing S.W. by S. Then stand away S.E. by E. and S.E. till *Pulo Farella*

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Sailing Directions from the Coast of Malacca thro' the Straits of Singapore, and onward towards the Coast of Sumatra

IF you are in the Road of *Malacca*, but bound to the *Straits of Singapore*, you must go out W. by N. till you bring the westernmost Island of *Malacca* to bear from you E. by N. 6 to 6 $\frac{1}{2}$ Ls off; then go away large N.W. that Course will bring you into the main Channel on the W. side of the Sands formerly mentioned; continue your Course N.W. and keep there till you pass the *Pulo Irvoes*; if you are without them W. you have Soundings tho' in deep Water; but if to the Northward, no Ground at any Depth at all.

Then keep the Coast of *Sumatra* fair a-board, because of the Stream which sets off to the Northward: when *Pulo Parcellar* bears E. southerly; then you are to the Northward of the Sands.

N. B. The Tides here, as was noted above, are not to be depended upon, by reason of the great Freshes which check and alter them extremely. But this may be certain, that at that Island to the southward of *Malacca* the Flood sets chiefly to the N.N.W. to the Northward of the Islands, and the Ebb sets to the S.E. to the southward of them.

From the same S. Island in the Road of *Malacca*, the Course is S.S.E. in 20 to 28 Fa. going within half a L. of the Island. When you are so far out, as to bring the Island N.W. half W. dist. 6 to 7 Ls, then tack and stand away S.E. till you come off of the Cape *Formosa*, dist. from the Port of *Malacca* about 10 Ls. When the Hill or Mount on *Formosa* bears N.E. by N. and in 16 Fa. you will see *Pulo Pefang* bears E. by S. half S. and

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Directions for the Eastern Seas.

comes in one with the N. Point of one of two Islands, which you will see bearing S.E. and N.W. with one another: and then keeping off from all those Islands, go on S. till the Tide is spent again; then you may anchor in 20 Fa. the *Calantigas* bearing N.W. by N. from you.

N. B. Here the Tide sets strong upon *Pulo Farella*.

By this time you are past all the *Straits*: then weighing with the Slack, you stand along the Shore or Coast of *Malacca*, till you see the *Hog-Point* under your Weather-Bow; there you may anchor if you think fit within 2 Ls off the Land in 14 Fa. the Point bearing S.S.E. Then keep on S.S.E. and S.E. by S. in 8 to 10 Fa. till you make *Pulo Thonpon* to bear N.E. by N. from you, dist. 10 Ls; then S.E. by E. and E.S.E. and you will see the high Land of *Monopin* upon the Entrance into the *Straits of Banca*. Here you are at your Choice to go thro' the *Straits of Banca*, if you are bound to *Sunda* or to *Java*, or to go away N. and N. by E. into the Seas of *Borneo*, or to the Coast of *China*.

Malacca thro' the New and Old Straits of Sincard towards the Coast of China.

the *Tree Islands*. In the *Sound* the Tide parts, and the Flood sets several ways.

On this occasion of the Tides being so differing, if you come here in the Night, and have not a leading Gale thro', you were best come to an Anchor. Going on this Course, you will see with and in about 4 Ls of *Cardamum* two Islands called the *Two Brothers*; bring them W. $\frac{1}{2}$ S. just to be seen rising out of the Water, and the Point of *Pulo Cardamum* W. by S. $\frac{1}{4}$ S. Then you will see the Entrance of the *Great Strait*; it is known by some Trees on a sandy Island, on the S. side of the Entrance.

But the best Course is thus: Bring the N. end of *Pulo Cardamum* W. and the *Tree Islands* bearing E. dist. from one another 7 Ls, in 16 to 18 Fa. Then as soon as you see the *Bompes*, or *Tree Islands*, run fair by them, till the N. Trees bear W. by S. Then *Passage Island* will bear E. by N. and a small red Island with 2 Clumps of Trees on it S.W. $\frac{1}{2}$ S. Leave all these on your Larboard side, and run fair by *Passage Island*, giving it a small Birth of $\frac{1}{4}$ of a mile, for there are no Dangers but what you see: Then when *Passage Island* bears N.N.E. you will see the *Straits of Singapore* open before you, and pass the utmost Point of *Malacca*, you will open into the *Chinese Ocean*.

In all your Course thro' these *Straits*, you must have a great Regard to the various Settings of the Tides, for they are very uncertain; and if it be calm and dark Weather, you had best come to an Anchor, especially when you have run so far out as to bring the high Land of *Bintang* bearing S.S.W.

Then keep the Coast of *Sumatra* fair a-board, because of the Stream which sets off to the Northward: when *Pulo Parcellar* bears E. southerly; then you are to the Northward of the Sands.

N. B. The Tides here, as was noted above, are not to be depended upon, by reason of the great Freshes which check and alter them extremely. But this may be certain, that at that Island to the southward of *Malacca* the Flood sets chiefly to the N.N.W. to the Northward of the Islands, and the Ebb sets to the S.E. to the southward of them.

From the same S. Island in the Road of *Malacca*, the Course is S.S.E. in 20 to 28 Fa. going within half a L of the Island. When you are so far out, as to bring the Island N.W. half W. dist. 6 to 7 Ls, then tack and stand away S.E. till you come off of the *Cape Formosa*, dist. from the Port of *Malacca* about 10 Ls. When the Hill or Mount on *Formosa* bears N.E. by N. and in 16 Fa. you will see *Pulo Pefang* bears E. by S. half S. and *Pulo Cardamm* S.S.E. half S. making two Heads like small Mountains; and on the other side, you will see the Trees on the Shore of *Sumatra*. You may pass *Pulo Pefang* in 7 to 10 Fa. *Pulo Cardamm* lies S.E. by S. or S.E. half S. dist. from *Pulo Pefang* 9 to 10 Ls: and when you are within 3 Ls of the former, and in that dist. you ought to keep so in all this part of the Course.

N. B. The Tide flows here S.E. by E. and N.W. by W. and ebbs E. by S. and W. by N. but when *Pulo Cardamm* bears S.W. from you, then the Flood begins to set E.N.E. and N.E. which will carry you thro' the *Narrow Straits*, and

Sailing Directions for the Eastern-Seas, from Pu the Bay and River of Camboyda, and to



Teering from the *Straits of Singapore*, and being bound into the *Chinese Seas*, the Course is N. and N. by E. upon the N. Coast of *Malacca*, till you make *Pulo Tingay* on the eastern Coast of *Siam*.

Pulo Tingay is a very high Rock, and may be well called so rather than a large Island: There is a high Peak upon it, the highest in all these Parts, and several Rocks and Islands lie about it, so that it is by no means safe to come close to it. The *Fair Way* therefore lies by another Island called *Pulo Aure*, which lies 20 miles E.N.E. from it. *Pulo Aure*, is also very high Land, and is known by having two little Islands lying almost close to it, one on the N. Point, and the other on the E.

From *Pulo Aure* to *Pulo Pefang* is 10 miles N.W. half W. you may sail between them to the most northerly, which is call'd *Pulo Tomoon*, lying N.W. by W. dist. 3 Ls, and is the largest of all these Islands. and where you may ride in several places with the greatest Safety. This last Island has a Bay at the S. end, with a Town bearing its Name of *Pefang*; there is good anchoring before the Town, and good Watering also on the

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But the best Course is thus: Bring the N. end of *Pulo Cardamum W.* and the *Tree Islands* bearing E. dist. from one another 7 Ls, in 16 to 18 Fa. Then as soon as you see the *Bompes*, or *Tree Islands*, run fair by them, till the N. Trees bear W. by S. Then *Passage Island* will bear E. by N. and a small red Island with 2 Clumps of Trees on it S.W. 1/2 S. Leave all these on your Larboard side, and run fair by *Passage Island*, giving it a small Birth of 1/4 of a mile, for there are no Dangers but what you see: Then when *Passage Island* bears N.N.E. you will see the *Straits of Sinapore* open before you, and pass the utmost Point of *Malacca*, you will open into the *Chinese Ocean*.

In all your Course thro' these *Straits*, you must have a great Regard to the various Settings of the Tides, for they are very uncertain; and if it be calm and dark Weather, you had best come to an Anchor, especially when you have run so far out as to bring the high Land of *Bintang* bearing S.S.W.

N. B. Off of the *Bintang* lies *Pedro Blanco*, or the *White Rock*: Keep it S.S.W. it will carry you clear of the Sand which lies off of *Joboar Head*: But do not borrow of the Sand, for it is steep from 23 to 10 Fa. and the next Cast fast a-ground; nor must you come within 14 Fa. of *Pedro Blanco*.

There is another Passage here, called the *Old Strait of Sinapore*, and the Directions are very particular for going that way: But as the other are esteemed the only Passages, and few Ships go now by the *Old Straits*; I think it needless to multiply the Directions.

Seas, from Pulo Tingay in the Bay of Siam, to Boyda, and to Cochin China inclusive.

and being Island. From *Pulo Aure* hither, you have from 18 to 20 Fa. all the way.

is N. and From this Island to the Bay of *Siam*, the Course is N.W. by you make N. The whole Bay is full of *Puloes* or *Islands*, but the Course is plain between them, as follows.

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nds lie a- The *Redang* Islands are 5 in number.

o it. The From the *Redang* Islands keep the Main on board to *Petany*, also very in 16 to 17 Fa.

Pulo Aure, lying al- From *Petany* to *Legore* in 10 and 11 Fa. and thence to *Pulo Claise* in 14 to 15 Fa.

also very on the E. From *Pulo Claise*, which are 3 Islands, to *Carnom*.

lying al- From *Carnom*, or *Tarnon* Point, the Course is N. and N. by on the E. W. to the *Bight of Juste*, the dist. is 32 miles: you may run ch is call'd without or within these Islands of *Tarnon*. From the inner- largest of them the Course lies right into the *Peppy Road* in the laces with the S. end, Bay of *Siam*.

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Sailing Directions for the B

Here you may ride in 3 to 5 Fa. according as your Ship draws. From the Main, and towards the Soundings of *Peppy*, lies a flat Point of Land, with a Shoal stretching from it 12 to 13 miles into the Sea. From this Flat the Course stretches N. then N.W. to the River *Moka Longa*, where the Land falling in makes a deep Bight, and stretches out westerly towards the River of *Siam*.

This is the way to the River of *Siam* from the Sea. If you are bound from *Siam*, especially in the Months of *June*, *July*, and *August*, you must keep the W. Coast on board, endeavouring, if Wind and Weather permit, to get about the N. Point of the Bay, which is often very difficult, because of the Sea-breezes which blow in very strong there. But if you cannot do this till you reach the Point of *Con*, then go away boldly to *Pulo Panjang*, a flat Island S.E. where there is 30 Fa. Water.

Being past this Island, go on S.E. for *Pulo Uby* in 16 to 19 Fa. This *Pulo Uby* is the Centre of the Navigation of these Seas; for besides what has been made publick, all that would go to the River of *Cambodia* from *Siam*, *Bantam*, *Batavia*, or any particular way, must make *Pulo Uby*, else they will have a bad Course, by reason of the strong S.W. Winds which blow hard in those Months.

N. B. If you purpose to go into the River of *Cambodia*, be well stored with spare Anchors and Cables, and in particular with a thousand Fa. of Warp; for you must warp up against the Current at least 180 miles.

If you come forward for *Pulo Uby*, come into 16 Fa. especially if you come from the Westward; but if you come no nearer than 25 to 29 Fa. you will be so far to the Westward, that it will be difficult to find it, or to work up against the Currents to reach it.

Pulo Uby lies about 40 Ls to the Westward of *Pulo Condore*, and may be called the Entrance into the Bay of *Siam*: off of that Point, which makes on one side the Gulph of *Siam*, and on the other the River or Opening of *Cambodia*; 'tis near 7 Ls about, and is higher Land than any of the Islands of *Pulo Condore*: You may wood and water on the S.E. side of it, and anchor on the N. side, and water there also. On the E. side also is a good Road for great Ships, very well secur'd and good Ground.

To go from *Uby* to the River and City of *Cambodia*, your Course is thus: First bring *Pulo Uby* to bear N.W. by N. dist. about 6 Ls; there you will meet with a strong Current which sets to the S.S.E. in 18 Fa. Go on from thence towards the Bay of *Siam*; and having doubled the southermost Point in 15 to 16 Fa. you will begin to make the northermost, or *Cambodia* Point, bearing N.W. from you; and having come up with it, your Course to the Land of *Cambodia* is due N. In this Course you must have your Lead always going: for about 5 Ls to 5 $\frac{1}{2}$ from the Main, there is a Bank of hard Sand, upon which in some places is but 3 Fa. steer Westward clear off that Sand, and keep on due N. and you will soon come into deeper Water, to 4 and 5 Fa. and then shoal to 4 Fa. again; when it does so, expect soon to see the Opening into the first River of the Country of *Cambodia*: but this is not the main River,

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Timoan lies in 2 d. 50 m. N. Lat. there is Wood and Water, clear Ground, and good Anchoring almost every where round it. In the *Fair Way* to it from the S. you have 30 to 40 Fa. From this Island to *Pulo Condore* is 127 Ls, the Course N.N.E. $\frac{1}{4}$ E. and the Variation of the Needle between them is no less than 3 d. 30 m. westerly. *Pulo Condore* is in 8 d. 40 m. N. and you have a Depth of Water from 25 to 40 Fa. in the *Fair Way* during the whole Course between them, with some Variation of Depth, not much.

When your Depth abates to 20 Fa. then look out for the Island, and you will have a fair sight of it, at 7 Ls dist. bearing due N. from you: It makes in high broken craggy Land, with a high Rock at the N.E. Point, which makes like a Sail at first sight.

Nine Ls W.N.W. from this Island lie two small Islands, a large L afunder: you may leave them on either hand, but not run between them; you have 14 Fa. within a mile of them either way. *Pulo Condore* lies at least 20 Ls from the River of *Cambodia* S. by E. It is not so properly one Island as a Cluster of Islands, tho all of them uninhabited but this. You have very good anchoring to the N. of the Island, in a fine sandy Bay, in 4 to 5 Fa. 2 mile from the Shore; it lies E. and W. 5 Ls in length, and is seen 10 to 12 Ls at Sea.

There is a very good Harbour on the S. end of this Island, made so by the convenient Situation of another Island stretching along by the main Island N.W. and S.E. not above a mile dist. The Entrance is at the N. part, where it is a mile broad; but at the S. end the Islands almost touch, leaving a most convenient Thorowfare for small Boats, but with a deep Channel and strong Current.

N.E. half E. from *Condore* lies *Pulo Cicier de Mar*, dist. 60 Ls, stretching S.W. and N.E. 2 Ls: 'Tis called so by the *Portuguese*, in opposition to another Island called *Cicier de Terra*, one lying towards the Land, and the other far off at Sea. There are many Rocks, little Islands, and much foul Ground about it on every side; so that our Seamen call them the *Devils Islands*; and the best notice to be taken of them is, not to come in the way of them at all. Besides the funk Rocks, Shoals, and other Dangers which lie about it, there are several little Islands in these Seas alike mischievous, which are to be named, only that they may be avoided.

1. 20 miles E. is a small Island, and E.N.E. from that another; the Ground between all rocky and foul. From the westernmost of those two Islands there runs out a Ledge of Rocks far into the Offing.

2. 48 miles due S. from this *Cicier de Mar* lie 3 Islands, call'd *Jane Hatch Witzbze's* Islands, our Seamen call them the *Witches Islands*; they are so steep, that you have no Soundings about them. Two miles W. of them is a Rock above Water, and 2 miles S.W. another even with the Water. More need not be said to warn you not to come near them.

3. E. from these terrible Rocks, at 82 to 84 miles dist. lies a Riff called the *Middleburgh Shoal*, and 48 miles E. from that in Lat. 10 d. 55 m. lie more dangerous Rocks called *Pruisen's Klippen*, all dangerous.

of *Pulo Condore*: You may wood and water on the S.E. side of it, and anchor on the N. side, and water there also. On the E. side also is a good Road for great Ships, very well secur'd and good Ground.

To go from *Uby* to the River and City of *Cambodia*, your Course is thus: First bring *Pulo Uby* to bear N.W. by N. dist. about 6 Ls; there you will meet with a strong Current which sets to the S.S.E. in 18 Fa. Go on from thence towards the Bay of *Siam*; and having doubled the southermost Point in 15 to 16 Fa. you will begin to make the northermost, or *Cambodia* Point, bearing N.W. from you; and having come up with it, your Course to the Land of *Cambodia* is due N. In this Course you must have your Lead always going: for about 5 Ls to 5 $\frac{1}{4}$ from the Main, there is a Bank of hard Sand, upon which in some places is but 3 Fa. steer Westward clear off that Sand, and keep on due N. and you will soon come into deeper Water, to 4 and 5 Fa. and then shoal to 4 Fa. again; when it does so, expect soon to see the Opening into the first River of the Country of *Cambodia*: but this is not the main River, properly called the River of *Cambodia*, which you must take notice of, that you commit no mistake.

This first River bears S.W. by W. and W.S.W. from the main River, dist. about 68 miles. Having then made this first River, steer away N.N.E. for about 8 Ls more, keeping in 3 and 4 Fa. and an Offing of about 2 Ls; for the Land stretches out here to the E. for 10 $\frac{1}{4}$ Ls to *Cambodia* Point. Being come that length, you may run in fair with the Land into 3 Fa. you will not make the Land in 4 to 5 Fa. When you first make it, you will see 2 Points and an Island in the Mid-Channel.

In the Mouth of the first Opening lie 2 Shoals, so that there are 3 Channels: The eastermost Channel is the best, having 3 Fa. the other are shoal and dangerous. If you are bound up the River, go away to the W. Point, where there is deep Water, no less than 30 to 34 Fa. and leaving the Island on the Starboard-side, keep along under the W. Shore. Here it is that you'll want so much warping as was said before; for the City of *Cambodia* is 180 miles up this River, yet the greatest Ships may go to the very Wall, or near it, with great Ease and Safety.

After you are come 144 miles up the Stream, you pass the Mouth of another large River coming into the first on your Larboard side; and then the main River lessens considerably: yet the Channel is deep 12 to 15 Fa. and the Stream not violent, and keeping still on the W. side of the Channel, you at last come to an Anchor before the City.

N. B. This is the fairest River for Navigation, the clearest and deepest Channel, and the mildest Stream that is in this part of the World; you go thus far up, *viz.* 180 miles, without meeting either Rock or Riff, Bank or Shoal, all the way: what are to be found, are on the E. side of the River quite out of your way, nor have you any Occasion to take notice of them.

Supposing you are not bound up the River *Cambodia*, but being at *Pulo Timouan* would go on N. to *Pulo Condore*, and so to the Coast of *China*.

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Riff call'd the *Middleburgh Shoal*, and 48 miles E. from that
in Lat. 10 d. 55 m. lie more dangerous Rocks call'd *Prinse's*
Klippen, all dangerous.

4. N.N.W. from *Cicier de Mar* dist. 6 Ls, lie the *Hoof van*
Hollands Shoals, a large Riff of Rocks, some under, some a-
bove Water: Come no nearer in your Course from the N. than
15 Fa. for none know how far the Rocks lie under Water on
that side.

5. From *Pulo Condore* dist. 95 to 100 miles N.E. and 12 Ls
from *Crab Islands*, in the Mouth of the River *Cambodia*, lies a
Shoal, which was discover'd by a *Dutch Flyboat*, call'd the *El-*
bow; it is not of importance for any Danger, there being 13
Fa. Water over it, but 'tis of use to know it for right judging
your Distances.

6. Here are several other dangerous places on this Coast,
which you have occasion to take notice of, such as *Steen Clip-*
pens Islands, *Aberflood Shoals*, *Pulo Cicier de Terra*, *Pulo To-*
pershotie, and several others.

But to return to the Land, 10 Ls N. from the River of
Cambodia, Lat. 10. 36. N. lies a Point of Land call'd *Sin-*
quell Janque; 'tis a high Cape that may be seen above 10 Ls
at Sea, and all Ships which run between *Aberflood's* Shoals and
the Main make this Point: You may sail as near it as you
please in 5 to 6 Fa. and anchor under the Point it self in nor-
therly Winds, and get good fresh Water and Provisions there.

Here are sandy Downs and small Islands upon the Shore,
stretching northward a great way; and then the Land pushes
out N.E. and E. near 20 Miles, as far as *Sattinburgh*, about a
L from which lies *Pulo Topershotie*.

Two Ls and half off of this Island, and about 3 Ls from the
Main, lies *Aberflood's* Shoals mention'd above; 'tis a Riff of
Rocks under Water: Come no nearer without them than 14 to
15 Fa. and no nearer within than 11 to 12.

Steen Clippens Island is in a small Range; as you come to-
wards it from the E. you will know you are near it, by your
shoaling from 25 to 12 Fa. Then you are within Gun-shot of
the Island, lying near the great Sand-Point of *Tsiampa*. You

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cannot pass between the Point and the Island, it being full of Shoals and Rocks, many of them above Water, and which at a distance appear like the Ruins of an ancient City, and one great Rock in the middle like the Tower of a great Church.

E.N.E. from *Steen Clippens Island* lies the *Pulo Cicier de Terra*, dist. 20 Miles, and about 5 Mile off of *Cape Cicier de Mar*. This like all the rest, is surrounded with Rocks and Dangers, and fit for nothing but to be shun'd with the utmost care: Come not within a L of it on any side, nor within 8 or 9 Fa. Water.

Between this and the *Steen Clippen* lies a great Bay call'd *Cicier Bay*, stretching N.N.E. for $4\frac{1}{2}$ Ls to the River *Boden*. At the S.W. Point of this Bay, and about 5 Miles N. from the Point, is a good Watering place.

Near *Cape Cicier* lies a dangerous Riff call'd *Brede's Shoals*, stretching out a great way to seaward: You must keep an Offing of at least 3 Ls from this Riff; if you come nearer, you will be among Rocks and foul Ground; but keep in the Offing, and you will go clear of all the above-nam'd Shoals and Rocks, and foul Islands.

Ten to 11 Ls N.E. from *Cicier de Terra* lies *Padaran Bay*, Lat. 11. 15. And farther on the same Course lies *Cape Avarillo de Falso*: The Cape makes high of it self, but is more so by a great Rock standing on the Top of it, like a Centinel's Box on the Point of a Bastion: And about 16 Miles from this Cape lies *Foul Bay*, stretching N. by W. which deserves its Name, for in the very Mouth of it lies a dangerous foul Island, besides bad Ground at the Bottom.

To the N. of this Cape is *Comerin Bay*, which goes in N.W. by W. you will have 30 to 45 Fa. in it; yet 'tis rocky and shoal on the N.W. side. All the Land upon this Coast makes double and hilly, and full of Bays, Inlets and Points.

N.N.E. from *Cape Avarillo de Falso* lies the S. Point of a deep Gulph call'd the *Western Bay*; you may know it by several white Spots on the Land, and by several Islands near it, one of which lying near the N. end of the Bay is call'd *Rowden Hehn*; it makes bare and rocky, and is so: And just beyond it N. lies a whole Range of Bays, one beyond another: such as *Pagoda Bay*, *St. John's*, *Phipps's*, *Schuytten's Bay*, and several white Sands lying dry at low Water.

These Bays bring you to the great Bay of *Chinchen*, Lat. 13. 50. The Mouth of it is known by a great Rock in the middle rising above Water like a high-crown'd Hat, and two other Rocks, the southermost of which makes in three Heads, but when you come nearer, it appears to be all one Rock.

Next this is *Buckhorn's Bay*, and beyond that N.E. *Pulo Canton*, Lat. 15. 40. and distance from the Coast of *Chinan* or *Quinam* 9 to 10 Miles. When it bears N.N.W. at 10 to 11 Ls dist. it makes low, and like a flat Chest or Coffin; but from the N.W. and at the dist. of 7 to 8 Ls, it makes in two Hills like two Islands.

You may sail between *Cape Bethang* on the Coast of *Quinam*, and *Pulo Canton*: The Shore of the Cape is pester'd with several Rocks, some of which are under Water; but keep a good

Directions for the Eastern Seas.

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and dangerous Rock under Water; among these may be reckoned the Islands call'd *Pulo Tyrat*, ten in Number, besides great Numbers which stretch near 40 Miles, and some of them lie off 10 Ls E. from the N.E. Point of *Aynam*.

N. and N. by W. from the Point of *Aynam* lie the *Ladarone Islands*, 9 or 10 in number; and the great Island *Lantoune* bearing with the Island *Ladarong* E.S.E. and W.N.W. distance 7 Ls from one another. Here the Tide of Flood sets N.E. by E. and the Ebb S.E. by E. About 4 Miles from the *Ladarone Islands* W. by S. there is good anchoring in 10 to 12 Fa. Then keep along N.W. by W. and N.W. as the Wind and Weather will admit, and till you come into 9 Fa. You will then have the Castle and Island of *Maccao* bearing N.W. half W. 4 and half to 5 Ls from you, and the Island call'd *Jaggera* N.N.W. half W. dist. $1\frac{1}{2}$ L, and just as far from the nearest of the *Ladarone Islands*. From hence you may weigh with the Flood, and ply up to windward, for the Entrance of the Bay of *Maccao*, which is the River that comes down from the great City of *Canton*, and you may go quite up to the City, if your Ship does not draw too much Water. In the Mouth of this Channel you ride very easy in 4 to 4 $\frac{1}{2}$ Fa. good Ground, the Town of *Maccao* bearing W.N.W. $\frac{1}{2}$ W. from you, dist. 3 or 4 Miles. Tho the Ground is good here, yet with the Wind off Sea 'tis but a bad Road. Here 'tis usual for the *European* Ships to ride, till they can agree with the Viceroy of *Canton's* Officers for the Customs; nor must you stir till you have a *Pats* from the *Mandarins* to go up to the City; because if you do not make a fast Bargain with them, they will exact upon you, when you are gone up.

If you are bound farther N. keep on in the same Offing of 34 Fa. to *Pedro Blanco* Lat. 22. 5. being beyond the Coast of *Canton*: 'Tis a little Rock in the Sea, clean Ground all round it; so that you may pass within or without it, by Night or by Day, only keeping your Lead and Line in Hand: If you go without it, keep in 26 Fa. if within it, in 13 to 14, and you are safe.

Four Ls N.N.W. from *Pedro Blanco* lies a Point stretching out to seaward; and to the W. of it is *Harling's Bay*, where you may run in upon any Occasion, and find a good Road; but go in on the out side of a little Island, which you will see close to the Shore. There are some Rocks, but they are above Water; you may go on which side you think fit, and ride in 4 to 10 Fa. good Ground. There are abundance of Islands here, as well as before, extended all along the Shore: The best Direction is to keep without them all, for we have no exact Account of them, or of the Channels within them.

Farther N. is *Beais Bay*, *Branden Bay*, and the Opening of a large River much frequented by the *Chinese* Jonks: But as the *Europeans* are not suffer'd to trade either in those Rivers or any of the Bays, they are not fully discover'd; only that on Occasion our Ships ride in them at a distance, and sometimes put in for fresh Provisions, Water, &c. That you may know how to ride at a distance in *Branden Bay*, observe you go in

yond it N. lies a whole Range of Bays, one beyond another : such as *Pagoda Bay*, *St. John's*, *Phipps's*, *Schuytten's Bay*, and several white Sands lying dry at low Water.

These Bays bring you to the great Bay of *Chinchen*, Lat. 13. 50. The Mouth of it is known by a great Rock in the middle rising above Water like a high-crown'd Hat, and two other Rocks. the southermost of which makes in three Heads, but when you come nearer, it appears to be all one Rock.

Next this is *Buckhorn's Bay*, and beyond that N.E. *Pulo Canton*, Lat. 15. 40. and distance from the Coast of *Chinan* or *Quinam* 9 to 10 Miles. When it bears N.N.W. at 10 to 11 Ls dist. it makes low, and like a flat Chest or Coffin ; but from the N.W. and at the dist. of 7 to 8 Ls, it makes in two Hills like two Islands.

You may sail between *Cape Bethang* on the Coast of *Quinam*, and *Pulo Canton* : The Shore of the Cape is pester'd with several Rocks, some of which are under Water ; but keep a good Offing in 30 to 34 Fa. and you will find clean Ground, only come not near the Island. Opposite to *Pulo Canton* comes in a large River, whose Opening is very wide, and a fair Channel having 5 to 6 Fa. far in, but no *European* Ships trade in it. Upon the S. Point of this River lies the Mountain *Salenbuigh*, which capes so high, that it is seen as you come from the S. above 40 Miles.

Twenty Ls distance from *Pulo Canton*, and the same distance from *Quinam*, lies *Pulo Componella* Lat. 16. 20. the Course between is N.N.W. and S.S.E. There is good anchoring in several Places on the W. side. On the N.W. lie three other small Islands, whereof one is very high ; and 3 Ls from it S.E. by E. lies another Island call'd *Componella Falso* ; from this there runs out a Riff of Rocks S.E. far into the Sea ; and about the first Island are abundance of Rocks and little Islands, so that you were best not to come near these Islands at all.

Putting off here from the Coast of *Quinam* into Lat. 18 deg. and into 80 to 90 Fa. you will get sight of the Land of *Aynam* : This Land is found by the most exact Observation to thrust out its eastermost Point at least 40 Miles more to the northward than any of our Charts describe it ; and the like Mistake is found in several other Places on this Coast.

Sailing hence to the northward, you find nothing remarkable but an Island call'd *Pulo Timbosa* : On the W. side of it there is good anchoring in a sandy Bay under a very high Hill. When this Island bears from you N.W. half N. about 7 Ls, in 6 Fa. Water, you will see three extraordinary high Hills upon the Main, the westernmost of which has two Hummocks upon it, and the eastermost three. Off of those Hills lies another Island call'd *Pulo Timbosa Falso*, with several little Islands about it, all foul and dangerous.

N. B. At 6 to 7 Ls off from this Coast you have 50 to 60 Fa. at 10 to 12 Ls Offing you have 70 to 80 Fa.

N. B. From *Timbosa Falso* towards the E. Point of *Aynam*, as also all the way between the two *Timbosa's*, and along the S.E. side of *Aynam*, the Coast is full of little Islands,

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on Occaſion our Ships ride in them at a diſtance, and ſometimes
put in for freſh Proviſions, Water, &c. That you may know
how to ride at a diſtance in *Branden Bay*, obſerve you go in
N. and ride in 6 to 10 Fa there is good ſoft Ground, leaving
two Iſlands which lie W. by S. and E. by N. from you on the
Starboard-ſide.

Likewiſe at *Cranmeir Bay*, *Piſſon de Sibare Bay*, and two
more on the ſame Coaſt, there is good riding in them all, in 8
to 10 Fa. but you had not beſt come too near any of their
Ports. You may run from one of theſe Bays to another all
the way within the Iſlands, the whole Shore being covered
with Iſlands, and indented with Bays, whoſe Names and
Soundings as they have not been critically ſurvey'd, and are of
ſmall uſe in our *European* Navigation, need no mention here.

It is enough to add here, that the Coaſt trends all along
N.E. and N.E. by N. to *Pitto*, or the Point there which we call
the *Cape of Good Hope*, tho I know no Reason for giving it
that Name. There is a good Bay on the W. ſide of the Cape,
ſecure from northerly Winds, with 6 to 7 Fa. Water and to the
northward of the Cape another for ſoutherly Winds. This
Cape lies about 6 Ls from *Wirenger's Bay*; and between
Wirenger's Bay and *Amoy* is 40 Ls on the ſame Courſe, N.E.
and N.E. by N.

The going into *Amoy* is ſomething difficult; but as there is
an *English* Factory there, you may upon proper Signals have
an *English* Pilot to carry you up.

N. B. Since the *English* have ſettled a Correſpondence at the
great City of *Canton*, there are Pilots as well *English* as *Por-*
tugueſe always ready at *Maccao* to carry you up to it.

N. B. A S. Moon makes full Sea at *Amoy*.

N. B. It flows 23 Foot right up and down at *Amoy* on
Spring Tides.

Of the Rocks call'd the Praters.

In the Lat. 21. 11. N. and Longit. E. from *Batavia* 9. 30. lies
a Cluſter of very dangerous Rocks call'd the *Praters*; they lie
under Water, and are only to be diſcover'd by the breaking of
the Sea upon them, and ſmooth Spots of Water like Glaſs
made

Sailing Directions for the Islands

made by the Eddies of the Breakers, and inclos'd by them. Our Pilots say it is a terrible Place but to behold at a distance ; it requires therefore your utmost care to avoid them, and the more, because in many of our Pilot Books they are mis-placed, and laid down too far southerly a great way : The most southerly part of them being placed in Lat. 20. 30. whereas by the most exact Observations they really lie in 21. 11. as is said above, stretching from thence northward.

There have been found Masts standing deep in the Sea, and Anchors have been taken up from among the very Rocks ; so that it may be suppos'd several Ships have been lost there. It is therefore very proper to give this notice for the Sailor's Direction, and that he may be careful to avoid the danger in time.

Sailing Directions for the Coast of China, from Amoy to the English Factory at Chusan, and especially within the Islands.

YOU may turn it out from *Amoy* between the Isle of *Liston* and *Quemoy*, till the Chapel Island call'd the *Hole in the Wall* bears S.W. by W. 4 Ls from you : But take great care of the westernmost Point of *Quemoy*, for there runs a Ledge of Rocks from it S.W. a great way into the Sea, and very dangerous they are.

From hence there is a Course to the N. quite to *Chusan* all the way within the Islands ; which is not only extremely difficult, but also unfit for great Ships, such as the *Europeans* usually trade this way with.

But for great Ships, the Direction is very brief, namely, to put out to Sea directly from *Quemoy* E. by N. Keeping that Course

The End of the Navigation for the Continent of Asia, so

Sailing Directions for the Islands of India, from Ceylon Streights of Sunda, and Bailly, to the S

THE northernmost part of the Island of *Ceylon*, next to the Shoals of the *Heil*, is the Haven and Port of *Manara* ; the S. end of *Manara* lies in 7. 58. N. Lat. 'tis known by the little Clumps of Cocoa Trees growing on the W. Bank of the River : The River admits no Ships of burden, having but 13 or 14 Foot Water. The large Ships bound hither, ride a L. W. of the River in 20 to 22 Foot Water. About Gun-shot from the Shore before the River, runs a small Riff, stretching N.W. and S.E. between *Manara* and *Shippe*.

The S. end of the Riff and *Manara* River bear S.W. by S. half S. and N.E. by N. half N. 4 Ls from one another : The N. end of it and the River bear W.S.W. and E.N.E. 4 $\frac{1}{2}$ Ls between ; 'tis all a stony and rocky Riff, but there are three several Passages thro' it, tho' very dangerous, because with a southerly Wind the Sea breaks over them all ; and besides there is no more than 12 to 14 Foot Water in them.

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them. till they are clear of the Rocks call'd the *Tantees*, and leaving
 stance; the *Chapel Island* on the W. side, distance 3 Ls: Then go away
 and the E.N.E. in order to go clear of the *Piscadors* and the *Coral*
 placed, Grounds, which lie N.N.E. from them; steering as if bound
 ft sou- directly to the Island of *Formosa*: But having taken a sufficient
 eas by Offing Lat. 24. 30. Then go away N.N.E. and N. by E. keep-
 . as is ing still without all, and hold that Course, till you come to
 a, and Lat. 29, varying half a Point to the N. as by the Charts you
 ks; so see the Coast of *China* falls off westerly. Being come to Lat.
 re. It 29. 50. which is near the full height of the *Quesan Islands*:
 or's Di- Then you have nothing to do but to stand right in with the
 n time. Coast, till you make the Islands or Rocks call'd *Pathabecoeks*:
 Then steer away N.N.W. leaving these Islands to seaward
 N.E. by E. till you make the *Quesan Islands*, from whence the
 best Passage into *Chusan* is mark'd out by our Pilots. As to the
 Passage in, having said before that Pilots are always to be had
 to carry you up to the Port, I need give no farther Descrip-
 tion. You may come to an anchor on the N.W. side of the
 great Island of *Quesan*, and may perhaps find Pilots there.

But if you do not think fit to take this Passage, but to keep
 up N. to the Island of *Powto*, or the *Worshipping Island*, then
 keep on due N. leaving the *Pathabecoeks* to the Larboard, and
 stand in for *Powto Harbour*, where you have good anchoring
 in 7 to 12 Fa. and there you may send your Boat to *Chusan*
 for a Pilot.

Also at *Chusan* you may have Pilots to carry you to *Lym-
 po*, or *Nympo*, whether with your own Ships, if you get
 leave of the *Mandarins* to trade thither, or with hired Junks,
 which you take upon Freight of the *Chinese*s.

Continent of Asia, so far as is known to the Europeans.

ia, from Ceylon, inclusive to Java, Borneo, and the
 Bailly, to the Spice Islands exclusive.

From *Ceyloan* the Course lies S. by W. to *Negumbo*, the dist.
 10 Ls, and to *Columbo* 6 Ls more on the same Course. These
 are both *Dutch Factories*: and as the Coast is very difficult,
 the Factory keeps Pilots always ready to bring Ships in that
 appear in the Offing.

From hence to *Caliture* and the Island *Barberain* is 15 $\frac{1}{4}$ Ls,
 the Course due S. and S. by E. Most of this Course is in an
 Offing of 18 Fa. and good sandy Shoalings to the Shore, with
 several good Bays and Roads on any Occasion, except in the
Monjous. Between them comes in the River *Pantura*;
 there is a good Road in the Mouth of it, a little to the south-
 ward of two Rocks, which lie on the N. side of the Entrance,
 about 2 Miles from the Shore, there you will have 10 to 12
 Fa. Water. At *Caliture* there is a Fort, which stands on a
 Hummock on the S. side of the River; if you would anchor
 here, mark two little Hummocks near one another, on the
 Land side: Bring the Fort between those two Hummocks, and
 run right in upon it, till you come into 4 Fa. but be sure not



THE northermost part of the Island of *Ceylon*, next to the Shoals of the *Heil*, is the Haven and Port of *Manara*; the S. end of *Manara* lies in 7. 58. N. Lat. 'tis known by the little Clumps of Cocoa Trees growing on the W. Bank of the River: The River admits no Ships of burden, having but 13 or 14 Foot Water. The large Ships bound hither, ride a L. W. of the River in 20 to 22 Foot Water. About Gun-shot from the Shore before the River, runs a small Riff, stretching N.W. and S.E. between *Manara* and *Arippe*.

The S. end of the Riff and *Manara* River bear S.W. by S. half S. and N.E. by N. half N. 4 Ls from one another: The N. end of it and the River bear W.S.W. and E.N.E. 4 ½ Ls between; 'tis all a stony and rocky Riff, but there are three several Passages thro' it, tho very dangerous, because with a southerly Wind the Sea breaks over them all; and besides there is no more than 12 to 14 Foot Water in them.

From *Manara* it is 4 Ls to *Arippe*, the Course S.W. half S. the Land lying all the way rounding in to a Bight: There is a small Village, with a *Portuguese* Church just by the Town: N.W. by W. from that Church lies a Rock about 2 Miles from the Shore; small Vessels may go between that Rock and the Shore, in 8 to 10 Foot Water, but in the *Fair Way* there is 14 to 16 Foot. Sailing from *Manara* along Shore, you must be careful not to come into less than 24 Foot Water, either to landward or seaward.

The Course differs exceedingly here, as you come from the southward or northward; but there are Pilots at *Arippe* to guide you.

From *Arippe* I may suppose you are bound round the W. side of *Ceylon*; your first Course then is to the Island of *Calapan* or *Ceradis* S.W. by W. The southermost Point lies in 8. 26. The Sea is so clear here, that you see the Bottom very plain in 20 Fa. so you may look for sunk Rocks by the naked Eye. If you come from the westward, you must keep the Lead going, for the Soundings are very uneven; sometimes you will have 15 Fa. then no Ground, then 8 to 9 Fa. yet when you come within 3 Ls and ½ of the Shore, you will find good gradual Shoalings. At the S. end of this Island is a Bay about 2 Ls from the River *Calapetene*: The Course here is S.W. and N.E. 4 ¼ Ls in length. Above this Island lies a Riff of Rocks about 2 Miles from the Shore, you may see the Breach of the Sea upon them: There is no safe anchoring about the whole Island, the best is to the eastward under the Cocoa Grove, but there you will have no good Shelter for westerly Winds, nor good Ground to anchor in neither.

From *Calapetene* to the Main, including the Point of *Chilon* or *Ceylan* is 5 Ls, S.S.W. and N.N.E. From the S. side of the Bay of *Nararary* begins a Spit of Coral Rock, running along Shore till within a L. of *Chilon*, dist. from the Shore 2 Ls; you must search for it by your Lead.

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Bailly, to the Spice Islands exclusive.

From *Ceyloan* the Course lies S. by W. to *Negumbo*, the dist. 10 Ls, and to *Columbo* 6 Ls more on the same Course. These are both *Dutch* Factories; and as the Coast is very difficult, the Factory keeps Pilots always ready to bring Ships in that appear in the Offing.

From hence to *Caliture* and the Island *Barberain* is 15 $\frac{1}{4}$ Ls, the Course due S. and S. by E. Most of this Course is in an Offing of 18 Fa. and good sandy Shoalings to the Shore, with several good Bays and Roads on any Occasion, except in the *S. Monsons*. Between them comes in the River *Pantura*; there is a good Road in the Mouth of it, a little to the southward of two Rocks, which lie on the N. side of the Entrance, about 2 Miles from the Shore, there you will have 10 to 12 Fa. Water. At *Caliture* there is a Fort, which stands on a Hummock on the S. side of the River; if you would anchor here, mark two little Hummocks near one another, on the Land side: Bring the Fort between those two Hummocks, and run right in upon it, till you come into 4 Fa. but be sure not to bring the Fort to the southward of the Hummocks, for then you will be all in foul Ground.

N. B. There is a funk Rock S. of *Caliture*, where you will have but 12 to 13 Foot Water; and it bears S.W. by S. half W. and N.E. by N. half E. You may run in between it and the Shore in 4 Fa. for it lies almost 2 Miles off. On the off-side of the Rock you have 5 or 6 Fa. good Ground; but if you go off to 15 Fa. 'tis somewhat foul; and at 20 Fa. 'tis extreme foul, with Rocks of Coral.

Two Miles S. of the Island *Barberain* is the River *Benetto*, on the S. side whereof is a small Fort upon a Hill, under which you have a good Road in 15 Fa. 4 Ls off Shore you have 28 to 30 Fa. and a little farther S. at the same distance no Bottom. From *Barberain* to *Ragamme* is 11 Ls, the Course S.E. Between them come in several small Rivers, as *Amlam-gode* in particular, which is known by a Garden of Cocoa Trees; the River is not navigable; you cannot well come nearer on this Coast than 20 Fa. The Shoalings on the Shore being very uneven and dangerous. *Ragamme* is a Point running far into the Sea, and cover'd with Clusters of Cocoa Trees; but the Ground is all Rocks, and foul on both sides of it.

From *Ragamme* to the *Bay of Galles* the Course is S.E. by E. to the *Port de Galle*, and then E. by S. E. half S. and S.E. dist. 14 Ls. *Port de Calle* is the first considerable Place belonging to the *Dutch* on this Shore; they have a strong Fort in the Bay, under which their Ships ride safe: It is a difficult Entrance, but the *Dutch* have always Pilots ready, and they will suffer no Strangers to come in without one of their Pilots, so there needs no Description, all you have to do is to make a Signal.

If you would not go in here, but desire to go into the *Red Bay*, keep along Shore in 12 to 14 Fa. till pass'd the steep *Red Point*

Point which gives Name to the Bay; then you'll see a Riff lying along Shore: Keep the same Depth along by the Riff, till you see a small Island on the W. side of the Bay, and after that a Rock above Water: Bring them together bearing N.N.W. from you; then luff up N. or N. by W. and so you may sail within a Stone's cast of the Rock: Then let fall your Anchor within $4\frac{1}{2}$ and 5 Fa. Be very punctual in these Notices, then you may run on into the *Mature*, a River in the Mouth of which are two or three Rocks that thwart the Channel, and one without the Mouth of the River: That which thwarts the Channel is the largest. If you would come to an anchor before this River, you must run no nearer in than 12 Fa. till the Island bears N. by E. and N.N.E. from you; you may anchor within the Riff or Ledge in 4 to 5 Fa.

Here are several Bays, but they are all empty of Ships, being half out of Business.

From the Bay of *Galles* to *Mao* the Course is all N.E. for 14 Ls. On the first of the Coast your Course is to keep off in 15 Fa. because particularly in the usual Offing from *Dyckwell* lies a Ledge of Rocks, not above 2 Miles off Shore, and a Riff of Sand lies out from the Shore about Musket-shot; but after you are past that Riff, you may run along Shore to the next Harbour, in 12 to 14 Fa. within Cannon-shot of the Shore. A little before you come to *Mao*, you begin to find foul Ground, and you may keep off in 22 to 25 Fa.

From *Mao* to the *Elephant* is 16 Miles; the Coast turns half about, and your Course which before was E. by N. is now N.E. S. half E. from the *Elephant* lie the great *Abaxos* or Shoals, they are certain Rocks, about 3 or 4 Ls off Shore, about which there is a very great Breach of the Sea; they lie for about a Cannon-shot over every way: On the Off-side keep in 20 to 30 Fa. and no nearer. Between those *Abaxos* and the Main you may sail thro' in 8 to 12 Fa. but on both sides you should be careful not to come within 8 to 10 Fa. of the Shore, till you are past the height of these Rocks.

N.B. From *Point Dondra*, if you would go without the *Abaxos*, you must steer N.E. after you come to 20 Fa. and that will carry you clear.

From the *Elephant* to *Arregamme* is 50 miles, the Course chiefly N.E. and N. by E. Between the *Elephant* and *Point Julius* there lie two Riffs, one in with the Shore, and the other two miles off: upon either of them is not above 3 Foot Water; this is enough to direct any one to keep a good Offing: The dist. is ordinarily in 16 to 18 Fa. and be sure you come no nearer; and this should make you take care to avoid the *Great Abaxos*. There are also other Shoals of Rocks, called the *Little Abaxos*; between them you may sail in 25 to 40 Fa. afterwards you shoot away N.N.E. in an Offing of about 4 miles, and in 20 to 22 Fa. the Ground Sand, mixt with Coral.

From *Arregamme* to the great Bay of *Crankanella* is 121 miles, the Course N. by W. and N.W. by N. On this Coast lies a great Riff of Rocks 2 Ls off Shore, the Ground between

Directions for the Islands of India.

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come into this Bay on the S. side of it, which tho they are not of any long Course, yet the Channels are so deep, that you may run a good Ship in, without either Anchor or Cable, and lay her a-ground safe in the lost Ouze.

From this Bay to *Paffake* is 12 Ls, the Course N.W. with a moderate Offing of about 4 miles; at which dist. from the Shore you have about 16 to 20 Fa. lost Ouze, all the way till you come to *Molewale*, that is *Paffake*: here you have a broad Shoal lies along Shore for 3 Ls, and runs off into the Sea almost 4 Ls; it is true, the outer part deepens off, but they that sail this way with great Ships should not come nearer that Sand than in 6 to 7 Fa. for even then they are upon the Sand, and would find it shoal upon them apace if they founded it: and if you come from the southward, with the usual Offing of 8 miles, (if you hold there) you will certainly be a-ground upon it: You must stand off from *Crankanelle*, and come on in an Offing of 4 Ls at least; then you will have 8 to 9 Fa. Coral Ground, and you will know when you are just past the Riff, for then at 9 Fa. you will bring up clean Sand, with now and then some small Coral Stones.

If you are bound to *Point de Pedra*, then as soon as you are past the Riff, luff up round aboard it, to run in for the Shore to the northward of it; then you will have 7 to 8 Fa. within half Gunshot of the Shore; but you must edge off again when you come near *Point de Pedra*, for there are some Shoals that way.

From *Molewale*, or *Molle Valle*, to *Point de Pedra*, is 14 Ls, the Course the same as before; your *Fair Way* is along Shore as above, something more than half Gunshot, not above whole Gunshot; not nearer, because of a long Shoal; not farther off, because of a sink Rock, on which there is but 9 Foot Water, and which must be left to Sea board. It is a most dangerous place, for besides the Rock it self, it is surrounded with a very great Flat of Sand; it lies near 10 miles off in the Sea. E. and E. by N. from the Pitch of the *Point de Pedra*: you must by no means come within 3 1/4 Fa. of it; and if you are coming from the southward, and cannot fetch in upon the Shore, about the Shoal of *Molewale*, as above, the Winds perhaps blowing westerly, and so carrying you out, you must then stand away N.E. from the Shoal, till you come in 9 to 10 Fa. and then steering N. keep an Offing of at least 4 to 5 Ls, and not nearer than 7 Fa. till *Point de Pedra* bears W. or W. by S. from you; then you may haul up W. and bring the Point to bear S.W. southerly.

When you are within the Point, and that it bears S. and S. by E. from you 14 miles, then you may bear down upon it into 4 and a half Fa. where you may anchor; there is good even Ground and hard Sand all about it: you will know the N. part of the Point by a Church, and some Houles upon it; you may make a Signal for a *Dutch Pilot*.

W. and by S. and W.S.W. from *Point de Pedra*, lies *Hannomon Heil*, or *Lanrodien* off the *Heil* of *Mannare*, the dist. 8 Ls, but in your Course 2 or 3 miles, because you must stand

N. by E. from Point *Abaxos*, if you would go without the *Abaxos*, you must steer N.E. after you come to 20 Fa. and that will carry you clear.

From the *Elephant* to *Arregamme* is 50 miles, the Course chiefly N.E. and N. by E. Between the *Elephant* and Point *Julius* there lie two Riffs, one in with the Shore, and the other two miles off: upon either of them is not above 3 Foot Water; this is enough to direct any one to keep a good Offing: The dist. is ordinarily in 16 to 18 Fa. and be sure you come no nearer; and this should make you take care to avoid the *Great Abaxos*. There are also other Shoals of Rocks, called the *Little Abaxos*; between them you may sail in 25 to 40 Fa. afterwards you shoot away N.N.E. in an Offing of about 4 miles, and in 20 to 22 Fa. the Ground Sand, mixt with Coral.

From *Arregamme* to the great Bay of *Crankanella* is 121 miles, the Course N. by W. and N.W. by N. On this Coast lies a great Riff of Rocks 2 Ls off Shore, the Ground between very foul, and almost all Rocks: To avoid this otherwise inevitable Danger, if you are in a great Ship, you must keep at least an Offing of 8 miles. nay 3 Ls is little enough, especially if you have the Wind off Sea. The Mark for this dangerous place is a high Hill up within the Country to the fourthward, but which is seen far at Sea, called the *Fryars Hood*; bring this *Hood* S.W. by W. from you, and then you are just abreast of the Rocks: if then you would stand in for the Shore, you may, and anchor in 7 Fa. a mile from the Shore, in the Mouth of the River *Batacall*. The Bay of *Trinkamally*, or *Crankanella* (for it is the same place) goes in W. at least 2 Ls in length. Here are several very good Havens, in which the largest Ships may ride secure in all Winds. There are 3 Rivers

Sailing Directions from Priaman on the Island of Sumatra and thro' those Streights to Bataavia



BEING in the Road of *Priaman*, to which you have already had Directions, your Course from thence towards the *Streights of Sunda* is S. by E. holding to till you come in 2 d. 30 m. S. Lat. then S.E. to 3 d. 10 m. then S.E. by S. to 5 d.

In 4 d. 10 m. there is an Island lies off, near the Main called *Sea-Coast Island*, where you may ride in 7 Fa. Opposite to this Island in 4 d. 10 m. is the *English Factory of Bencoulin*, or *Bencola*; it is dist. from the *Streights of Sunda* 50 Ls. without any place of note between, a bold clean Coast, and no Dangers but what are plain to be seen.

To anchor in the Road of *Bencoulin*, bring *Sea-Coast Island* to bear with that Port S.E. and N.W. and the Union Flag-staff on the *Tork Fort* E. by N. ¼ E. dist. 2 Ls, and *Sillabar Hill* N.E. half E. dist. 10 miles; then you are in the best of the Road, and in 10 Fa.

N. by E. half E. from you is a Town called *Single de Moon*; there is a Cape by it, which bears from you as you ride E. half

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Point. you must by no means come within 3 Fa. of it; and if you are coming from the southward, and cannot fetch in upon the Shore, about the Shoal of *Molewale*, as above, the Winds perhaps blowing westerly, and so carrying you out, you must then stand away N.E. from the Shoal, till you come in 9 to 10 Fa. and then steering N. keep an Offing of at least 4 to 5 Ls, and not nearer than 7 Fa. till *Point de Pedra* bears W. or W. by S. from you; then you may haul up W. and bring the Point to bear S.W. southerly.

When you are within the Point, and that it bears S. and S. by E. from you 14 miles, then you may bear down upon it into 4 and a half Fa. where you may anchor; there is good even Ground and hard Sand all about it: you will know the N. part of the Point by a Church, and some Houses upon it; you may make a Signal for a *Dutch* Pilot.

W. and by S. and W.S.W. from *Point de Pedra*, lies *Hannomon Heil*, or *Lanrodien* off of the *Heil of Mannare*, the dist. 8 Ls; but in your Course 'tis more, because you must stand off from the Land to avoid a Shoal, on which there is but 3 Fa. When you are far enough off, you will see the Fort of the *Heil*, bring it S.E. from you, and steer with it so into 4 and a half Fa. there you may ride very safe, and in good Ground.

From the *Heil* there are divers Channels within the Islands to *Jetrapatan*, *Pallanden*, and *Mannare*, and several other places: the Course is various, being a Circle within the great Bay; the Passages are indeed much frequented, chiefly by the *Dutch*, but not by great Ships: And as all these Islands are in the Possession of the *Dutch* Factory, there are Pilots to be had from place to place, so that the particular Descriptions may be omitted without Injury to the Sailor.

on the Island of Sumatra, to the Streights of Sunda, Streights to Bantam on the Isle of Java.

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S. the dist. is about 3 Ls. There is a dangerous Riff of Rocks under Water, shooting out from that Cape strait into the Sea, towards *Pulo Rougin*, near a mile. Between *Bencontin* and *Pulo Rougin* is 45 Ls, the Course N.W. by N.

There is likewise a dangerous Shoal called *Sillabar*, lying W.S.W. from the little *Sea-Coast Island*: the Sea breaks violently upon the Shoal: the high Land is also called by the same Name: the Depth along Shore is 54 Fa. but by the Island only 16.

From hence your Course is E.S.E. till you come almost to the Point of the *Streights of Sunda*; entering the *Streights*, you may see both Mains at once, *viz.* *Sumatra* on your Larboard, and *Java* on your Starboard Bow: *Java* is high within the Land, but low by the Sea Shore; *Sumatra* very uneven: The Current in the Passage or Strait sets 12 hours one way, and 12 the other, and sometimes so strong, that you cannot stem it with a fresh Gale.

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Sailing Directions for the Ea

If the Wind slackens, and you cannot hold it thro', you may go to either side for a Road; there is good anchoring go which way you please. There is an Island off of *Sumatra*, which properly forms a *Streight*; if you would anchor on that side, go nearer the Main than the Island, because of a Rock which lies midway between: but 'tis either above Water, or so near the Water's Edge, that the Sea discovers it by breaking upon it: it lies W. by N. from the Point of *Sumatra*.

The *Streights* of *Sunda* lie in at the Entrance due E. and W. but lie thro' N.E. and S.W. for when you are about *Palumbam Point*, which lies S.E. by S. of the Headland of *Sumatra*, and which makes the East entrance of the *Streights*, your Course is E.S.E. and S.E. by E. till you make the *Pulo Panjang*, dist. from the said Point of *Sumatra* 9 to 10 Ls. you may go on either side of that Island, but come no nearer than 6 Fa. In passing the Island you will see a round Hill on the main Land of *Java*, bearing S.S.W. from you; that Hill shews it self directly over the City of *Bantam*: keep the Hill in the same Point, and run right in, you will come to the 5 Islands called *Pulo Hemas*, there you may ride in 4 Fa. and what more you please, ouzy Ground.

N. B. The Tide flows 5 Fa. right up and down in the Road off of *Bantam*.

Supposing you are coming up the W. or S.W. Coast of *Java* towards the *Streights* of *Sunda*, intending to enter the Passage, and are fallen within the great Bay of the said western Coast, from the southward; you will then find two Islands in your Course to the N. first the Island called *Trouwers*, which bears N.W. from the said Bay, dist. from the *Red Point* on the S. side of the said Bay 44 Ls.

The *Fair Way* from this Bay lies under Shore, from the second Point 24 Ls, to the said Island *Trouwers*: here you have a clean Coast, and from 20 to 30 Fa. all the way, your Course W.N.W. From *Trouwers* to *Clapps Island* the dist. is 10 Ls, the Course W. by S. Bring *Clapps Island* to bear from you W.S.W. at about 4 Ls dist. then steer for *Java Head*, and the S.W. Point of the *Streight* of *Sunda*, your Course will then be N. easterly.

When you are a-breast of the *Head*, you will open the N. Point, and over that Point you will see *Princes Island* trending S.W. towards you, into the Sea. The distance from the S.W. Point of the *Streight*, which makes the N.W. Point of *Java* and the S. Point of *Princes Island*, is 12 miles, the Course in and about the *North Point*, which is called the *First Point*, lies E. by N.

Keep close aboard the N. Point's opening the *Streights*, where you will have 17 to 22 Fa. Coral Ground. Being about the Point, you open a deep Bay, which goes away S.E. In this Passage between the Island and the *Second Point*, which is the W. Point of *Welcome Bay*, you have 25 to 30 Fa. and in the Offing no Bottom.

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But if you have occasion to sail along the N. and E. Coast of *Java*, you may remember to keep a large Offing, all that side of *Java* being flat off for a good way from the Shore.

In sailing thro' the *Streights of Banca*, however now out of use, it may be necessary to take this Note, That being enter'd the *Streights*, and in sight of *Lucapara* on the Island of *Banca*, you need no longer oblige your self to this or that Course, or to any sailing Instructions, but mind your Lead, the Depth and the Grounds, and them only; and this will give you the Distances, as well from the Shore of *Sumatra* as from that of *Banca*; the reason is because of the violent Current. When you have the Isle of *Banca* E.N.E. off, then you will see a small Pico in the middle, and have the shoalest Water, being $4\frac{1}{4}$ Fa. only; if *Banca* bears S E. then keep to the Coast of *Sumatra* in 5 to 6 Fa.

Pray note, That you ought not to pass those *Streights* in the Night, because of the sudden and uncertain Alteration of the Currents by the Freshes, which at certain times of the Moon, cause them to change their Seasons, so that they keep no regular Course; by which means if you lose the Soundings on the *Sumatra* side, you may be driven upon the Shore of *Banca* before you are aware, and notwithstanding your utmost Endeavour to avoid it; particularly the Stream of the River *Pallambin* comes down on those Occasions with such a surprising Force into the *Streight*, that you will need all your Skill as well as Strength to keep your Ship from running upon the Rocks off of *Monopin*, which is the W. end of *Banca*.

Neither must you depend upon your Charts for your Course to the Island *Linquin*, which is laid down by them to stand so far westerly, that in a dark Night if you work by your Book, you will certainly go on Shore; the surest way is, when you are past *Banca*, to heave the Lead constantly, keeping off in 12 Fa. till you come to *Pulo Parra*, and from thence in 18 Fa. (not an Inch deeper) to *Linquin*; that Depth will carry you within 5 Ls of *Linquin*, and there you will find furious Currents again; but still keep your Depth of Water for your Rule, and you cannot mistake: for the Shoalings of the Coast are always the same: in 18 Fa. you are certain to be in an equal Offing. It must be the same from *Linquin* to *Pulo Panjang*, only that there you may deepen your Course from 18 to 20 Fa. for if the Current should set you into the *Streights*, it may be of bad Consequence. Also the other way there is Danger of running upon a Riff of Sand, which lies to the S.E. of Point *Panjang*; and if you keep to your Depth, you will avoid that Mischief also.

Sailing Directions for the South Part of Java, and the Streights of Bally, being the direct Passage out of the Great Indian Ocean, to the Islands of Celebes, the Maduras, and the Moluccoes.

The S.E. Part of the Isle of *Java*, and the N. Point and N.W. side of the Isle of *Bally*, make the *Streights of Bally*, in 18 d. 6 m. S. Lat. The S.E. Point of *Java* runs out into Lat. 8 d. 16 m. and the narrow of the *Streights* is in 7 d.

the Coast, and from 25 to 30 Fa. all the way, your Course
W.N.W. From *Trouvers* to *Clapps Island* the dist. is 10 Ls,
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Passage between the Island and the *Second Point*, which is the
W. Point of *Welcome Bay*, you have 25 to 30 Fa. and in the
Offing no Bottom.

When you pass this *Streight*, the first Port on the E. side of
Java is *Bantam*, described as above. From *Bantam* there is as
usual Passage northward, leaving the E. part of the *Streights*
of *Sunda* on the Larboard side, and passing towards the Coast
of *Malacca* and *China* by the *Streights of Banca*: But since
the *English* Factory have remov'd from *Bantam*, and the *Pep-*
per Ships go no farther than to *Ben coulin* and the Coast of
Sumatra, this Course is not so much in use by them; the
English Ships chusing to sail by the N. Point of *Sumatra*, the
Streights of Malacca, and of *Sincapore*; or if they do pass by
Banca, it is no more from *Java*, but about by the S. end of
the Island of *Sumatra*.

Batavia lies from *Bantam* E. by S. being the greatest Road
for Shipping in all the *Indies*; it is dist. from the *Streights* of
Sunda 25 Ls, from *Pulo Panjang* in the Entrance to the Bay
off of *Bantam* 20 Ls. There are 14 or 15 Islands lie in the Bay
off of the Port of *Batavia*; which Islands make the Riding
there so safe, the Ground also being very good, that they are
as to many Harbours: Those Islands are indeed of little other
use, except for producing some Fruits, which they supply the
City with as Provisions. *Batavia* lies in Lat. 5 d. 56 m. S.

The Haven of *Batavia* goes in due S. in the bottom of the
Bay, and between 2 Heads, and is capable of receiving very
good Ships; but as you have Pilots always to carry you in, if
you have first obtain'd leave of the *Dutch* Governor to go in-
to the Port, which is not easily granted, there is no need to
say more of it.

Beyond *Batavia* E. there is nothing of note, as to Naviga-
tion on the Isle of *Java* to the *Streights of Bally*, which are
described by themselves. From this Coast, as is said above,
they go away N. to the *Streights of Banca*, in order to pass
northward to the Seas of *China*, and to the Coasts of *Ma-*
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Lat. 8 d. 46 m. and the narrow of the *Streights* is in 7 d.
58 m.

This is the *Streight* which the *Dutch* Ships pass when they
sail for the *Spice Islands*, without passing the *Streights of Sun-
da*, or stopping at *Batavia*: in which Course the first Land
they make is the S.W. Shores of *Java*; from whence they
steer E. by S. to the S.E. of that Island, which opens the
Streight of Bally. That *Streight* goes in W. as far as the E.
Point of the Bay of *Ballambouang*: then the Course changing,
you go from the said E. Point over to the Shore of the Island of
Bally N. by W. and then back again over the Passage of the
Streight to the E. Shore of the Island of *Java*. In these Cro-
ssings of the Channel to and from the Cape *Gounonkin*, and
back again to the Isle of *Bally*, you have from 20 to 36 Fa.
but in the Mouth of the narrow Channel, crossing to the E.
Coast of *Java*, from 10 Fa. to 5 and $5\frac{1}{2}$, with which Depth
you enter the *Streight*.

The narrow of the *Streight* goes thro' N. and S. and the
Fair Way in the Outlet lies N.E. the Course going away E. to
avoid a foul Island called *Pulo Snaan* which lies off of *Java*,
under the Lec of *Ballambouang Hills*, a Range of high Moun-
tains, which lie parallel with the *Streights* for 7 or 8 Ls on
the *Java* side.

From these *Streights* the Course is N. by E. to the E. end
of the *Madura Islands*, and to the great Island of *Borneo*; or
N.E. to the *Celebes*, or due E. to *Amboyna*, *Banda*, and the
other *Spice Islands*, called the *Moluccoes*.

But as those Parts are peculiar to the Commerce of the
Dutch, and that no Ships (or very few) trade in those Seas but
themselves, we have no Survey of them by any *English* Ma-
riners, or any foreign Survey translated into the *English*
Tongue: so the Author of this Work cannot be accountable for
omitting them.

Sailing Directions for the Coast of Asia in the
Point of Natolia, to Damiatra at the Mouth
of Aegypt exclusive; with the Asian Islands



THE Asian side of the *Hellepont* was necessarily included in our Directions for sailing into and out of the Gulph of *Constantinople*.

The first Land of the *Lesser Asia*, or *Natolia*, S. from Cape *Bobabora* already described, is *Fogia Vecch*, or *Veccia*, a little more than W.S.W. from the E. Point of the Island of *Metelin*, dist. from the said E. Point 4 Ls: the Coast between is fair and clean, and Ships pass without any Difficulty, as has been said, in 7 to 8 Fa. to and from the Cape, and so to Cape *Janesari*.

Directly W. from the same E. Point of the Island, and dist. but 2 Ls lies a very good Haven called *Porto Giro*; it stands fair on the N. side of the Channel between *Metelin* and the Main, and lies distant from the Channel between *Scio* and *Argentro* 15 Ls N.E. by N.

The Entrance into this Haven is exceeding narrow; and the S. Point reaching out beyond the N. Point, it is as it were closed, so that you hardly perceive there is a Haven, till you are entred the Channel. There are many Marks by which to direct the Entrance, but a *Metelin* Pilot, who will come off to you with a *Wass*, is worth them all.

Nine Ls S. by W. from this Haven lies Cape *Barbanola*, being the S. Point of the Gulph of *Smyrna*; and 12 Ls E.S.E. lies the Point of *Fogia Nova*, E.N.E. from Cape *Barbanole*, on the S. side of a large Bay, called antiently the Gulph of *Adia*, or *Flutina*.

The Island of *Metelin* has been described: the Coast affords one extraordinary Haven, which lies on the E. side, dist. from *Fogia Vecchia* 5 Ls. On the W. side of the Point, on which the Castle of *Metelin* stands, is a very good Road for S.E. E.N.E. and N.E. Winds; and to the northward of the same Castle, dist. about 2 Gunshot from it, lies a little Island close to the main Island leaving just room between them for Ships to ride, as in a Harbour. This Road secures you from S.E. S.W. and N.W. Winds. Also a little to the Westward of that little Island, you may lie shelter'd from all Winds, except N.W. N. and N.E.

To sail between *Metelin* and the Main, this only Direction is necessary, viz. not to keep in the Mid-Channel, but to either side which you please; for in the middle lie several dangerous Rocks under Water; but keep on either side, till the Castle *Molvo* upon the Island come abreast, then you are sure you are past the Rocks, and may go boldly in the Mid-Channel again.

There is another good Haven at the W. end of *Metelin*, called *Porto Seguri*, called so from Cape *Seguri* just by it: There is an Island just before it with some Rocks: this other

Directions for the Coast of Asia in the Levant.

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Winds, and there Ships ride, when the Winds for going up the Gulph to *Smyrna* are out of the way: You may always know the Town and the Road also, by a Row of Windmills 6 or 7 together, on the Hills behind it.

The Road is behind some Islands which lie to the N. of the City; and those Islands serve to break off the Sea, and make the Riding easy, as well as safe.

S.W. from the Mouth of the Gulph of *Smyrna* lies the Island of *Scio*; at the W. end of it stand several Light-houses, and off of the S.W. Point lies a large Rock called *Venetico*, 'tis clean Ground all round it. and the Channel between it and the main Island is good; you may run boldly thro' the Channel on any side.

From *Venetico* to the Channel within the main Island is N.E. near 2 Ls. Being past the Point, you go away northward towards the Port and City of *Scio*: you will see *St. Helene's Point* just before you, being a red Point, S. of the City, with a great Light-house upon it: here you must ware the Shore, for there lies a flat Point of Sand on there.

Passing the Point, you have the City in view; so you may go directly upon it without a Pilot, and anchor before it in 15 to 20 Fa. off of the Haven's Mouth. The City lies under a great Hill close to the Sea Shore: Right before the City is a Mole where Ships of any Burden may ride as in a Millpond; the best of the Road is to the northward of the City, in 20 to 25 Fa. about a mile from the Shore: The Marks for anchoring in that Road are very plain, so that no Pilot is wanted for that Part. Bring the middle of the Castle to bear W.S.W. with that one Mark you may anchor where you please without the Mole, but observe that to the northward of the Mole is the best Riding.

To go between *Scio* and the Main, the Course lies N. by W. and S. by E. in and out over-against the Town. On the End of a Riff of Rocks, (but standing in the Water) you see a great Stone Light house or Lanthorn: if you would go into the Haven, this is your Direction for the Entrance; keep about a Ship's length to the northward of it, and sail boldly in with 3 Fa. at low Water. The best of the anchoring off of this Lanthorn, is 10 to 12 Fa. the Lanthorn bearing W.S.W.

North of the Port of *Scio*, dist. 1 L. from the Point of the Island, lies another very good Haven, call'd *Porto Delfyn*; you may see it very plain as you sail by: Before it lies the little Island of *St. George*. If you would go into the Haven, you must go close under the Island, on which side of it you please. When you are entred the Haven, you may run up as high as you will, and moor your Ship with a Fast to which Shore you please, keeping one Anchor out to seaward. There

Foggia Vecchia 5 Ls. On the W. side of the Point, on which the Castle of *Metelin* stands, is a very good Road for S.E. E.N.E. and N.E. Winds; and to the northward of the same Castle, dist. about 2 Gunshot from it, lies a little Island close to the main Island, leaving just room between them for Ships to ride, as in a Harbour. This Road secures you from S.E. S.W. and N.W. Winds. Also a little to the Westward of that little Island, you may lie shelter'd from all Winds, except N.W. N. and N.E.

To sail between *Metelin* and the Main, this only Direction is necessary, *viz.* not to keep in the Mid-Channel, but to either side which you please; for in the middle lie several dangerous Rocks under Water; but keep on either side, till the Castle *Molico* upon the Island come abreast, then you are sure you are past the Rocks, and may go boldly in the Mid-Channel again.

There is another good Haven at the W. end of *Metelin*, called *Porto Seguri*, called so from *Cape Seguri* just by it: There is an Island just before it with some Rocks; 'tis observable, that being to the southward of this Haven with a northerly Wind, 'tis not possible to get in, for the northerly Wind blows right out; it is an excellent Haven, deep and safe, no Rocks except one above Water, and no Shoals or foul Ground in any part of it.

Cape Seguri is the W. Point of the Island, it lies with *Cape Bobabora* N.E. and S.W. dist. from that Cape 6 Ls, from *Ipsera* 12 Ls, and from *Scio* 10 Ls.

Ipsera is a small Island lying off of *Scio* due W. there are several small Islands about it, but one in particular on the W. side of it, makes a Road between, equal to a Harbour, and with this Advantage, that you may sail in at one end, and out at the other, as the Winds may fall, or as your Voyage directs. Here you ride perfectly shelter'd from most Winds, especially from northerly and southerly: Here is indeed a Rock which must be avoided, being 7 to 8 Foot under Water; but passing that, you may anchor where you please.

We are now come to the Gulph of *Smyrna*, famous for Shipping, and as famous for the Conveniency of the Harbour, and safe Riding for the greatest Ships. The Isle of *Scio* lying in the *Fair Way* of all *European* Ships coming from the S. Pilots are to be had there to carry any Ships up; and if not there, you take them at *Cape Barbaula*: If you come from the N. they are likewise to be had at *Foggia Nuova*, which is opposite to the Cape on the E. side; if at neither, you are in no Danger.

For directing your Course 5 Ls into the Gulph, you need no Pilot at all, the Entrance being at least 4 Ls wide, with 50 to 30 Fa. in the *Fair Way* to *Long Island*, and to the S. of the Island also, leaving it on the Starboard side; nor is there any thing dangerous or difficult in the Passage for near 14 Ls sailing into the Gulph: then indeed the Pilot's Skill may be wanted, for which reason I say no more here, but leave it to them, and return to the E. Point of the Gulph; there the Port of *Foggia Nova* shews you a very good Road in all

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Spalmentori is a small Island, lying between *Scio* and the Main, having several other small green Islands about it ; the Channel is good thro' on either side, but the usual way is between the Island and the Cape, as above.

We have already describ'd the several Courses from among the Islands, and from the *European* side of the *Archipelague* to *Smyrna* : But there is a Passage also on this side among the *Asian* Islands, and which is the ordinary Course between *Smyrna* and *Egypt*, and between *Smyrna* and the other Ports of the *Levant* ; which is therefore needful to be described. This as it relates to the Coast of the *Lesser Asia*, is the Passage from *Stantio* to *Smyrna*, or between *Stantio* and the Main to *Smyrna*.

The Ships come to the Road of *Stantio*, either from *Cape Solomon* at the E. end of *Candia*, or from *Cape Cormacci* on the N. side of *Cyprus* ; and passing between *Rhodes* and the Main by *Cape Grio*, being the S.W. Land of *Asia*, come to an anchor in the Road of *Stantio*.

From the Road of *Stantio* you must go out at the N.W. Point of the Road, where some Wind-mills are seen, giving the Point a Birth of near half a Mile, or keep the Mid-Channel rather in your passing, for on the Island side there is a Shoal for half a Mile, and on the side of the Main lies a Rock or two under Water, and one above : There are also many Rocks and Islands to the N. of *Stantio*, but they are all above Water, you must leave them all on your Starboard-side, and keep on N.W. by N. towards the small Island of *Guideronfa* : Leave that also on the same side, going between it and two little Islands call'd *Capra* and *Calimno*. This is the fairest and best Passage, the other ways being not so good, we need give no Direction for them.

Having

Sailing Directions for the Coast of

Having got thro' any of these Passages, your Course is N.W. by N. to the W. end of *Samos*, distance from *Stantio* 15 Ls; and from the Passages 13 to 14 Ls. There are many little Islands to be seen as you go, some on one Hand, and some on the other: But as the Passage is bold and your Course the same, you will be easily directed.

Of those Islands, one call'd *Fornio* opposite to *Samos* makes that which they call the *Bocca*, or Channels of *Samos*: The Passage is 2 Miles over, and the Shore on both sides clean and steep too. The Isle of *Samos* affords no Haven or Road on this side, nor is it of any use to the Navigation of this Course, except by its height, which is such as that it is seen 20 Ls at Sea, to give notice where the *Bocca* lies.

Nicaria is a small Island dist. 2 Ls from *Samos*: The Course is W.S.W. and E.N.E. it is to be left on your Larboard-side in the Passage to *Smyrna*. From this *Bocca de Samos* your Course to the Gulph of *Smyrna* is N.N.W. and N.W. by N. this carries you to the Channel of *Scio*, between *Scio* and the Main, which is describ'd already; from whence your Course to *Smyrna* is also describ'd.

The next Island in this Course S. from *Smyrna* is that of *Rhodes*, a Place less famed in Navigation than in History: it lies at the Entrance into the *Archipelague*, in that we call the *Levant Seas*, 14 Ls. N.E. by E. from *Scarpanta*, and 10 Ls. S.E. from *Cape Grio*.

The Coast of *Rhodes* lies high, and is seen in Mid-Channel on the Larboard-side, at the same time as the Main of *Asia* is from the Starboard-side. From the S.E. Point of it lies a great Rock, which makes at a distance like the Hull of a Ship; and to the N. of that Rock another, distance from the Island about a L. Between these two Rocks, on the E. side of the Island, is a good Road, fair clean Sand, and what depth of Water you please.

N. B. Here you may have fresh Water, what you please, by digging for it in the salt Sand on the Sea Shore.

Opposite to the *Isle of Rhodes*, and close aboard the Main of *Natolia*, lies *Castle Rossa*, in a small Island with a Castle upon it, at the Bottom of a Bay; between which and the Sea-side are some Houses, where you may water also: And behind the Island, between it and the Main, is a very good Road, equal to a Haven, secur'd from all Winds, from *Cape Traquille* on the E. end of *Rhodes* to this Castle: The Course is E. by N. distance 29 Ls.

The next Island in these Seas, and in the Course mention'd above, is *Cyprus*. The E. Point of *Candia* and the W. Point of *Cyprus* lie with one another E. half southerly and W. half northerly, dist. 91 Ls. If you are bound from *Candia* to *Cyprus*, take care not to go out of that Course, lest you miss the latter, for as the southerly and westerly Winds blow Trade for most part of the Year in that Passage, you may be blown from the Island, and be long fetching it up again.

The westernmost Point of *Cyprus* is call'd *Cape Pisani*, lying N.W. from *Bassa* about 4 Ls: From that to the northernmost Point, *Cape Cormacci*, is 16 Ls.

N. B. N.W. from the said northernmost Cape lies a great Rock under Water, which whoever makes in, to ride un-

Course is N.W. and E.N.E. The *Salinas* is a deep Bay that goes in N. and S. the Entrance extremely wide, and the Coast lies N.E. from it; the S.W. Point, or S. from the City, is call'd *Tagiffa*, or *Tagiffa*, having an old Light-house upon it, but not in use. The City of *Salinas* lies about 3 Ls from it to the N. the Point stretching southward, thwarting part of the Bay.

There is in this part a Mountain, very much higher than all the Hills in the Island: It is call'd *Monte Cruis*; 'tis, seen here directly over this Bay, tho' situate far within the Land: it is so vastly high, that you see it all along the Coast, even on both sides the Island: And it is a Sea-Mark on many Occasions. Bring this Mountain W. of you when you are in the Bay of *Salis* before the Town, and then you are in the best of the Road.

S. of the Bay of *Salinas* 12 or 13 Ls off at Sea, lies a very dangerous Shoal, call'd the *Black Ground*, having not above 6 Foot Water upon it; 'tis to be known only by the Current, and Breach of the Sea near and upon it: Other than this, there is neither Rock or Shoal, or any other danger upon all the S. Coast of *Cyprus*, except a few Rocks close under Shore, a little above the low Point of *Sagitta*, and which are quite out of the way; all the rest is a clean fair Strand, good riding, and good anchor-hold.

From this Bay to *Cape Grega*, or *Girza*, is 7 Ls, the Course E. southerly: *Cape Pila* is between indeed, but I call that the E. Point of the *Salinas* Bay. *Cape Grega* runs out a very long way into the Sea S.E. and northerly from it, about $3\frac{1}{2}$ Ls, lies the City and Port of *Famagusta*, the capital Place of Trade and Shipping for the whole Island; the Haven is large, and capable of receiving good Ships, and the Road before it very good.

N.E. from the Port of *Famagusta*, the Shore falling off, trends away to *Cape St. Andrew*, without any Haven or Bay between, the dist. 12 Ls: This is the easternmost Point of Land of the whole Island. There are two or three small Islands lie off of the Cape, but no Rocks or Shoals; so that all is clean, and you may ride under the Cape it self, and on either side of it, with great safety, as the Weather shall direct.

Opposite to the N. Coast of *Cyprus* lies the Coast of *Cilicia*, the Port of *Stalia*, and the ancient City of *Antiochia*: But tho' this Coast is full of Rivers and Bays, and some considerable Ports, yet as the *Europeans* have little or no Commerce with the Country, so they have no Survey of the Coast; nor have we any knowledge of the Soundings, or of the proper places for the Ships to ride in, till we come to the Coast of *Syria*, and the *Gulph of Scanderoon*: And therefore we can enter into no Description of it.

From *Cape Grega* in *Cyprus* to the S. Point of the Bay of *Scanderoon* (call'd formerly *Alexandretta*) the Course is N.E. dist. 37 Ls, and from *Cape St. Andrew* 21 Ls.

This S. Point of the Bay is call'd *Cape de Porcos*, a high steep Point; it makes at Sea in three steep Hills. There is another Cape a little to the southward, which makes at a distance like the Snout of a Hog; and from thence the whole Point was call'd *Cabo de Porcos*. The well marking this Point may prevent your falling into a Mistake which many have committed, of running into the Bay of *Antiochia* instead of

digging for it in the salt Sand on the Sea Shore.
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N. B. N.W. from the said northernmost Cape lies a great Rock under Water, which whoever makes in, to ride under the Point, must beware of.

The southernmost Cape of the Island is *Cape de Gat*, dist. from *Cape Bassa* 11 Ls, the Course S.E. by E. Midway between them lies *Cape Blanco*, an eminent high Cape, and well known; it is a round Cape, and makes at first in three white Cliffs like Chalk. *Cape de Gat* is low and flat, and seen but a little way.

Off of the Haven of *Bassa* about 1 L from the Cape eastward, and about a L from the Main of the Island, lies a Riff or Ledge of Rocks: You may go in either to the E. or W. of them, but the E. Passage is the fairest. You may ride before *Bassa* in 6 to 8 Fa. keeping by the Main, to avoid the said Rocks: 'Tis a good Harbour in most Winds.

The Winds here, like the Sea and Land Breezes in other Countrys, blow off Shore fresh in the Mornings, grow calm with a S. Sun, and blow fresh off Sea towards Evening, and then calm again before the Morning. These alternate Courses of the Wind seldom fail; and as the Sailors know how to serve themselves of them, they are very much to the Advantage of Trade and of Navigation.

Cape de Gat is a low Point, and runs so far out into the Sea, that it makes at a distance like an Island, and as if it stood half a L. off in the Sea. About 5 Ls E. from the Cape is a fair Bay, where you have good anchoring in 7 to 10 Fa. good Ground; your Course to it is N. by E. and then N.E. by E. As you enter the Bay, you see the City of *Limesole* directly before you: At the Bottom of the Bay there is a Castle of white Stone stands up above the other Buildings, by which you will know the Town; there is very good Ground to anchor in just before the City in 6 to 12 Fa. secure from all Winds, except a S. and S.W. When you are in that Road, *Cape de Gat* bears due S. or S. by W. according as you lie.

From this Bay to the *Salinas* is 11 Ls, the Course E. by N.

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To the N. of this Cape goes in the Bay of *Scanderoon*: To know this Bay, and prevent the Mistake above, you must take special notice of the N. side of the Bay, which differs remarkably from that of *Antiochia*, the Hills on the Shore differing extremely: *Scanderoon* it self is known by two white Castles, one antient and in Ruins, the other new built; the Road is fair and good, and without difficulty; yet 'tis safest for those who are unacquainted to take a Pilot, as well for sailing into the Bay, as for chusing the best of the Road.

N. B. This is a different Place from the antient City of *Antiochia* mention'd above, which stands on the N. Coast of the Country of *Cilicia*, now call'd *Caramania*.

Coming from *Cyprus*, and being bound to *Tripoli*, the Course from *Cape St. Grega* is S.S.E. southerly, dist. 32 Ls. In this Course also great Notice must be taken, and Allowance made for the Current, which all along the E. Coast of the *Levant* runs very strong, and with an unusual force to the northward; and therefore in sailing from *Cape Grega* you must keep pretty much to the southward; tho the Port of *Tripoli* really is by situation three Points more to the northward, viz. E.S.E. for if you do not borrow of the S. you will run the hazard of losing your Passage, as the Seamen call it, and being forced up to the northward, which it will be very difficult to recover. This Port of *Tripoli* lies with *Scanderoon* N. by E. and S. by W. distance 40 Ls.

If you should make the Land before you make the Port, you must look out for a very high Mountain to the eastward of the Coast, which is the famous *Mount Libanus*, or *Lebanon*, noted for its Cedars and Fir-Trees, the largest in this part of the World: Bring this Mountain due E. from you, and you may be bold to run in for the Road of *Tripoli*. You will see this Hill within 12 or 13 Ls of *Cape Grega* in *Cyprus*, nay, it may

may sometimes be seen from *Cyprus* it self, that is, from the Hills about *Cape St. Andrew*.

When you come near the Shore, you will see at the Foot of *Libanus*, a little to the N. another lesser Mountain round on the Top, call'd *Monte Cruis*; and as much to the S. of the Hill, but W. of *Libanus*, another Hill, with a *Pico* Top: between the *Pico* and the *Round Hill*, lies the Port of *Tripoli*. As you come still nearer, you will see a small Ledge of large Rocks lying N. and S. in the Sea; keep to the N. of them, and you will see the Road of *Tripoli* lying in E. within those Rocks: You have Water enough in this Road, but foul Ground; and you must see that your Cables be very well fery'd, or you may chance to lose your Anchors.

The City stands behind a Wood, so that you see the Houses over the Trees; but between the Wood and the Shore or Strand, are Rows of Pack-houses, or Ware-houses, for the Merchants, where the Ships unlade and relade with great convenience.

S. by W. from *Tripoli* lies the Port of *Barutti*, upon a Promontory running far out into the Sea: The Land is low, and makes at a distance like an Island, a L from the Shore. Between the Extremity of the Point and the Town there is a Church, and on the W. part of the Point a Light-house. The Town lies on the N. side of the Point, and the Road is on the N. side of the Town, near a *Turkish* Mosque. The *Pico*, or steep Hill on the N. side of *Mount Lebanon*, is a good Mark at Sea, to know how to look for this Point, which is just 13 Ls S. of it. This Port is distance from the *Salinas* in *Cyprus* 45 Ls, the Course S.E. by E.

Much at the same distance, not half a L more, but in a S.E. Course, lies the ancient Port and City of *Sidon*: It is on the same Coast as *Barutti*, only 14 Ls S.W. 'Tis situate upon a high Rock; and about a Gun-shot from it to seaward lie other great Rocks, which break off the Sea, and make the Haven of the Town. You must run to the northward of those Rocks, and there you will see the Road: There is a Channel to the Sward, by which small Vessels may come up to the same Road; but 'tis foul and dangerous for great Ships: The Road is good, a clean Sand, and well shelter'd. Here you ride within two Ships length of the above-named Rocks, in 5 to 7 Fa. with an Anchor a-stern, and a Head-fast a-shore, upon the Rock; and here you may boast that you ride in the first Sea Port that was ever known in the World, and which remains a good Road, and a Place of Trade to this Day. There is a little Creek by the Castle, where small Vessels may go in, and which it may be suppos'd was the first Harbour, for the Boats they first made were not too large for that Port: But now the Ships unload in the Road, and the small Vessels which take out their Goods, run afterwards up to the Town by the Creek.

From *Tripoli* to this Port is a fair clean Strand all the way without Islands or Rocks, Shoals or Riffs of any kind, dist. 24 Ls: they lie S.S.W. and N.N.E.

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Ports for the Coasts of Asia in the Levant.

from the South. Between this Port and *Sidon*, are two other Points, on the southermost of which is a Light-houle, and also a great many Trees; and from that Point you may see the City of *Sidon* lying due N.

S.W. from this Port of *Saxo* (*Tyre*) lies a high rocky Point, called *Cape Blanco*, dist. 4 Ls; there is an old decayed Church upon the very Pitch of the Cape, built of white Stone, and is seen far out at Sea; 'tis a very good Mark for you, to shun a Shoal or Riff which runs out to seaward near a L from the Cape, and is very dangerous; 'tis also a good Mark to know the Cape it self by. To the N. of the Point also, and near the Strand, stands a high square Tower, by which you will know the Coast.

S.W. from this Cape 5 Ls, lie *Cape Carmel*, called now *St. Margavet de Amene*, and by our rude Seamen plain *St. Pegg*, but by the Italian Pilots *Cape de Mella*. From this Point the Pilots say a Bank runs out at Sea, but that there is 2 to 3 Fa. Water over it; behind it there is an excellent Road, between the Bank and the Shore: you will know this Shoal, and the Road also, by a flat Tower which stands on the top of a Point.

Between this Port and the Cape called *Cape Blanco* is a large Bay, at the bottom of which lie the Remains of that once famous City and Sea Port of *Acon*, called *Ptolemais*, or *St. John de Acre*, well known in our Histories of the *Holy War*, for receiving great Fleets of Ships from *England*, as well as *France*, and other Places; 'tis now a waste and uninhabited Town, and a uselefs Port.

However, you may still anchor there to the eastward of the Point of the old City, in 7 Fa. but the Ground is not good, so you must take care to serve your Cables well: Here you have very duly the Sea-Breezes, as at *Smyrna* and other places.

There is a good Road for Ships bound to the southward at *Caiffa*, a small Town upon the Coast, between this Bay and *St. Pegg*, as also at the Castle of *Pelgrini*, which lies 4 Ls dist. from *Cape Carmel*, having 3 Spires upon the Towers or Walls of the old building. Under this Castle is a good Road, with 6 to 7 Fa. but rocky base Ground, as it is upon most of this Coast from *Tripoli* hither.

Two Ls S. of this Castle lies the antient City and Sea Port of *Cæsarea*: it may be called a Sea Port, because we read so of it; but at present there is neither Haven or Road, so that the very Port is lost, as well as the City. which is not usual; 'tis certain there was formerly a Mole, which was sufficient for the Shipping of those Times, but it has been demolish'd, and is now lost.

From hence the Coast goes on still S. and the next Port, and the last indeed on the Coast of *Asia* in the *Levant Seas*, is *Jassa*, supposed to be the *Joppa* of the antient History; it lies 7 Ls from *Cæsarea*: it was formerly the Sea Port for *Jerusalem*, and it may be supposed was then much frequented by Ships, as well as stor'd with Merchants.

Before the City or Port lies a Ledge of Rocks, beginning on the S. part, and running away N. quite thwart the Place;

Saward, by which small Vessels may come up to the same Road; but 'tis foul and dangerous for great Ships: The Road is good, a clean Sand, and well shelter'd. Here you ride within two Ships length of the above-named Rocks, in 5 to 7 Fa. with an Anchor a-stern, and a Head-fast a-shore, upon the Rock; and here you may boast that you ride in the first Sea Port that was ever known in the World, and which remains a good Road, and a Place of Trade to this Day. There is a little Creek by the Castle, where small Vessels may go in, and which it may be suppos'd was the first Harbour, for the Boats they first made were not too large for that Port: But now the Ships unload in the Road, and the small Vessels which take out their Goods, run afterwards up to the Town by the Creek.

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S. of *Sidon* about 7 Ls stands (rather we may say stood) the antient and famous City and Sea Port of *Tyre*, once the greatest City of Trade and Navigation in the World; but which is now so sunk, as that it has not so much as retain'd its Name, being call'd now by the *Turks Saxo*: the antient Haven however, remains very good still, able to receive a great Fleet; the Ruins of the City are still to be seen close by the Sea, and serve for Sea Marks to go into the Port by. The Haven is on the N. side of the City, and to the westward lie some Rocks, which shelter the Haven from the Winds off Sea, and break the Force of the Water in case of Storms; so that 'tis a very secure Road, as well as Harbour. You sail round these Rocks to the northward, and then you open the Harbour; then bear up round, and stand in S. leaving the Rocks on your Starboard-side, and sail into the very heart of the City; or of that rather which was the City, for 'tis now waste and in Heaps: Here you are perfectly shelter'd from all Winds, only that a northerly Wind brings in a rolling Sea; but even then the Ships ride secure enough. Within the Harbour on the S. Point remain many Towers, and Steeples; which are Sea Marks to guide Ships at a farther distance into and out of the Haven; but here is now very little Occasion for them.

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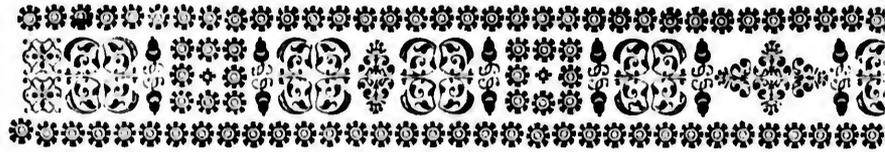
Before the City or Port lies a Ledge of Rocks, beginning on the S. part, and running away N. quite thwart the Place; you ride before this Ledge of Rocks in the open Sea, for here is no Haven, nor can any Ship of Burden come up to the City, only small Boats, the other being kept off by the Ledge of Rocks: There is 10 to 12 Fa. in the Road. Bring 2 Towers, which stand at a dist. from the Town, to bear S.E. from you, and you are then in the best of the Road, and pretty good Ground, better than is usual upon this Coast.

The Coast here is very dangerous, the Ground generally in the Bays and Roads foul; so that if you come to ride, unless you are well acquainted, you run great hazard of losing your Anchor; and if you are driven from your Anchor, there's no Shelter upon the whole Coast, but to drive with the Current, which is extremely furious to the northward.

If you go to ride farther off, 'tis worse; for within Muskethot from the Shore you have 35 to 40 Fa. the Ground so soft, that your Anchors will hold no Purchase.

15 Ls S. of *Jaffa* lies the Town of *Escalona*, the last Town of *Asia*, but no Port; neither is there any Shipping ulcs it, for there is no Road, or Haven, nor any Occasion for it: all the rest of the Coast is desert and wild, without Sea-Port or Rivers, or Cities, from *Jaffa* quite to the City of *Damiata*, on the Bank of the easternmost Arm of the *Nile*, which is 53 Ls; where begins the Coast of *Africa*, which is taken notice of in our Accounts of that Country.

Sailing



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HE giving Instructions for sailing on the Coast of *Spitsbergen*, vulgarly called *Greenland*, and also on the Coast of the northern Part of *Frobisher's Streights*, and the Country called *Greenland*, and which is the only true *Greenland*, is now render'd wholly needless, as the Places themselves are useleſs in Navigation; and is therefore omitted here, as also for the following Reasons.

1. That the Whale Fishing is entirely remov'd from the Shores of *Spitsbergen*; and no *European Ships* come any more near the Coasts of those Islands except for Game and Diversion; but they fish now entirely in the open Seas, and among the Ice, far W. and N.W. from the Islands.

2. All the Settlements formerly attempted to the N. of the *Streights* call'd *Hudson's Bay*, are abandon'd; and all the Expectations of penetrating by those *Streights* to find a Passage into the *South Seas*, or the Seas of *Jesso* and *Japan*, are given over: so that to speak of those Parts any more in Navigation, would be to direct People to sail where they can have no Occasion, and where it is likely none will ever attempt to sail again.

Nor indeed is there any exact Survey of the Coast, within those *Streights* which we pass to go to the present Colony of *Hudson's Bay* and *Rupert's River*; those Settlements being far within the frozen *Streights*, and where only the Company's Ships, which are but about 2 or 3 in a year, ever go: and their Mariners may be said to be the only Pilots for the Voyage, the best Accounts given by our printed Pilots being imperfect, and not to be depended upon.

Our Survey therefore will naturally begin with the Coasts of the Continent of *America*, from the Entrance into the great Gulph of *St. Lawrence*, and River of *Canada*; and from the *British Colonies*, making the South Coast of the great River and Gulph of *Canada*, which Country is properly called *Nova Scotia*.

From the Entrance into *Hudson's Bay* there is a long open Coast lying N.N.W. and S.S.E. to the Entrance of the N. Chan-

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Off of the Coast lie divers large Banks, tho not equal to the grand Bank of *Newfoundland*: A brief Account of which take as follows.

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1. The *Island Bank* is the most northerly, and lies on the S. Part of *Newfoundland* S.S.W. from *Placentia Bay*, and S.W. from *Cape Mary* on the Island of *Newfoundland*; N. by E. from *Cape Breton*, and on the E. side of the Isle of *Gaspé*. It is about 40 miles in breadth, and not quite 70 in length, being in Lat. from 46 d. 10 m. to 46 d. 50 m. having generally from 28 to 30 Fa. with 3 small rocky Islands on the outer Edge of it northward.

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2. There is a great Bank which lies S. from the Isle of *Sables*, call'd the *Shoals of Sables*; it lies S.E. from the N. Coast of *Accadia*, and from *Causseau Bay*: This is a very large Bank, being in some places 70 to 80 miles long, dist. from the Coast 43 Ls.

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3. Near the same Coast, and parallel with the Shore of *Accadia*, lies a long Bank call'd the *Shoals of Accadia*, stretching out in a Line from the height of *Cape Sable* S. by E. from the said Cape to Lat. 44 d. 20 m. dist. from the Shore from 10 to 20 Ls; and then running away N.E. by E. and due E. till it joins the other Bank call'd the *Shoals of Sable*, excepting a small Channel of less than 1 L. over. On this Bank of *Accadia* is from 20 to 45 Fa. and on the other of *Sables* from 15 to 30 Fa. on the N. side, and from 30 to 47 Fa. on the S. and S.E. side.

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4. Besides these, they have a long narrow Bank, lying parallel with the Coast of *New England*, stretching from the height of *Casco Bay* N. to *Cape St. Anne* and opposite to *Meremack River* S. This Bank is generally 5 Ls broad, except at the extreme Points, where it goes off sharp to nothing: In length N.E. and S.W. it is 32 Ls, and has upon it from 40 to 47 Fa.

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N. B. It is observ'd, that some of our Map makers describe this Bank in a different manner, and indeed not at all like Sailors; they call it *Jaffrey's Ledge*; lessen its Dimensions allso, and make it not above 40 miles long. not reaching N. beyond the River *Saco*: But as we follow the old *New England* Pilots, who no question survey'd the Coast, we

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gation, would be to direct People to sail wherethey can have no Occasion, and where it is likely none will ever attempt to sail again.

Nor indeed is there any exact Survey of the Coast, within those *Streights* which we pass to go to the present Colony of *Hudson's Bay* and *Rupert's River*; those Settlements being far within the frozen Streights, and where only the Company's Ships, which are but about 2 or 3 in a year, ever go: and their Mariners may be said to be the only Pilots for the Voyage, the best Accounts given by our printed Pilots being imperfect, and not to be depended upon.

Our Survey therefore will naturally begin with the Coasts of the Continent of *America*, from the Entrance into the great Gulph of *St. Lawrence*, and River of *Canada*; and from the *British Colonies*, making the South Coast of the great River and Gulph of *Canada*, which Country is properly called *Nova Scotia*.

From the Entrance into *Hudson's Bay* there is a long open Coast lying N.N.W. and S.S.E. to the Entrance of the N. Channel of the Gulph of *St. Lawrence* at *Bell Isle*, being the Passage at the N. end of the Island of *Newfoundland*, and between *Newfoundland* and the *Terra de Labrador*, and the long open Coast just mentioned.

This Coast has not been yet surveyed, as being of no use for Commerce, except that by chance any Ship may be driven in by stress of Weather for fresh Water, and the like; on which Occasions they have reported, that there are very good Bays, safe Roads, and good Harbours, almost any where: But we have no farther examin'd or enquir'd into them.

The River of *Canada* goes in by *Cape Breton* on the Island of *Gaspe*, being to the N.E. of *New Scotland*; and according to the latest Survey, is in Lat. 44 d. N. or 44 d. 10 m. The Country of *Acadia*, which is the first Land of the *English* upon the Continent southward of this Island, was lately conceded to the *English* by the Treaty of *Utrecht*; and upon that Account we are yet without an accurate Survey of its Coast: The chief thing that can be said is, that the Gulph of *Funda*, which is its southward Bound, is very good, the Shore clean, and the Depth of Water sufficient for Ships of any Draught quite up to the Town of *Annapolis*, which is now the Capital of the Country.

This Town lies in a smaller Bay within the great Bay of *Funda*, and is itself an excellent Harbour: you may run into the great Bay, with this general Observation only, *viz.* That it is a fair clean Bay, without any Dangers but what are seen; and if you would go up to the Town you may call for a Pilot.

From hence you have almost innumerable good Harbours, Ports, Islands, Creeks and Coves, all along this Coast, tho there are withal many Rocks and Islands, which makes Pilots so necessary to particular Ports. This is what is properly called the N. Part of the Colony of *New England*: for as the 3 antient Governments make now but one, their Coasts are also joyned in one Description.

out in a Line from the height of *Cape Sable* S. by E. from the said Cape to Lat. 44 d. 20 m. dist. from the Shore from 10 to 20 Ls; and then running away N.E. by E. and due E. till it joins the other Bank call'd the *Shoals of Sable*, excepting a small Channel of less than 1 L. over. On this Bank of *Accadia* is from 20 to 45 Fa. and on the other of *Sables* from 15 to 30 Fa. on the N. side, and from 30 to 47 Fa. on the S. and S.E. side.

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5. The Charts of this Coast also give us another Shoal, which stretches N. by E. and S. by W. almost the whole length of the Colony, from opposite to the *Monument Bay* in Lat. 41. to the Point of *Accadia* call'd *Cape Sable* in Lat. 44. being 60 Ls; being 10 Ls over towards the S. end, but narrowing gradually all the way to 3 Ls at the N. Point; and having generally from 35 to 37 and 40 Fa. upon it, except at the utmost Edge of it S. where it widens to 23 and 24 Ls, and shoals up to 10 Fa. 3 Fa. and at the outer Edge to 1 Fa. This they call *St. George's Bank*; it lies dist. from the Mouth of *Boston Harbour* E. and W. 45 Ls, from the E. side of *Cape Cod* E.S.E. 24 Ls, and passes by the W. end of the *Shoals of Accadia*, dist. 5 Ls W. by S. Within the 4th Bank are the Havens of *Salem*, *Piscataway*, or *Piscatuguay*, the River of *Merimac*, *Saco*, and several others, with *Casco Bay*, all, especially the former, full of good Havens. *Casco Bay* is full of small Islands and Rocks, as likewise are the Rivers of *Piscataway* and *Saco*: But as they would be endless to describe, and that at every Port there are Pilots to carry Ships in, no Stranger can be at a loss here: It is enough to direct any Sailor on this Coast, to keep a good Offing.

From *Piscataway* to *Cape St. Anne* is 10 $\frac{1}{2}$ Ls, the Course S. by E.

S. from *St. Anne's Point* at the dist. of about 10 $\frac{1}{2}$ Ls, lies the Entrance into *Boston Harbour*, *Marble-Head* being between at the S. Point of a very fine Bay, which is all full of Fishing Towns.

Boston Harbour is a place fenced with so many Shoals, Flats, Rocks, and Islands, besides Castles and Forts, that the best Sailor in the World, if unacquainted, could not find his way in or out without the help of a Pilot. There are 3 Channels into it, thro' the most difficult Windings imaginable: There is no need to give Direction, seeing no Ship ventures, as above,

without Help: It is the like at all the Ports of this Colony, as well to the S. as to the N. This Entrance into *Boston Harbour* is called the *Broad Sound*.

N. B. One thing must be observ'd here once for all, *viz.* That whoever sails to this part of the Continent, ought not to come upon the Coast either towards the beginning or end of Winter: for if they come not upon it before the N.W. Winds fall in, or stay till after they are over, 'tis odds but they are blown off the Coast; and if so, they cannot sometimes get in till many Months; and it is no strange thing to have Ships kept off so long, that they have been oblig'd to run away to the S. even to the Islands, some to *Bermudas*, some to the *Bahamas*, and some to the *West Indies*: or else they have kept beating off at Sea, till they have been starv'd.

These N.W. Winds blow generally very strong, and excessive cold: for as they come off Shore from the great northern Continent, they bring their Winter with them, and often continue 3 or 4 Months together, *viz.* from the beginning of *October* to the end of *January*, and sometimes longer.

From *Cape Cod* the Land falls off W. trending away from *Elizabeth Island* and *Martin's Vineyard* W. by S. to the Mouth of *Hudson's River*, call'd *New York River*, passing on the inside of *Long Island*. In the Bay between, there are many Islands, Rivers and Inlets into the Country, where there are good Harbours, as at the River *Connecticut*, at *New London*, *Rhode Island*, *Elizabeth Island*, *New Plymouth*, &c. at all which there are Pilots, so that we need not enlarge our Description.

Off of the Islands on the E. Shore of *Plymouth Colony*, there are an incredible Number of Sand Banks and Shoals: There are good Channels between most of them, and good Marks to guide thro' those Channels; if once acquainted with them; but if not, you must make proper Signals, and the Pilots will come to your Assistance.

But as it is a very difficult Course from *Cape Cod* to the E. end of those Islands and Sands, or to the E. Point of *Long Island*, call'd *Oyster Point*; so you run a great Risk if you come by the Coast, and within the Islands; for the Sands are so many, and the Channels so strait, that tho' there is Depth of Water enough, yet a Stranger could never do without a Pilot: Those that are unacquainted therefore, would do better to go without all the Sands, especially those call'd the *Rose and Crown* New and Old, and *Nantucket Shoal*, which lie the former N. and N.E. from *Nantucket Island*, and the latter S.E. from it; stretching out to seaward 15 Ls in length, and above 6 in breadth.

N. B. Between *St. George's Bank* and these Sands, keeping the Fair Way from *Boston Harbour* to go without all the Sands, you have 100 Fa. and sometimes no Ground at 200. Come no nearer to the new *Rose and Crown* than 70 Fa. for 'tis monstrously steep and uneven. *N. B.* There is a Channel goes in between the *Old* and the *New Rose and Crown*: when you come into 40 Fa. you are enter'd into

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Point N.W. from you, and then you may go away N.N.W. be-
tween the Spit of *Sandy Point*, in 7 Fa.

From this Point southward you have 15 Fa. to seaward; and
so gradually the Water deepens to seaward, till at the dist. of
20 Ls you come to 80 Fa. and then to no Soundings.

When you are past the *Sandy Hook* or Point, the Channel
up is narrow, but the Soundings are good; and after you pass
the S. end of *Long Island*, the Water deepens to 14 and 15 Fa.
But your safest way is to take a Pilot. The Road where the
Ships lie when they come up, is on the N. side of *Nut Island*,
between the Island and *Castle Point*: the Island which the
Castle and Town of *New York* stand on, is call'd by the same
Name; and below there is another call'd *Staten Island*.

The East Part of the Passage within *Long Island*, and be-
tween the Island and the Main, is call'd the *Horse Race*, lead-
ing to the Haven of *New London*; from *New London*, it
is a fair clear Sound, and the Course is W. southerly: the best
of the Sound is on the side of the Island, where the Channel is
deep, and the Current sets strong to the West.

In the way there is a Point call'd *Stratford*, running out S.
from the Main. S. off from the Point is a narrow Ridge of
Sand, stretching Channel Course, and lying two thirds over
the Sound; this must be avoided, but it may easily be so, by
not going in the Mid stream; for on either side you have a
good Channel, and Water enough. There is also a Rise of
Rocks lying N. from a Point on the Island call'd *Hemsted*
Point; but they are all above Water, and to be seen; and the
Fair Way lies between them and the Point in 7 Fa. From
thence you see some Islands call'd *Minford Isles*; go on S.W.
till you come just before them, there come to an Anchor, and
take a Pilot to carry you thro' the *Streight* call'd *Hell-Gate*,
to *New York Road*.

N. B. The *Horse Race* lies from the E. Point of *Long*
Island towards *New London*, which is the Entrance into
the Sound, 12 Ls. From the *Horse Race* to *Stratford Point*
is 21 Ls. From *Stratford Point* to *Hemsted Point* is
15 Ls. *N. B.* At *Minford Isles* the Sound is brought to 2
miles broad, and the Strait not above half a mile broad,
with a rocky foul Coast also. *N. B.* There are many ex-
cellent Harbours all the way on the N. side of *Long Island*,
as also some on the other side, being the S. Shore of the
Main, but chiefly on the Island; and any Ship of Burden
may sail with Safety as far as the Strait of the Sound, but
there it is difficult, so that great Ships usually go about.

At the W. end of this Island goes in the Harbour of *New*
York, being in the Opening of *Hudson's River*: The River
surrounds the City, but chiefly on the W. part, where the
Harbour may be said to be; the Road is good, and the Ships
ride as near the Town as they please in 5 to 11 Fa. the River
is large and deep, and navigable for small Vessels up to *Albany*
above 100 miles; yet notwithstanding the Goodness of the
Harbour, Strangers always take a Pilot.

Small Vessels go quite thro' here in the Channel within the

Island, call'd *Oyster Point*; so you run a great Rilque if you come by the Coast, and within the Islands; for the Sands are so many, and the Channels so strait, that tho there is Depth of Water enough, yet a Stranger could never do without a Pilot: Those that are unacquainted therefore, would do better to go without all the Sands, especially those call'd the *Rose and Crown* New and Old, and *Nantucket Shoal*, which lie the former N. and N.E. from *Nantucket Island*, and the latter S.E. from it; stretching out to seaward 15 Ls in length, and above 6 in breadth.

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Long Island lies off of the Coast, parallel with the Shore of the S. part of the Colony for upwards of 140 miles in length, dist. from the Shore usually from 5 to 10 and 12 Ls. The Ports of *New London*, *New Haven*, *Connecticut River*, and several less considerable Harbours, are within it: On the Off-side runs a long Shoal of Sand and Beach parallel with the Shore, but in most places about a L from it, not any where joyning to it; stretching on thus for above 30 Ls, so that there are no Harbours or Ports on that side of the Island, the Sand being dry and not passable by any Vessels, except at one Inlet call'd the *Passage*.

The Land at the S. Part of *Long Island* stretches E. by N. and W. by S. and from thence E.N.E. to the E. Point. Ships pass to *New York* by a Channel off of the S. end of this Island: But from the S.E. Point there runs a Riff, or Shoal of Sand, stretching thwart the whole Channel almost to *Sandy Point*, on the side of *Jersey*; you must go round this Riff, except that at the end of it for some length there is 3 Fa. upon it, but farther N.W. there is but 3 Foot Water on it.

In the Channel between this Riff and the Coast of *Jersey*, and *Sandy Point* in particular, there is 7 to 8 Fa. and good Ground; and afterward all the way up this Channel you have 8 to 14 Fa. quite to the Town of *New York*. This is the main Passage for the Port, and is about a mile and half over.

Sandy Point is high Ground, and round at the top: The Pitch of the Point is call'd *Portland*. In passing thro' here, take care not to come too near *Sandy Point*; for there lies foul Ground, and there also is shoal Water. Bring the *Sandy*

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15 Ls. N. B. At *Minford Isles* the Sound is brought to 2 miles broad, and the Strait not above half a mile broad, with a rocky foul Coast also. N. B. There are many excellent Harbours all the way on the N. side of *Long Island*, as also some on the other side, being the S. Shore of the Main, but chiefly on the Island; and any Ship of Burden may sail with Safety as far as the Strait of the Sound, but there it is difficult, so that great Ships usually go about.

At the W. end of this Island goes in the Harbour of *New York*, being in the Opening of *Hudson's River*: The River surrounds the City, but chiefly on the W. part, where the Harbour may be said to be; the Road is good, and the Ships ride as near the Town as they please in 5 to 11 Fa. the River is large and deep, and navigable for small Vessels up to *Albany* above 100 miles; yet notwithstanding the Goodness of the Harbour, Strangers always take a Pilot.

Small Vessels go quite thro' here in the Channel within the Island; but the Channel at the W. end next to *New York* is narrow, and tho' call'd *Hell-Gate*, 'tis a strait not a wide Passage.

From *New York* the Shore pushes out S.S.E. to *Middletown's Point*, dist. from *Long Island*, about 13 Ls. There is a large River opens between (making a small Bay in the Mouth of it) and good anchoring in the Road before it, and so in several Places behind the little Islands, which lie all the way on the Coast. The navigable Outlet of *Hudson's River* comes all out this way to *Sandy Point*, and then opens into the Sea, together with the Outlet from the N. side of *East Jersey*: There is 8 to 12 Fa. in this Channel.

From *Middletown's Point* the Shore goes away S.S.W. to the Mouth of *Delaware Bay*, ending at the W. Point of *Delaware River*, and the said Shore is the E. Coast of the Colony of *New Jersey*; this is a very large and navigable River, which empties it self into the Sea, from the Colony of *Pennsylvania*, washing the W. Shore also of the Province of *New Jersey*.

This River is suppos'd to be of a very great length, seeing at the Town of *Philadelphia*, where a less River falls into the *Delaware*, and at the distance of above 30 Ls from the Sea, Ships of 500 Tun lay their Broad-sides to the Key on both sides the Town; and they tell us great Ships may go up much farther. There are several good Havens on the *Jersey* side of this River, and a sufficient depth of Water in most of them, but especially in what they call *Prince Maurice's River*.

The Bay goes in N.W. but inclines to the N. as soon as you are in, running up first N.W. by N. for 20 or 30 Miles, then due N. as much more, and then turns to the eastward of the N. so that for 30 Miles before it comes to *Philadelphia* it lies N.E. and S.W.

On both sides this River, which divides *New Jersey* and *Maryland*, there are many Creeks and Rivers, where there is good anchoring and good Harbour; at *Elfsburgh* in particular, on the *Jersey* side, there is a good Harbour for great Ships, Land-lock'd from all danger. There are some Islands in the

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the broad part of the Bay, and several Shoals; but they are so well known, and so mark'd out, that there is little need of a Pilot.

On the S. Coast of *Jersey*, E. of the Bay, lie four Islands stretching N.E. and S.W. parallel with the Main; and between these Islands and the Main are several good Harbours and Roads, and the Channel within them is large and good.

Without these Islands there lie also at the Offing opposite to them, several Sands or Banks all the way, but chiefly at the several Entrances between the Islands, as far northward as the Islands lie extended; the Channels between them answering to the several Channels between the Islands.

S. of the last of these Banks of Sand lies a large Shoal, stretching as it were thwart the Mouth of the Bay, but at the distance of 6 Ls Offing; also when you go in, on the S. side and on the N. are large Sands; but the main Channel is in the Middle with 15 to 18 Fa. sufficient for the largest Ships; so that those Banks are no Obstruction to the Navigation of the Bay.

The best going in is on the S. side: Keep about a Mile from the Point: After you are within the first Cape, you will see another Cape before you on the same side, call'd *Cape James*

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Sailing Directions for the Coast of Virginia and Maryland Bay exclusive, to the Port Royal on the South side: With a Description of the Currents in the Gulf



FROM *Cape Henlopen* on the W. side of the Entrance into *Delaware Bay*, the Coast being properly part of the Colony of *Maryland*, trends away S. by E. about 40 Miles to a small round Point, at the Opening of a Creek which our Pilots call *Affateag*; and from thence falling off to the westward, goes away S. by W. for near 30 Ls more to the Capes, call'd so by way of Eminence, but for Distinction the Capes of *Virginia*, being the Entrance into the great Bay of *Chesapeake*, the main Harbour and Inlet to all the Colony. As for the sailing Directions for every River and Creek within this Bay, with the Bearings, the Shoals, Rocks, Havens, &c. in every part, as it would take up almost a Volume it cannot be expected.

It must suffice here, as in other places of like nature, (I do not say of equal Dimensions and Variety, for that is not in the World) to lead you to the Entrance or Opening of the Bay, and then call for Pilots to direct you where your Occasions shall require.

The S. and S.E. Coast of *Maryland* mention'd above, we do not find has any considerable Harbours; it is a long narrow Peninsular of Land between the Bay and the Sea; and the Harbours and Roads lie all so convenient, and are so numerous on the other side within the Bay, that as the Coast on the Ocean is very difficult and almost impracticable, so that Want is fully supply'd on the inner Shore, where there is not a Plantation but has some navigable Stream or Creek comes close up to it from the Bay.

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or Henlopen; make up to it, and when you are broad-side with it, steer N.N.E. about 2 Ls farther up.

In this Course take heed the Tide does not horse you up too far to the westward at first; for there are several Sands on that side which are scarce passable; but keep the Mid-Channel, which is the Fair Way, and so pass thro' keeping to the E. or W. side of it, according as you are bound either to one or other side of the River.

In this Mid-Channel you have at the Entrance 12 Fa and it holds that depth for near 4 Ls up; after which it shoals to 6 and 7 Fa. which it holds most part of the way up for 70 to 80 Miles: After which it rather deepens, as the Channel is narrower than before.

N. B. A S.E. Moon makes full Sea in *Delaware Bay*; and the Tides set thus, the Flood E.N.E. and the Ebb S.S.W.

At *New York* the Tides set S.E. by E. and N.W. by W.

At *Boston* S. by E. and N. by W.

At *Rhode Island*, and the N.W. Point of *Black Island*, S.E. by E. and N.W. by W.

On all the Coast of *New Plymouth Colony* S. by E. and N. by W.

Virginia and Maryland, from the West Point of Delaware on the South-West Part of South Carolina including the Gulph of Florida.

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were all at once: And when you are sure not to be above 15 Ls off from the Land, then the Current sets as fiercely to the southward, and the nearer the Land the stronger the Current.

At your first coming to an anchor off of *Cape Henry*, as also off of *Smith's Island* on the side of *Cape Charles*, the Pilots will come off to you either with or without a Signal.

The breadth of the Entrance of the Bay between the Capes is 5 Ls; the Bay within widens in some places to a vast breadth; and the Mouth of *Potowmack River* falling into the Bay, is not less than 7 1/2 Ls over: The Channels are all very good, most of them clean and deep; and there are such innumerable Harbours within Harbours, and Roads within Roads, for the Convenience of Shipping, that the like is not in the World; neither is there any River, Gulph, or Bay in any part yet discover'd, where there are equal Advantages for Navigation.

Ships go in here a great way W. and then run 160 Miles up N. into the great Bay; which tho it self but a navigable River, yet the greatest Ships run up 200 Miles: Other Rivers fall into it, navigable 150 to 160 Miles wide from the Bay W. others fall into those Rivers navigable 50 to 60 Miles either way N. and S. and so of others again: And in all of them, and almost in every Creek, deep Water, soft Ground, and land lock'd from all Winds. I need say no more to tell the Mariner why he has not particular Directions for every Place; 'tis enough to say it would be endless and impracticable; and that wherever he is to go, he may be sure of a Pilot.

Point on the Coast from *Cape Henry* the Shore falls away to the S. to *Cape*

being the Entrance into the great Bay of *Chesapeake*, the main Harbour and Inlet to all the Colony. As for the sailing Directions for every River and Creek within this Bay, with the Bearings, the Shoals, Rocks, Havens, &c. in every part, as it would take up almost a Volume it cannot be expected.

It must suffice here, as in other places of like nature, (I do not say of equal Dimensions and Variety, for that is not in the World) to lead you to the Entrance or Opening of the Bay, and then call for Pilots to direct you where your Occasions shall require.

The S. and S.E. Coast of *Maryland* mention'd above, we do not find has any considerable Harbours; it is a long narrow Peninsula of Land between the Bay and the Sea; and the Harbours and Roads lie all so convenient, and are so numerous on the other side within the Bay, that as the Coast on the Ocean is very difficult and almost impracticable, so that Want is fully supply'd on the inner Shore, where there is not a Plantation but has some navigable Stream or Creek comes close up to it from the Bay.

The Shoals about *Cape Charles*, which make the Point on the *Maryland* side, are so many, that no Ships can either come near the Coast from the Sea, or near the Cape at their Entrance into the Bay. The Riff of Sand at the Cape runs off to the Sea call'd the *Middle Ground*, in the Entrance of the Bay; so that no Ships of burden go in on that side, the *Middle Ground* it self having but 10 to 11 Foot upon it at low Water. There is a Channel indeed on the inside of the Shoal, close under the Cape; but there are so many Shoals lie off in the Entrance on that side in particular, that a Stranger should by no means go in with *Cape Charles* unless he is furnish'd with an able Pilot: On the contrary, on the other side under *Cape Henry*, you have good Soundings and deep Water.

When you are off at Sea, and first make the Capes at the distance of 7 to 8 Ls, you have gradual Shoalings in 10 to 11 Fa. and from that to 9 Fa. If you are a little to the southward, you will have 35 to 30 Fa at the same distance; and by that Difference you will know if you have over-shot the Capes. At 10 to 12 Ls in Lat. 35 you have 40 to 60 Fa.

The Land of the Capes is low, and the Shore as well to the S. as to the N. is flat off, so that you cannot see the Coast at 7 Ls Offing: And this, with the uncertainty of the Currents upon the Coast, is one Reason why many otherwite skilful Mariners often out-run their dead Reckoning, and shoot beyond the Capes before they make the Land.

It is first to be observ'd, that in coming from *England* to *Virginia*, even before you have any Soundings at the distance of 8 Ls from the Land, you will find a fierce Current setting to the northward and the eastward; and the nearer you come to the Land, the more it sets to the northward, till you come to have Soundings in 40 to 50 Fa. distance from the Land 16 to 18 Ls: Then you will find the Current abate, and coming into shoaler Water, viz. into 20 to 15 Fa. which you do as it

is 5 Ls; the Bay and the Mouth not less than most of them Harbours with Convenience neither is there cover'd, when Ships go in N. into the Bay yet the greater to it, navigable others fall in way N. and them, and almost and land lock the Mariner's Place; 'tis en- cable; and the Pilot.

From *Cape* *lina*: The first distance from between. The lies S. you must Shoal which lie into the Sea. E. Course you several Opening *teras*; but as to on the Sea Co little known. *marle River*, *Carolina*.

From hence *Cape Hatteras* the Course is a Rivers and Bay many good Har *rolina* is but the Coast has n it has; so that

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is 5 Ls; the Bay within widens in some places to a vast breadth; and the Mouth of *Potowmack* River falling into the Bay, is not less than $7\frac{1}{2}$ Ls over: The Channels are all very good, most of them clean and deep; and there are such innumerable Harbours within Harbours, and Roads within Roads, for the Convenience of Shipping, that the like is not in the World; neither is there any River, Gulph, or Bay in any part yet discover'd, where there are equal Advantages for Navigation.

Ships go in here a great way W. and then run 160 Miles up N. into the great Bay; which tho it self but a navigable River, yet the greatest Ships run up 200 Miles: Other Rivers fall in to it, navigable 150 to 160 Miles wide from the Bay W. others fall into those Rivers navigable 50 to 60 Miles either way N. and S. and so of others again: And in all of them, and almost in every Creek, deep Water, soft Ground, and land lock'd from all Winds. I need say no more to tell the Mariner why he has not particular Directions for every Place; 'tis enough to say it would be endless and impracticable; and that wherever he is to go, he may be sure of a Pilot.

From *Cape Henry* the Shore falls away to the S. to *Carolina*: The first part of the Course is due S. to *Cape Hatteras*, distance from the Offing of the Capes 40 Ls, no Place of note between. This Cape lies in Lat. 35 d. 5 m. But tho the Coast lies S. you must steer S. by E. or S.S.E. to go without a Riff or Shoal which lies off of the Cape, stretching above 20 Miles into the Sea. The Shoal cannot be gone over; but in a S. by E. Course you will go all the way in 15 to 20 Fa. There are several Openings on the Coast before you come to *Cape Hatteras*; but as the Country next to *Virginia* is not fully planted on the Sea Coast, those Openings are of little Use, and but little known. The Opening at this Cape goes into *Albemarle River*, which is the most northerly Harbour of *North Carolina*.

From hence the Coast falls off to the W. so much, that from *Cape Hatteras* to *Cape Fear*, which is no less than 50 Ls, the Course is all S.W. and S.W. by W. There are divers large Rivers and Bays, with several Islands and Ports, and especially many good Harbours and Roads: But as this Colony of *Carolina* is but a young Settlement, compared with the others, the Coast has not been so fully survey'd, at least we cannot find it has; so that we must pass it with the less Observation.

Off of *Cape Fear* there runs a Spit of Sand for 7 Ls out into the Sea due S. and at the End of it, after narrowing to a small thread, almost to nothing, it ends in a large Circle of Sand a full L in Diameter.

On the W. side of this Cape comes in a large River call'd *Clarendon River*, which is capable of receiving good Ships: But we have no Account of the Depths of the Channel, or of the Shoals or Soundings in it, or in the Entrance into it.

From *Cape Fear* the Coast trends in the same Course S.W. by W. to *Cape Carteret*, dist. almost 15 Ls: There is a clean Coast and good Soundings all the way; and from thence the

Course

Course abates one Point, and lies S.W. to *Abley* and *Cooper's* Rivers, the distance from *Clarendon* River 12 Ls. This *Abley* River lies exactly in Lat. 32 d. 45 m. and to the westward of the Land's-End of *England* 1100 Ls.

In your making this Coast from the Sea, when you come within 60 to 40 Ls of the Shore in the Latitude of the Country, you will feel a strong Current setting to the N.E. just as is mention'd above in coming to the Coast of *Virginia*.

When you have a true Observation, and find you are in the exact Latitude of the Place, run boldly in; and at about 25 Ls from the Land you will have Soundings in 20 Fa. and then you find no Current at all, but you may trust to the simple Motion of the Ship to reckon by. Thus you may stand in bold for the very River, till you come to 6 Fa. thwart the Bar, and there you may anchor in very good Ground.

Upon the Bar you have 3 Fa. at high Water, but no more than 11 Foot at low Water: But when you are in, you have 4 to 6 Fa. and no where less than 3.

N. B. It ebbs at the Bar of *Abley* River an Hour and half before it ebbs at the Point call'd *Oyster Point*. The best going in is an Hour and half before high Water.

N. B. If you are not acquainted with the Channel, lie by off the Bar, and make a Signal for a Pilot: Nor must you go out without one.

From *Abley* River to *Port Royal* the Course is S.W. by S. 12 Ls. If you are bound hither from the Sea, stand directly in W. when you are in 32 d. 6 m. Lat. When you come into Soundings, and find 20 to 25 Fa. you may depend you are within 15 Ls of the Land. Keep on then till you make the Land, which will not be till you are within 6 Ls of it, nor then unless the Weather be clear; for the Coast lies low, and the Mountains which are up in the Country are too far off, to shew themselves far out at Sea.

The Woods upon the flat Country are generally seen first, for the Trees are exceeding tall, and shew themselves a great way: When you first see the Trees, you will be in about 4 and 5 Fa. keep your Lead going, if the Weather is thick, for in that Depth you will be within 1 $\frac{1}{2}$ L off of *St. Michael's-head*.

Off of *St. Michael's-head* there is a great Shoal: You must go away W. by S. to go round the Point of it; then you will see the Breakers upon a Shoal call'd *Col's Clare*. Close to the Sand you will have 4 $\frac{1}{2}$ to 4 Fa. you may steer close to it, for it is steep too; and leaving it on your Starboard side, go on till you see another Breaking, which is on a Shoal call'd *Martin's Industry*. Between those two Sands goes in the Channel to the Haven of *Port Royal*: 'Tis a broad Channel at least a Mile over; and in the Fair Way you have 4 Fa. at least every where.

Being open with the Channel, steer in W. or W. by N. till you bring a Point, which you will see over your Starboard-Bow, to bear N.N.W. this is call'd *Philip's Point*. Go right with that Point, and you will have 7 to 9 Fa. When you are a breadth of the Point, keep a little off, and go away N. by

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along the S. Coast of the Main, and by the Mouth of the great River *Mississippi*, they come on between the N. part of the Island of *Cuba* and the S.E. head Land of *America*, call'd *Cape Florida*, where the Islands and Shoals call'd the *Babama Bank*, lying to the eastward, giving them another Check, they drive up to the northward thro' the great Passage call'd the *Gulph of Florida*, between the Islands and Shoals call'd *New Providence*, or the *Babamas*, and the Coast of *Florida*; and by this way disembogue themselves into the great Ocean.

N. B. This Current is so fierce, that tho' the Winds generally blow fair to go thro' the Gulph to the southward, yet 'tis very rarely that any Ships attempt to force thro' that way: For if the Wind blow very hard against the Current it makes so great a Sea, that Ships can hardly live in it; and if it be calm, or but little Wind, they are sure to be driven back quite out of the Gulph, for the Force of the Current is such, that the greatest Anchors are immediately torn out of the Ground by it.

This is the Reason why all *European* Ships bound to the Islands, or to any of the Ports of *Mexico*, go away to the southward, and do not make for this Gulph, which would otherwise be much the shorter Voyage: And 'tis therefore necessary that all Mariners using this Trade should be Masters of the Reason and Nature of these Currents, that they may guide themselves accordingly.

The Coast of *Florida*, which makes the W. side of this great Gulph, lies due N. and S. from the southermost Coast of *South Carolina*, from Lat. 31 d. 40 m. to Lat. 24 d. 45 m. ranging opposite to, and parallel with the two great *Babama Banks*; which, as above, are the Cause of turning the Course of the Sea up the Channel of the Gulph with such Violence.

The *Spaniards* have a Port on the N. part of this Coast call'd *Fort St. Augustine*, where they have a good Harbour in Lat. 30 d. They have also another small Harbour at *St. Mattheus's*; at both there are good Bays, in which there is Anchorage for large Fleets on Occasion.

South of these Ports it is all a dangerous flat Coast, except a small Inlet call'd the *Bay of Musquetos*; from whence to the End of the Gulph, and round to *Cape Florida*, there is a Shoal of Sand lies off Shore for more than 2 Ls; so that if any Ships come on Shore here, there is nothing but present death before them, as was the Case of a whole Fleet of *Spanish* Galleons, lost here with an immense Treasure, about the Year 1716.

At the southermost part of this Coast lie abundance of Rocks among the Shoals, which makes the Coast still the worse, and at the Extremity S. lie a Cluster of great Rocks or Islands, as some Charts call them, call'd the *Martiers*: There is no coming near them but at the utmost peril, being all surrounded with Shoals of Sands. These *Martiers* reach along Shore E. and W. 12 Ls.

West from these Rocks, and distance from the eastermost of them 20 Ls, lies the Point of Land call'd *Cape Florida*, stretching out far into the Sea S.W. but W. by S. from the Flats

and 5 Fa. Keep your Lead going, if the Weather is thick, for in that Depth you will be within 1 $\frac{1}{2}$ L off of *St. Michael's-head*.

Off of *St. Michael's-head* there is a great Shoal: You must go away W. by S. to go round the Point of it; then you will see the Breakers upon a Shoal call'd *Cole's Clave*. Close to the Sand you will have 4 $\frac{1}{2}$ to 4 Fa. you may steer close to it, for it is steep too; and leaving it on your Starboard side, go on till you see another Breaking, which is on a Shoal call'd *Martin's Indultry*. Between those two Sands goes in the Channel to the Haven of *Port Royal*: 'Tis a broad Channel at least a Mile over; and in the Fair Way you have 4 Fa. at least every where.

Being open with the Channel, steer in W. or W. by N. till you bring a Point, which you will see over your Starboard-Bow, to bear N.N.W. this is call'd *Philip's Point*. Go right with that Point, and you will have 7 to 9 Fa. When you are a breast of the Point, keep a little off, and go away N. by W. half W. till you come into 6 and 5 Fa. There you have a fine safe Harbour, good Ground, and land-lock'd from all Winds on every side.

N. B. It is to be observ'd, that all the Winds from a N.E. to a S.E. bring in a high Tide here, and upon all this Coast, and generally alter the Course of the Flood.

N. B. At Full and Change it flows here S.E. by E. and N.W. by W. the Flood setting always to the northward, and after you are above 6 Ls from the Shore, there is no Tide at all.

From this southmost Coast of *Carolina* we may begin to mention the *Gulph of Florida*, for the Currents of the Gulph are felt thus far: A short Account of these Currents, and of their being so violent in this Part, is needful to be given here once for all, and is as follows.

It is well known that to the southward, and among the *Caribbee Islands*, the N.E. Winds blow Trade continually, without any Alteration, from off the Sea, and almost from the Coast of *Africa* to those Islands, which are therefore call'd the *Leeward Islands*.

This constant Wind naturally carrying the Sea along with it, the Water is forced along between the S.W. end of the Island *Cuba* and the N.E. Point of the Province of *Yucatan*, into the great Bay of *Mexico*; where being resisted by the main Land at the Bottom of the Bay, the weight of Water pressing still forward, they necessarily drive away to the N.W. part of the Bay; and making their way with an irresistible fury

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South of these Ports it is all a dangerous flat Coast, except a small Inlet call'd the *Bay of Musquetos*; from whence to the End of the Gulph, and round to *Cape Florida*, there is a Shoal of Sand lies off Shore for more than 2 Ls; so that if any Ships come on Shore here, there is nothing but present death before them, as was the Case of a whole Fleet of *Spanish Gallions*, lost here with an immense Treasure, about the Year 1716.

At the southernmost part of this Coast lie abundance of Rocks among the Shoals, which makes the Coast still the worse, and at the Extremity S. lie a Cluster of great Rocks or Islands, as some Charts call them, call'd the *Martiers*: There is no coming near them but at the utmost peril, being all surrounded with Shoals of Sands. These *Martiers* reach along Shore E. and W. 12 Ls.

West from these Rocks, and distance from the easternmost of them 20 Ls, lies the Point of Land call'd *Cape Florida*, stretching out far into the Sea S.W. but W. by S. from the Flats of the *Martiers*: And farther W. by S. from the Point lie three Islands, in a triangular Situation, call'd the *Tortugas*.

East from the Shore of *Florida*, and making the other side of the Gulph in conjunction with the Banks mention'd above, lie the *Babama Islands*: The Navigation of them is of small import, and the Number of the Channels among them being like the Islands themselves, innumerable, are not to be described.

The *Grand Babama Bank* lies here between these Seas and the *Babama Islands*: This Bank begins at a little nameless Island in Lat. 21 d. 40 m. opposite to *Cape Cruis*, on the N.E. Shore of the Island of *Cuba*. The Channel between *Cape Cruis*, and the Shoal or Bank, is call'd the *Old Streights of Babama*; the Fair Way of the Streight at the Point is 8 Ls broad, tho' strained on the S. side by some Rocks and little Islands on the side of *Cuba*. From this Point the Bank trends away to the N.W. all the way edg'd with Rocks on the S.W. and W. side, as it is with Islands on the N.E. side, as far as to the Tropick. in Lat. 23 d. 4 m. and then turning due N. makes, above, the E. side of the Entrance into the Gulph of *Florida*, call'd, because of the Bank, the *Channel of Babama*; containing this Course N. a little easterly for above 40 Ls, being to the Lat. of 25 d. 40 m. On the E. side of this Bank are the Islands of *Andross*, *Providence*, and the rest of the *Babama Islands*. N. B. This I take to be the largest Bank of Sand in the known World, being 120 Ls in length, and at the S.E. end 45 Ls in breadth.

Sailing

Sailing Directions for the Coasts of the Islands on the Newfoundland inclusive, to the Barmudas; and to Tobago inclusive.



HO this Part is call'd sailing Directions for the *Islands of America*, yet we must acquaint the Reader that we are to be understood only of the distant and more considerable Islands, such as lying remote from the Continent, are known in Trade and Navigation; and that the small and less considerable Islands, especially such as lie near the Main, are omitted, either where no just Occasion made it necessary to speak of them, or where it was necessary to mention them, they are spoken of, and the Navigation and Coasts directed and describ'd, at the same time as the adjacent Continent is describ'd or directed to.

The Reason of this is fully accounted for in our Geographical Part, and particularly in speaking of the Islands on the Coast of *Italy*: And the same Reasons hold good here, with this Addition, *viz.* That in the navigating Part it is not practicable to give full Directions for sailing upon the Coast, and not include an Account of those Islands which lie contiguous, and so near as to be within small Distances from the Main.

For,

1. In many Places the Riffs and Shoals to be avoided in the going into such and such Harbours, Roads, and Bays as are describ'd, run out from, or some way or other join to such Islands; so that one cannot be describ'd without the other, as is evident on this very Coast, at *Long Island* by *New York*, *Smith's Island* at the *Capes of Virginia*, *Rhode Island*, *Martin's Vineyard*, &c. on the Coast of *New England*; the Island of *Caspe* at *Cape Breton*, and innumerable others.

2. Multitudes of these Islands could not be describ'd without the Continent, any more than the Continent without them; the Marks for entering the Ports being reciprocally assistant one to another; so that it would be perfectly incoherent not to speak of them together.

The following Directions therefore for sailing upon the Coasts of the Islands, are to be understood chiefly of such, as, lying remote from the Coast of the Main, are of importance, as well for Commerce, as for Navigation, and as are not spoken of in our sailing Directions for the adjacent Coasts: And we begin with the Island of *Newfoundland*, not only as it is the greatest Island in the *American Seas*, and the most significant in Navigation, but as by its Situation it comes to be first spoken to, being the most northerly Island upon the Coast of *America*, from the Entrance into *Hudson's Bay* southward.

*Sailing Directions for the East and South Coasts of the
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*Islands on the East side of North America, from
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Rock; you may go on either side of it, for 'tis bold, and you may see this *Rock* 3 Ls off to Sea in clear Weather.

The next Harbour is *Formowes*, distant from *Renowes Point* a L and half, its Situation from *Renowes* N.E. by N. N.E. and N. trending about the Points of Land that stretch out between them; but the Course is N.N.E. till you open the Harbour. Between these Harbours is *Bears Cove*, a good fishing-place for Boats, but a wild uninhabited Country.

The Harbour of *Fermowes* is good, and the going in bold; it lies N.W. in, and N.W. by N. and there are several Coves on either side when you are in, most of them able to receive good Ships; such as,

1. *Clear's Cove*, on the N. which is the Starboard-side going in.
2. *Admiral's Cove*, on the same side, but a little farther in to the westward. In this last there is 7 to 8 Fa. Water, good anchoring, well secured, and a Plantation on Shore.
3. *Vice-Admiral's Cove*, farther in, but on the other or Larboard-side. Here a Fleet may ride in good Ground, and land-lock'd from all Winds.
4. Another Cove, but nameless, on the same side farther in W. where also is an excellent Harbour for great Ships.

In the Entrance of *Fermowes* you have 20 Fa. within from 6 to 14, good Ground, and all safe; it runs up $1\frac{1}{2}$ L at least.

About a L beyond *Fermowes* N.N.E. lies *Aqua Fort*, but the Course is N.E. In this little distance here are two Heads, and Bays within them, about a Mile distant from one another: Boats may go into those Bays to fish, but no offering to land in a Storm, how great soever the Necessity, for you will be staved against the Rocks. The first and southermost of these Heads is call'd *Bald Head*, and the second *Black Head*; they lie N. and S. from one another.

From *Black Head* to the Point of *Aqua Fort* Harbour is but a Mile, but the Course is N.W. by N. occasion'd by the lying of the Point; and the Entrance into the Harbour is W.N.W. the distance between is a short Mile. On the S. side of the Entrance lies a great Rock, but not dangerous, because 'tis bold and above Water: The Road is on the N. side of the Harbour about 2 Miles in, there you lie as safe as in a wet Dock, so near the Shore, that you may make a Stage from your Ship to your Fish-Stage a-shore, and load your Vessel with the greatest ease imaginable.

From hence 'tis 3 Miles to the S. part of *Ferryland head*, the Course E. and a Mile of the way lies *Crow Island*. E.N.E. from the S.E. end of that Island lies a Shoal about a Cable's

2. Multitudes of these Islands could not be describ'd without the Continent, any more than the Continent without them; the Marks for entering the Ports being reciprocally assistant one to another; so that it would be perfectly incoherent not to speak of them together.

The following Directions therefore for sailing upon the Coasts of the Islands, are to be understood chiefly of such, as, lying remote from the Coast of the Main, are of importance, as well for Commerce, as for Navigation, and as are not spoken of in our sailing Directions for the adjacent Coasts: And we begin with the Island of *Newfoundland*, not only as it is the greatest Island in the *American Seas*, and the most significant in Navigation, but as by its Situation it comes to be first spoken to, being the most northerly Island upon the Coast of *America*, from the Entrance into *Hudson's Bay* southward.

Sailing Directions for the East and South Coasts of the great Island of Newfoundland, or so much thereof as is fully survey'd; the North and East Parts, and those formerly possess'd by the French, being not yet finish'd.

CAPE Race is the utmost Point of *Newfoundland* S.E. From whence to the N. coasting along the eastern Shore, you will find it full of deep Bays, large Coves and Rivers, and most excellent Harbours, all very useful to the *English* Sailors, who much frequent the Coast, either for the white Fishing off at Sea, or for the Salmon Fishing in the Creeks and Rivers.

From this *Cape Race* northward the first head Land is *Cape Ballard*, dist. about 4 Ls. the Course is N.N.E. Mid-way between them is *Glam Cove*, a small Place, only fit to receive small Fishing-Boats; N. from which is *Chain Cove* of the like use. There are some Rocks before this last, but no Harbour or anchoring-place between the two Capes for Ships of burden, or room for them to come in to fish; so that Ships ride in the Offing, or go farther N. to *Fresh-water Bay*, and send their Boats into these *Coves* to fish.

Fresh-water Bay is about 4 Miles from *Cape Ballard*; and 4 Miles beyond that, is the Harbour of *Renoves*, which before the last Peace with *France* was the southermost Harbour possessed by the *English* in *Newfoundland*; the *French* being Masters of all the S. and S.E. Shores of the Island. The S. Point of the Harbour is distant from *Cape Ballard* 2 Ls; 'tis but an indifferent Harbour to put in at, there being many Dangers in the Entrance, so that a Pilot is very necessary for those who are unacquainted with the Place; but 'tis a good Harbour to fish in, and therefore in the Season it is cover'd with Boats and Shallops.

N. B. When a Ship is piloted in, there is not above 15 Foot, and but very little Drift, the Shoals, which are many, intercepting the Current.

There is a small Island lying a little from the S.E. Point of the Entrance into *Renoves Harbour*; and about half a L from the S. Point lies a great high Rock S.E. by E. call'd *Renoves*

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Boats may go into those Bays to fish, but no offering to land in a Storm, how great soever the Necessity, for you will be flaved against the Rocks. The first and southermost of these Heads is call'd *Bald Head*, and the second *Black Head*; they lie N. and S. from one another.

From *Black Head* to the Point of *Aqua Fort* Harbour is but a Mile, but the Course is N.W. by N. occasion'd by the lying of the Point; and the Entrance into the Harbour is W.N.W. the distance between is a short Mile. On the S. side of the Entrance lies a great Rock, but not dangerous, because 'tis bold and above Water: The Road is on the N. side of the Harbour about 2 Miles in, there you lie as safe as in a wet Dock, so near the Shore, that you may make a Stage from your Ship to your Fish-Stage a-shore, and load your Vessel with the greatest ease imaginable.

From hence 'tis 3 Miles to the S. part of *Ferryland head*, the Course E. and a Mile of the way lies *Crow Island*. E.N.E. from the S.E. end of that Island lies a Shoal about a Cable's length off; give the Island a Birth, and you go clear of it. From the N. part of the Head to *Ferryland* Harbour, the distance is but 2 Miles, yet the Course alters to W. by N. To go in there, you must sail between the N. side of the Head and *Buoy Island*; the Channel is narrow, but deep, and the Ground clean: When you are thro' there is room enough, and good riding on any side as the Winds may lie. There is a place on the Larboard side, which they call the *Pool*; as you go, it lies behind a beachy Point.

You have 2 Fa. there at low Water, and there the *Admiral* Fishermen generally ride, the Stages for the Fish lying very near, and several Plantations and Inhabitants on Shore. From this *Buoy Island* there are several other little Islands, or Rocks rather, which serve to make the Harbour the more secure, and which divide the Place it self from another Inlet call'd *Caplin Bay*: You may go thro' among them in several Places with small Boats, but not with larger Vessels.

N. B. The Tide rises here not above 3 to 5 Foot, and the like in most of the Harbours on this Coast.

Four Miles from *Ferryland-head* lies *Broyle-head*, the Course N. by E. There are 3 Islands in the mid-way, viz. *Buoy Island*, *Goose Island*, and *Stone Island*, all lying off the Entrance into *Caplin Bay*: Between the two first you may sail into the Bay, the Passage is broad enough for good Ships to turn in, if they please; but no Ships can pass between *Stone Island* and the Main, which is *Cape Broyle*; there is a Channel indeed at the Cape, but it is interrupted by a Rock; however Boats may go in there at pleasure.

Caplin Bay is a very good Road, it runs in W.N.W. at least 2 Ls beyond these Islands, and there is very safe lying for Ships of any burden: Here the *Newfoundland* Fleets rendezvous very often in time of War, and when they wait for Convoy to the *Streights*, or to the Coast of *Spain*.

From *Broyle-head* the Harbour call'd by the same Name lies W.N.W. and N.W. by W. the ordinary Course, and then the

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distance is 2 Ls; but if you stand off, 'tis something more. The Entrance between the Points is about 2 Miles, and they lie N. by W. and S. by E. one from the other.

About $\frac{1}{2}$ of a Mile E.S.E. from the N. Point of this Harbour, lies a funk Rock call'd *Old Harry*; tho' there is 3 Fa. Water upon it, yet the Sea in bad Weather breaks most furiously upon it: On the out side of it there is a Ledge of Rocks, lying much about the same depth, and where they us'd to fish.

Within those Rocks there is a good Channel with 12 to 13 Fa. and just without the Ledge there is 40 to 50 Fa. and in some places much more: The Rage of the Sea is such upon these Rocks, that sometimes in very bad Weather it breaks over all quite from them, and reaches to the Main: This is occasion'd by the Current which generally sets strong to the southward.

From *Cape Broyle* to *S. Briggs* is 1 L, tho' from the North Head of the Bay it is but a Mile. *Briggs* lies in N.W. and N.W. by W. 'Tis a small Harbour or Cove, fit only for Vessels drawing - to 8 Foot Water, neither are they well secured when they are in; but it is a good Place for fishing, and there are two substantial Planters live on Shore, who furnish Provisions and Retirements to the Seamen. There is an Island of the same Name, where the fishing Trade is carried on, and where they who come a fishing build their Stages, and make their Fish, as they call it: But 'tis all a Place of small Importance.

From hence to *Cape Nodlock* is 3 Miles, tho' from *Cape Broyle* it is 5 Miles: The Courte is N by E. northerly. Between these is *Fresh-water Bay*, but equally of no concern to Trade or Navigation.

There are a Multitude of little Coves all along upon this Coast, which we will but just name; as, 1. *Balme-head*, call'd a L. 2. *Lamauche*, a small Cove. 3. *Balme Cove*, a Stage for fishing with 2 or 3 Boats, but no more; it is a poor Place, behind a Rock call'd the *Whale's Back*. 4. *Goose Island*, over-against it. 5. *Illes de Spear*. 6. *Toad's Cove*. 7. *Fox's Island*. 8. *Memorable Bay*, and thence at the N. Point of the Bay is, 9. *Green Island*. 10. *Wattle's Bay*. 11. *Bay of Bulls*.

All these, except the *Bay of Bulls* and *Wattle's Bay*, are small Harbours, and for small Vessels: They lie generally in a Line upon the Coast from *Balme-head* N. by E. to N.N.E. northerly, except *Wattle's Bay*, which is said to lie N.N.W. This *Wattle's Bay* lies from *Balme-Head* about 3 Ls and half. They are all good fishing Harbours, but for Boats only.

Wattle's Bay lies a large L within *Gull Island*; great Ships may ride in it, but not with such safety as in other Places on this Coast: The Entrance is fair. On the N. side of the Bay, half in, lies a Ledge of Rocks, but they are most of them above Water: This is a tolerable good Bay, because of *Gull* and *Green Islands*, which lie without it, and cover it from the Winds off Sea; you may sail between them, or between them and the Sea; yet Ships do not care to ride here, but come up to the *Bay of Bulls*, which is not above a good L.

Directions for the Island of Newfoundland.

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This is the chief Harbour in the Island, as well for the Number of Ships and Smacks employ'd, as also for its being the head Colony on the Main : The Entrance is not above 160 Fa. over from Point to Point N. and S. but bold to the very Rock's Nole ; and yet the deepett between the Points is 16 to 17 Fa. it lies in W.N.W.

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There are also two Rocks in the very Entrance, one on each side ; which reduces the Entrance to 95 Fa. or 190 Yards. Being pass't these Rocks, you may run in boldly, and anchor where you please in 4 to 8 Fa. There is indeed a sunk Rock behind one of these Rocks ; a little within *Ring Noon* there lies a sunk Rock about 50 to 60 Yards from the Shore, but 'tis well known.

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You cannot fail in here but with a Wind good at S.W. or much southerly ; then the Wind calls in between the two Hills, till you are beyond the Narrow, and then you have room enough : But if it blows at W.S.W. or farther W. the Wind will blow right out, and then if you will go in, you must be content to warp in.

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It is ordinary for Ships not well acquainted here, to mistake the Entrance into this Harbour for another very like it, and which is not above a Mile off of it, call'd *Quiddy Tidy*, or *Kitty Kitty* ; it looks as far for a good Harbour as this of *St. John's* ; but when you come to it, has no Entrance but for small Boats : You may know the Mock-harbour by a bare round Hill call'd *Cuck-old's Head*, and which makes at Sea like a Haycock : 'Tis just at the S. Point of the Entrance into the *Kitty Titty*, and to the northward of *St. John's* ; but your Course from *Cape Spear* will guide you.

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From *St. John's* the next Harbour is call'd *Torbay* : There are several Points between, but of no Importance : as 1. *Cuck-old's Head*, named so from the Hill above-mention'd. 2. *Small Point*, distance from *St. John's* 2 Miles the Course N.E. by N. 3. *Sugar-loaf Point*, dist. from *Small Point* half a L. N. by E. 4. *Red Head*, two Miles N. from *Sugar-loaf* ; and 5. *Lagy Bay* between them : Then 6. The S. Point of *Torbay*, dist. from *Red Head* about 3 Miles, the Course N. by W. half westerly. And lastly, From the S. Point of *Torbay* to the Road or anchoring-place, where the Ships usually lie, the Course is W. by N. there you anchor in 14 Fa. opposite to *Green's Cove*, and dist. from the S. Point almost a L. Being under the N. Point, the Bay is large, above a L. over from Point to Point : This N. Point is call'd the *Flat Rock*.

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If you come from the N. about the Point, your Course into the Bay is S.W. 'Tis an open wild Road for a Wind off Sea : The distance from *St. John's* to this Bay is about 2 1/2 Ls, and the Course N. by E.

About half a L. dist. from the *Flat Rock Point*, lies *Red Head by North*, the Course N. by W. and to *Black Head by North* the distance is 2 Ls, the Course N. by W. half W. From the same *Flat Rock* to *Cape St. Francis* the Course is

Island. 8. *Marmar's Bay*; and thence at the N. Point of the Bay is, 9. *Green Island.* 10. *Witlefs Bay.* 11. *Bay of Bulls.*

All these, except the *Bay of Bulls* and *Witlefs Bay*, are small Harbours, and for small Vessels: They lie generally in a Line upon the Coast from *Baline-head* N. by E. to N.N.E. northerly, except *Witlefs Bay*, which is said to lie N.N.W. Thus *Witlefs Bay* lies from *Baline-Head* about $\frac{3}{4}$ Ls. and half. They are all good fishing Harbours, but for Boats only.

Witlefs Bay lies a large L. within *Gull Island*; great Ships may ride in it, but not with such safety as in other Places on this Coast: The Entrance is fair. On the N. side of the Bay, half m, lies a Ledge of Rocks, but they are most of them above Water: This is a tolerable good Bay, because of *Gull* and *Green Islands*, which lie without it, and cover it from the Winds off Sea; you may sail between them, or between them and the Sea; yet Ships do not care to ride here, but come up to the *Bay of Bulls*, which is not above a good L. from it.

From *Cape Broyle* to the *Bay of Bulls* it is but $\frac{5}{8}$ Ls, tho there are so many Coves between; the Course is N. by E. half easterly. About $\frac{1}{2}$ Mile from the S. Head of this Bay lies the *Bull Head*, the Course N.E. northerly; and the Bay goes in between. Here is good riding and good shelter in 13 to 20 Fa.

Here the fishing Admirals keep their Station, and have their Stage on Shore in a Cove just beyond *Bread and Cheese Point*, on the N. side of the Bay. In going in here you must give this Point a little Birth, because of a sink Rock, which lies off about half a Cable's length; all the rest of the Bay is bold and steep too.

After you are past the Point, you may go up and anchor in 13 to 14 Fa. bringing *John Clay's Hill* to bear N.N.W. that depth you have from side to side; but the Merchants Ships run up farther into 8 and 9 Fa. Here generally the fishing Fleets are made up, in order to sail for the *Streights*, which they do by the 15th of *September*: The Bay is at *John Clay's Hill* near half a Mile over.

From the *Bay of Bulls* to *Petty Harbour* is $\frac{3}{4}$ to $\frac{4}{5}$ Ls, the Course N.E. by N. all the way a steep dead Shore; neither Creek or Cove, which is not ordinary on this side of the *Island*. Midway on this Shore is the famous Place call'd the *Spout*, being a hollow Place in the Rocks, which the Sea pouring violently into, and which having a Vent at the top, when the Sea pushes forcibly into it, the Water throws it self out at the Vent like the Spouts of a Whale, but much greater, so that they are seen a great way off at Sea.

Petty Harbour is a large Bay a L. over at the Entrance N.N.W. and S.S.E. and a L. into the place where the Ships ride to fill; the Entrance goes in N.N.W.

Two Miles farther N.E. by N. lies *Cape Spear*, from whence the Coast trends to the N.W. to *Black-head*, and so on to the Harbour of *St. John's*. The distance from the *Bay of Bulls*

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N.E. by N. 3. *Sugar-loaf Point*, dist. from *Small Point* half
a L. N. by E. 4. *Red Head*, two Miles N. from *Sugar-loaf*;
and 5. *Logy Bay* between them: Then 6. The S. Point of
Torbay, dist. from *Red Head* about 4 Miles, the Course N. by
W. half westerly. And lastly, From the S. Point of *Torbay*
to the Road or anchoring-place, where the Ships usually lie,
the Course is W. by N. there you anchor in 14 Fa. opposite to
Green's Cove, and dist. from the S. Point almost a L. Being
under the N. Point, the Bay is large, above a L over from
Point to Point: This N. Point is call'd the *Flat Rock*.

If you come from the N. about the Point, your Course into
the Bay is SW. 'Tis an open wild Road for a Wind off Sea:
The distance from *St. John's* to this Bay is about 2 1/2 Ls, and
the Course N. by E.

About half a L. dist. from the *Flat Rock Point*, lies *Red
Head by North*, the Course N. by W. and to *Black Head by
North* the distance is 2 Ls, the Course N. by W. half W.
From the same *Flat Rock* to *Cape St. Francis* the Course is
N.W. the dist. from *Black Head* 5 Miles, from the *Flat Rock*
almost 4 Ls.

Cape St. Francis is a whitish Point, low Land; and in the
Offing you will be apt to mistake the Hill within it for the
Cape, which may be dangerous between dark and light. On
the S. side within the Cape is *Shoe Cove*, where the Fishing-
boats go a Tilting.

N. B. Tilting is, when the Boats go into any Harbour next
them to split and salt the Fish, when the Wind blowing
hard they cannot reach the Places they belong to, and
the Fish may endanger spoiling.

In this Cove they haul up their Boats upon the Shore to
save them, if the Wind be out of the way and over blows,
that they may not beat upon the Shore. Here is also good
fishing when the Weather serves.

E.N.E. off the Cape, in a triangular Position, and at the
middle distance of about half a L. lie several sunken Rocks, as
also some great Rocks above Water E. from the Cape. The
outmost is about 1 1/2 of a Mile, the innermost not 1/2 a Mile
from the Shore: There is a good Channel between them for
Boats, and even for Ships with care; but as it is nothing saved,
and the Channel about it is very fair, 'tis needless to run any
such hazard.

There is another Cove on the other side of the Cape, where
Boats go in when the Wind is off Shore; but there's no bear-
ing it with a northerly Wind.

From this Cape to *Belle Isle*, the Shore trending about in-
ward, the dist. is 5 1/2 Ls. the Course the Reverse of the former
Coast, the Land going away S.W. and S.W. by S. This is a
pretty large Island about a L from the Shore; and against it on
the Main lies *Portugal Bay*, or *Cove*, as they call it: 'Tis a
Place in great use both to catch and cure their Fish in the Sea-
son: It lies due E. of *Belle Isle*, and runs about 2 Ls or 5 1/2
Miles in, and in most places is a L broad: But the Ships which
come to fish, lie in a little Cove, which will ride about 5 or 6
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Sailing Directions for the Island of N

Ships at a time, and their Boats go out in the Offing to fish.

North from *Cape St. Francis* lies the Island *Bacalien*, or *Bacaleo*, that is to say, the *Salt-fish Cape*: The distance from *St. Francis* is 9 Ls, from *Belle Isle* about 4 Ls, and from *Portugal Cove* about 8 Ls, the Course N. by E. It is about 2 Ls long, and half a L broad: 'Tis uninhabited, but the Sea is full of Fish, and therefore 'tis much frequented by the Ship's Boats. It is about a L distance from the Main, and the Channel between is fair for Ships of any burden. The Bay of *Verds Head*, or *Green Bay*, and the S.W. end of *Bacaleo*, bear E. by N. and W. by S. one from the other, about 1 $\frac{1}{2}$ L afunder; and the distance from *Verds Head* to *Cape Francis* is 8 $\frac{1}{2}$ Ls due N. and S. and from the Head to the Cove about $\frac{1}{2}$ of a Mile due W. The Entrance into this Cove is not above a Cable's length wide N. and S. The Ships ride in 5 Fa. Water, and yet their Anchors lie in 10 Fa. the Ships veering out their Cables, that they may ride as near their Stages as they can, for the Convenience of Curing and Loading their Fish: And by this means they do not ride above half a Cable's length from the Stages.

It is a Place of great Business and good Fishing, or else no Ships would lie there; for 'tis a very bad Road, and hazardous for Ships riding, and they are fain to seize their Cables one to another, to prevent their Sheering and Yawing when it blows; by which they would be always in danger of running foul of one another; and sometimes having so much Cable an End, they would sheer foul of the Rocks under the Shore: But the Goodness of the Fishing makes them run all Hazards.

Being obliged to take such a length, the Cove will not hold above 7 or 8 Ships; but with all the Inconveniences above, and their getting neither Wood nor Water, they are yet so eager to go in, and strive so much to be before one another, that they are ready to quarrel for a Birth in the Cove, because of the great plenty of Fish.

The Ships ride here open to the great Bay of *Consumption*, from whence a S.W. blowing off the Bay brings in a great Sea.

The Bay of *Verds Head* is known by another Head call'd *Split Point*, lying within the Island *Bacaleo*, and shooting out towards the great Bay southerly. Also about Musket-shot from the Head lies *Black Cove*, another very good Fishing-place, and full of Stages and Boats; 'tis about half a L from *Verds Head*, the Course E N E.

From *Verds Head* to *Flambrough Head* is about 2 L S.W. by W. 'tis a steep black Point, rocky without shelter, except just when the Wind makes a Weather-shore; neither is there any place of Shelter farther on astar as *Carbonera*, which is at least 10 Ls distant, the Course S.W. and S.W. by S.

There are indeed two little shallow Coves between, fit only for Boats; one lies S.W. call'd *Green Cove*, distance from *Verds Head* Bay 4 $\frac{1}{2}$ Ls. a very poor Place for Shelter, tho full of Fish: The other is *Common Bay*, which lies N. of *Carbonera*. The distances are various here; *Carbonera* lies distant from *Black Head* between 4 and 5 Ls, from *Salmon Cove* 3 Ls, from *St. Francis* 10 Ls. The Course from all those

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g to Harbour, and is therefore call'd a Bar. When you are near this Ledge, you will see two white Rocks in the Bank on the Water side, about a Mile E. below the Beachy Point.

N. B. The Beachy Point reaches for the distance of half a Mile.

Keep on the N. side next the Beach, and you will have 3 to 3 $\frac{1}{2}$ Fa. over this Ledge or Bar of Rocks; and as soon as you are over, 5 to 7 Fa. But on the S. end of this Bar, you have not above 7 to 9 Foot Water. The Bar trends S.W. from the two white Rocks quite over, close to the S. Shore, and by that Mark you may know exactly where it lies. All beyond the Bar is clean from side to side, and has from 7 to 10 Fa. for above 2 Ls within the Beach.

This Harbour lies in W S.W. There are some Islands without it, call'd *Harbour Grace Islands*; the Entrance is to the northward of those Islands: The other side is foul and dangerous.

Half a L S W. from *Harbour Grace* is *Bryan's Cove*; 'tis good for filling with Boats, but no Ships use it: The going in is good, the Ground clean, and the Water deep enough; but it is not well shelter'd from Winds off Sea. From hence to *Spanish Bay* the distance is 2 $\frac{1}{2}$ Ls, from *Harbour Grace* 3 Ls, the Course S.W. and S.S.W. *Spanish Bay* is a mere Harbour or Shelter for Ships in bad Weather, for neither the Sea or the Land yields any Comfort or Advantage: There are no Fish in the fish, or Inhabitants on the last *Bay Robert* is the same, and they are so near, that only a small Neck of Land parts them; yet by Sea, being round the Point, they are distant 2 Miles, S. by E. southerly, and N. by W. northerly. The two Points at the Entrance lie N.W. and S.E. with one another 2 $\frac{1}{2}$ Miles asunder; you may turn fair in, and borrow of which side you will. The Bay lies in E. and W. near 10 Miles up, and no danger but what you see: It runs up with two Arms, which part about a L within the Point: One goes up W.N.W. the other S.W. the first has the deepest Water; you lie there within the Island in 9 to 10 Fa. land-lock'd from all Winds.

About 3 or 4 Miles from *Bay Robert* lies *Port Grace*, the Course W.S.W. about the Point. This Bay is also deep, and very bold too on every side. There is *Sheeps Cove* between, lying on the Starboard side as you go in; you may moor your Ship in the Cove Head and Stern, riding in 4 to 5 Fa Water, while your Anchors lie off in 22 Fa. S.W. from you, about a Cable and a quarter length from your Ship: The Reason is seen before at *Bay Verds*, viz. Veering out your Cables to come near the Stages.

From *Sheeps Cove* it is 4 Miles to *Cupid's Cove*, the Course S.S.W. It is a small Place, but there is good riding for a Ship or two at a time: They are both within the Bay of *Port Grace*, only the one is on one side of the Harbour, and one on the other. The Cove bears S.W. in; but the S. side of the Bay, as far as to *Burnt Head*, lies N.E. by E. and S.W. by W. about a L asunder. The Head of the Bay of *Port Grace* lies up S.S.W. 3 Ls within the Country.

Burnt Head and *Port Grace* lie S.E. by E. and N.W. by W. 3 miles from one another: 'Tis call'd *Burnt Head*, because the

from whence a S.W. blowing off the Bay brings in a great Sea,

The Bay of *Verds Head* is known by another Head call'd *Split Point*, lying within the Island *Bavaleo*, and shooting out towards the great Bay southerly. Also about Musket-shot from the Head lies *Black Cove*, another very good Fishing-place, and full of Stages and Boats; 'tis about half a L from *Verds Head*, the Course E.N.E.

From *Verds Head* to *Flambrough Head* is about 2 L S.W. by W. 'tis a steep black Point, rocky without shelter, except juss when the Wind makes a Weather-shore; neither is there any place of Shelter farther on a star as *Carbonera*, which is at least 10 Ls distant, the Course S.W. and S.W. by S.

There are indeed two little shallow Coves between, fit only for Boats; one lies S.W. call'd *Green Cove*, distance from *Verds Head Bay* $\frac{1}{2}$ Ls. a very poor Place for Shelter, tho full of Fish: The other is *Common Bay*, which lies N. of *Carbonera*. The distances are various here; *Carbonera* lies distant from *Black Head* between $\frac{1}{2}$ and 5 Ls, from *Salmon Cove* 9 Ls, and from *Green Bay* 10 Ls: The Course from all those Places to *Carbonera* is S.W. and S.W. by S.

Green Bay is a L over between the Heads, there is good Salmon-fishing in it, as also in *Salmon Cove*; the distance from *Carbonera* is 9 Miles. The S. end of *Carbonera* is low, and has a Fort, with a Battery of 20 Guns upon it, made by the Merchants Ships in time of the late War with *France*. The Harbour of *Carbonera* is bold, and so is the Island; but there are Rocks under Water, between the Island and the Main. This is a very good Harbour for the Ships; and for taking great Quantities of Fish also: The Entrance is a Mile broad, so that you have fair turning either in or out. You have very good riding in 5 to 8 Fa and deeper if you think fit, a L. within the River.

To the northward of *Carbonera* are two Coves, where the Inhabitants keep Boats and Stages for fishing, *viz.* *Clown's Cove* and *Cock's Cove*; but they are not capable of receiving large Ships. The Harbour of *Carbonera* lies in W.S.W. distant from *Huborn Grace* about 3 Miles; they lie S.S.E. and N.N.W. about a Mile broad.

Harbour Grace is a deep Entrance, it lies in from the Opening W.S.W. also, and runs up the Country about 8 to 10 Miles: You may turn into the Bay all over it, from side to side, and the like you may do in *Carbonera*. There is a Rock, or Parcel of Rocks, in the Middle of the Channel, call'd the *Silago*; but you go on any side, for it is bold too: But there is another Rock call'd *Long Harry*. without the other on the N. Shore, where they pass on one side, *viz.* between it and the Main only with Boats, because it is narrow, tho deep enough for Ships. Both these Rocks are very high above Water, so that they are easily seen, and therefore not dangerous at all. The Ships ride within a high Beach very secure, and you keep to the N. Shore, because of a Bar or Ledge of Rocks which shoots over to the S. side from the N. quite thwart the

Winds. About 3 or 4 Courfe W.S.W. very bold too lying on the S. Ship in the C. while your An Cable and a q seen before at come near the

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From *Harb* from *Burnt I* The Course fr which bore in S.W. trends a good Harbour in the Road,

The Coast *Bay*, and the From *Verd*

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Winds.

About 3 or 4 Miles from *Bay Robert* lies *Port Grave*, the Course W.S.W. about the Point. This Bay is also deep, and very bold too on every side. There is *Sheeps Cove* between, lying on the Starboard-side as you go in; you may moor your Ship in the Cove Head and Stern, riding in 4 to 5 Fa. Water, while your Anchors lie off in 22 Fa. S.W. from you, about a Cable and a quarter length from your Ship: The Reason is seen before at *Bay Verds*, viz. Veering out your Cables to come near the Stages.

From *Sheeps Cove* it is 4 Miles to *Cupid's Cove*, the Course S.S.W. It is a small Place, but there is good riding for a Ship or two at a time: They are both within the Bay of *Port Grave*, only the one is on one side of the Harbour, and one on the other. The Cove bears S.W. in; but the S. side of the Bay, as far as to *Burnt Head*, lies N.E. by E. and S.W. by W. about a L. afunder. The Head of the Bay of *Port Grave* lies up S.S.W. 3 Ls. within the Country.

Burnt Head and *Port Grave* lie S.E. by E. and N.W. by W. 3 miles from one another: 'Tis call'd *Burnt Head*, because the Trees which were upon it are burnt down; and it is no more but the S. Point of the Bay of the *Port Grave*. Most of these Coves are uninhabited.

One L. farther on the same Course S. by W. lies the Point of *Brigus*, a high ragged Cape. *Brigus* is a narrow Bay, but deep: The Road goes in S.W. by W. and W.S.W. about half a L., where you anchor on the N. side. Here you have some Inhabitants and Plantations, but not many: It lies quite in the Bottom of the great Bay of *Consumption*; and being so far in, there are few except small Ships go so far up.

From *Brigus* to *Colliers Bay* is near a L., the Course S.S.W. as before, an uninhabited forsaken place; and thence to *Salmon Pool* 2 $\frac{1}{2}$ Miles more, likewise desolate. Here is but two Foot Water when the Tide is out, and but 2 Foot more when it is in: So that it is really of no use, and scarce worth naming. About 2 Miles from thence lies *Harbour Main*; there is a Plantation on Shore, and good fishing in the Offing; but, as before, 'tis out of the way, and Ships seldom go in so far.

From *Harbour Main* the next Place is *Holy Road*; the dist. from *Burnt Head* is 3 $\frac{1}{2}$ Ls., and from *Harbour Main* 2 Miles: The Course from the last is S.E. by S. From hence the Land, which bore in before to the Bottom of the *Bay of Consumption* S.W. trends away now easterly towards *Belle Isle*. This is a good Harbour, tho' but little Business: There is 11 Fa. Water in the Road, and clean Ground, but 'tis too far in.

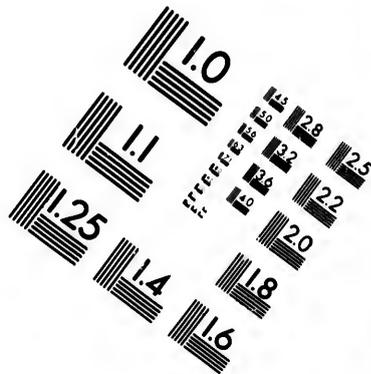
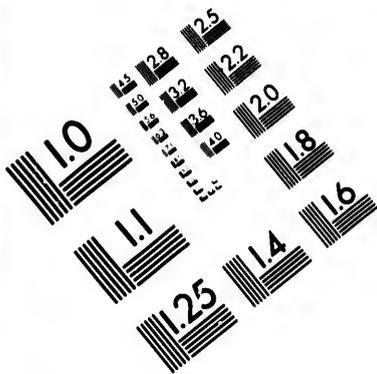
The Coast now returns on the other side of *Consumption Bay*, and the Places and Distances are as follow.

From *Verds Head* to *Split Point* half a L., E.N.E.

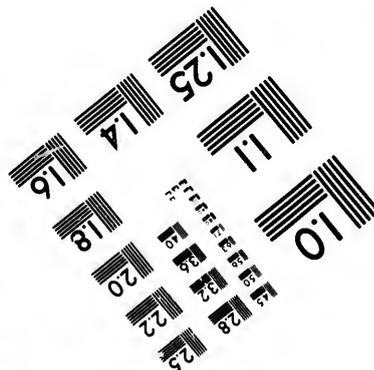
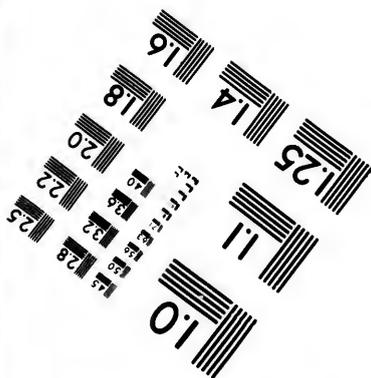
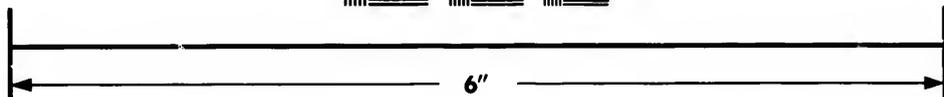
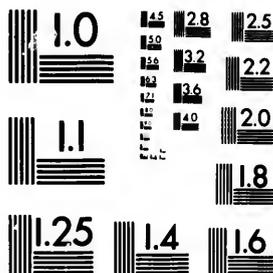
From *Split Point* to the Point of the *Grates* 2 Ls. N.N.W.

From the Point of the *Grates* to the N. or N.W. end of the Island *Bacallen*, 4, to 5 Ls. E. by S. Between the last lies *Break-heart Point* trending about two Points in a different Course, first W. by N. then W. by S. then W.S.W. and last





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last W. by S. Off the Land from the Point lies a Ledge of Rocks, but they are above Water.

Two Ls from *Break-heart Point* lies *Sherwick*, being the N. Point of *Old Pelican* or *Perlican Bay*, the Course S.W. by S. To the southward of *Break-heart Point* lies *Scurvy Island*, a little from the Shore; between which and *Sherwick Point* runs in S. by E. a deep Bay about 3 quarters of a Mile, but it is not of much use, nor do I find any Name it is known by. *Sherwick Point* is bold too: There is an Island off of the Point. There is no Channel between the Island and the Point, tho the Channel seems fair enough, but the Ground is foul, and a Shoal lies from it to the Land; but on the S. side of the Island the Channel is good, and being in you may anchor in 4 to 5 Fa.

N. B. The Place is not without Dangers when you are in; for there is a Rock even with the Water, and some Rocks quite under Water about the middle of the Bay.

Old Perlican is a wild Road, with the Wind at W.N.W. the Ground also is so rocky, that you must buoy your Cables: the Boats go up a great way to fish, and there are some Inhabitants on shore, but not many.

Seven Ls from *Old Perlican* lies *Sillee Cove*, the Course is W.S.W. 'tis but a very sorry Road for good Ships, nor is it much frequented. From hence to *New Perlican* the Course is W.S.W. dist. from *Sillee Cove* 1 L, and from *Old Perlican* 8 Ls. *New Perlican* is a very noted Harbour, and you may ride in it Land-lock'd from all Winds, and with 5 to 10 Fa. Water.

It is bold and large going in, so that if you can see to set your Course before you go in, you need not value what time you go in, whether Night or Day. The Entrance into the Harbour is bold and free at any time of the Wind or the Day; 'tis almost 2 miles wide, and has about 20 Fa. Water in the first Opening; but as it goes in, 'tis narrower and the Water shoaler. As you lie in first W.S.W. and afterward run up to the Northward in a Bight, you are abundantly satisfy'd for the Trouble; for there you lie Land-lock'd from all Winds: The breadth also is sufficient. for 'tis half a Mile broad in the Road, so that you may turn in or out, and anchor where and in what depth you please, from 4 to 12 or 14 Fa. and very good Ground.

From *New Perlican* 'tis 5 Ls over to *Randam Head*; they lie N.W. and S.E. one from the other. This *Randam* is a Bay with a River, and in it are several Creeks and little Harbours, which they call *Coves*. *Randam* and *Smith Sound* are both one, or come into one; yet they go in two ways, and 'tis 9 or 10 Ls in before they join: There is a little Island at the Head, where they meet, where is 4 to 5 Fa. but at the Passage thro' there is not above 2 Fa. and something less than a mile broad *Smith's Sound* runs in W.S.W.

From this Coast likewise goes another deep Inlet call'd *Trinity Harbour*, which reaches in 15 Ls from *Bonaventure Port* to *Tickle Harbour*.

There is another Bay also farther N. call'd *Bay Bulls*, which runs in so far W. that it is not above the distance of 2 miles over Land from thence to *Placentia Bay*, the great Inlet on the other or S.W. side of the Island; some of the Islands in

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edge of Places, and clean Ground for Ships to ride in. Without these Coves is a Headland which seems like an Island called *Fox's Island*; 'tis join'd to the Main by a Ridge of Beach. Within this runs in a Bay called *Robin Hood's Bay*, where small Ships ride often, and fish to good Advantage.

Trinity Harbour is the best and largest in all *Newfoundland*; it is full of Creeks and Coves, Inlets and Openings, where Thousands of Ships might lie securely, all entirely Land-lock'd from every Wind, not one Point open; it is bold too on every side, and you may turn in and out as you will.

There is but one Shoal or Bank that has any Difficulty upon it, 'tis as you go in S.W. to the Arm, where the fishing *Admiral Stage* lies: This Shoal is call'd the *Muscle Bank*; you must shun this upon entring the Bay; but 'tis very easy to do, for it shoots over from the Point behind the little Island on your Larboard side going in, and reaches over N.W. only about a third of the Arm: so that being within the Bank, you may edge over close to the S. Shore, and give the N. side a large Birth: and thus you will go clear of it all.

It would be too tedious to describe all the Coves and Roads in this excellent Harbour: In the S.W. Arm there is Harbour within Harbour, and Cove within Cove, like *Cheapeake Bay* in *Virginia*; and as for the N.W. Arm, it is able to hold 500 Sail of Ships in the open Road of it, besides the Coves, &c. on every side of it: beyond that, is a large Cove or Arm call'd *God Almighty's Cove*, where there is room for 3 or 400 Ships more, in clean Ground, and good Shelter, so that nothing can hurt them. There are several other places where Ships ride with all possible Security, in most of which you have from 4 to 14 Fa. within 2 or 3 Boats length of the Shore. The Tide rises in this Harbour not above 4 Foot, so that the Stream is always gentle and safe.

From the *Horsebops*, the N. Point of *Trinity Harbour*, to the S. Point of *Catalina Bay*, the Dist. is 5 Ls, and the Course N by E. and N.E. There are some Coves between, as *Green Bay*, *Ragged Harbour*, and such like small places; this last is a part of *Catalina Bay*.

There is *Catalina Bay* and *Catalina Harbour*: the S. and N. Heads of the Bay are 3 Ls asunder N.N.E. and S.S.W. and between those are *Ragged Harbour* and *Catalina Harbour*.

'Tis called *Ragged Harbour*, from the many craggy Rocks which lie about the Entrance into it, both within and without: On the S. side you cannot go in with Ships, nor on the N. side without being well acquainted, and very careful too, for 'tis throng'd with Rocks and Dangers on every side.

If you'll venture in, you must go so far to the northward of all those Rocks and Islands, as till you open the Harbour it self before you; then you may run in between the round Island which lies close to the Main, and a great black Rock off the N. end of all the *Ragged Islands*, and sail in there till you come to the middle of them, which will be to seaward from you: then come to an Anchor.

N. B. There is good fresh Water at the Head of the Harbour, but no People.

N. from this Harbour lies *Catalina Harbour*, dist from the

to that you may turn in or out, and anchor where and in what depth you please, from 4 to 12 or 14 Fa. and very good Ground.

From *New Perlican* 'tis 5 Ls over to *Random Head*; they lie N.W. and S.E. one from the other. This *Random* is a Bay with a River, and in it are several Creeks and little Harbours, which they call *Coves*. *Random* and *Smith Sound* are both one, or come into one; yet they go in two ways, and 'tis 9 or 10 Ls in before they join: There is a little Island at the Head, where they meet, where is 4 to 5 Fa. but at the Passage thro' there is not above 2 Fa. and something less than a mile broad *Smith's Sound* runs in W.S.W.

From this Coast likewise goes another deep Inlet call'd *Trinity Harbour*, which reaches in 15 Ls from *Bonaventure Port* to *Tickle Harbour*.

There is another Bay also farther N. call'd *Bay Bulls*, which runs in so far W. that it is not above the distance of 2 miles over Land from thence to *Placentia Bay*, the great Inlet on the other or S.W. side of the Island; some of the Islands in which Bay are 9 to 10 Ls long each, and 5 to 6 miles broad: they lie N.W. and S.E.

Bonaventure Port is distant from *Bonaventure Head* two miles or more N.W. and S.E. being at a mile's distance from the Head in your Course, then you open the Port or Harbour, which goes in N.W. by N. about a mile to the *Admiral's Stage*.

The Port lies behind two small Islands, and the Passage goes in between them; but you may go on either side, and between them and the Main, especially with a large Wind to lead it thro'. You have 4 to 5 Fa in the Passage, and no Dangers but what are apparent. When you are in, you have the same Depth in the Road, and very good anchoring Ground: you have also a secure Hole for Boats to run into in bad Weather. Behind a Point to the N. of the *Admiral's Stage*, 'tis as smooth as a Pond. As you go in, you leave the Planter's House on your Larboard side. Above 100 large Boats may lie in it at a time, and all in the utmost Safety.

On the W. side of this Harbour is *Gull Island*; they used formerly to fish there, but of late they do not, or but little. From the Island the Harbour goes near a mile farther up North. There are several Islands also which lie in the Offing, W. from the Head; one is call'd *Green Island*, dist. from the Port two Ls, the Course S.S.W. You may see this Island in clear Weather as soon as you come out of *Trinity Harbour*. There is also another nameless Island without, the dist. from the Port is 4 to 5 miles, in the same Course, or S.W. by S.

From *Bonaventure Head* to the N. Point of *Trinity Harbour* is 3 Ls and a half, the Course E.N.E. but to the Harbour of *Trinity* it self it is but 2 Ls, and they lie N.E. by N. and S.E. by S. There are several Coves and small Bays between, but not worth notice.

Between the *Horsehope* and *Trinity Harbour* are two fishing Places, where Ships used to come; one is *English Harbour*, and the other is *Salmon Cove*: they lie W.N.W. and N.W. the dist. between them is not above $\frac{1}{2}$ L. they are both good fishing

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'Tis called *Ragged Harbour*, from the many craggy Rocks which lie about the Entrance into it, both within and without: On the S. side you cannot go in with Ships, nor on the N. side without being well acquainted, and very careful too, for 'tis throng'd with Rocks and Dangers on every side.

If you'll venture in, you must go so far to the northward of all those Rocks and Islands, as till you open the Harbour it self before you; then you may run in between the round Island which lies close to the Main, and a great black Rock off the N. end of all the *Ragged Islands*, and sail in there till you come to the middle of them, which will be to seaward from you: then come to an Anchor.

N. B. There is good fresh Water at the Head of the Harbour, but no People.

N. from this Harbour lies *Catalina Harbour*, dist from the S. Point of *Catalina Bay* 2 Ls, and from *Ragged Harbour* 2 Miles: This is also a good safe Harbour, from 3 to 8 Fa. gradual Soundings. There is a little Island to the S. of the Harbour; but if the Wind be large, you may lead it thro'; and have 4 to 5 Fa. in the Passage, tho the Channel is not above a Cable's length broad.

If you go without the Island, you must go to the eastward giving it a small Birth, and so keep the *Fair Way* Mid-Channel into the Place, holding it so for a Mile. From the S. Point of the Harbour E.N.E. lies a Shoal, but you may go on any side of it, and know it by the breaking of the Sea upon it.

N.N.E. of this Harbour lies *Little Catalina*: all the way to it you have from 7 to 10 Fa. and then lies the N. Head of the whole Bay N.E. easterly from *Catalina Harbour*. The distance of *Little Catalina* is from the Harbour half a L. and the dist. of the N. Head of the Bay is half a League.

From the said *North Head* of *Catalina Bay*, the next Place of Note is *Flower's Point*, the dist. from the *Head* is 1 + L. and without the Point, 5 Miles off to Sea, are *Flower's Rocks*, a very dangerous place; they lie sunk under Water, and are only known by the Sea breaking upon them, which in stormy Weather it does with great Violence: they are but about half a L. off Shore, tho 5 miles from the Point. There is a fair Channel between *Flower's Point* and the sunk Rocks, any Ship may go thro': The Mark to go without them is to keep *Cape Laryan*, as our Sailors call it, or *Cape Largent*, open of *Bird Island*: and that carries you clear to the eastward of them.

N. B. Some will have it that those Rocks lie 2 to 3 Ls off Shoar, but Experience has discover'd the contrary.

Three miles and a half from *Flower's Point* lies the aforesaid *Bird Island*, the Course is N. by W. On the W. side of the Island is a large Bay, and there is also a Creek or Arm of a River within the S. Point of the Main, which runs into the Bay from the W.S.W. a good dist. in the Country: and here Ships ride upon any foul Weather with great Safety. There is

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Sailing Directions for the IJl

another Creek also behind some Rocks, which lie above Water within the Bay. The dist. of the *Bird Islands* from *Cape Larjan* is between 2 and 3 Miles N. sterly; and from *Flowers Point* to the Cape 6 Miles: the first lies N. half E. the second N. half W. Just off of the Cape lies a great Rock above Water.

N.N.W. from the Cape goes in a small but deep Bay, where some Vessels go in to fish, and beyond it in the same Course lies *Spiller's Point*, a high steep Point, bold too, and seen a great way: The dist. from *Cape Larjan* is one small L. A L. farther in the same Course is *Cape Bonavista*. Between these 2 Capes runs in a large deep Bay, which Strangers are apt to mistake for the Bay of *Bonavista*; it is not above 2 Miles and a half over Land from the bottom of the Bay to the Port of *Bonavista*, but 'tis more than 2 Ls by Sea, being about a narrow Neck of Land, besides about a Musket-shot over *Red Head Bay*.

Cape Bonavista is a bluff bold Head: about three quarters of a Mile from it N. by W. lies *Gull Island*, or the Island of *Gulls*, it is a high Rock, and highest in the middle, like a broad brim'd Hat, and makes at Sea like a *Flower-de-Luce*; 'tis seen 5 or 6 Ls off in clear Weather. N.E. from this Island lies a Ledge or Riff under Water, where the Boats ordinarily fish: there is 10 Fa. Water on it; so it is not mention'd to warn the Sailors of any Danger, but to guide them to their Business.

Cape Bonavista or *Port Bonavista* are different places, and lie S.W. and N.E. 5 Miles from one another, rather more: if you are bound to the Port, your Course is from *Gull Island*, and the Cape, leaving the Island on the W. side towards the Main, the Channel between being both narrow and foul: But between *Green Island* and *Stone Island* you may go without Danger with a Ship of any Burden, the Channel being safe, and the Shore bold; or you may go without *Stone Island* to the Westward, and so run out S.W. till you open the Harbour of *Bonavista* fair in view, and till you are past a Head of Land called *Moses's Point*: then you are to the southward of the Rocks called the *Sweers*, where you may ride in 5 to 11 Fa. but you cannot go to the northward of them.

If you ride under the *Sweers*, you must always lie close aboard them, with one Anchor out to Sea S.W. from you, and one Head-fast ashore upon the Rocks; or else come to an anchor on the N.W. side, for the westerly Winds blow right in upon the Road.

N. B. The Flood runs generally to the northward here, and upon all this part of the Coast, especially farther to the northward.

About *Bonavista* and the Coast adjacent, a W.N.W. Moon makes full Sea, and the highest Tides.

Cape Bonavista lies in Lat. 49 d. 10 m. N.

Here is good fishing upon all this part of the Coast; and in *Red Head Bay* and the Harbour of *Bonavista* there are Stages and good fishing, but no farther N. at least our Ships go no farther N.

Here it is needful to bring in, as in its most proper place, the Situation, Depths, Latitudes, &c. of those famous Sands called the *Banks of Newfoundland*, which some imagine are Shoals: and indeed they are, compar'd with the Bottomless

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quently, we proceed to give an Account of it; but as we have had no Survey taken since of the whole Island, or of the *French* part which the *English* did not possess, 'tis sufficient to account for our own known Ports, and leave the rest to a more exact Survey.

Off of *Cape Race*, dist. near 20 Ls S.E. lies a number of dangerous Rocks called the *Virgins*; they are above Water indeed, but not very high; some are flat with the Waters Edge, and which is still worse, some are quite under Water: Their Lat. is about 46 d. 30 m. Some Pilots of good Judgment differ as well in their Lat. as in their Situation with respect to the Land: For example, some insist they are but in Lat. 46 d. and say they have taken an exact Observation of it; and that they are situate at the dist. of 17 to 18 Ls S.E. by E. from *Cape Ballard*.

In this Uncertainty we can only lay down the differing Opinions, and leave it to every Man's Judgment to direct them.

From *Cape Race*, to follow the Coast to the W. the first place we meet with is *Mistaken Point*, called so, because when Sailors first make the Island of *Newfoundland* from the southward, this Point is often mistaken for *Cape Race*: it is dist. from the true *Cape Race* about 2 Ls, the Course to it is W.N.W.

Five Ls from this Point in the same Course is the Entrance into the Harbour of *Trepassi*; the eastward Point is called *Powles*: there is a deep Bay on the back of the Point eastward called *Powles*, and a high Ridge of Beach between that and the Road; so that in the Offing you see the Masts of the Ships over the top of the Beach as they ride in the Road. It is good Riding when you are in, but 'tis a very dangerous Place to be imbay'd in; for the Sea comes in sometimes Mountains high as the Winds may be, and no Current to help you out.

But if you are bound in for *Trepassi*, stand over W. towards *Cape Pine*, till you see the Harbour fair open; and then run right in N. by E. according as you have the Wind *Cape Pine* is a bold Shore, and safe: you may keep along by it at pleasure: The Harbour of *Trepassi* is very large, has fair Shoalings from 8 to 5 Fa. upon your going in; and when you turn in or out, you may stand with either Shore into 3 $\frac{1}{4}$ to 3 Fa. without Danger: 'tis also very well secur'd, and good Ground to anchor in.

Leaving these Ports, which lie N.W. from *Cape Race* to the N. in your Course, if you are bound westward, stand directly over to *Cape Pine*; the Course is W. $\frac{1}{4}$ N. tho by Compass you must steer W. by N. because of the Variation W. The dist. between the Capes is near 8 Ls.

N. B. The Variation here is between 22 and 23 d. westerly and holds so all along this Coast.

The Bays and Harbours above-named, which lie in northerly between those Capes, are few of them, except that of *Trepassi*, fit for great Ships; the Shore also is foul, full of funken Rocks, and very dangerous: Besides, the Seas are very tempestuous on this Coast, by reason of the constant southerly Winds, which almost blow Trade on the Coast all the fishing Season; so that the Seas come tumbling in upon them so forcibly, that there is no riding but in places very well secur'd:

but you cannot go to the northward of them.

If you ride under the *Steeers*, you must always lie close aboard them, with one Anchor out to Sea S.W. from you, and one Head-stay ashore upon the Rocks; or else come to an anchor on the N.W. side, for the westerly Winds blow right in upon the Road.

N. B. The Flood runs generally to the northward here, and upon all this part of the Coast, especially farther to the northward.

About *Bonavista* and the Coast adjacent, a W.N.W. Moon makes full Sea, and the highest Tides.

Cape Bonavista lies in Lat. 49 d. 10 m. N.

Here is good fishing upon all this part of the Coast; and in *Red Head Bay* and the Harbour of *Bonavista* there are Stages and good fishing, but no farther N. at least our Ships go no farther N.

Here it is needful to bring in, as in its most proper place, the Situation, Depths, Latitudes, &c. of those famous Sands called the *Banks of Newfoundland*, which some imagine are Shoals; and so indeed they are, compar'd with the Bottomless Ocean about them: we find, upon exact Discovery, that the usual Depth of Water upon those Banks is from 80 to 110 Fa. and that to the eastward and northward there is frequently no Bottom at 300 Fa.

The Opinion of the best Judges concerning these Banks is thus.

1. The lesser Bank, called the *False Bank*, they say is narrow; that there is no less than 80 Fa. upon it, and so on to 110 Fa. and that the dist. of it from the main Bank is 30 Ls. Some by their reckoning make it 120 Ls from *Newfoundland*, others make it not so much by 27 Ls: but they all agree in the Depth, and of 80 Fa. being the least Depth of Water upon it.

2. The main Bank they make to be 30 Ls from the Land, and that it is above 33 Ls over, which with 30 Ls between the Banks makes near 100 Ls, which they say the false Bank is from the Shore.

N. B. They say also there is a Hole or open deep place in the midst of the main Bank, which is 13 Ls long E. and W. and about as many N. and S. and no Ground at 120 Fa. but some question the Fact, and say they have sounded for it, but could not find it, and had fair Bottoms over the whole Bank.

This Deep or Pit in the Bank, they say is against *Cape Balauid*: others say, that the farther southerly on the Bank the shoaler the Water, and that the Bank rises at the end 24 Fa. that this is in the Lat. of *Cape Race*; and that it is deeper more northerly. For these things every curious Mariner will examine by his own Soundings, and then compare it with the Judgment of others, and govern himself as he finds it.

We now come back to *Cape Race*, which as I said is the most S.eastward Point of Land in the whole Island. The S. part of the Island, W. or S.W. from this Cape, was possess'd by the *English* before the late War, as it is still, and contic-

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But if you happen to be driven to the northward of your Course, then remember the sailing Direction for the Harbour of *Trepassi*, and run along the Coast N. by E. from *Cape Pine*; the Harbour lies in the bottom of the Gulph, about 4 Ls. dist. from the Cape.

In sailing for *Trepassi*, take great care that you do not mistake another small Inlet for it, call'd *Mutton Bay*, and lying not above half a L. from it, and which, as you come from the eastward, makes like it: therefore, as before directed, 'tis best to keep over to this Shore, and steer to a place called *Sailing Cove*, which lies about 2 Ls. to the N. of *Cape Pine*.

In this Course, and going forward at the dist. of about half a Mile from the Shore, you will see the Harbour of *Trepassi* fairly open, and have *Point Powles*, which is the E.S.E. Point of the Entrance, bearing N.E. from you.

Off of the Point there are some Rocks under Water, which you may know by the breaking of the Sea upon them.

N. B. At this Harbour, and in all this Gulph or Bay, an E. and W. Moon makes full Sea, and it usually flows 5 Foot on the slack Tides, and 7 on the Spring; but even that varies, as the Winds lie either off Shore or off Sea.

From *Cape Pine* the Land goes rounding off E. and W. a Point more or less, to the opening of the great Bay called *St. Mary's Bay*.

N. B. You must allow no less than two whole Points upon this Coast for the Variation of the Compaſs; so that when we say the Course is W. by N. as it is here, you are supposed to steer 2 Points more to the N. or to the W. as your Voyage may lie: and so in this Course, instead of W. by N. you steer N.W. by W.

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The Entrance into this Bay is very large, and goes in a length proportion'd to its breadth. The dist. between the Capes is at least 11 Ls; and the depth from *Blackhead* (which is but half a L. from *Cape Pine*) to the Harbour of *St. Mary's*, on the E. side near the bottom of the Bay, is 13 and a half to 14 Ls; it goes N. in, and has several Harbours and Coves within it on either side: there are also several good fishing Banks or Shoals within the Bay, especially far in; but they are so much out of the way, and the Fishing is so good in the Offing upon several small Banks to the southward and westward, that this part is very little frequented: besides, as the southerly Winds blow so long upon this Coast during all the fishing Months, 'tis hard venturing into such deep Bays, which lie in due N. because 'tis so difficult working down again, to get out into the open Sea.

S. E. from *Cape St. Mary*, in the *Fair Way* cross the Bay, and at the dist. of about a Mile, there are several Rocks in the Sea, but they are fair above Water; the *French* call them *La Vache et le Torrau*, the *Cow* and the *Bull*: they would not be very dangerous, if it were not that there are several Rocks about them which lie under Water. In the Course therefore to avoid them, keep a good Look out; and when you see the *Bull and Cow*, take care of their Horns, that is of the Rocks you do not see, being warn'd by those you do see.

There are likewise some sunk Rocks in the other Course, *viz.* off of the Point due S. of the Cape; they lie about the dist. of eight Miles; as also S.W. half W. from the *Cape St. Mary*, being in the Course from *Cape St. Mary* to the Bay of *Placentia*.

From the west side of *Cape St. Mary* immediately opens the great Bay of *Placentia*; the opposite Land is called *Cape Judas*, dist. from *Cape St. Mary* $11 \frac{1}{2}$ Ls, the Course N.W. by the Compass, but allowing for the Variation of 2 Points, 'tis N.N.W. This Bay merits a full and particular Description; but as our *English* Navigation went no farther this way before the last Cession of this Country to *England*, and hardly so far, our Accounts are not so perfect as we expect they will be; so we omit them, till the new Survey shall be made, and exact Charts drawn with good Authority.

When this Survey, which we hear is now taking by the publick Direction, shall be made, 'tis hoped an exact Account will be taken, not of this Bay only, but of all the other parts of the Island, as well the E. side which is in the Possession of the *English*, as of the N. part also, *viz.* the Passage of *Bell Isle*, and the S. and E. Coast of the *Terra de Labrador* up N. to the Entrance into the Streights of *Hudson's Bay*, to which we refer for a farther Account of all those wild and unpractis'd Parts, and perhaps also for the Entrance into the River of *Canada*, of which the best Accounts yet given are very imperfect, and the want of which was fatal to the *English* in the Reign of the late *Queen Anne*, when not only a well designed Expedition miscarri'd, but many Ships were lost, by the meer want of Pilotage, and a true Knowledge of the Coast.

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Plans for the Island of Newfoundland.

goes in a 100 Ls up the Channel. In most places it is so deep, that between the 300 Fa. so that Ships cannot come to an Anchor, whatever Distress they are in.

On the N. Shore of this Bay, opposite to the Island last mention'd, there comes in a pretty large River, which coming out of a mountainous Country, brings a great Fresh of Water with it, tho' it be not of a very long Course. In the Mouth of this River is a good Harbour, and you may anchor in 22 to 23 Fa. 'tis call'd *Port de Ours*, or the *Haven of Bears*, from the great Number of Bears seen there: But this Harbour is too much out of the way.

Likewise towards the N. Part of the Coast of the W. side of *Newfoundland*, there is another Inlet called the *Great Bay*; but this also we have yet no perfect Account of.

On the S. part of the Bay, where the Coast is *English*, lies the Island of *St. John*, opposite to the N. Coast of the Country mention'd already, called *Acadia* or *New Scotland*. But as this part is yet but thinly inhabited, having been in the Possession of the *English* but since the Peace of *Utrecht*, so neither is the Coast taken into our Cognizance yet, nor are the Advantages of its bordering so far together upon the Gulph enquir'd into, at least not so as perhaps they may be: So we have no Survey of that side of the Gulph, any more than of the other; only this we know, that the Coast belongs to the *English*, and lies on that side of the Gulph and River of *Canada* for near 120 Ls, including the Windings of the Shore, which are there very large.

It remains now to give Directions for finding, and sailing to the great Fishing Banks of *Newfoundland*, which bring so great a number of Ships together from such remote Parts of the World every year to fish.

In general we are to take notice, that off of the E. or rather S.E. Coast of the main Island of *Newfoundland*, dist. about 30 to 40 Ls, and in some places much more, there lies a large Bank in the Sea, and stretching N. and S. a monstrous length: it is called a Bank or Shoal, because it is so, compar'd to the great depth of the Bottomless Ocean on all Parts about it; otherwise 'tis far from Shoal, the ordinary mean depth upon it being 100 Fa. in some places more, and no where less than 80, as you shall see presently.

Without the great Bank is another not near so large, but which would be a great one if the other were not by; which lies N. and S. likewise, as the great Bank does, tho' not above half so long, and not one fifth so broad; and near the same dist. from the great Bank, as the great Bank is from the Land: likewise off of the S. Coast of the Island, there are 4 other Banks, all suited to the same profitable Affair of Fishing.

Some Charts make these four Banks, lying S. of the Island, all join with one another, and then with the Grand Bank, making the smaller Banks spit out to the westward, till they fall in with the main Land; by which means they would make the whole Bank be of a vast extent, reaching from the Lat. of 49 d. to 39 d. and very near as much in Longitude. But 'tis evi-

far, our Accounts are not so perfect as we expect they will be; to we omit them, till the new Survey shall be made, and exact Charts drawn with good Authority.

When this Survey, which we hear is now taking by the publick Direction, shall be made, 'tis hoped an exact Account will be taken, not of this Bay only, but of all the other parts of the Island, as well the E. side which is in the Possession of the *English*, as of the N. part also, viz. the Passage of *Bell Isle*, and the S. and E. Coast of the *Terra de Labrador* up N. to the Entrance into the Streights of *Hudson's Bay*, to which we refer for a farther Account of all those wild and unpractis'd Parts, and perhaps also for the Entrance into the River of *Canada*, of which the best Accounts yet given are very imperfect, and the want of which was fatal to the *English* in the Reign of the late Queen *Anne*, when not only a well designed Expedition miscarry'd, but many Ships were lost, by the meer want of Pilotage, and a true Knowledge of the Coast.

All the W. Coast of *Newfoundland* lies upon the Inland Sea or Gulph of *St. Lawrence*, which is indeed the Mouth of the great River of *Canada*, tho it be in that place near 200 Ls over from N. to S. There are on that side a great many Harbours and Bays, and Inlets of the Sea, perfectly adapted to the publick Use of Mankind in general, and for Fishing especially.

The Shore on this side trends away N. by E. and N.N.E. from opposite to the N.E. end of the Island *Blasques* to the Point, making the Passage at *Bell Isle*, from the Lat. 47° to 52d. 15 m. or thereabouts. The Island in other Parts comes down S. to 46 d. 47 m. viz. at *Cape Race*, or *Cape Pine*, but falls off on the W. side as above.

On this W. side there is one very fair Harbour, and which is still much frequented by the *French*, tho they have not the Possession, viz. *St. Gregory's Bay*: 'tis large enough to receive any Number of Ships, being well cover'd from southerly, northerly, and westerly Winds; but it is little used by the *English*, neither have we any businels worth naming on that side.

There are several Islands also in this Gulph, and some very considerable, at least for their Dimensions, especially that of *Anticosti*, or the *Assumption*, possess'd by the *French*; but little use is made of it in Navigation, whatever there is in Planting. There are no Anchoring places as we find upon the E. sides, but on the S. side there are 2 large Bays, in which Ships put in for Shelter in N.W. Winds as they pass up the River for *Canada*, and where they are oblig'd sometimes to winter: On the N. side of this Island there are several large Inlets and Harbours; but as we have no exact Survey, we can give no Account of them to be depended upon; only they tell us there are no Shoals to fear, the Depth of Water being so great, close to the Shore, even makes it dangerous putting in to any of their Roads. In this N. side, the Channel of the River *Canada* is so wide, that in the *Fair Way* you cannot see from the Mast-head to the Shore on either side; and it continues so for near

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49 d. to 39 d. and very near as much in Longit. But 'tis evi-
dent there are large Channels between them, and those Chan-
nels carrying a great depth of Water from 120 to 200 Fa. or
more, and some of them 20 to 40 Ls asunder: so that we can
no more question their being separate Sands.

In like manner there are differing Accounts given as well of
the Situation as of the Dimensions of the grand Bank, and of
the false Bank lying without it; which Accounts we shall, as
near as we can, bring to a Certainty, that the Navigation of
these useful Places may not be perplex'd any longer, and the
Trade as well as Fishing interrupted, as has been the Case, by
Mariners keeping a wrong Reckoning, and thereby sometimes
losing their Veyage, to the great Disappointment of their
Owners and Merchants also.

One of the most experienced * Masters using this Trade,
speaking of the Banks, tells us, after describing the *Grand*
Bank, that the *False Bank* is but narrow, and has 80 to 110
Fa. Water on it; That it is 30 Ls from the *Grand Bank*, and
the *Grand Bank* 30 from the Main; and, That the *Grand*
Bank is 33 Ls over: And this he assures us he measured with
the utmost Exactness.

Another ancient *Newfoundland* Master † calls up the whole
as above, namely, the Distances and Dimensions of the Chan-
nels and the Bank; and says, the *False Bank* is 120 Ls dist.
due E. from the Island of *Newfoundland*, which is 27 Ls more
than the other makes it. He agrees with the other as to the
depths of Water, and that 80 Fa. is the shoalest on the *False*
Bank.

The same Artists also dispute the Shoalings upon the *Grand*
Bank; and several others differ likewise: One says there are
Deeps and wide Places, which run into the *Grand Bank*; par-
ticularly one which runs E. and W. 13 Ls, and almost as much
N. and S. where there are no Soundings, and no Bottom at
120 Fa. or 200, say others: And another Pilot says he sound-
ed over the whole Bank, and could find no such place.

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† Mr. C. Te. Admiral of the Ferryland Fishing.

Sailing Directions for the Burm

The same Man says, that the farther southerly, the shoaler the Water upon the *Grand Bank*; that in the Latitude of *Cape Race* it is shoaler by 24 Fa. than any where else on the whole Bank; and that towards the N. end 'tis deeper by 50 Fa. than at the South: All which others say they know nothing of, tho they have sounded it both in and out on and off.

Now as it would be of the greatest Service to have these Banks thorowly survey'd, and their Extents, Lengths and Breadths, Longitude, Latitude, Depths and Shoalings exactly laid down; so till that is done, we think it may be useful to give the best Information we can to all that are bound to the Coast, that they may not be deceived, as some experienc'd Mariners have been.

And that it may appear that such have been in danger of being deceived, take it in the Words of one who is allow'd to be well acquainted with those Seas.

“ On the 25th of *June*, 1715, says he, at 8 in the Morning, being upon a fair Observation in Lat. 48 d. 44 m. having been just a Month in our Passage from *Plymouth Sound*, and being bound to *St. John's Harbour* in *Newfoundland*, we brought to, and founded, where we had 92 Fa. fine white Sand; by which I concluded we were just upon the outer Edge of the *Great Bank*: For after we had sail'd thence W. 26 d. 30 m. by S. about 18 Miles (that is, I made my Course good so much S. having 29 d. Variation W.) we then founded again, and had but 72 Fa. but the same white Sand as before. This not only confirm'd our being upon the Banks, but that we were advanced to about the Middle of the *Great Bank*, or at least that we were upon the shoalest part of it; because having sail'd thus about 34 Miles upon the same Course exactly, and then founded a third time, we had deeper Water again, viz. 84 Fa. still very fine white Sand, but mixt with pieces of a flaty sort of Stone.

“ This every one knows is the very Mark usually taken of going off from the Bank on the W. side towards the Island; and accordingly after we had run 26 Miles more upon a W. by S. half S. Course as before, we founded a fourth time, and had 100 Fa. ouzy Ground, with some of the same flaty Stones: Which will be allow'd to be a certain Token that we were then off of the Bank W. and between that and the Main, and accordingly we found it so; for in running 15 Ls more we saw Land at about 4 $\frac{1}{2}$ Ls dist. being the high Lands about *St. John's Harbour*, whither we were bound.”

And here 'tis manifest there is a great Error in most of our Charts now in use, which lay down this Bank at so great a distance from the Shore of *Newfoundland* as they do; seeing by this Observation here was no more than 35 L from the outer Edge of the Bank in 92 Fa. when they first founded, to *St. John's*, and between 16 and 17 Ls from the outer Edge to the inner Edge of the Bank: So that the Bank is not more than 18 or 19 Ls from the Main of *Newfoundland* off of *St. John's*, whereas 'tis usually call'd 30, as we have said above, from the said inner Edge of the Bank to the Main.

N. B. Also the breadth of the Bank is falsly calculated, it

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Guide, a true Pilot for the Bank ; for as you never miss him there, so you never find him off of the Bank. They are often seen in Flocks, but ordinarily only two together, and never alone : the Seamen are too well acquainted with them to need any Description of them.

N. B. The distance E. and W. from *Cape Spear*, a Point of Land about 3 or 4 Miles S.E. by S. from *St. John's* in *Newfoundland*, to the *Lizard*, or *Landsend of England*, is 43 d. of Longitude, which makes 860 Ls.

N. B. Observe also that this Reckoning is made by marking the Log-line at 50 Foot between every Knot, according to Mr. *Norwood's* Experiments, and those of several other eminent Artitts, and not according to the old way of marking 42 Foot between each Knot ; which 'tis very plain is erroneous.

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Sailing Directions for the Islands of Burmudas.

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THE Situation of the Islands of *Burmudas*, with the several Parts of the World from which ordinarily Ships sail thither, is thus :

With the *Landsend of England* W.S.W. and E.N.E. dist. about 1150 Ls.

With *Cape Clear* on the Coast of *Ireland* E. by N. and W. by S. dist. 1100 Ls.

With *Cape St. Vincent* W. half S. and E. half N. dist. 1100 Ls.

With the W. side of the *Great Bank of Newfoundland* S.W. and N.E.

With *Boston Harbour* in *New England* E S.E. and W.N.W.

With the Capes of *Virginia* N.W. and S.E. dist. 240 Ls.

With the Island *Porto Rico* on the E. end of *Hispaniola* due N. and S.

With the Island of *Barbadoes* N. by W. and S. by E.

With the Gulph of *Florida* W. by S. and E. by N.

With *Abley River* in *Carolina* due E. and W. dist. 280 Ls.

The *Burmudas* lie in Lat. 32 d. 25 m. stretching out N.E. and S.W. 15 Ls. All the Shore of the whole Range of Islands is surrounded with Rocks, so that it is very dangerous coming near them in the night or in dark Weather ; abundance of those Rocks lying at a great distance from the Islands, most of them cover'd at high and dry at low Water : If you are near them in a small Boat, as Boats often go among them in fair Weather, they may be seen at high Water. N. B. The Tide does not flow here above 5 Foot.

At the N.E. Point of the main Island there are so many small Islands and Rocks, and they lie so strangely enclosing that part of the Island, that they form of themselves the great Bay call'd *Southampton Bay*, which is the best Harbour in the Place.

From the same N.E. Point there is an Arm of Land stretching out with a Hook, so that it almost meets with another Point of Land, and makes *Harrington Sound*, an excellent Harbour, and able to receive a Fleet of Ships, having 7 to 8 Fa. and very secure riding, shelter'd from all Winds ; and there is 3 to 4 Fa. in the Entrance.

On the S. side there is likewise another Arm or Hook, which is fence'd by several Islands reaching to that part call'd *Spanish*

“ Island; and accordingly after we had run 26 Miles more upon a W. by S. half S. Course as before, we founded a fourth time, and had 100 Fa. ouzy Ground, with some of the same flaty Stones: Which will be allow'd to be a certain Token that we were then off of the Bank W. and between that and the Main, and accordingly we found it so; for in running 15 Ls more we saw Land at about $4\frac{1}{2}$ Ls dist. being the high Lands about *St. John's Harbour*, whither we were bound.”

And here 'tis manifest there is a great Error in most of our Charts now in use, which lay down this Bank at so great a distance from the Shore of *Newfoundland* as they do; seeing by this Observation here was no more than 35 L from the outer Edge of the Bank in 92 Fa. when they first founded, to *St. John's*, and between 16 and 17 Ls from the outer Edge to the inner Edge of the Bank: So that the Bank is not more than 18 or 19 Ls from the Main of *Newfoundland* off of *St. John's*, whereas 'tis usually call'd 30, as we have said above, from the said inner Edge of the Bank to the Main.

N. B. Also the breadth of the Bank is falsly calculated, it being evident that its breadth between Lat. 48 d. 20 m. and 44 m. is not above 18 Ls at most, between which is all very deep Water: For after you are off of the Bank, you come into 100 to 120 Fa. and tho you have some Shoalings as you come towards the Land, yet you have 50 to 60 Fa. to the very Rock's Note.

We have likewise some Charts which make the distance more than 40 Ls from the inner Edge of the Bank to *St. John's*, which is about 18 Ls out of the way; and it must be suppos'd the Pilots from whose Reckonings these Charts were drawn, kept a very bad Account, or were very superficial in their Observations: 'Tis certain that so great an Error in so small a distance may be very dangerous to such as may depend upon those Charts; nothing being more frequent upon the Coast, than to hear the Sea breaking upon the Shore and Rocks before one can see the Land, the Country being constantly covered with a Fog from the beginning of *May* to *July*, and sometimes for the most part of *August*; which is the time that the *European* Ships which use the fishing Trade generally come upon the Coast. Those therefore who are bound to this Coast should be sure, beside keeping a good Account and frequent Soundings, to keep a good Look-out, that they may make the Land in time.

There is also another thing by which they may know they are upon or near the Banks, and that is, the great number of the Fowl call'd *Penguin*, which they will find here: Some tell us there are abundance of other Fowls, and so there are, more indeed than are usually seen any where else.

But they that will have those other Fowls seen no where but on the Banks, are certainly mistaken, for all the sorts, such as Willocks, Gulls, Sheerwaters and Noddies, are often seen at a great distance from the Banks, nay it is affirm'd that they are seen 100 Ls off. But the *Penguin* is your faithful

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On the S. side there is likewise another Arm or Hook, which is fenc'd by several Islands reaching to that part call'd *Spanish Point*: The Space within is call'd the *Great Sound*, and is a very good Harbour: Also the Entrance of this *Sound* goes in between *Spanish Point* and *Irelands Island*.

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Within this Sound are several smaller Harbours very good and secure, such as *Paget's Port*, *Witcharn Bay*, and others; also there are several very good Bays and Harbours on the S.E. side: But notwithstanding all these, except you are very well acquainted, 'tis not advisable to come near in the Night: but if you make the Island in the Evening, stand off and on till the next Day, and then make a Signal for a Pilot to carry you in.

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It is observable also, that these Seas are much more tempestuous than any other of the same Latitude this way, (the Reason of which is very difficult to assign) being liable to sudden and violent Gusts and Storms, so that the *Spaniards* us'd to call them the *Devil's Islands*, and always thought it a good Omen of a prosperous Voyage, when they were got past that Latitude.

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Due S. a little westerly from the *Burmudas*, (leaving the *Bahamas* as too numerous and too insignificant to take any particular Survey of them) we come to the W. end of the Island of *Hispaniola*; between which and the Island of *Cuba* lies the Channel which they call the *Windward Passage*, being the only other way to disembogue out of these Seas from the *Spanish Coast* into the Ocean: I mean, besides the Gulph of *Florida* mention'd above. Having been then brought to the Islands from the N. I shall take them as they lie for the Description of their Coast in a half Circle, leaving the Isles of *Cuba* and *Hispaniola* to the last.

St. John, or *St. John de Porto Rico*, is a long Island stretching E. and W. The distance from the E. end of *Hispaniola*, that is from *Cape Sumana*, the N.E. most Land of *Hispaniola*, to *Cape Anquada* the westernmost Land of *Porto Rico*, is 20 Ls. The N. side is full of Rocks and small Island, which

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seem to be worn bare by the Rage of the Sea. The principal Harbour lies N.W. on that part of the main Island just behind the Island *Rigo*: The Entrance into the Harbour is along the Shore of the little Island, because on the W. Point of the Harbour it self there lies a Riff, which shoots off half thwart the Entrance. On the Point of the Island stands the Castle commanding the Passage; and upon the W. side of the Harbour, upon a Rock off of the sandy Riff, another. When you are in the Haven is capable of receiving any number of Ships. The best riding is a little to the eastward of the City, because the easterly Winds which blow trade here, blow right in, and bring a large Swell of the Sea with them.

W. from this Harbour is another call'd *Cobeca*, being in the Mouth of the River of that Name: Just in the Entrance of the Harbour lies an Island also call'd the *Passage*, which reaches quite thwart the Mouth of the River, leaving an Entrance for Shipping only at the E. end of it, so that the Harbour is behind the Island.

On the E. end of the Island are several small Coves, and a River call'd *Luzia*, and abundance of Rocks above and under Water. The S. Coast of the Island is cover'd with Rocks and Shoals, so that there is very little Navigation on that side.

You may anchor in the Bay of *Anguada*, and of *Porto Rico*, in 23 Fa. soft and ouzy Ground. In coming into the Bay of *Anguada* from the N. you may come within a Mile of the Shore to the southward of the N. Point, and anchor there in 10 to 12 Fa.

Off of *Porto Rico* due E. and in a Line from the E. end of the Island, lies a Range of small Islands call'd the *Virgins*, their Number uncertain: They lie E. and W. in Lat. 18 d. 20 m. the Passage thro' them was thought very difficult and hazardous formerly; but the famed Sir *Francis Drake*, in his Attempt upon *St. Domingo*, went thro' among them without danger. and left particular Directions for the passage of others; describing the Course to be very safe, steering W. by N. and W.N.W. till you come to the W. end of the fourth Island, which you must leave on the Starboard-side, and the Island *Foul Cliff* on the Larboard. Between the two you will have 16 Fa. a free Channel running on to the westward, before you alter the Course. There are some places in passing thro' where you have not above 6 to 7 Fa. but there is nothing to fear, and the Water is no where shoaler than 6 Fa. in many places 16 to 20 Fa.

E.S.E. of the *Virgins*, and on the N. side of the Island of *St. Martin*, lies the Island *Anguilla*, the first of the smaller *Antilles*. There are some small Islands between, as *Sancta Cruz*, *Anagada*, and *Sombreve*; but there is so little Navigation to them, and very few or no Harbours, that they require no other Directions than to steer clear of them in your Course to the Islands of greater Importance. There is indeed good anchoring on the N. side of *Sancta Cruz*, in a large Bay, but no landing-place, or any fresh Water or People.

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N. B. From the E. side of *Nevis* to the W. side of *St. Martins* and *St. Christophers*, your Course is N. and N.W. by W.

Nevis is a small tho' prosperous Island, and has much Shipping comes to it with but little Convenience for them: There is no good Harbour in the whole Island, tho' tolerable good anchoring on the S.W. side, there being several Rocks and Shoals, between which the Ships ride with safety, except in case of Hurricanes, when they put out to Sea, and if possible run into *Antegoa*. They have very good fresh Water here, which is hard to be had in several Places among the Islands. The nearness of *St. Christophers* is now its best Harbour.

N.E. from the E. end of *Nevis* is an Island call'd *Barbuda*, not planted or inhabited like *Nevis*, but much better provided for Shipping; for on the W. side is a good Road in 9 to 14 Fa. good Ground, and well shelter'd. From the S.W. Point there runs a Shoal of Sand above 2 Ls into the Sea, and from the N.N.W. Point another; so that 'tis dangerous coming at those two Places: But the W. side is clean, and clear of either Rocks or Sands.

S. from *Barbuda*, and between it and *Guadalupe*, lies *Antegoa* in 17 d. N. Lat. it lies in length from E. to W. 5 $\frac{1}{2}$ Ls, and in breadth N. and S. 4 Ls. It is in many, if not in most parts surrounded with Rocks, so that it is a difficult Coast, especially for Strangers: And all along the N. side of the Island there is a Ledge of Rocks lying off in the Sea near 2 Miles from the Shore; but there are several Channels to go in between them, and in some places over them: But that requires being well acquainted, Pilots not being always found to carry into every part.

There are many Inlets among the other Rocks on every side the Island; and *Antegoa* is particularly famed for good Harbours, beyond all the Islands which the *English* possess in these Seas. The principal are as follow:

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| 1. <i>Nonfuch</i> Harbour. | 5. <i>Carlisle</i> Road. |
| 2. <i>Willoughby's</i> Bay. | 6. <i>St. John's</i> . |
| 3. <i>Falmouth</i> Harbour. | 7. <i>Five Island</i> Harbour. |
| 4. <i>English</i> Harbour. | |

1. *Nonfuch* Harbour lies at the E. end of the Island: On the S. side is *Green Island*. The best going in is between this Island and the S. Point of the Harbour, which they call *Hungry Hill*, where you have 5 Fa. almost all the way. In the Entrance, on the N. side of *Green Island*, the Road is foul, full of Rocks, and in the Channel not above 6 to 8 Foot Water, except in one place, which is very difficult.

2. S.E. from *Green Island* near 2 Ls lies *Willoughby* Bay; the Mouth of it is very wide, little less than a l. over, but is above two Thirds of it block'd up with a Sand or Shoal, which lies off from the N. Point, stretching directly to the S. Point; from whence another Sand spits off, as if it would meet the first, and block up the Harbour. This is call'd *Sandy Point*.

Between these however there is an open Channel, where

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There is very good anchoring on the S. side of *Anguilla*, the Current being gentle on that side, for it comes from the N.E. And there is a long Ledge of Rocks stretching off from the E. Point, which breaks the Force of it. The E. side is cover'd with Flats and Shoals, and small Islands, so that it is almost inaccessible.

St. Martin lies S. from *Anguilla* in Lat. 18 d. 11 m. it stretches E.N.E. and W.S.W. 5 Ls, and about 3 in breadth. There are several good Bays and Roads on the N.W. side; and the Channel between it and *Anguilla* is free from Rocks, and clean Ground: particularly on the W. end of the Island there is a very good Road in 9 to 10 Fa. good clear Sand: And on one side of the Road are two or three Salt-Ponds, where Ships load Salt with great Convenience.

St. Bartholomew's lies S.E. from *St. Martin's*, and from the N.E. Point of *St. Christophers* N.W. but nearest *St. Martin's*, and in the same Latitude to a Minute. There are no Roads or anchoring-places upon the Coast of this Island, nor much need of them. There are two little Islands W. of *St. Bartholomew's*, call'd *Saba* and *Estatia*; the last dist. W. by N. from the W. Point of *St. Christophers* about 3 Ls, and the former much the same dist. from the latter. There is nothing to be said of them, but that they are wild Rocks, and to be avoided, having neither People nor Produce upon them.

St. Christophers is a large Island about 7 Ls long and 4 broad, the S.E. end runs far out in a sharp Point, and is almost taken up with a great Salt-Pond. There are two good Roads near that part, which were formerly distinguish'd by the *English Road* and the *French Road*, but are now both *English*, as the whole Island is, yet may perhaps keep the Names: The *English Road* goes in at the S.E. Point, and the *French* at the N.W. Off of the W. Point lies a small Ledge of Rocks, and off of the W. side of the S.E. Point a little Island. The Island of *Nevis* or *Mexis*, lies off from the S.E. Point of *St. Christophers* due S.E. and the Passage between is so narrow and so foul, that there's no passing without evident hazard of losing your Ship.

1. *Nonfuch Harbour* lies at the E. end of the Island: On the S. side is *Green Island*. The best going in is between this Island and the S. Point of the Harbour, which they call *Hungry Hill*, where you have 5 Fa. almost all the way. In the Entrance, on the N. side of *Green Island*, the Road is foul, full of Rocks, and in the Channel not above 6 to 8 Foot Water, except in one place, which is very difficult.

2. S.E. from *Green Island* near 2 Ls lies *Willoughby Bay*; the Mouth of it is very wide, little less than a L over, but is above two Thirds of it block'd up with a Sand or Shoal, which lies off from the N. Point, stretching directly to the S. Point; from whence another Sand spits off, as if it would meet the first, and block up the Harbour. This is call'd *Sandy Point*.

Between these however there is an open Channel, where Ships of good burden may go in; and when they are in, there is very good riding almost every where, except that in the very Entrance, and on your Larboard-side, there is a little Shoal call'd the *Horseshoe*; but it is above Water, and plain to be discern'd by the Rippling of the Sea.

3. W. or W.S.W. from this Bay about 4 Miles lies *Falmouth Harbour*.

4. And between them both, but nearer to *Falmouth*, lies *English Harbour*.

5. W. by S. from *Falmouth Harbour* about 5 Miles lies *Carlisle Road*. These are all fair Harbours, with little difficulty attending them: And at *Falmouth* especially, what difficulty there is may be made easy; for the Town being near the bottom of the Harbour, you may always have a Pilot there, as you may also at the watering place in *Carlisle Road*.

W. from *Carlisle Road* there is a very frightful Ledge of Rocks call'd the *Breakers*, because the Sea always makes a great Breach upon them: These Rocks lie along with the Shore, as far as off of *Johnson's Point*, which is almost 8 Miles; it is true, there is a Channel between these Rocks and the Shore, but a Stranger would do well to keep off till he gets help.

N.W. from those Rocks lies a Sand as dangerous as the worst Rocks, extended N. and S. in length (including a Tail of Rocks, which runs out from the S.W. Point of the Sand towards the Rocks) almost 2 Ls, and reaching almost to the *Five Islands*; so they are call'd, being some small rocky Islands opposite to the great Opening or Bay call'd *Five Island Harbour*, on the W. end of the Island.

6. This *Five Island Harbour* is wide, and goes far in, and is therefore call'd a Harbour, but hardly merits that Name, for 'tis full of dangerous Rocks, Shoals, Riffs, and uncertain Deeps, so that 'tis a very difficult Place: Yet to those that are well acquainted 'tis made helpful in cases of Distress, and in northerly and easterly Winds there is Shelter enough. There are also two Creeks at the Bottom of the Bay, which might be made useful for small Vessels on many Occasions.

Sailing Directions for the Carib

7. Due N. from *Five Island Harbour* lies *St. John's*, which is call'd the best Harbour (or Harbours, for it is a double one) in the Island, and is accordingly the most in use: The Course to these Harbours indeed lies N. and S. but the Harbours themselves lie rather N.E. and S.W. There is a Sand, which running out from the N. Point of the Entrance, where the Fort stands, and stretching S.W. lies quite thwart the Harbour, home to the opposite Point and is a plain Bar cross the Mouth of the Harbour: On this Bar there is but $2\frac{1}{2}$ Fa. Water, so that no Vessels drawing more Water should venture over it; the deepest part of the Bar is at the S.W. end, for at the N. Point under the Fort it is bare 2 Fa. Your way in, is to keep all along under the S. Shore from *Ship-stern Point* to the Bar: All the Shore is bold and clean, so that you have nothing to fear, tho you come within a Coit's cast of the very Point; for there is 9 to 11 Fa. close to the Land. The Description of this Coast is more particularly given, because it is an Island much frequented by Shipping, and full of Business, and also a Shelter for other Ships in distress, because of the many good Roads about it.

W.S.W. from *Antegoa* lies the Island of *Montserrat*, a little but well-planted Island, and some Ships consequently go to it; but 'tis so surrounded with Rocks, that there is very uncertain Riding before it, and no place on it that can be call'd a Haven: So nothing can be said of it, but that in case of a Tornado the Ships must put off to Sea, and make to *St. Christopher's* one way, or to *Antegoa* the other, according as the Winds may serve, or according to what place they lie in before.

S.E. from *Mountserrat*, and due S. half E. from *Antegoa*, lies the Island *Guadalupe*, or *Guardalupe*, a French Colony: it is form'd of two Islands, for there is a narrow unnavigable Channel between them, which does effectually separate them: Boats may go thro' this Channel, and some say that small Sloops have pass'd it, but I doubt the last; and as for Ships going thro' that is not pretended. The Navigators therefore reckon them but one Island.

The whole extends in length N.E. and S.W. with some small difference inclining N. and S. On the S. side is a good Road, tho in deep Water 30 to 50 Fa. Here are several small and mostly uninhabited Islands especially in the way from *Nevis* hither, and farther S. which being of no use in Navigation, and having no Shelter about them, are only nam'd that they may be shun'd; such as *Redonda*, W.N.W. from *Montserrat*; *des Santos*, being four Islands lying due S. from the W. end of *Guadalupe*; *Aves*, W. by S. from *des Santos*; and *Deseada*, N.E. from the S.E. Point of *Guadalupe*.

Marigalant is a rocky dangerous place, many of the Rocks about it lying under Water, yet on the W. side there is a fair Strand, and good anchoring in several places.

Due S. from *Guadalupe*, and N.W. from the W. part of *Martinico*, lies the Island of *Dominica*. There is a very good Road off of the S.E. Point of this Island, fit not only to secure Ships, but to clean and careen in. This Road is in a fair Bay; 'tis known by a high Pico, or sharp Hill, lying as it were an Island just before the Road, and which makes it a secure Port or Harbour: It makes like an Island, but is not

On the N. side of the broken Rocks, and on the S.W. side is a particular Bay, which runs inward, and bears the name of Bay. Ridge, or *Devil's Island*, at the End of the Deck.

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On the N. side and on the S.E. side, the Shore is full of small broken Rocks and rocky Islands, dangerous to come to; but on the S.W. side 'tis very fair, and a clean Coast: And there is a particular Point of Land which running out westerly to seaward, and bending like a Man's Arm makes a very large Gulph or Bay. Right off of the S. Point of the said Arin lies the *Devil's Island*. This Bay goes so far in, that when you are at the End or Bottom of it, you cannot see the open Sea from the Deck. There are also several small Coves or Harbours within this Gulph, one of which is call'd the *Governor's Bay*. There are several good Roads besides this, but the principal Port is here, where the Castles and Forces are kept, and where the Men of War ride.

S.W. from *Martinico* lies the Island of *St. Lucia*: It has a fair smooth clean Coast on all the S. side of the Island, and yet neither Bay nor Road, the Ground in the Offing being deep and foul: But on the W. side there is a very fine Bay, where there is good anchoring, call'd *Round Bay*; 'tis the more convenient for Navigation, because it is on the Leeward-side of the Island.

Due S. from *St. Lucia* lies the Island of *St. Vincent*, in Lat. 13 d. 5 m. being in a Line E. and W. with *Barbadoes*. There are very good anchoring-grounds on every side, especially on the S.W. and W. Coast of this Island; but the chief Place for a good Harbour is the Bay of *St. Anthony*. There are also in most of the little Bays here, good Places for watering, and plenty of Water at any of them: in the Bay of *St. Anthony* there is from 15 to 36 Fa. Here is, in short, good riding almost all round the Island, but no Business.

S. and S. by E. from *St. Vincent* lies a long Range of Islands, most of them uninhabited, and perfectly useless in Navigation; *Granada*, which is the most southerly, lies in Lat. 11 d. 45 m.

Due E. from *St. Vincent*, and in the same Lat. as above, lies the Island of *Barbadoes*: it lies out of the Range of the *Caribbees*, and some will have it that it does not belong to them, being distant from *St. Vincent* about 22 Ls. On the E. side are several Points bearing out into the Sea, by which means there are several good Bays and Roads on that side; but yet the Shore is generally cover'd with Rocks, and dangerous except to such as are well acquainted or well directed. On this side, *viz.* E. and N.E. are *Long Bay*, *Foul Bay*, *Michael's Bay*, *Knots Bay*, *Constant's Bay*, *Eastling's Bay*, *River's Bay*, and others, in all which there is good anchoring on Occasion.

But the biggest and best is on the S.W. side, call'd *Carlisle Bay*, near the capital Town call'd *Bridge Town*: You may anchor here in what depth you will, from 12 to 30 Fa. but the Ground is bad over the whole Bay, and the nearer the Shore the worse the Ground; therefore you must be sure to buoy up your Cables well, and have them well serv'd also, or you will endanger losing your Anchors. The great Ships generally ride in 25 to 30 Fa. In a word, there are good Bays and Roads on every side the Island, but not one Haven or Harbour.

S. by W. from *Barbadoes*, and dist. 32 to 33 Ls, lies the Island of *Tobago*, extended in length N.E. and S.W. about 6 Ls, and scarce one in breadth, lying about 14 Ls due N. from the E. end of *Trinidad*, in Lat. 12 d. N. Here are several good

The whole extends in length N.E. and S.W. with some small difference inclining N. and S. On the S. side is a good Road, tho in deep Water 20 to 50 Fa. Here are several small and mostly uninhabited Islands especially in the way from *Nevis* hither, and farther S. which being of no use in Navigation, and having no Shelter about them, are only nam'd that they may be shun'd; such as *Redonda*, W.N.W. from *Montserrat*; *des Santos*, being four Islands lying due S. from the W. end of *Guadalupe*; *Aves*, W. by S. from *des Santos*; and *Descada*, N.E. from the S.E. Point of *Guadalupe*.

Marigalant is a rocky dangerous place, many of the Rocks about it lying under Water, yet on the W. side there is a fair Strand, and good anchoring in several places.

Due S. from *Guadalupe*, and N.W. from the W. part of *Martinico*, lies the Island of *Dominica*. There is a very good Road off of the S.E. Point of this Island, fit not only to secure Ships, but to clean and careen in. This Road is in a fair Bay; 'tis known by a high Pico, or sharp Hill, lying as it were an Island just before the Road, and which makes it a secure Port or Harbour: It makes like an Island, but is not so, being join'd to the main Island. If you would go into the Harbour, keep off from the S. Point, leaving it on your Starboard-side, because there lies a Ledge of Rocks there under Water stretching off to seaward. There is also another small Bay a little W. from the former, where you have a fair clean Strand, good anchoring in a hard Sand, and secured almost from all Winds. There is a Village on Shore, where you will find good Water, and a good watering-place; but take care of the People.

Due S. from *Dominica* lies the N.W. end of the Island of *Martinico*, a *French* Colony, and the largest of all the *Caribbee* Islands. In the middle of the Island is a large high Mountain, which is the Sea-Mark for all the Coasts, and by which the Island is known, which way soever you come to it.

Sailing Directions for the Islands on the North and the Island of Hispaniola to the I



AVING in the above Account of the *Antilles* omitted these larger Islands of the Gulph, and beginning at the Island of *Porto Rico* proceeded to the Coasts of the *Caribbees*, we now come back to the said *Porto Rico*, where the Account began; and leaving it on the Starboard-side, we observe, that due W. from *Porto Rico*, dist about 20 to 22 Ls, lies the great Island of *Hispaniola*.

The N.E. Point of Land upon this Island is *Cape Samana*, formerly call'd *Cape St. Raphael*; it runs a great way to seaward, the Land beyond it falling in S.W. or S.W. by W. and making a large Bay. There is on the W. of the Cape both a City and a River of the same Name of *Samana*, or as some write it *Sumana*; the River is a pretty large

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E. side are several Points bearing out into the Sea, by which means there are several good Bays and Roads on that side; but yet the Shore is generally cover'd with Rocks, and dangerous except to such as are well acquainted or well directed. On this side, *viz.* E. and N.E. are *Long Bay*, *Foul Bay*, *Michael's Bay*, *Knots Bay*, *Constant's Bay*, *Eastling's Bay*, *River's Bay*, and others, in all which there is good anchoring on Occasion.

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S. by W. from *Barbadoes*, and dist. 32 to 33 Ls, lies the Island of *Tobago*, extended in length N.E. and S.W. about 6 Ls, and scarce one in breadth, lying about 14 Ls due N. from the E. end of *Trinidado*, in Lat. 11 d. N. Here are several good Roads and Bays for Ships to anchor in, but as the Current is exceeding strong, and always sets from the E. to W. it makes most of the Bays and Roads useless.

The best Road is in little *Hog Bay*, where you may ride with great Security, the Town and Fort if inhabited lying due N. before you: But here is no Business, nor is it certain whom the Place is possess'd by, sometimes *English*; sometimes *Dutch* having the Government of it, and often neither one or other.

Thus far the Islands call'd the *Antilles* and *Caribbees* are said to extend: There are some few Islands farther S. but as they rather belong to the Coast of *South-America* than to the *Caribbees*, we shall refer them to their proper place, and go back to the larger Islands of the *Gulph of Mexico*, which are more particularly concern'd in the Navigation of the said Gulph.

in the North and West side of the Gulph of Mexico, from Spaniola to the Island of Jamaica inclusive.

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Stream for 3 or 4 Ls into the Country, but then is too small for Boats, and often dries up in a hot Season.

On the W. side of the Mouth of the River, towards *Cape de Cabron*, lie four small Islands near the Shore, which serve to make the Bay a safer Road; if you would go into this Bay of *Sumana*, observe to bring the westernmost Point of *Cape Cabron* (for the Cape makes in two Points) open to a white Spot of sandy Ground, which you will see on the Shore, and with that Mark run into the Gulph: The Soundings are very uncertain, for when you are shot just into the Harbour, you have 10 Fa. and soon after no Ground at 20.

There are several Keys (that is to say Rocks) and Points in the Bay, by which the best Ground for Anchorage is mark'd

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out, such as (1.) *Blue Point* on the N. side, but E. from you, dist. 4 L. (2.) The *Great Key*, that is a great Rock, E.S.E. 3 Miles. (3.) The *Low Point* to the N.W. 5 Miles. (4.) *Bannister's Key* W.N.W. 1 Mile. You may anchor at any of these, observing only that the best riding is in 14 Fa. about 3 quarters of a Mile from the Shore.

Cape Cabron lies N.W. westerly from *Cape Sumana*; 'tis a broken Point, and makes at a great distance like a Ship with her Topmast struck, but coming nearer restores it to its Shape.

From *Cape Cabron* the Coast goes away W. keeping between the Main and an Island that lies about a Mile from the Land: The Shore is steep too, and you may go as near as you please.

Before you come to the Island, you have good Soundings from 8 to 14 Fa. and afterward in 15 to 19 Fa. keeping the Island N.W. by W. from you: There is usually a Day-breeze upon all this Coast from the eastward.

W. from *Cape Cabron* lies *Cape Frances*; 'tis a high Point, and has a false Cape on the E. side of it. but you must be careful to observe it narrowly, and keep a good Offing, and then you will discover it in time.

W. from *Cape Frances* comes in a River, but not navigable; on the W. side of which River lies the Harbour of *Porto Plata* in the Bottom of a Bay: In sailing in you must leave some small Islands which lie in the Mouth of it, on your Starboard-side: 'Tis an excellent Harbour when you are in, and good Ground, every where well secured, and has 8 to 16 Fa. Water.

Due W. from *Porto Plata* lies *Monte Christo*; but your Course is N.W. till you can double the great Cape, which lies from the *Porto Plata* N.W. westerly, 10 Ls. Then go away S.W. 15 Ls more; so that 'tis 25 Ls by Sea, and but about 19 on a Line by Land. In sailing this Course give a good Birth to the Cape, and to three Islands which lie off from it.

On the W. side of *Monte Christo* lie several small Islands, which you must give a Birth to also, and then go away to *Mansanetti Bay*, leaving all the Islands on your Larboard-side. From the W. Point of the Bay lies a great Shoal of Sand, stretching W. off a great way; keep without it in 4 to 5 Fa. There are several Rocks on the W. side of this Bay, call'd *Caya Palmeta*. As for the Islands, Cays or Rocks not named, you have nothing to do but to keep without them all at a good distance. There are many Rivers also in this Bay, and the *Spaniards* have much Shipping here, especially Sloops and Barks to trade for Provisions; and there are abundance of pretty good Towns considering the Place, as *Porto Real*, *Porto Francois*, *Port Palma*, and others. If you are bound into any of these Places, there are Pilots to direct you in; for the best printed Directions are very imperfect, and not to be trusted to.

To the W. of the Bay of *Mansanetti* (for so 'tis sometimes call'd) lies *Cape St. Nicholas*; and off of *Cape St. Nicholas* lies the Island of *Tortugas*, or *Tortudas* S.W. and N.E. 'tis almost surrounded with Rocks as well on the N. as on the W. side; but on the E. end lies the Road, difficult to find, and

Directions for the Islands in the Gulph of Mexico.

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'tis sometimes *St. Nicholas* lies N.E. 'tis almost on the W. side;

a Riff of Sand between, that there is no going between the Cape and the Island. From this Island the Courle is S.W. to *Cape Tiberon*, call'd by some *Tuberon*, by others *Tibron*: It is the westernmost Land of the whole Island of *Hispaniola*. From the N. Point of the Island *Camuta* to the W. end of the Riff off of *Cape Tiberon*, is 19 Is.

N.E. by N. from *Cape Tiberon* 6 Ls lies *Donna Maria Bay*, call'd so from a Mountain within Land of the same Name, which is a Sea-Mark for all that part of the Streight. Close under the Cape on the N. side is a good Road, call'd the Bay of *Allegata*.

N.W. by W. from this Cape lies the Island *Navaso*, or *Novosa*, dist. 12 Ls. being directly in the Courle call'd the *Windward Passage*, of which in its Place.

From *Cape Tiberon* the Land falls away S.E. for 10 Ls, and then E. by S. to *Cape Buco* 8 Ls more, and then S.E. from the Cape lies the Island *Vache* or *Vacca*, which the *Spaniards* pronounce as we do *Vash*, and from thence our Seamen call it corruptly the *Isle of Ash*; whereas its true meaning in *English* is the *Isle of Cows*, call'd so from the great Quantity of Black Cattle found here by the Sailors, who usually land to hunt and kill them.

The Island stretches away E. and W. 7 Ls making within, the Bay of *Savanna*, a well known Place for the *Buccaniers* Rendezvouzings, and for getting Black Cattle for Victualling. The E. end of the *Isle of Ash* is low and shoal; you must not come within 2 Ls of it except in Shallops. From hence a large Riff off Rocks stretches out into the Sea N.N.W. almost 4 Ls: Upon which Riff a rich *English* Ship call'd the *Jamaica Merchant*, Capt. *Morgan*, was formerly lost, tho' the Rocks are all above Water: The Ship struck upon the southermost of the two Keys (as they call them) on the said Rocks, where the People got on Shore, but could never get the Ship off.

Between those Keys or Cayes is good anchoring in 4 Fa. but *Morgan's* Ship being in Distress, and in the Night, could not fetch to the Road. To the eastward of the W. Point of the Island is a Range of Keys (so they call the Rocks above Water) which are steep too; they stretch away E. by S. round that part of the Island almost 3 Ls near to *Morgan's Key*, (now call'd so, because Capt. *Morgan* and his Passengers came on Shore upon it) between those Keys and some other Rocks at the E. end, the Shore is all Rocks and Shoals of Sand very dangerous.

N. B. Our Pilots assure us, that due S. from this unhappy Island dist. 3 Ls off at Sea, there lies a dangerous Riff or Shoal of Sand, stretching outward near 3 Ls, and that there is not at low Water above 3 Foot Water on it.

E. from the *Isle of Ash* lies Port *Lewis*, named so by the *French*; who are planted there, and where they have a good Harbour under the Mountain, with a Road before it, with 3 Fa. Water: And a-breast of the Port half a Mile off you have 6 Fa. very good Ground.

In all these Roads, the Ships lie close to the Land, and

5 Fa. There are several Rocks on the W. side of this Bay, call'd *Caya Palmeta*. As for the Islands, Cays or Rocks not named, you have nothing to do but to keep without them all at a good distance. There are many Rivers also in this Bay, and the *Spaniards* have much Shipping here, especially Sloops and Barks to trade for Provisions; and there are abundance of pretty good Towns considering the Place, as *Porto Real*, *Porto Francois*, *Port Palma*, and others. If you are bound into any of these Places, there are Pilots to direct you in; for the best printed Directions are very imperfect, and not to be trusted to.

To the W. of the Bay of *Mausanetti* (for so 'tis sometimes call'd) lies *Cape St. Nicholas*; and off of *Cape St. Nicholas* lies the Island of *Tortugas*, or *Tortudas* S.W. and N.E. 'tis almost surrounded with Rocks as well on the N. as on the W. side; but on the E. end lies the Road, difficult to find, and strangely difficult when found, by reason of Rocks and Sands, almost every where; which however are the Safety of the Place when you are in, for then nothing can hurt you: But you must be very well acquainted if you find the Channels without a Pilot. There are several little Roads also on the N. side of the Island among the Rocks, if you can find your way in; but 'tis so hard to find these also, that 'tis not worth the hazard.

N. B. This Island of *Tortugas* was formerly the great Rendezvous of the *French* Buccaniers; and perhaps the Difficulties of the Entrance and of the Roads on every side of it, was the chief thing that made it so.

W. from this Island is *Cape St. Nicholas*, off of the N.W. Point of the main Island; which Point runs out almost Gun-shot from the rest of the Land.

N. B. From *Cape St. Nicholas* to *Pettyguavies* 'tis always calm from 3 or 4 in the Morning till Noon (Tornadoes excepted) then from Noon till 3 in the Morning the Seabreeze springs up without fail.

S.E. off the Cape about 10 Ls lies the Harbour and Bay of *Pettyguavies*: To go in there give the Point a good Birth, because of a Shoal which lies off. When you are open with the Point, you will see a small Island, which you must leave on the Larboard side, and go into 10 and 12 Fa. or close by the Island, if you think fit, in 4 and 5 Fa.

There is a good Road S.W. from this Harbour, on the W. Point of the Entrance into the River *Antebonique* or *Antebanico*; but the River is good for nothing, being dry at low Water. And S.W. from the River is a large Bay call'd *Jaguana*, with several small Ports in it, but of no consequence in Navigation; nor is the Harbour and riding in the Bay very good, the best is under the N. Shore.

Twenty-eight Ls W. by S. from this Bay lies *Cape Rosa*: On the E. side of it is a little deep Bay running 3 Ls into the Land; and N.E. from the Cape is the Island *Comita* or *Camita*, distance from the Cape 3 Ls, but all so foul with Rocks, and

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N. B. Our Pilots assure us, that due S. from this unhappy Island dist. 3 Ls off at Sea, there lies a dangerous Rill or Shoal of Sand, stretching outward near 3 Ls, and that there is not at low Water above 3 Foot Water on it.

E. from the *Isle of Ash* lies Port *Lewis*, named so by the *French* ; who are planted there, and where they have a good Harbour under the Mountain, with a Road before it, with 3 Fa. Water : And a-breast of the Port half a Mile off you have 6 Fa. very good Ground.

In all these Roads the Ships lie to get Hides, which they either buy of the *Buccaniers*, or go on Shore at *Savanna Bay*, and kill the Cattle for them. This South side of *Hispaniola* is void of other Trade, so the Shore is much out of use, and not exactly survey'd. The principal Places are *Port Congo*, *Jaquimo*, *Cape de Lobos*, *Cape de Alongna*, *Allovalla*, the *Bay of Samba Beata*, the *Bay of Honda*, and *Orcoa de Hato*, *Cavalero Point*, *Zapezein*, the *Bay de St. Catherine*, or *Catalino*, *Punta de Nisao*, and the Port and City of *St. Domingo*.

St. Domingo is the only Place of Consequence : It is a good large City, and has a very fine Harbour, the Entrance safe, but not very easy : If the *Spaniards* will let you go in, they will send you a Pilot ; but they are very scrupulous of any Strangers entring, tho in time of Peace ; being so much afraid of the *Buccaniers* and *Free-booters*, and having been formerly plunder'd and burnt by the *English*. But if you would go in whether they will or no, run right with a flat Tower towards the Cattle, and you will have 15 Fa. within a Mile of the Tower, open to a flat Point on your Starboard side, and a little within a small Fort which lies on the left ; in a word, if a Fleet able to pass and batter the Forts are willing to venture, they cannot do amiss as to the Ground, if they run in directly in the Mid-Channel.

From *Cape Cavalero*, the eastermost Point of the Entrance into *St. Domingo*, to the Island *Saona*, is 3 Ls, the Course E. by S. or E. half southerly. The N. and S. side of the Island is all rocky and foul : under the E. end you may ride in 8 Fa. but not well shelter'd.

From hence to *Cape Enganno* is 15 Ls: this is the eastermost Land of *Hispaniola*, and is dist. from *Cape Sumana* 16 Ls, the Course S. by E. and N. by W.

N. B. From this Island of *Hispaniola* N.E. lie abundance of Shoals and Flats, and among the rest the Shoal where Sir *William Phipps* fish'd up his Plate from a *Spanish Wreck*, also many Islands and Banks, all which are included in what has been already mention'd of the *Bahamas*, which take their beginning in Lat. 21. to 22 d. N. and N.W. from *Hispaniola*.

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Sailing Directions for the Coasts of

Due W. by N. from Cape *Nicholas* on the W. end of *Hispaniola* lies Cape *Mayzo* being the easternmost Land and Point of the Island of *Cuba* dist. between the Capes 9 Ls.

N. B. In this Streight holding within half a L. off from Cape *Mayzo* lies the Course thro', which they call the *Windward Passage*, and is farther described in its place; just opposite to Cape *Mayzo* the said Course changes from N.E. to N. by W.

From this Point the N. Shore of *Cuba* stretches away W. by N. and then due W. to the Island *Baracoa*, and thence passing several small places of no note, as *Bilta* and *Zanara* to *Cabo Quibannano*, a Cape remarkable for little but its Situation and being opposite to the Islands *Verde* and *Mucaros*, and the beginning or S.W. Point of the great *Bahama Bank*, dist. N. by W. and S. by E. 14 Ls.

W. of this lies *Cabo de Cruis*, and several small Islands and Bays of no importance to Navigation, till you come to the great Bay of *Mattancas*. The Coast between makes the S. Shore of the Passage called the *Old Streights of Bahama*, the N. side being made by the S.W. Edge of the great *Bahama Bank* often mentioned above; from *Cabo Quibanico* to the Bay of *Mattancas*, the Coast is W.N.W.

Mattancas is a wide large Bay deep into the Land, it goes in S. and on both the Points at the Entrance there lie off great Shoals of Sand, so that you must take a good Offing; and allowing a Birth to both Shoals you must go in Mid-Channel: after you are in, under the Shoal of the E. Point about a Mile and a half from a little House, you may anchor in 5 to 7 Fathoms oazy Ground: On the flat of the E. Point you have not above 9 Foot Water; when you are farther in the Bay, you may anchor where you please.

Off of the Mouth of this Bay about the dist. of 36 Ls from the W. Point of it, you have good Ground at 5 to 35 Fathoms gradual Soundings, but between the Land and that dist. no Soundings at 250 Fa.

West from *Mattancas* dist. 20 Ls is the Entrance into the *Havanna*. This is a fam'd place for shipping, the Harbour is spacious and the most convenient in the whole Island; the Entrance is narrow, being between the Sands which lie off of the Points, no broader than that 2 or 3 large Ships may sail in abreast of one another; but after you are in, there is Water and breadth enough for a Royal Navy: The *Fair Way* in is Mid-Channel, a small Shoal lying off either Point; the Entrance is due S. in, and when in, a hundred Ships may lie in the soft Ouze without Anchor or Cable; you need no Pilot to go in, nor any Directions when you are in; for keep the *Fair Way* in as above, and when you are in go where you will; if you run a-ground you will get off again, unless you run on just at high Water Mark, and on purpose for Mischief: The Fortifications and City are already described, to which I refer.

W. from the *Havanna* lies the Port of *Cavanos*, being a fine open Bay with 4 to 5 Fa. in the Entrance; and 8 to 9 Fa. when entered; it is a large Bay, and runs so far in, that 'tis able to receive the largest Fleet of Ships that ever uses those Seas. There are several small places between this and the *Havanna*, and with good Anchoring, but of no importance, when so many famous Bays and Roads are at hand.

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If you would go far in, you may have a Pilot among the Fishermen; but if you would only ride for Weather, anchor behind a little Island on your Larboard side in 4 Fa. good Clay Ground, and you lie ready to go out with the first fair Wind.

N. B. Almost every where in the Bays on this Shore the Water runs with the Wind, that is, it runs out with the Land Breeze, and runs in with the Sea Breeze.

N. B. In the middle of the Bay of *Honda* there is a small Island uninhabited; in which there is a little Well, where (if the *Spaniards* refuse you Watering,) you may at any time get 2 or 3 Tun of good Water, whether they will or no; and when the Well is empty, it will fill again with the next Flood. *N. B.* A W.N.W. Moon makes full Sea in this Bay.

To know the Entrance into this Bay, observe, when you are off at Sea, and can bring the high Hill with a Saddle on it, to bear S.W. from you, then you are right with the Entrance into the Bay.

W. from this Bay 5 Ls, lies the *Rio de Porcas*, or *River of Hogs*; between them is *St. Lucia*, but neither of any note, only that Ships put in there for Water, and to kill Swine, &c.

W. from *Rio de Porcas* the Coast runs on (as before) to Cape *Bonavista*, which is the utmost Land of *Cuba* N.W. and points open to the *Gulph of Mexico*. Thence the Land falls off southerly to *Cape St. Antonio*. All this Coast is cover'd with Rocks and Shoals, and dangerous places; so that the greatest use of these Capes is for directing the Sailors in making this Island from other Parts, as we shall see presently, in describing the Courses of the *Gulph of Mexico*, and the Bay of *Campeachy*.

This Cape *Bonavista* is low, cover'd with Trees and Bushes pointing out S.W. towards Cape *Catocha* on the Coast of *Tucatan*. From this Cape southward to Cape *Corientes*, the Shore is less dangerous and foul, than it is N. and E. to *Rio de Porcas*.

Cape *Corientes* lies 10 Ls from Cape *St. Anthony*, S.E. nothing of note between. This is also a low Cape, and cover'd with Trees, but no Harbours this way till you come to the Isle of *Pines*; it is fair on the S. side of *Cuba*, dist. from Cape *Corientes* 20 Ls, the Shore between very foul and rocky; the Island stretches out E. and W. 16 Ls, and lies from the Main of *Cuba* 6 Ls, all the Space between full of Rocks and Islands unpassable. Ships come to this Island chiefly to kill Cows and Bulls for their Hides, or else for fresh Water.

All the Coast of *Cuba* on this side is thus cover'd with Islands and Rocks, and is such a dangerous Shore, that no Pilots have thought it worth a Survey: There are some deep Bays, and some Rivers; but all is so blockt up with Rocks, Shoals, Sands and Islands, some under Water, and some above, that no Sailors visit them, unless by Storms and Tempests to their Destruction.

Here runs out a great part of the main Island far into the Sea to Cape *Cruiz*, lying from a River called *St. Julian*, due S. dist. 33 Ls, and from the *Isle of Pines* S.W. westerly 73 Ls: All between may be called an unknown, or at least an impracticable Coast.

From this *Cabo de Cruiz* the Shore appears fairer, clear of Rocks, trending away E. by N. to Cape *Mayzo*, the E. Point,

Havanna. This is a fam'd place for shipping, the Harbour is spacious and the most convenient in the whole Island; the Entrance is narrow, being between the Sands which lie off of the Points, no broader than that 2 or 3 large Ships may sail in abreast of one another; but after you are in, there is Water and breadth enough for a Royal Navy: The *Fair Way* in is Mid-Channel, a small Shoal lying off either Point; the Entrance is due S. in, and when in, a hundred Ships may lie in the soft Ouze without Anchor or Cable; you need no Pilot to go in, nor any Directions when you are in; for keep the *Fair Way* in as above, and when you are in go where you will; if you run a-ground you will get off again, unless you run on just at high Water Mark, and on purpose for Mischief: The Fortifications and City are already described, to which I refer.

W. from the *Havanna* lies the Port of *Cavanos*, being a fine open Bay with 4 to 5 Fa. in the Entrance; and 8 to 9 Fa. when entred; it is a large Bay, and runs so far in, that 'tis able to receive the largest Fleet of Ships that ever uses those Seas. There are several small places between this and the *Havanna*, and with good Anchoring, but of no importance, when so many famous Bays and Roads are at hand.

W. from the Bay of *Cavanos* 4 Ls lies the great Bay of *Honda*, or *Deep Bay*, a large wide Bay, the best in the Island except the *Havanna*, and not inferior to that, only not fortify'd.

The Mouth of the Bay goes in S. and N. As on either Point at the *Havanna*, there lies a Shoal of Sand, so on either Point of this Bay lies a Ledge of Rocks; so that the *Fair Way* in, is Mid-Channel, as it is at the *Havanna*, and the Rocks lie above Water, and are so steep, you may go within a Coit's Cast of the Pitch of them, without the least Danger, especially that on the W. side: This Riff stretches off S. and S. by W. a good Musket Shot from the Point. In the Entrance on that side you will have 4 to 5 Fa. close by the Rocks, as above.

Sailing Directions for the Coasts of Jamaica, and for especially to the Western Parts, and t



Jamaica lies due S. from the E. Part of *Cuba*, stretching out due E. and W. 45 Ls in length, and in breadth N. and S. about 18 Ls; excepting one Place called *Portland Point*, which runs out so far into the Sea southward, as to make its breadth in that Place above 20 Ls: it is situate in Lat. from 17 d. 45 m. to 18 d. 35 m. the some make it not so much.

The N. and W. Coast, which is called the back of the Island, has many Sands and Shoals lying from the Land, which make it flat off; and Ships of Burden do not come in, except at certain places, where there are Channels and Deeps proper for them. But the chief and best Harbour in the Island, and which abundantly supplies for other Deficiencies, is that of *Port Royal*, lying on the S. side of the easternmost part of the Island.

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From this *Cabo de Cruiz* the Shore appears fairer, clear of Rocks, trending away E. by N. to Cape *Mayzo*, the E. Point, where we began the Account of *Cuba*. Cape *Cruiz* is very high Land, and steep on the side next the Sea: there is a great Shoal runs from it far into the Sea S. which you must take care of. Between this and Cape *Mayzo* on the Coast, as above, lie several small Ports, but only two of note, *viz. Porta Portilla*, and *Civitta Vecch*: they are both very convenient Harbours, and well shelter'd, but little frequented; they have in the Entrance of either of them 3 to 4 Fa. The other are *Point Mathanon*, *Porta de Palma*, *Porto Escondido*, Bay of *Tequery*, and several others; in most of which there is good Anchoring and Shelter for Ships, but no Shipping to make use of them.

Jamaica, and for the Courses to and from the said Island, in Parts, and to the Gulph of Mexico.

It is true, our Pilot-Books satisfy themselves with describing this one Port, as if it was sufficient to answer the End for the whole Island; the Trade as it were all centring in that Part, and on that Account it may be sufficient: but we will touch a little upon the rest, taking things as they lie.

The eastermost Point of *Jamaica* is *Point Morant*: From hence you take your Departure, if you are bound thro' the *Windward Passage*, or to any of the W. parts of *Hispaniola*. On the N. side of the Point is a Harbour bearing the same Name, to go into which you sail N. by W. leaving the white Cliffs under the yellow Hills on the Larboard side, 3 Ls to the N.N.W. the Channel is narrow, and requires nice steering. There is a low Point runs off eastward; on the W. side the Land is high and mountainous. Here is a small River of good fresh Water comes in from a Rock in the W. part of the Country,

try, and is never quite dry; 'tis called the *River Savage*, and is very useful to Ships to take in Water, which is otherwise scarce enough.

From this Point the Land goes away S. about a L and half, and then falls away to the W. to *Little Sandy Bay*. There is a Flat upon this Shore from *Morant Point* to *St. Thomas's*, which is a deep Bay running N. into the Land about a L up: The E. Point of this Bay is called *Linch Fort*, under which there is good anchoring in 8 Fa. and in the Bay is the same in 5 and 3 Fa.

W. from the Entrance of this Bay lie two small Shoals E. and W. from one another; the Passage between them is good, and is called the *Savanna Channel*; due W. from which, dist. 3 Is. lies *Saltpond Point*, being the westernmost Point of the *White River*. There are several of these little Creeks on this Shore, to which they give the Name of River, tho none of them merit it; and most of them are dry except in the rainy Season.

W. by N. from *Saltpond Point* lies *Port Royal*: Between them lies a Bay which goes in due N. called *Long Bay*, and in that Bay is another called *Pull Bay*, and a Point of Land called *Plumb Point*. The W. Shore of this Bay is the narrow Isthmus, which makes the E. side of *Port Royal Bay*; and on the S. Point of which, before the great Earthquake destroyed it, stood the Town of *Port Royal*.

Some of our Charts call all that Bay, which spreads it self from within *Pelican Point*, by the Name of *Port Royal Harbour*: But others, and with more justice, describe the Harbour to be only that lesser Bay which lies between *Port Royal* and *Musqueto Point*, lying in E. and the two Points bearing N. and S. from one another.

To come into this Harbour from the eastward, you must first make *Plumb Point*; then shooting to the westward of the Point, keep the Main on board, so you will go within all the sandy *Cays* which lie in the Offing: keep in the Mid-Channel in 10 to 14 Fa. till you come abreast of the Point of the Town, or rather where the Town once stood: Then run in E. and pass the Channel between the Cays and the Shore, giving them a Birth of 3 Channel over: Bring *Saltpond Point* to bear W. by N. over your Stern, you will then be against the Middle of the Town of *Port Royal*: Then go on W. round the Point of *Port Royal* about a Cable's length off of the Fort, leaving it on the Starboard side, and anchor in the Harbour, where you will

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Sailing Directions for going from Port Royal for England the Gulph of Florida, and the Windward Passage



OUR best way in sailing thro' the *Windward Passage*, is to get the W. part of the Coast of *Hispaniola* on board, as soon as you can, and for which the Rule is general, and known to all our *West-India* Sailors. There you will never miss of a windward Current, the Stream always setting to the N. as it does in the *Gulph of*

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ge, and have 9 Fa. the Fort being E. over, and with the high Point of
erwise Land above *Tallow Point*, the *Salt Point Hill* W. by N. and
Plumb Point E.N.E.

d half, The other part, which some call *Port Royal Harbour*, but
here is ought rather to be called the *Bay*, lies in N. leaving *Musquito*
omas's, *Point* on the Larboard side: That Point and *Pelican Point*
L. up: bear S.E. and N.W. from one another. There are several large
h there Shoals on the S.E. side of the Bay, and off of the *Musquito*
nd; Fa. *Point*; but as they are not in the *Fair Way* into the Bay, they
oals E. need no Description. On the W. side of it lies a small Fort
s good, called *Passage*.

dist. 3 N. B. The little Sands and Rocks which lie off of this Har-
of the bour, as it is also on the Coast of *Cuba* and other Places,
on this are call'd *Cays*, such as those before *Port Royal*, which
one of are the *Eastermost Cay*, *Bulb Cay*, *Sandy Cays*, and sever-
e rainy ral others. N. B. Our People ignorantly call them *Keys*.

etween half W. from *Pelican Point* the Shore goes away S. by W.
and in half W. to *Ripley's Shoals*, which lie off from the Point, and
and cal- then lies W. to *Cabarito Point*, being the E. Point of the *Old*
narrow *Harbour*. There are abundance of Islands in the Entrance in-
and on to this *Old Harbour*: But to those that are acquainted, there
estroyed are good Channels between them all, and very late riding un-
der some of them, in 6 to 8 Fa. But for Strangers they should
take the help of Pilots.

On the W. side there is good anchoring in *Bigg's Bay*, and
S. from that in *West Harbour*; but both lie open to S. and
S.E. Winds. S. from this Harbour lies *Portland Point*, and
about 12 Ls from thence lie *Pedro Shoals*, which are Sands
lying E. and W. 15 Ls in length. Then follow other Shoals
farther westward 25 Ls, call'd *Saronilla*; and from thence still
W. other Shoals, with Rocks about them, call'd *Sanilla*: All
these lie to the W. along the S. Offing of the Coast between
Portland Point and the *Little Camines*: The farthest of
those lies beyond *Point Negrit*, which is the westermost Point
of the Island.

There are some good Roads farther toward the W. end of
the Island, as at *Bluesfield Bay*, *Hudson's Hole*, and at the
Mouth of the River *Cabarito*; but these are only used on Oc-
casion: The main Center and Port for Business is at *Port*
Royal; and the going from thence being so much more diffi-
cult than the coming to it, 'tis needful to give some Directions
for that part.

Royal for England, thro' the two Grand Courses, viz. ward Passage by the Bahama Islands to Exuma.

rd Pas- If you are bound to *Providence* from the Continent of *A-*
Hispa- *merica*, your surest way is to make the Island of *Illuthera*,
r which whose Westing is about 30 Ls from the Capes of *Virginia*;
West-In- endeavouring to fall in with *Illuthera* in the Lat. of about
Current, 25 d. 25 m. N. which will bring you about 9 Ls from the W.
Gulph of Point of *Illuthera*. The Land hereabouts is very remarkable

or rather where the Town once stood: Then run in E. and pass the Channel between the Cays and the Shore, giving them a Birth of $\frac{1}{2}$ Channel over: Bring *Saltpond Point* to bear W by N. over your Stern, you will then be against the Middle of the Town of *Port Royal*: Then go on W. round the Point of *Port Royal* about a Cable's length off of the Fort, leaving it on the Starboard side, and anchor in the Harbour, where you will

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Sailing Directions for going from Port Royal for Eng the Gulph of Florida, and the Windward Paſſage



OUR best way in failing thro' the *Windward Paſſage*, is to get the W. part of the Coast of *Hispaniola* on board, as ſoon as you can, and for which the Rule is general, and known to all our *West-India* Sailors. There you will never miſs of a windward Current, the Stream always ſetting to the N. as it does in the *Gulph of Florida*, and in the Evening a Wind off Shore: But if you ſtand for *Cuba*, and cannot fetch within 7 or 8 Ls of *Cape Mayzo*, you will find a very ſtrong Current indeed, but will have little favour from the Wind; and when by theſe Directions you are come up with *Cape Mayzo*, having it W. off from you, your Courſe is N. half W. 37 Ls; which will bring you fair in with the W. end of the *Crooked Iſland*. Steering that Courſe you need not fear the *Hog-flies*, for you will paſs to the weſtward of them, at the diſtance of 10 to 12 Ls.

From the W. end of *Crooked Iſland* your Courſe is N. about 18 Ls. which will give you the length of *Crooked Iſland*; and from thence ſteer away N. and that will carry you to Sea, clear of all danger: But if you are bound to *Exuma*, you muſt direct your Courſe from the N. end of *Crooked Iſland* to *Rum-Key*; your Courſe thither is N.W. half N. diſt. about 30 Ls. From thence direct your Courſe for *Long Iſland*, which is W. a little ſoutherly, (a N.W. Courſe carries you clear of it :) About 6 Ls from the N.E. end of *Long Iſland*, to the Keys before the *Salt Pond* at *Exuma*, the Courſe is W. half S. the diſt. about 8 Ls. If you are bound from *Exuma* to *Providence*, you muſt make your way for the *Ship Channel*, which lies between *Cat Iſland* and *Illuthera*: Your Courſe from *Exuma* thither is N.N.W. diſt. 22 Ls; and ſo you may proceed to the N. weſtward along the *Iſland Illuthera*: But the neareſt Cut from the *Exuma* is over the *Grand Bahama Bank*; to go this way your Courſe is W.N.W. or rather N.W. by W. about 40 Ls, which will bring you to the Edge of the Bank. From hence you may paſs over the Bank in 2 and $2\frac{1}{2}$ Fa. and in ſome Holes you will find 3 Fa. You muſt keep a good look-out upon the Bank, for fear of the ſunken Shoals, which lie in ſome places very thick; they are eaſily ſeen before you come at them, the Water being very clear, and they ſleep too. In anchoring here in the Night chooſe a good ſandy Birth. The diſtance from one Edge to the other thwart the Bank is but about 10 Ls in that place.

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If you are bound to *Providence* from the Continent of *A-*
merica, your surest way is to make the Island of *Illutbera*,
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endeavouring to fall in with *Illutbera* in the Lat. of about
25 d. 25 m. N. which will bring you about 9 Ls from the W.
Point of *Illutbera*. The Land hereabouts is very remarkable
and easy to be known; it having two white Spots, Cliffs, or
Sand-hills on it, they being upon the highest Land, a large
Ship's length from each other; they are call'd the *North-West*
Blasters. Also 3 Ls N.W. by W. of them, along Shore, you
will see a Hill resembling a *Dutchman's* Thrum-Cap, with
broken Land near it, and a Cut or Gap as if there was a Pas-
sage thro', call'd the *Cow and Bull* (the Island is very narrow
here:) from thence steer N.W. by W. about 4 Ls, and you will
see an Island with several small Cays to the northward, it is call'd
Harbour Island, with a Passage in, at the S. end of it, for small
Vessels, having a fine clear sandy Bay, with curious green
Water. At the N. end of the aforesaid Cays there is a Ledge of
Rocks, lying about 2 Miles off, which by day-light is very
visible, and which you must be very careful to shun. From
thence your Course is W. and W. by S. about the Land 2 Ls.
Also you will find another Ledge of Rocks, which lies from the
Shore a large L, which also is visible: You may see these
Rocks under you in 15 Fa. if you borrow near to them.

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About 5 Miles from thence W.S.W. half S. lies another Ledge,
which is at least 5 Miles from the Shore: From thence your
Course to *Providence* is S.W. about 14 Ls. The Stream here
generally sets to Leeward. If you keep up S.W. by S. you can-
not well pass by it, without seeing the Houses on the Shore.
On a Hill near the Town stands the Church: You may plainly
see it 4 Ls off; stand in with it, within a Mile and half of the
Shore: Then you may see *Hog Island*, which makes the Har-
bour; bear down along by it, till you come close a-board the
W. Point: then luff in within a Cable's length of it, and you
will presently come into 4 Fa. Water: If it is with the Tide of
Ebb, you must anchor; if Flood, you may turn up, taking
care to shun a Riff of Sand, which comes away from the afore-
said *Hog Island*, and stretches clear up the Harbour above the
Castle, half a Mile: The Channel lies nearest the Castle, be-
ing about two Cables length broad. You may anchor above
the Castle in 3 Fa. at low Water, sandy Ground.

Sailing Directions from Jamaica to

If you are bound for *Providence*, thro' the Gulph, you must take care of *Berry Islands* to weather them; they lie from *Providence* N.N.W. dist. 18 Ls. From *Berry Island* to the *Babama Island* on the lesser Bank, the Course is N.W. by N. dist. 33 Ls, steering about 7 Ls to the eastward of the W. end of the grand Bank.

If you are at the W. end of *Grand Bahama* steer away N.W. about 8 or 9 Ls, then you may steer N.N.W. directly for the Island of *Providence*.

Some general Directions for sailing from Jamaica thro' the Gulph of Florida.

Note, That upon the Full and Change, the Current sets so strong to the northward between the *Leeward Islands* and *Jamaica*, that the Allowance of 5 per Cent. is but sufficient: From *Port Royal Harbour* to *Portland Point* the Course is S.W. about 10 Ls. Give this Point a Birth, and then steer to the W. end of the Island of *Jamaica*; your Course thither is about W. by N. 26 Ls. This W. end of *Jamaica* is pretty low Land.

Note also, That all along from *Port Royal* to *Point Negril*, within 4 Ls of the Shore, you have from 16 to 20 Fa. From hence direct your Course for the *Grand Camaines*, which lies from the W. Point of *Jamaica* W.N.W. about 46 or 47 Ls. The *Grand Camaines* is a large Island, low and smooth Land, with Trees on the top: The Shore is bold, there is good anchoring on the Bay on the N. side, as also at the W. end of the Island. E.N.E. about 20 Ls from the *Grand Camaines*, lies two other Islands, the one call'd *Little Camaines*, and the other, which is the westernmost, the *Camin Brack*. These Islands, as also the *Grand Camaines*, are much frequented by the People of *Jamaica* for catching Turtle, with which these Islands are well stored. From the *Grand Camaines* it is usual for Ships to direct their Course for the *Island of Pines*, endeavouring to fall something to the westward: in doing of which be sure to haul westerly enough, at least a Point of the Compass more westerly than the Charts lay it down, by reason of the Current that sets strong to the northward out of the Bay of *Honduras*, which if you should not take notice of will set you upon the *Jardains*, which are very dangerous Shoals and Rocks. From hence direct your Course for *Cape Corientes*, your Course thither being W. about 18 Ls. *Cape Corientes* is low smooth Land, with Trees on the top, as is all the W. end of *Cuba* on both sides, for many Ls to the windward, having not any notable Hill, Vallies, or Hummocks; and therefore 'tis very hard, if not impossible, to distinguish one part from the other. From *Cape Corientes* steer away W.N.W. about 15 Ls, which will carry you about 5 Ls to the westward of *Cape St. Anthony*, or as the *Spaniards* call'd it *St. Antonio*, and clear of the Shoal of *Cape Antonio* also. This Shoal runs along the Shore both to the southward and northward, but is

Sailing Directions from Jamaica to the Bay of Mexico, peachy, and the Gulph of Honduras, and to Porto

not very dangerous. This Cape may be known by two or three round large black Look-out Houles on the Shore-side, or near about it. From the aforelaid distance of 5 Ls to the westward of *Cape Anthony*, steer away N. or N. by E. And after you are come about 20 or 25 Ls from *Cape St. Anthony*, you may venture to stand away E. or E. by S. ranging along the *Cuba* Shore if you can, till you come the Height of the *Havana*; and be sure not to put over for the Gulph, till you are at least as far as the *Havana*. Then supposing you to be in an Offing of 10 or 15 Ls from the Shore, steer away N.E. by N. till you open the Gulph, and till the *Grand Babama* Bank bears from you due E. at the mean distance of about 12 to 15 Ls: Then go fair with the Gulph due N. or at most N. by E. in which Course you will be sure to have the Current under Foot to be your Guide, which sets right up the Gulph N. with great force. If you should offer to put for the Gulph sooner, you may be put to the westward of *Cape Florida*: And as the Winds generally blow there from the N. and N.E. you may find it very difficult to recover the Mouth of the Gulph.

For the Direction of all those who have Occasion to sail by the W. end of the *Ile of Cuba*, it is needful to inform them, that when they are a-breast of *Cape St. Anthony*, suppose at an Offing of 5 Ls, which it is ordinary to give the Cape, because of the Shoals upon the Coast of the Island along the W. end; when, I say, you are 4 to 5 Ls a-breast of the Cape, the Shoals call'd the *Colloredoes* lie about 15 Ls N.E. by N.

The *Colloredoes* are very dangerous Sands, which lie off in the Sea at that distance: Some of them are dry at low Water, and others lie in 2 and 3 Fa. yet you will see no Rippling or Breach of the Sea upon them.

Bring the first Hummock, or high Land on the W. end of *Cuba* a-breast of you, due E. or E. by S. and the low Land S.E. by E. and you may be sure you are clear of the *Colloredoes* to the eastward and N.eastward of them. Some have suggested that these Shoals thrust out a Tail of Sand, which runs all along the N. and N.W. side of *Cuba* as far as the Entrance into the *Havana*; but they have no Soundings upon them to shew it, or to direct where to find them: So that if it is so it must be close under Shore, where sometimes we find it flat; but we see no reason to think those Flats have any Communication with these Sands, which lie so far off.

If you are off of *Cape St. Anthony* in a N.E. Course, and apprehensive of coming upon the *Colloredoes*, keep your Lead going, for there is very good gradual Shoalings upon them, and you may easily perceive when you are near them; for you will find from 25 to 15 Fa. excellent sticking Ouzé; then to 12 Fa. clean Sand; and then stand no nearer W. but steer away E.N.E. as above, till you are clear of *Cape Bonavista*: Or if you would go without the *Colloredoes*, your Course is N.W. by W. from *St. Antonio*, till you are sure by your Latitude that you are to the westward of them, keeping your Lead also as long as you are in the Soundings of the Shoals.

Way of Mexico, and from thence to the Bay of Cambray, and to Porto Belo, and Cartagena exclusive.

be lure to haul westerly enough, at least a Point of the Compass more westerly than the Charts lay it down, by reason of the Current that sets strong to the northward out of the Bay of *Honduras*, which if you should not take notice of will set you upon the *Jardains*, which are very dangerous Shoals and Rocks. From hence direct your Course for *Cape Corientes*, your Course thither being W. about 18 Ls. *Cape Corientes* is low smooth Land, with Trees on the top, as is all the W. end of *Cuba* on both sides, for many Ls to the windward, having not any notable Hill, Vallies, or Hummocks; and therefore 'tis very hard, if not impossible, to distinguish one part from the other. From *Cape Corientes* steer away W.N.W. about 15 Ls, which will carry you about 5 Ls to the westward of *Cape St. Anthony*, or as the *Spaniards* call'd it *St. Antonio*, and clear of the Shoal of *Cape Antonio* also. This Shoal runs along the Shore both to the southward and northward, but is

Sailing Directions from Jamaica to the Bay of Mexico, and the Gulph of Honduras, and



FROM *Cape Florida* to *la Vera Cruz*, and the Island of *St. John d'Ulva*, we have little Navigation along the Shore, and consequently no Survey of the Coast, but shall give the best Account of it we can.

The Commerce that way seems to be cut off by the Agreement of the Nations inhabiting the Coast; there being no Communication between the Nations of *Europe* and the People of these Countries.

The Navigation to the *Gulph of Mexico*, and the Shores S. of that Gulph, is either by the *Spaniards* from *Europe*, and carried on by the way of the *Havana* and the W. Point of *Cuba*, or by the *English* from *Jamaica*: Both are much the same, seeing the *English* from *Jamaica* must pass in sight of *Corientes* on the W. end of *Cuba*, in their Passage to *la Vera Cruz*, and the *Spaniards* must come from the next Cape, that is, *St. Antonio* S. which is much the same.

Being bound from *Jamaica* to *la Vera Cruz*, take the former Direction as far as *Cape Corientes*, as if you were sailing to the *Gulph of Florida*: But as soon as you make *Cape Corientes*, or at least are a breast of the Cape; go away W. by S. for *Cape Catoche*, which is the first Land you make on the Continent, being the N.E. Point of *Yucatan*, dist. 44 Ls. Between these two Capes the Current sets always strong to the E. especially upon the Full and Change of the Moon; and this is the Reason of directing you to keep so much to the northward.

When you are shot over to the Bank of *Cape Catoche*, you will have gradual Soundings home to the Shore all along the Bank, so that you may Coast it in 5 Fa. or haul off, and then proceed in 7 to 8 Fa. or more. The ordinary Course is to keep off, and go along the Bank in 14 Fa. keeping that depth till you come to *Cape Condecedo*, which is from *Cape Catoche*

of the Compaſs into the *Marana*; but they have no Soundings upon them to ſhew it, or to direct where to find them: So that if it is ſo it muſt be cloſe under Shore, where ſometimes we find it flat; but we ſee no reaſon to think thoſe Flats have any Communication with theſe Sands, which lie ſo far off.

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to the Bay of Mexico, and from thence to the Bay of Cambronduras, and to Porto Belo, and Cartagena excluſive.

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90 Ls. You muſt be ſure not to go without 14 Fa. for in 17 Fa. you will be in danger of the Rocks call'd the *Aleranes* where you have the very depth of 17 to 18 Fa. at one Caſt, and before you can heave again run faſt on Shore.

There are other Shoals call'd the *Sifals*, which lie nearer the Shore: if you would avoid them in this Courſe, either keep in 7 Fa. which carries you within them, as before, or in 12 to 14 Fa. which carries you clear without them, and fairly within the *Aleranes* alſo.

Thus if you exceed 7 Fa. you fall on the *Sifals* in 9 Fa. If you exceed 17 Fa. you fall on the *Aleranes*; and if you exceed 19 Fa. you fall immediately into 25 Fa. and ſo will run upon the *Triangles*; for you will have from 19 Fa. at one Caſt to 25 Fa. and at the next Caſt be a-ſhore upon the *Triangles*, or the *Aleranes*, for there is no leſs depth cloſe to them.

From *Cape Catoche* to *Cape Condecedo* 'tis all low Land, and the Coaſt lies ſo on to *Trieſt*; 'tis ſo low, that you can but juſt ſee it in 5 Fa.

From *Trieſt* to *la Vera Cruz* your Courſe is S.W. by W. half W. the diſtance 106 Ls: So that from *Cape Catoche* to *Vera Cruz* is almoſt 200 Ls. This laſt ſtretch is croſs the great Bay of *Campeachy*. This Courſe brings you to a ſignificant very high Mountain call'd *St. Martin*, which may be ſeen 10 Ls off at Sea. Off from under this high Pico, or Hill, is a ſmall Iſland call'd *Partido*. Hence ſteer N.W. by W. to go without the *Cabeſtes*: if it be by night, come no nearer than 35 to 37 Fa. for in 32 Fa. to 33, you will feel the Current ſetting furioſly on upon them within a L of them.

From hence to the Entrance into *Vera Cruz*, the Courſe is S.W. by S. and S.W. to the Iſle of *Branco*: Keep the Iſland on your Starboard-ſide, and with the ſame Courſe run in for the

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Main, where you will find about 7 Fa. Then you will see *St. John d'Ulua*, dist. about 3 Miles and half, and may have a Pilot for the Place. But to go directly to *Vera Cruz*, leave all those Shoals which lie E. of *St. John*, on your Larboard-side; and keeping in 17 Fa. at least, luff round the *Gallego Sand*, and go on that way to the Road, where you may moor your Ship under the Castle Wall in 5 Fa. good Ground.

N. B. *Vera Cruz* is in Lat. 19 d. 30 m.

N. B. Here the Current sets very violently to the N. as high as Lat. 27 d. along Shore; and then rounding the Bay, runs to the eastward to the *Gulph of Florida*, as is said above.

Cape Catoche on the S. and *Cape Florida* on the N. make the *Gulph of Mexico*: The first lies in Lat. 21 d. 15 m. and the latter in 24 d. 45 m.

We have already directed the Course from this Cape to *Vera Cruz* in the Gulph; but 'tis necessary to take some notice of the Coast of the Continent also.

Just opposite to *Cape Catoche* E.N.E. dist. 3 Ls, lies a small Island called by our Sailors *Loggerheads Key*; for Key, or Cay, in these Parts of the World signifies ordinarily an Island, or Rock above Water, as we have often observ'd, as *Pulo*, or *Poulo*, does on the Coast of *Siam* and *China*. Our Seamen, 'tis supposed, call it so, because of a kind of Tortoises, or Turtle, they usually kill there, which they call *Loggerhead Turtles*; what the *Spaniards* call it we know not.

The Cape it self also is in an Island, a small Channel running between it, and the Main; you may pass freely thro' the Channel between *Loggerhead Island* and the Cape, but not in that between the Point and the Main. The Cape it self is low, but rises as you look farther up the Country: 'Tis cover'd with Trees of several sorts, but especially Logwood Trees; tho' those nearest the Sea are cut down, and the Logwood has been carry'd off by the *English* Logwood Cutters many years ago.

From *Cape Catoche* the Course is nearest due W. along the N. Coast of *Yucatan* to *Cape Condecedo*, dist. 80 Ls, according to some, 90 Ls according to others. The Shore is very plain and level, without any high mountainous Lands, or any Bays or Capes considerable.

The first place of note W. of the Cape is called the *Mount*, dist. 14 Ls: and 'tis the more remarkable, because, as I have said, there is no other high Land thereabouts; and this Mount is not a natural, but an artificial Hill; for what purpose, or by whom made, is not our business.

Here are also large Cisterns for holding Rain Water, for there are no Springs, nor any fresh Water to be had; but as there are no People there now, those Cisterns are of no use.

Here Ships come to lade, not Salt but the Earth, which they carry away, and make Salt out of it, and Gunpowder; so that it should seem to be a kind of Salt-Petre.

Upon all this Coast you see several small Spots of Mangrove Trees, which look like Islands, and you must be cautious that you are not deceiv'd, and take them for Islands: for when you come nearer, you will discover it to be all joined to the Continent.

Reflections from Jamaica to Cartagena.

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Look-out to Cape *Condecedo* is about 8 Ls ; and due N. from the Cape, dist. 20 Ls off at Sea, lie the Islands called *Iles des Arenas*, of which I have taken notice in the sailing Course from *Jamaica* to *Vera Cruz*. The Coast is all a sandy Strand, with some *Mangrove* Land, and some *Savanna's*, (that is open Plains, or Grass Ground.) The Country within they tell us is inhabited, but upon the Coast there are few People, and none that continue there.

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The Sea deepens here gradually from the Shore, and Ships may anchor in good sandy Ground in any Depth from 7 or 8 Foot to 10 or 12 Fa. Nay, in some places on this Coast, the Seamen calculate their Distance from the Shore by the depth of Water they are in, and so measure the Offing by the Lead, allowing 4 Fa. for the first L, and for every Fa. afterward a L more: So that if they had 10 Fa. Water, they must be 13 Ls from the Shore, that is, 4 Fa. for 1 L, and 9 Fa. for 9 Ls more.

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This Cape *Condecedo* is the easternmost Point of the great Bay of *Campeachy*, a Place render'd famous by the many Adventures of the most desperate sort of People in the World, namely, the *West India* Privateers, Buccaneers, or Free-booters ; who for many Ages made this Place their Rendezvous, on pretence of cutting Logwood.

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The Bay of *Campeachy* is a deep Gulph of the Sea, bearing in upon the Land, in some places more, in some less, full of Inlets, Lagunas, Rivers, and some of them large and navigable, with several Islands, Harbours, and good Roads, with Shelter for Shipping of any size. The Extent of the Bay is from Cape *Condecedo* E. to a Point which shoots out from the Highland of *St. Martins* W. dist. from the two Points 120 Ls.

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To take it in pieces a little, from Cape *Condecedo* to the *Salinas* is 15 Ls, the Course due S. bearing into the hollow of the Bay : 'tis all a hard fair Strand, and all the Ground within is dry Sand ; yet even here, digging in the Sand a little above high Water Mark, you may always find good fresh Water, if you dig not above 4 to 5 Foot.

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The *Salinas* is a very good Harbour for small Vessels, such as use the Salt-Trade ; but there is not above 6 to 7 Foot Water in it. The Salt-ponds lie close to the Water Edge within the very Harbour, and yield abundance of Salt.

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From the *Salinas* to the Town of *Campeachy* the Course is S. by W. dist. about 20 Ls. The first 4 Ls upon the Coast is drowned *Mangrove* Land. 14 Ls from the *Salinas* towards *Campeachy*, is a Hill called *Hina*, under the Lee of which the Buccaneers usually come to an Anchor.

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About 26 Ls N. from *Hina*, and 30 from *Campeachy*, lies off in the Sea a certain Cluster of Islands mentioned before, called the *Triangles*, from their Situation. There is nothing to be said of them, but that *there they are* ; which when the Sailor knows, 'tis his business to keep off of them.

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From *Hina* to *Campeachy* is 6 Ls W. 'tis a tolerable large City, and a good Port, and the only Town of note to be seen on the Coast from Cape *Catoche* to *Vera Cruz*, at least that lies open to the Sea. There is a Fort which commands the Entrance of the Harbour ; and they that would go in, must

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Midway between Cape *Catoche* and Cape *Condecedo* is *Rio de la Gartos*; it is to be known by two Groves of high Mangrove Trees, one on each side: the River is only navigable for small Boats, Canoes, and such like; the chief benefit of it is, that the Water is fresh, which is all the fresh Water you meet with from the Cape to within 3 or 4 Ls of *Campeachy*, which is above 120 Ls: so that it is no wonder the Country is desolate and without People.

There were formerly some *Spanish* Fishermen here, who had small Huts on the Coast, and were serviceable on occasion to Ships in Distress: But since the Free-boaters and Logwood-Cutters have frequented this Coast, they have so often used these Fishermen cruelly, and carry'd them away too, that they have almost forsaken the Coast, and those few left are very shy of *Europeans*.

W. from *Rio de Gartos* there is a Look-out, it is a high Building, somewhat like those mention'd so often on the Coast of *Old Spain* in the *Mediterranean*, called *Fire-Towers*: it was built by the *Spaniards* for their Slaves or *Indians* to watch in for Ships coming upon the Coast. Some of them, as this in particular, are built of Timber from the Ground; others are like Summer-houses, or great Cages up in high Trees, big enough for a Man or two to sit down in, and with a Ladder to go up; which Ladder they pull up to them when they are lodg'd. There are abundance of them upon this Coast. This is called *Selan*; and there is another of the same, but built up in a Tree about 3 to 4 Ls farther, called *Linchanbee*, from an *Indian* Town of that Name 4 Ls within the Country.

The Coast from *Selan* to *Linchanbee* is full of little Salt-ponds, the biggest not above 10 Yards long, and 6 Yards broad, very regular: and many Ships come hither to load Salt, as above. From hence due W. about 4 Ls is another Look-out called *Sisal*, the highest on all the Coast, which is a good Seemark, and makes at a distance like a Ship's Sail. From this

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From *Hina* to *Campeachy* is 6 Ls W. 'tis a tolerable large City, and a good Port, and the only Town of note to be seen on the Coast from *Cape Catoche* to *Vera Cruz*, at least that lies open to the Sea. There is a Fort which commands the Entrance of the Harbour; and they that would go in, must come close under the Guns.

From *Campeachy* the Course is nearest due S. dist. about 10 to 12 Ls to *Champetan*, a famous Port formerly for Logwood Cutting, but now worn out: and from *Champetan* S.S.W. or S.W. by S. dist. 18 Ls, lies the Harbour of *Port Royal*. In the Midway between is a River, in the Mouth of which is a small Harbour called *Bocca de Eschondido*, or the opening of the River *Eschondido*.

Port Royal is the Entrance into a great Salt Lake, which is one of those called the *Lagunas*: the Lake is 9 to 10 Ls long, and 3 or 4 wide, having two Mouths one at each end. This Entrance of *Port Royal* has a Bar thwart it, on which there is not above 9 to 10 Foot Water: The Entrance is about a Mile over, and 2 miles long; and when you are in, there is Water enough, and several good Bays and Anchoring-places, where Ships ride very secure, and have very good Landing and Loading.

Ships generally anchor on the Weather side of the Entrance, that is, on the E. side next to *Champetan*: and this is done for Convenience, to ride by certain Wharfs made by the Logwood Cutters for Loading, but chiefly to be out of the Stream of the *Tide*, which runs very strong both in and out in the Mouth of the *Laguna*.

From this part the Land trends away W. and holds it so, near 70 Ls farther, to the Coast of *Guaxaca*. On the W. side of the Harbour is a low swampy Island, called by the Seamen *Port Royal Island*; it makes one side of the Passage in, as the main Land does the other. This Island which is distinct from the other, is about two Miles wide and three Ls long, running due E. and W.

On the W. side of this *Port Royal Island* is another small low Island, called *Trust*, parted from the other by a small Creek, scarce broad enough for a Canoe to paddle thro': This Island is reckon'd about 3 miles wide, and at least 4 Ls long, stretch-

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Sailing Directions from Jamaica to

ing E. and W. over-grown with low bushy Wood, and some very high Palmetto Trees. At the W. end of the Island you will find good fresh Water, if you dig but 5 to 6 Foot deep in the Salt Sand on the Sea Shore; if you dig less than 5 Foot, the Water is brackish and salt; and if you dig above 6 Foot, it is salt again.

This Island was well peopled with *English*, when the *New England* Ships used to come for Logwood: The large Ships which drew 16 to 17 Foot Water, usually rode close to the Shore in the Channels of *Triest*; and in 6 to 7 Foot Water, smaller Vessels would run up to *One-Bush Key*, which was 3 Ls farther in.

There is another Entrance into this *Lagune*, which is between *Triest* and *Bees Island*, in the Place called *One-Bush Key*: This 2d Entrance is about 3 Miles wide, it is shoal without, and has only two Channels to come in at; the deepest has not above 2 Fa. Water, no not on a Spring Tide; the W. Channel has about 10 Foot Water; and pretty near *Beef Island* you may run in with the Sea Breeze, but you must keep your Lead going all the way. Being shot in from the Point of *Beef Island*, you will find 3 Fa. then you may stand over towards *Triest*, till you come near the Shore, and then anchor as you please: Any where between the Island and the Point you have good Ground; the only Inconvenience is, that the Tide runs very hard in.

This is the reason why the *Spaniards* call this Lake the *Laguna Termina*, or the Lake of Tides, for the Indraught is very sharp. There is a kind of a *Vare*, or Thorowfare here; and small Vessels go in at one end and out at the other: but this is not often.

There are several Creeks and Rivers. and small Inlets of Water in this Bay, besides those mentioned here, which small Vessels run into and out of at pleasure; of which one of the most considerable is the River *Summasenta*; it comes in on the E. side of the *Laguna*, as you come in at *Port Royal*: This River, tho' small, is large enough for good Periaguas and Shallops to enter; the opening is on the S. side, near the middle of the *Laguna*: it was named from an *Indian* Village at the Mouth of it; but the Village is lost since that, as was another near it called *Chuquebul*, 7 to 8 Ls up the Fresh; and all the Land on both sides yields a vast quantity of Logwood.

Crossing the great *Laguna*, you come to *One-Bush Key*, as 'tis called, tho' it signify only *One-Bush Island*; and 'tis called *One Bush*, for having one Tree with a large bushy Head growing upon it.

The Island, or Key, is not above 40 to 50 Paces long, and about 5 or 6 Yards broad; so that 'tis a very little place; yet 'tis a good Road or Harbour for small Vessels. The Island seems only a great Heap or Shelf of Shells driven together by the Current, and beaten up by the Storms to lie above high Water Mark; it is about a Mile from the Shore. Opposite to the Island opens a Creek, which looks like a River, but is only a Channel out of this Lake, into another very great one; on the Shores of the other *Laguna* the Logwood is cut, and the Boats tow it thro' this Channel to the Ships riding at

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the River, and there is good anchoring in several of the Reaches as you go up, in 3 to 5 Fa. 6 or 8 Ls from the Sea. In the rainy Seasons the Freshes are so strong in this River, that they not only check the Tide of Flood, but you may take up fresh Water a good way without the Bar. The Town of *Villa de Mose* lies on the Bank of this River, and small Barks come to it. There are several other Towns up the River, but no Navigation except for Sloops and *Periaguas*. This is the *Cocao* Country, and here they ship great Quantities every year for *Old Spain*; which brings abundance of Sloops and Barks to the Coast.

The Coast continuing E. and W. the next Place of note is the River *Chikapeque*: the Course from *Tabasco* is due W 7 Ls: the Shore is a clean Strand, the Land low, and over-grown with very high Trees: Here are several good Roads, the Coast all clear, and good Shoalings; you may ride in any depth to 10 or 12 Fa. The Mouth of the River is narrow, not above 20 yards over, it has about 8 to 9 Foot Water on the Bar, but within there is 2 Fa. and more: 'tis a very good Harbour for Barks and Coasters, which generally ride for half a Mile by the Shore within the Bar.

5 Ls from this River, the Course still W. comes in the River *Palmas*; and from *Palmas* 2 Ls farther lies the Point called *Halover*, or *Haul-over*, a Name given by our Seamen, because here they usually haul'd their Canoes over, out of the Sea into a *Lagune* behind, from whence they went a plundering the *Spaniards* up the Country.

That *Lagune* opens into the Sea farther W. at *St. Annes*, dist. 7 Ls from *Halover*; there they have a convenient place to careen their Ketches, and small Barks, and where our People often run in for that purpose.

From hence to *Tondelo* is 5 Ls, due W. the Shore is all this way the same as before, a clean Strand, and the Land woody and low, so that you cannot make the Coast from the Sea at above 4 or 5 Ls Offing.

This River *Tondelo* is navigable for Barks and Ketches of 50 to 60 Ton, tho there is a Bar at the Entrance; but the Channel is deep and crooked, and full of short Reaches, so that there are several good Anchoring-places under the Points.

At the Entrance there is a Spit of Sand runs out from the W Point, to avoid which you must go in under the E. Point; but when past the Bar, you have a fair Channel for 3 to 4 Ls, and large *Periaguas* go up many Ls farther.

From *Tondelo* to *Guasickwalp* the Course is still due W. dist. 8 Ls. This is a considerable River, and of the longest Course of any on this Coast; yet 'tis not so broad as the *Tabasco*, tho the Channel is deeper: There is 14 Foot Water upon the Bar, nor is the Sea upon the Bar so dangerous as at the River of *Tabasco*. When you are in, the River is navigable for the largest Ships; and there are very good Anchoring-places in soft Ground, and with 5 to 8 Fa. Water: but as this River has been too much the Retreat of the Rovers and Buccaneers, the Navigation is less used in the ordinary way of Trade.

N. B. 'Tis suggested that this River is navigable so far within Land, and has its Sources so near the *South Sea*, that a small Expence would open a Passage thro' and join the

Shallops to enter; the opening is on the S. side, near the middle of the *Laguna*: it was named from an *Indian* Village at the Mouth of it; but the Village is lost since that, as was another near it called *Chunquebul*, 7 to 8 Ls up the Fresh; and all the Land on both sides yields a vast quantity of Logwood.

Crossing the great *Laguna*, you come to *One-Bush Key*, as 'tis called, tho it signify only *One-Bush Island*; and 'tis called *One Bush*, for having one Tree with a large bushy Head growing upon it.

The Island, or Key, is not above 40 to 50 Paces long, and about 5 or 6 Yards broad; so that 'tis a very little place; yet 'tis a good Road or Harbour for small Vessels. The Island seems only a great Heap or Shelf of Shells driven together by the Current, and beaten up by the Storms to lie above high Water Mark; it is about a Mile from the Shore. Opposite to the Island opens a Creek, which looks like a River, but is only a Channel out of this Lake, into another very great one; on the Shores of the other *Laguna* the Logwood is cut, and the Boats tow it thro' this Channel to the Ships riding at the Island, where they have 2 Fa. Water, but in the upper *Laguna* it is deeper.

W. of *Triest* is *Beef Island*, named so from the great number of wild Cows and other black Cattle, usually found there: 'Tis about 7 Ls long, and 3 to 4 broad: 'Tis of no other note, except for a fine sandy Bay, where Ships ride in 7 to 8 Fa. well shelter'd.

W. from *Beef Island*, the River *St. Peter* and *Paul* comes down to the Sea; the eastward opening of which River washes the W. end of *Beef Island*; the other Branch falls into another River called the *Tabasco*, which comes in farther W. and that Arm of the River *Peter* and *Paul* joyning it, makes the Land without be an Island also, stretching W. from *Beef Island*, and called the Island of *Tabasco*. There is a Bar at the Mouth of the E. Branch of *St. Peter* and *Paul* River; but small Ships go over it with the Tides of Flood, and within you have 2 $\frac{1}{2}$ to 3 Fa. and very good Riding.

The Island of *Tabasco* is about 12 Ls in length N. and S. and about 4 broad E. and W. at the N. end. The W. part of the Coast is a fair Strand, with good Soundings, and a hard fine Sand quite to the River *Tabasco*, which makes the W. side of the Island: But here goes a great Sea up this Shore, because of the Trade-Winds from the N.E. and E.N.E. pouring in the Current from the Entrance of the Bay between Cape *Catoche* and Cape *St. Antonio*; that is, between the N. Point of *Tucatan*, and the S.W. Point of *Cubi*, directly upon this Shore: This Surge of the Sea causes the Landing here to be very dangerous, so that the Boats are oblig'd to go farther W. to the Mouth of the River; and even there the Sea goes very high upon the Bar, when the Ebb and the Wind meet together.

The Mouth of the *Tabasco* is about 2 Miles broad, and there is not above 2 Fa. on the Bar at low Water, and about 3 $\frac{1}{2}$ at high Water; 'tis the largest River on all this Coast of the Gulph, but of small use for want of People: The Tide flows up 4 Ls into

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N. B. 'Tis suggested that this River is navigable so far within Land, and has its Sources so near the *South Sea*, that a small Expence would open a Passage thro' and join the Commerce of the two Oceans : For the Sources of the River *Teguantepeque*, which falls into the *South-Sea*, are in the same Mountain, and not above 2 Ls from those of this River ; and their Waters might easily be join'd, by cutting a Canal round the sides of the Hill, upon a level with both Currents.

N. B. The *Spaniards* often send the naval Stores and heavy Goods for the *Manilla* Ships, by Water-Carriage up this River, and down the other, carrying them only by Land about 10 or 12 Ls between ; the Rivers not being suppos'd to be navigable, without some help, quite up to their Sources.

For about 2 Ls beyond the Mouth of this River the Coast continues to lie E. and W. but then trends away N. for about 16 Ls to the Country call'd *St. Martin's Land*, which is a high Mountain shooting out in a large Promontory, and ending in a great *Bluff Point*, answering to the *Cape Condecedo* in *Yucatan* : So those two Boundaries make the Bay of *Campeachy*, so famed in the marine part of the World for the Adventures of the Freebooters, Buccaneers, and Logwood-Cutters.

From hence it is 20 Ls to *Cape Alvarado*, the Course W. by S. the Land high and rocky, and the Shore foul, with so great a Sea pouring in always upon it, that there is no landing upon it. *Cape Alvarado* is the E. Point of a River of the same Name, the Mouth of which is about a Mile wide, but the Water shoal, by reason of the vast Quantity of Sand thrown up by the Sea, sufficient to choak up the greatest River : These Sands lie for above 2 Miles off the Shore, yet there are two Channels kept open thro' those Sands, especially in the Winter, by the violent Current of the Freshes from the Mountains. In the best of these, which is the westermost, there is 12 to 14 Foot Water.

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The Land on each Point is so rais'd by the Sand driven up by the Sea, that 'tis said the Sand-hills are above 200 Foot high; the like I suppose is not to be seen in any part of the known World. On the W. Shore, just against the Mouth of this River, the Spaniards have a Fort of 6 Guns, on the Declivity of one of the Sand-hills.

At 6 Ls due W. from *Alvarado* there is another large Opening into the Sea, like the Mouth of a great River; but it seems it is a Branch of the same River, and they tell us that Vessels pass in at one River, or at one Mouth of a River, and out at the other. These Openings are very convenient for the Navigation; for upon the Shore, all along from *Point St. Martin* hither, there is so violent a Surge of the Sea, that it is impossible to land with any Boats, Canoes or Periaguas.

As the distance from *Alvarado* to this last Opening is but 6 Ls, upon a just Measurement, and that it is the same distance from this Opening to *la Vera Cruz*, 'tis strange that all our Draughts and Pilot-Books should call it 24 Ls; which is certainly wrong, and for which I have the Authority of several good Authors.

I have therefore set down the distance between *Rio de Alvarado* and *Vera Cruz* at 12 Ls, as I find it in *Dampier*, and others, who were thorowly acquainted with those Seas.

La Vera Cruz, by this Situation, is rightly placed at the S.W. Corner, or Bight rather, of the *Bay of Mexico*, at the very Bottom of the Bay: And 'tis apparently so, because from the very Nook where this Port stands, the Coast which lay E. and W. before, goes away due N. again, and holds it so from this Port, which is in Lat. 19 d. 15 m. or thereabouts, to *Cape Roxa*, in Lat. 23 d. 5 m. almost 250 Miles.

There is a very good Harbour, with several small Castles before this Town, and a royal Fort; the latter they call *St. John de Ulua*, and the Spaniards call the Town sometimes by the same Name: it is now the grand delivering Port to the City of *Mexico*. From hence to *Old Vera Cruz* is 5 Ls, the Course N.W. This was the first Sea-Port for *Mexico*; but there wanting a Harbour, the Spaniards remov'd to *St. John de Ulua*, and afterwards the Town was removed also.

Next to *la Vera Cruz*, lies the *Rio Sempel*; then follows *Punta de Villa Rica*, off of which lies a Ledge of Rocks call'd *Sacrificia*: Then follows *Torro Blanco Tulate* and *Chano Almaria*; these all lie in Lat. 20 d. 20 m.

Here the Land is low and slight: you will find, when having 6 Fa. hard Clay Ground, and nearer in, at 4 Fa. shelly

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FROM Cape *Roxa* the Shore trends in N.W. until you come to the River *Panuco*, where the Land gives a Turn, and lies along N. The first River to the northward of *Panuco*, is *St. Bartholomew*, which is but a small River, and little spoken of: Then

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Ground; if you should chance to fall with *Torro Blanco*, you will see a Row of Hills reaching S.W. into the Country, which likewise is call'd by the same Name. These Hills reach along to the snowy Mountains N.E. and to the southward of these lie others, which in Appearance seem like Hay Cocks: But towards *Villa Rica* the Land and Hills are not very high. The Coast here is all full of Points and broken Land; and there is no good Harbours for a great way, till you come almost to *Porto St. Pedros Pablo*.

The City *St. Pedros Pablo* lies in Lat. 11 d. and if you come hereabouts, and are open with the River, you may then see the Land of *Tuspa*, the Coast of which is very good, having several Bays, and all sandy. A little to the northward of the River are two small Bays, the northermost is the biggest; where in 60 Fa. you will have hard Clay Ground; and when in 40 Fa. you will have Gravel. The River is wide and large, having in the middle of the Channel an Island call'd *St. Paulus*: Next to which, farther N. lie several other Islands, the chief of them are about Cape *Roxo*, and are the Island *Lobos*, and *Baxo Tuspa*, that is, the Island of *Wolves*, and the Shoals of *Tuspa*.

If you are coming from the Sea, and you fall with this Island, which lies before Cape *Roxo*, and is round about foul and dangerous, run in behind the Island, there is a good Road: This Island is low, and full of Palm Trees, affording likewise good fresh Water: And within it lies a Shoal like the Bottom of a Boat, behind which is good riding, that is, between the said Shoal and the Cape.

If you would sail from thence to *Ville Ricke*, you must go to the eastward of *Baxo de Tuspa*; and if you come not above it, you may run thro' between the Main and the aforesaid Shoal, in 8 or 9 Fa. You may also make good Road there if Occasion serve.

The River *Tuspa* may be known off at Sea by a Row of small Hills reaching N.E. and S.W. at least 15 or 16 Ls into the Country. About 5 Ls off Shore you will find Clay Ground; and on the N. side of the Island *de Lobos* N.W. by N. is another great River call'd *Panuco*, in the middle of which lies an Island which makes two Entrances or Channels in: The southermost is call'd *St. Stephen*, and the northermost *Hermosa*, that is, *Beautiful*, &c.

Now we come to the wild Coast of *Florida*, of which you can have but a brief Account.

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7 Arms or Rivers, which reaching a long way into the Country, vent themselves into the Bay.

The E. Point of the Bay is called Cape *Qualata*; from whence the Coast to Cape *Escondido* lies along E. about 90 Ls in length; the whole Coast almost full of small Islands

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FROM Cape *Roxo* the Shore trends in N.W. until you come to the River *Panuco*, where the Land gives a Turn, and lies along N. The first River to the northward of *Panuco*, is *St. Bartholomew*, which is but a small River, and little spoken of: Then you come to the River *Palmas*, and *Piscadores*, the Coast all along between, is call'd by the same Name as this River, because there is abundance of Fish on that Coast, and the Fishermen from Cape *Roxo* ply it continually with their Boats.

The next River to the Northward of *Piscadores*, is the River *Brava*, then the River *Solo*; betwixt which and the River *Discondido*, the Land trends off to Cape *Blanco* N.E. and from Cape *Blanco* it falls away again to the River *Magdalena* N.W. This is the largest River of all those to the Northward of the *Panuco*. From *Magdalena* to the River *Plata* the Coast lies along N.N.E. nearest; and they are about 25 Ls dist. one from the other.

The next River is called *Suela*, from whence the Coast of *Baxo* trends away N.E. and N.E. by E. till you come to the River *Laofa*; between which and *Suela* are two other small Rivers, tho there is no Description or mention made of them in any other *Spanish* Charts; we may therefore suppose them to be Places of no great Consequence. From the River *Laofa* eastward lie the Rivers *Monatanbas* and *de Zerto*; from which the Coast, till you come to the great Bay of *Spirito Santo*, lies along due E. Cape *Cruz* making the W. Point of it.

This is a deep and large Bay, having in the middle of the Entrance of it an Island, by which you may sail in on either side: The Bay within spreads it self very wide, having 6 or

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Now we come to the wild Coast of *Florida*, of which you can have but a brief Account.

Directions for the South Coast of Florida.

7 Arms or Rivers, which reaching a long way into the Country, vent themselves into the Bay.

The E. Point of the Bay is called Cape *Qualata*; from whence the Coast to Cape *Escondido* lies along E. about 90 Ls in length; the whole Coast almost full of small Islands and a sandy Bank reaching along the same, which makes a flat Shore, so that you must not come near it with a great Ship by six or eight Ls, except in certain Channels, which are not easy to find.

There are likewise several small Rivers on the Coasts as you are coming out of the Bay from the Westward: The first is called *Matos de Salvador*, betwixt which and the River *del Canaveral* lies another small River, but the Name we know not: Then follow the Rivers *Arecifa*, *Plaia*, *Flores*, and *Arenas*, all pretty large but not deep, and barr'd up at the Entrance, so as not to be navigable far in. Before all which Rivers, as aforesaid, lie several Islands, yet not dangerous. This is a good Coast, especially in Northerly Storms, where in the Mouths of any of these Rivers, or behind any of these Islands, you may lie shelter'd in those Winds.

From Cape *Escondido* towards Cape *Florida*, the Coast is full of Bays and Inlets, with several small Rivers, viz. *Rio St. Paulo*, *Rio Cavallos*, the Bay of *Mirvello*, and *Spirito Sancto*, into which flows the great River *Mississippi*, at several large Mouths or Openings: and on the Shore of the Eastermost lies the Spanish Town of *Pensacola*; but we have no accurate Description, much less any Pilorage into those Openings, or for any part of that Coast, which is a deep Bay and very difficult; from thence the Coast reaches again S. with many Bays and Creeks, till you come to Cape *Florida*.

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Sailing Directions for the Coast of Honduras, from
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FROM the E. Point of the main Land of *Yucatan*, where we begin the last Course, the Land trends away S. and S. by E. to the Island of *Cozumel*: The distance is disputed here, as is that of *Vera Cruz* and *Alvarado*, between Map-measurement and Experience: The former, places them about 25 Ls asunder, and the latter 40: Whence the difference arises I shall not dispute, and indeed cannot determine.

Between these, and 10 Ls S. from *Cape Catoche*, lie the Isles *Mugeris*, or *Womens*, or *Men Eaters Islands*. On the S. part of which on the Land side, is good anchoring in 7 to 8 Fa. clean Ground. The Island *Cozumel* lies parallel with the Shore, N. and S. dist. from the main about 1 $\frac{1}{2}$ L, about 15 Ls in length, and about 4 to 5 in breadth, but narrower at either End. From the N. end of the Island runs out a great Riff of Sand above 7 Ls long, and 4 broad: if you would put in at this Island, coming from the N. you must steer from the *Men Eaters Island* S.E. by S. till you come the height of *Cozumel* it self, giving that great Shoal a large Offing of at least 8 or 10 Ls; and then you may stand right in for the Island. There are several little Bays on the E. shore of *Cozumel*, where you may ride secure from westerly and northerly Winds.

From hence the Shore falls off W. and the Coast goes away S.W. into the Bay of the *Honduras*. The Coast is all along flat and low, cover'd with Islands at a small distance from the Shore, so that there seems to be no coming into the true Shore of the Main; and if you make the Coast right off at Sea, you must not venture in with the Shore, for fear of being deceived by the lowness of the Land. This flatness of the Shore reaches from the Island of *Cozumel* N. to the *Morro-dos Diabolos*, a Set of Hills call'd so by the *Spaniards* from the *Buccaners*, who used to land here for Provisions, and whom they look'd upon as Devils for their cruelty, and therefore call'd them the *plundering Devils*, and the Hills so, from their harbouring in them.

You may pass between the Islands *Mugeris* and *Cozumel* and the Main in a good Channel, having 5 to 7 Fa. but keep your Lead going, for there are Shoals on both sides; but the *Fair Way*, which is Mid-Channel, is safe and good.

As there is little Commerce on this E. Coast of the *Honduras*, so the Harbours are not considerable till you come past the Coast of *Yucatan*.

The S.E. Coast of the great Peninsula of *Yucatan* makes the N.W. Coast of the *Bay of Honduras*: The opposite Shore of the Gulph is form'd by the N. side of the Country of *Honduras* it self, and bounded due N. by two Capes one behind another, tho at a large distance, *viz.* *Cape Honduras* and *Cape Cameron*, the one the N.W. Point of the other Peninsula call'd the *Honduras*, and the other the N.E. Point.

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In the Offing of the Bay of *Trivigillo* lies the *Ile de Pinas*, and within, a little to the southward, the Bay it self: it is a fair spacious Bay, and has several small Islands in the Mouth of it, which makes it good anchoring in the Bay it self, those Islands breaking off the Sea. The Bay is deep clean Ground, and in it there are several Creeks for watering with great convenience.

A little W. of this Bay is the *Rio Dulce*, and W. of that Cape *Monchiquo*, with a Bay, before which lies the Shoal or Reef of Sand call'd *Salmadina*; off of which to seaward lies the Island *Utilla*. These Places are all needful to be known to those who go in here; but they are so few, that 'tis of no great use, for 'tis out of the way of all Shipping except of the *Spaniards*.

To sail from *Trivigillo* to *Porto Cavallos*, your Course is between the Shoals of *Mabaqueras* or *Mabamenas* and the *Salmadinas*; but if the Wind should slack, and the Stream endanger your running on the *Salmadina Sands*, be sure to come to an anchor nearest the S. side of the Shoals, where you will have 7 Fa. Water. On the S. E. side the Ground is good, but on the N. 'tis dangerous and foul. The W. side of the *Salmadinas* lies S. of *Utilla*, and N. from *Mingula*. If you are bound out without the Islands into the Gulph, run first 3 Ls N.W. off to Sea from *Trivigillo*, to get clear of the *Mete*; then N.W. by W. till past the *Mabaqueros*; and then run thro' between the *Guayana* and the *Salmadina Sands*, and you will go clear; but take especial care of the Island *Utilla*, for 'tis all foul on that side far out to Sea.

On the E. of all this Bay lies the Cape de *Honduras*, which is the N. Point of the E. Shore of the Gulph; it lies in Lat. 16 d. or thereabouts; from whence most of those Islands mention'd above lie N. or N.W.

The Isle of *St. Catherina* lies from this Cape S. by E. being in Lat. 13 d. 15 m.

The Island *Guanaja* lies N. by W. from Cape *Honduras*, and has a Train of Islands running away from it W. and W.N.W. towards the Bottom of the Gulph: This Island also has some Shoals off of the N.W. side of it, nor is there any Road about it that we can recommend to an unacquainted Sailor; and as for Pilots, the *Spaniards* are so shy of any of the *European Nations*, and so chary of their Coast, that tho they are but sorry Pilots at best, you are sure to have none of their help.

The Harbour of *Truxillo* is at the Bottom of this Gulph on the side of *Honduras*, and there is a very good Port; but the *Spaniards* suffer no body to come in there.

On the E. side of the Continent of *Honduras*, and between the Coast and Cape *Gratia Dios*, lies the Bay of *Cartago*: The

los Diablos, a Set of Hills call'd so by the *Spaniards* from the *Buccaneers*, who us'd to land here for Provisions, and whom they look'd upon as Devils for their cruelty, and therefore call'd them the *plundering Devils*, and the Hills so, from their harbouring in them.

You may pass between the Islands *Mugeris* and *Cozumel* and the Main in a good Channel, having 5 to 7 Fa. but keep your Lead going, for there are Shoals on both sides; but the *Fair Way*, which is Mid-Channel, is safe and good.

As there is little Commerce on this E. Coast of the *Honduras*, so the Harbours are not considerable till you come past the Coast of *Tucatan*.

The S.E. Coast of the great Peninsula of *Tucatan* makes the N.W. Coast of the *Bay of Honduras*: The opposite Shore of the Gulph is form'd by the N. side of the Country of *Honduras* it self, and bounded due N. by two Capes one behind another, tho at a large distance, *viz.* Cape *Honduras* and Cape *Cameron*, the one the N.W. Point of the other Peninsula call'd the *Honduras*, and the other the N.E. Point.

The Gulph runs deep in between these two Mains: So that 'tis a dangerous Bay, full of great Shoals and large Islands, some inhabited and fortify'd by the *Spaniards*; some not inhabited at all. On the Main there are no considerable Rivers, the Land which is narrow there not admitting it; but there are several Towns, and some very good Ports, being the Shore of, or near to, the rich Countrys of *Guatemala*, *Guaxaca* and the *Honduras*, such as *Porto Sal*, the Bay of *Triviglio*, or *Triviggillo*, *Truxillo*, and several others, and the Islands of *Pinas*, *Guayana*, *Lein*, *Guaiona*, *Orilla*, &c.

N. B. Cape *Honduras* is in the Lat. of 15 d. 50 m.

The whole Coast down the Gulph is spread with Islands too many to mention; and as they are of small Importance in Navigation, only to caution you to keep off the Shore, so we need only mention them, tho most of them lie on or near the Shore of *Tucatan*, which renders the Coast altogether unfit for Commerce, the Shores being so dangerous, that none but such as are thorowly acquainted care to venture within the Gulph: Besides, the whole Coast from the *Cays*, which are two Islands on the N. part of *Tucatan*, is flat all along; so that coming from off Sea, you must not stand too close in with the Land, lest you are deceived, and forced on Shore. The principal Islands on the N. or W. of the Gulph, are the *Tlob*, the *Salamancas*, the *Lamanay*; then the *Zaratan*, and the *Pantoja*, the *Chetamal*; and then the *Quitazombo*.

All these Islands lie on the Coast of *Tucatan*, from the Island of *Cozumel* to the Bottom of the Gulph, with many others.

There are also some Rivers on that side, such as the *Rio de Iao*, *Rio Bano*, *Rio Peche*, *Rio Dulce*, *Rio Desel*; but they are all small Streams and of no consequence. At the Bottom of the Gulph on the S. side is the *Porto de Cavallos*, call'd so because a Ship loaded with Horses being driven in there, they were oblig'd to throw them over-board. If you are bound in there, you must have great care of two Shoals which lie off,

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On the E. of all this Bay lies the *Cape de Honduras*, which
is the N. Point of the E. Shore of the Gulph; it lies in Lat.
16 d. or thereabouts; from whence most of those Islands
mention'd above lie N. or N.W.

The Isle of *St. Catherina* lies from this Cape S. by E. being
in Lat. 13 d. 15 m.

The Island *Guanaja* lies N. by W. from *Cape Honduras*,
and has a Train of Islands running away from it W. and
W.N.W. towards the Bottom of the Gulph: This Island also has
some Shoals off of the N.W. side of it, nor is there any Road
about it that we can recommend to an unacquainted Sailor;
and as for Pilots, the *Spaniards* are so shy of any of the *Eu-*
ropean Nations, and so chary of their Coast, that tho they are
but sorry Pilots at best, you are sure to have none of their
help.

The Harbour of *Truxillo* is at the Bottom of this Gulph
on the side of *Honduras*, and there is a very good Port; but
the *Spaniards* suffer no body to come in there.

On the E. side of the Continent of *Honduras*, and between
the Coast and *Cape Gratia Dios*, lies the Bay of *Cartago*: The
Shore here is a fine sandy Strand, and there is good anchoring
in this Bay, occasion'd by several Islands in the Mouth of it,
but especially one just in the Entrance, behind which is a very
good Road.

There is also another Bay lying E. of *Cartago Bay*, call'd
the Bay of *Bibora*, from the River *la Bibora*, which empties
it self into it: This is but a small Place, and not fit to receive
Ships of burden; but between them a little W. of *Bibora*, lies
the Bay of *Cotroc*, larger than the first, tho not so big as the
Bay of *Cartago*.

S.E. by E. from *Cape Honduras*, distance by the ordinary
Scale about 80 Ls. lies the *Cape de Gratia*, or *Gratia Dios*, in
English *Cape Thank God*, being the Point of Land extended
from the S. part of the Province of *Guatemala*, and E. from
the Country of the *Honduras*. On the W. side of this Cape lies
the Bay of *Honda*, or the *Deep Bay*. There are abundance of
Islands upon the Coast of the Bay, but of no importance: In
the Bay you may anchor safely in 10 to 12 Fa.

The Shore of the Bay is a clean Strand, but there runs off a
Shoal from the E. side or Point, which you must avoid.

There lie several Clusters of Islands off of this Coast, all
the way between *Cape Cameron* and *Cape Gratia Dios*,
besides what are mention'd above: as the *Isias Vascos*, off of
the Bay of *Honda*, and the *Dog Fish Islands* to the north-
ward of them, these last are only surrounded with Rocks and
Shoals, and are dangerous to come near.

Likewise the *Mew Islands*, which lie thwart the Entrance
into the Bay of *Cotroc* or *Crotoc*, and are, as that *Engl-*
Islands, all surrounded with Rocks, and very dangerous, espe-
cially in case of hard Gusts from the N. and N.E.

Between *Cape Cameron* and the Bay of *Cartago*, and reach-
ing almost to both, there runs out a great Shoal, such as the
Sailors usually call a *Land In*, for it extends close upon

the Land for more than 15 Ls in breadth, and runs out into the Sea for near 40, but sharpening to a Wedge. On the S.W. side of this Shoal, and within the middle of it, lie the *Bayos*, being 4 low Islands, and called so because they are low and flat; they lie cross the Sand parallel with the Shore: and on the N. side lie six other Islands called the *Millans*, or the *Micewen*, also surrounded with Rocks.

Due S. from the Cape *Gratia Dios*, and at the extreme S.W. Point of the Province of *Honduras*, lies the Entrance into the great Lake of *Nicaragua*, being about 45 Ls dist from the Cape S. and about as much from the *Rio Veragua N.*

Off from this Coast, at a great dist. in the Sea, lie several Islands, and Clusters of Islands, extending from Cape *Gratia Dios* in Lat. 15 d. to *Rio Veragua* in Lat. 10 d. 5 m. These are, 1. The *Pearl Islands* due E. from the Cape, and the farthest out to Sea, dist from the Cape 83 Ls, or thereabouts. 2. The *Misquiters*, lying in S.S.W. from the *Pearl Islands*. 3. *Roncadores*, due S. from the *Pearl Islands*.

N. B. These Islands called the *Pearls* had once great resort for the Pearl Fishing, but are now worn out.

Within those Islands, but upon the same Coast, lie the Islands of *St. Andero*, and the *Catharine*, two small Islands near together N.E. from the Coast, bearing from *Veragua N.W.* by N. about 26 to 27 Ls dist. and from *Punta de Nacs N.* and N. by W. in Lat. 15 d. 12 m.

The Entrance into the Lake of *Nicaragua* lies S.W. from these Islands; the Passage or Channel in goes 3 several ways, occasioned by several Islands which lie in the Mouth of it. The Inland part being a fresh Water Navigation, does not belong to our present Work. The chief Passage is between the 2 largest Islands, and is called *Porto de St. Juan*, or the Entrance of *St. John*: The Strait is called the *Rio des a Guadero*, or the River *Guadero*, which runs up 30 Ls within the Country to the City of *St. Juan*, where it opens into the great Lake, which is said to be 80 Ls long, and 20 broad, of which we have given a Description in its place; it remains however to be added, as proper to this Part, that large Vessels sail up this River, and into the Lake, and the Trade carry'd on employs many Ships; but as the *Spaniards* admit no Navigation, except their own, and we have no exact Survey of the Lake, we can give no Description of the Depths, Shoals, Bays and Rivers, which are very many.

S.E. from this Entrance of the Lake of *Nicaragua* lies the River *Veragua*, and the Island *Veragua* in the Mouth of it, being about 18 Ls.

The River *Veragua* lies just within the Island running from the Province called the *Veraguas*, the Port is very good, but the Island is foul, and therefore you must not depend upon it, or any place about it, for a Road: The best is on the W. and S. Sides towards the Main, where you may ride under Shore in 3 to 9 Fa. You are indeed safe here from the N. and easterly Winds, which are the most violent upon all this Coast.

E. from *Veraguas* the Coast trends away to the Mouth of

Directions for the Bay of Honduras.

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From the E. Point of the Entrance into *Porto Belo*, called *Acada*, lie 4 small Islands cover'd with Trees; but there is a bold Channel between them and the Shore. The like there is to the eastward of the *Bastimentos*, where the Wind being westerly, you may stand thro' with great safety.

Bring the Rock *Cagada* almost shut in with the small Island on your Larboard-side, and you may anchor there in 7 Fa. and half, only that you will lie a little open on your N.W. Quarter, if the Wind should happen to come in that way: To remedy which, a little farther to the W. is the Road of *Agruca*, which is much better secured, and large enough for 8 or 9 Ships, but not for more.

N. B. You go in here about half a Mile to the westward. But run out by a narrow tho' safe Channel on the E. side of the Road towards *Nombre de Dios*.

You lie here land-lock'd also by two or three pretty large Islands, and several small Islands besides those mention'd, and which at Sea make like part of the Main.

N. B. The Wind generally blows Trade here all day from the E. and off Shore all night.

Here is another Road also call'd *Grotta*, where you may anchor in 7 Fa. and where there are no Rocks or Shoals, or less than 5 Fa. any where near it: The Road goes in W. by S. by a very crooked Passage, but you need not come back by the same Channel; for there is another Channel more to the N. which tho' narrow is safe, and in which there is no where less than 5 Fa. the Wind generally blowing large out.

N. B. Your best anchoring at the *Bastimentos* is, when the great Rock *Cagada* bears about a Boat's length from the *Cay*; there you have 7 Fa. also in the Offing; when the *Cays* are W.S.W. at the distance of 2 Ls from you, there you will have 25 Fa. Water.

In the Mouth of the Harbour going into the *Bastimentos* you have also 15 Fa. and at a long *Flat Island*, a little to the eastward of *Porto Belo*, which is full of Mangrove Trees, you have 8 to 10 Fa. very good Ground, but to Leeward 'tis flat and foul, as may be seen by the Breakers; and all about the Islands 'tis the same; so that in the Road you must not anchor within half a L. of the Island.

S.S.E. off of the Harbour of *Porto Belo*, or rather from the Cape eastward of *Porto Belo*, lies the ancient Port of *Nombre de Dios*, dist. from the Entrance into the former near 20 Miles.

Nombre de Dios lies at the Bottom of a large deep Bay; to the E. side the Bay is wide, and there is good anchoring any where in 5 to 8 Fa. clean Ground; but 'tis a bad Road in other accounts, especially as it lies open to northerly and north-easterly Winds, and that in a Country where those Winds almost always blow, and which, when they blow hard, bring a high Sea into the Bay, and make it very bad riding.

On the W. side of the Bay a small River comes in; and without the Bay a little to the westward lie two or three small Islands, which you must sail between if you would go into the Bay. Great Ships used to anchor at the Bay.

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On the W. side of the Bay a small River comes in; and without the Bay a little to the westward lie two or three small Islands, which you must sail between if you would go into the Bay. Great Ships used to unload part of their Cargo at the first of these Islands, and then go on to the second; but small Ships commonly lie within all to unload.

If the Wind blows hard, Ships ride here upon Life and Death, with five or six Anchors a head; for the Sea comes pouring into the Bay with such fury, that they are in danger of Foundering as they ride; oftentimes their Cables are cut by the Rocks, and they are in the utmost hazard of going a-shore: For this reason the great Ships left the place; and even still, if Ships have business here that requires any long stay, they will choote to ride at the *Bastimentos*, or at *Porto Belo*.

The W. Point of this Bay is shoal off, so that you must give it a large Birth, or you may be a-ground. As you go into the Port, you will see a high Rock bearing N.W. from the W. Point; you must sail in under this Rock, then you go free of the Shoal under the W. Point.

S. by E. from the Cape of *St. Blaize* lies the River of *Pines*, bearing from the Island call'd the *Gorda* off of *Port d'Alta* W.N.W. dist. from the Ile of *Pines* 5 Miles, and from the *Island Gorda* to the E. end of the Ile of *Pines* is 7 Miles: There are abundance of small Rocks and Breakers, and foul broken Ground upon all this Coast for 40 Ls, as well eastward as westward, nor can you go in between the two Islands, tho 7 Miles atunder; but you may sail in at the E. end of *Pines* in 5 Fa. and to pass on N.W. to the Island it self, and anchor under the S. side of it.

From the River of *Pines* to the Island of *Pines* the dist. is 5 Miles, the Courte W. by S. and E. by N. There is a fair Channel between the Island and the other Rocks, mention'd above, and the Main; but it is a Passage only for Sloops and small Vessels, not for great Ships.

The River of *Pines* is an indifferent large River, considering the Coast; but there is only 6 Foot Water on the Bar, tho when you are over, there is 3 Fa. a good way up.

W. a little northerly is the River *Allabretes*, dist. from the *Pines* about 9 Ls; 'tis but a small River, only fit for Canoes.

There

Sailing Directions for the North Coast

There is indeed a little farther N.N.E. from it a Channel among the Rocks, but it is very dangerous, and the Soundings uncertain, from 5 to 9 Fa. And W. from the said River about 2 Ls is another Creek of no Name or Importance; but 6 Ls W. by N. lies *Ascension* River, which is a River of Business, and navigable for Sloops and small Craft above 20 Ls into the Country, tho not at all for great Ships.

The Rocks and broken Grounds which reach along all this Shore to *Golden* or *Gorda* Island, are call'd the *Sombelloes*. From *Ascension* River the Land trends away to the southward, and then W. and afterwards to the northward to Point *Sombello*, which is distant from the W. Point of the River 15 Ls.

From *Sombello* the Land trends away to the southward again 5 Miles to the River *Francisco*, and to the northward 4 Miles to *St. Blaes Bay*, and from thence as before to *Nombre de Dios*. On the other Hand it trends away E.S.E. towards the *Gulph of Darien*.

Had the *Scots* Settlement at *Darien* continued, and been form'd into a Colony, as others of like kind have been, it is not to be doubted but that the Coast of the Gulph had been critically survey'd; and it had been of some Use, to have taken an Account of the Shoals, and Depths, and Capes, as in other Places: But that Affair is over, and the Place is become the same useles neglected Port as it was before.

The Gulph of *Darien* lies from the Point of *St. Blaes* S.E. and S.E. by S. it is situate in the very Center of *America*, and at the narrowest Point of the Isthmus: 'Tis a wide Inlet of the Sea, stretching it self in depth N. and S. full 60 Ls: The Entrance lies in Lat. 9 d. 9 m. The Opening goes in S. by E. at a Mouth of no less than 10 Ls wide, between two Capes or Points; that to the eastward is call'd *Cape St. Sebastian*, and the westermost is call'd *Cape Tibmon*, or *Tuberon*.

At *Cape St. Sebastian* the *Spaniards* had formerly a City, call'd by the same Name, but abandon'd by the Inhabitants for the unhealthiness of the Place, occasion'd by the incessant Rams and Calms which continue here; a Caution which, as was afterwards found, had been well given to the *Scots* before

their Attempt of it.

The Point therefore stretches out dangerous.

The Gulph going in, you may run deep and fartrance of the to 30 Fa. and Gulph, and reduced to 4 choring on the Ground, but

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Sailing Directions for the North Coast of South-America Mouth of the River Oroonoko inclusive, to the



HE River *Oroonoque*, or *Oroonoko*, can be no farther concern'd in our Description of the Coast of *America*, than as relates to its Opening, and emptying it self into the Ocean; the Navigation of it as a River having never been enquir'd into since the famous tho unhappy Attempt of Sir *Walter Raleigh*.

The Influx of this mighty River is in Lat. 9 1/2 d. It may be said to have many Mouths, occasion'd by several Islands which lie in the way; but there are properly two Channels, (that is to say) which are known in Navigation.

gueretta; and *Punta* *Cubagua*; the consequence

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their Attempt, if they had been cool enough to have accepted of it.

The Point of *St. Sebastian* is foul, and has a Shoal lying off; therefore those that go in here, give it a good Birth: It stretches out N.W. by N. into the Sea 10 Miles, and is very dangerous.

The Gulph is navigable for large Ships far in; and when going in, you are got to the westward of that Spit of Sand, you may run up the Gulph at Will where you please; 'tis all deep and fair, but 'tis best to keep Mid-Channel. In the Entrance of the Gulph you have 40 Fa. at 2 Ls within it shoals to 30 Fa. and then to 20, which continues for 20 Ls up the Gulph, and after that 18 Fa. up to the farther End, where it is reduced to 4 Ls in breadth. All this length there is good anchoring on the E side of the Gulph in 8 to 10 Fa. good soft Ground, but the W. side is foul and rocky.

From the Bottom of the Bay the Channel which grows narrower there, goes away N.N.W. 3 Ls into the Opening of a large Salt-lake, the Mouth of which is 3 Miles wide, and has 12 Fa. and when past the Entrance 4 Fa. The Lake is a Round of about 3 Ls in Diameter; if you would go in here, keep the S. Point aboard; or if you keep off Mid Channel, be sure not to go farther off to the N. for the N. Point spits a Sand, which runs off above a quarter of the way thwart the Channel: But after you are entred the Lake, the Channel is good.

What other Rivers or Lakes there are within this Lake, are not to our present purpose, Navigation being little concern'd in them; 'tis enough that keeping to the W. and N.W. the Country has been found full of Rivers, and that after a narrow Passage over Land to the *Rio Sancta Maria*, the Entrance into the *South-Sea* has been found, which is but a little way, and the way easy; for they tell us 'tis possible to pass to *Panama* from the Lake of *Nicaragua* at the dist. of 15 Miles only over Land. In the mean time, as this is the easternmost Point of the Isthmus, so here may properly be said to end our Account of the Navigation of these Bays, and therewith of the Coast and Islands of *North-America*.

of South-America, from Bocca del Drago at the inclusive, to the Gulph of Darien exclusive.

no far-coast of empty-of it as consequence. *gueretta*; and on the N. side of *Margueretta*, between the Island and *Punta del Rey*, are two small Islands call'd *Coetza* and *Cubaqua*; the last is the biggest, but neither of them of any consequence.

There is good anchoring in the Bay on the inside of the Island *Margueretta*, but few Ships frequent the Coast. There was a Castle to defend the Road, but it is now demolish'd. On the E. end of the Island are many small Islands, 7 or 8 together, but of no moment; they lie between this Island and the Island *Tesfigos*.

Sailing Directions for the North Coast of South-America Mouth of the River Oroonoko inclusive, to the



THE River *Oroonoke*, or *Oroonoko*, can be no farther concern'd in our Description of the Coast of *America*, than as relates to its Opening, and emptying it self into the Ocean; the Navigation of it as a River having never been enquir'd into since the famous tho unhappy Attempt of Sir *Walter Raleigh*.

The Influx of this mighty River is in Lat. 9 $\frac{1}{2}$ d. It may be said to have many Mouths, occasion'd by several Islands which lie in the way; but there are properly two Channels, (that is but two) which are known in Navigation.

The Pilots tell us in their Language, that the Mouth of this River is said to take its Beginning from the River *Amugora*, and to reach to the River *Sabarima*, and from thence about to the River *Corobana*.

This Account of theirs is to be explain'd thus, That the River divides it self into several Branches far within the Country, and comes down into the Sea as if it were a Collection of many Rivers. But we must give the Account as they hand it to us, or Sailors will not fully understand it.

These several Rivers coming all into the Mouth of the great *Oroonoko*, assist to convey the main Stream of that River into the Sea: Some of these Channels are passable by warping up by main strength against the Current, which is very strong; in others it is so fierce, there is no stemming it; and in some there is no Bottom, so that no Anchors can be carried out to warp by.

The principal Channels found practicable are those of *Sabarima* and *Corobana*, or *Caribbiana*; the last lies in, N. by E. and S. by W. and this Branch or River has two Channels, which afterward meet again at the Island of *Trinidad* in the Mouth of the grand River.

Cape *Salinas* on the Main, and the N.W. Point of the Island *Trinidad*, makes the W. Passage of the River *Oroonoke*; and this is that the *Spaniards* call the *Gulph of Paria*.

In this Passage are several small Islands, and they again divide the Stream of the River into several Branches; as the *Great Bocco*, which is the easternmost, and the *Little Bocco*, which is the westernmost: The *Great Bocco* is about Gun-shot wide, but no Soundings, no Ground at 300 Fa. The *Little Bocco* is almost as wide as the other, and has Ground at 50 to 60 Fa.

The next Land to *Cape Salinas* is *Cape Tres Puntas*, or *Cape Three Points*, lying from *Cape Salinas* N. and N. by E. And from *Cape Tres Puntas* about 40 Ls W. by N. lies *Punta del Rey*, or *Raya*. From *Cape Salinas* to *Cape Raya* the dist. is 70 Ls: Between them lies the Island *Marguerita*, or *Mar-*

gueretta, and *Punta Cubagua*, consequen

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gueretta; and on the N. side of *Margueretta*, between the Island
and *Punta del Rey*, are two small Islands call'd *Coetza* and
Cubagua; the last is the biggest, but neither of them of any
consequence.

There is good anchoring in the Bay on the inside of the
Island *Margueretta*, but few Ships frequent the Coast. There
was a Castle to defend the Road, but it is now demolish'd.
On the E. end of the Island are many small Islands, 7 or 8 to-
gether, but of no moment; they lie between this Island and
the Island *Tefligos*.

Off from the S.E. side lies a Shoal, reaching towards the Is-
land *Cubagua* mention'd above; 'tis a dangerous Sand, if ma-
ny Ships were to come that way, but as in the little Navigation
there is, the *Fair Way* lies chiefly on the other side the Point,
'tis the less considerable.

There is likewise a Bank, which lies from the W. end of the
Island 2 or 3 Ls; but as there is always 6 to 8 Fa. over it, there
is no need to note it as dangerous. Formerly this Island was
frequented by Barks from *Cartagena* for the Pearl-fishing, but
'tis now worn quite out. The Island is moderately high Land,
you make it generally at the dist. of 6 to 8 Ls at Sea: The
Coast is bold, and you go into the Bay E. half a Point S. having
7 to 12 Fa. Water.

Under the *Punta del Rey* is a famous Salt-pond, and on the
E. side of the Point is a good Road, where you have 4 to 5 Fa.
between the Point and the Island call'd *Coetza*, mention'd
above.

The Island *Margueretta* is in Lat. 11 d. N. On the W. end
of it lies the Island of *Tortugas*: As you make the Island, you
may see both the Island *Margueretta* and the Main.

Tortugas is a dangerous Island; all the E. Coast is foul, rag-
ged and rocky, full of broken Land and dangerous Cliffs, not
fit for a Ship to come near: On the W. indeed it is a little more
accessible, and there is a good Road under the N.E. Point.
The W. end is full of Trees, which reach almost to the mid-
dle of the Island.

At the S.E. Point also there is a good Road, and there is a
Salt pond, which, with a great Quantity of wild Goats, is all
that is to be had here; for it is a naked Place on all Accounts.

Bocca del Drago is said to take its Name from the furious
Current of the River *Paria*, or *Oroonoque*, which breaks out
here into the Sea, and which (the Island *Trinidad* repelling its
Current, which would otherwise take its Course due E. or at
most N.E. into the Ocean) is now turn'd away to the N. and
makes its way out N. and N. by E. by this Cape.

From

From *Brea del Drago* to the Salt-ponds at *Punta Rey* the Courie is N half E. along the Coast; and between the Islands call'd the *Tepigos*, and the ragged Shore call'd *Tres Puntas W.* of the Cape, the Land falls in S. and makes a kind of Bay, and an Island call'd *St. Juan*, or *St. John*: The Land is hilly and foul, till you come near the Salt-ponds, then it is a low Land and flat Shore.

When you are at this Point, you have the Island *Margueretta* to windward. In sailing along this Coast come not nearer than 12 Fa for the Soundings are uncertain, and the Ground flat and uneven; so that you will not know where you are by the Lead, except you are bound in for the Road: Then you must work it out by careful Sounding. To the E. of the Point the Land is low and plain, and there the Ships ride; there is no fresh Water to be had there, or in less than 3 Ls from the Point. This is call'd the Coast of *Venezuela*, and by some *New Granada*; but *New Granada* lies farther up the Country beyond the Sea Coast.

The W. end of the Salt pond is steep high Land, and the S. and N. parts run in among the Hills, so that they are not seen upon the Coast: 'Tis what they call a natural Salt Production or Pond, and is so great, that a thousand Sail of Ships might load here, and not carry it half away. All the way from the Pond to the Road where the Ships ride, is hard and stony, and the Ground in the Road is not good; but to the eastward the Ground is good. There is also another Salt-pond call'd the *Little Pond*, where is very good white Salt to be had: The Road is good, there being a soft Clay mix'd with Sand.

From the *Punta Rey* there runs out a Riff of Rocks near a *Point* into the Sea: If you would go into the Road before the *Santa Ana*, and come from the S. you must give the *Punta Rey* a good Birth, to go clear of those Rocks.

Oil of this Coast lies the Island of *Blanco*, without all the Islands mention'd above, and due N. from the W. end of the Island *Margueretta*. On the E.S.E. Point of this Island lie even small Islands, or rather Rocks above Water, call'd the *Santa Ana*: And on the S.W. Point lies a dangerous sunk Rock, which should be carefully remember'd. If you come from the southward, and design to anchor under *Ile Blanco*, you must steer to the W. side of the Island: You may sail boldly about the Point, as near as you please, 'tis bold and steep too: When you come to the W. side, you have a good Road in 6 to 10 Fa.

This Island may be said to be the first from the *Caribbes* this way, it lies S.S.W. from the Island *Granada*, and from the E.S.E. Point of *Blanco* to the W. Point of *Granada* is about 23 Ls. The Road is good, but here is nothing to be had of Refreshment, or fresh Water, but wild Goats.

From *Punta Rey* the Land trends away W. to a Coast and Gulph of *Cumana*; but there is likewise a great Gulph call'd the Gulph of *Caraco*, and in that Gulph the River call'd *Rio Chao* comes into the Sea: The Gulph runs in 12 or 13 Ls. Some join this and the Gulph of *Cumana* into one; and it may be just, if they reckon the Gulph of *Cumana* to run 40 Ls within the Land: But as Navigation has nothing to do with

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to Wood and Fustick for *Old Spain*. About 5 Ls from this Bay to the westward lie the Islands *Peritas*; and on the W. Point of the Bay, about a L. from the Main, and as much from these Islands, lies a Shoal, which runs off in two Branches from the Coast N. To avoid them all, keep to the Islands, there is a good Channel and deep Water, 12 to 16 Fa.

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A-breach of the westernmost Island there comes in a little River from the Main, call'd *Chano*; it makes only a small Creek for a L. into the Land, big enough to carry small Boats, Canoes, &c. but not Ships. The Water also is not good, tho' not quite salt.

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W. from this Creek is a Bay call'd *Otebier*, but no good Ground for anchoring in it; W. from which is Cape *Caldero*, on the E. side of which is a Bay with a tolerable Road. From this Cape there lies a Ledge of Rocks above Water. From the W. Point of the Bay begins the Coast of *Carriehiko*, or according to some *Elmerode*, and extending it self W. to Cape *Caldero*. Cape *Caldero* is call'd the *White Cape*, because the Dung of Fowls which are continually here in innumerable Flocks, makes it so, otherwise the Rocks are rather black than white.

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This is what the *Spaniards* call the Coast of *Venezuela*, some call it *Coco*; and the Port of the City of *Venezuela* is sometimes call'd *Coco* by the *Spaniards*, and reaches E. to the Port of the City *Caracas*, and W. to the Entrance of the great Lake or Bay of *Maacayba*, of which in its place: So that the whole Coast reaches from Cape *Alvex* and the *Salt Pools* about 150 Ls W. Here are many very good Harbours and Bays, but of small importance, because of a general decay of the Colonies, and of the Navigation on this Coast.

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This Port of *Caracas* is dist. from Cape *Caldero* about 12 Ls, the Courte W. by N. 'tis situate on the Sea Shore a little to the eastward of Cape *Blanco*, where there is a Bay, in which there is good anchoring in 10 to 20 Fa. and (which is very particular in this Place) it is well fitted by its Situation to keep off the excessive Swell of the Sea, which upon this Coast is so great, and upon a Northerly or N. Easterly Wind runs so very high, that a good Ship may be in danger of Foundering at an anchor.

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But in this Bay you may ride secure; the Cape, together with a Spit of Sand running out from the N.W. Point of the Bay, breaking off the force of the Sea: The Land upon this Coast is so exceeding high, that it may be seen 30 Ls off at Sea; and some are of Opinion it is as high as *Pico Teneriffe* in the *Canaries*.

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Due W. from the Road of the *Caracas*, and behind the Cape, is a small River, where you may have fresh Water (which is very rare on this Coast;) but if you see any of the *Indians*, look to your selves; for, besides their Treachery and Cruelty, they shoot poison'd Arrows. This River is call'd the *Mina*; and from the Mouth of it, keeping your Courte still westward, is another River call'd the *Camorra*, the Shore all the way cover'd with Trees; then the River *Turrono*, 3 Ls from which westward

Rock, which should be carefully remember'd. If you come from the fourthward, and design to anchor under *Ile Blanco*, you must steer to the W. side of the Island: You may sail boldly about the Point, as near as you pleasè, 'tis bold and steep too: When you come to the W. side, you have a good Road in 6 to 12 Fa.

The Road may be said to be the first from the *Caribbes* this way, i. e. S.S.W. from the Island *Granada*, and from the E.S.E. Point of *Blanco* to the W. Point of *Granada* is about 25 Ls. The Road is good, but here is nothing to be had of Refreshment, or fresh Water, but wild Goats.

From *Punta Rey* the Land trends away W. to a Coast and Gulph of *Cumana*; but there is likewise a great Gulph call'd the Gulph of *Coiteco*, and in that Gulph the River call'd *Rio Chino* comes into the Sea: The Gulph runs in 12 or 13 Ls. Some join this and the Gulph of *Cumana* into one; and it may be just, if they reckon the Gulph of *Cumana* to run 40 Ls within the Land: But as Navigation has nothing to do with it for far in, we shall say no more to it.

Good Ships may go in as far as the Town of *Cumana*, and the Depth is good; nor do we find by any Accounts that there are any Dangers in the Gulph, going in or out, but what are to be seen above Water.

The *Venewards* will not admit Strangers to come to this Coast to load Salt at *Cape Rey*; and once they attack'd and actually destroy'd several *Dutch* Ships for attempting it; otherwise they might bring a great Revenue from it, and abundance of Ships to use this Coast, and bring Trade to their other Ports also. So the Port remains unfrequented, and the Salt lies in Heaps, useless and good for nothing.

From *Cumana*, or rather the Gulph of *Cumana*, the Coast goes away W. by N. and W.N.W. between a continued Range of Islands and the Main: The Land is full of Points and Capes running out into the Sea, and consequently of Roads and Bays, Harbours and Gulphs, tho they are generally but small, except as hereafter.

1. There is the Bay of *Maigua*, which is very wide, but not deep in, nor is there any place of note in it: There is good anchoring indeed in several places of the Bay, but all open to a northerly Wind

2. The Bay of *Santa Fe*, in the Entrance of which lies a great Rock or Island, (for it is above Water) call'd *Borats*; and without that lie two more call'd *Crocons*.

3. The Bay of *Maracayana*, where there is the best Ground to anchor in, and the best secured of any Road in this part of the Coast: There is also good anchoring at *Punta Gallet*.

The westernmost Point on this Coast is call'd *Borataras*; from thence the Shore, which is all Rocks, falls off again to the fourthward to *Comano Bay*, and to the Town of *Commagosta*, or as some ignorantly call it *Comono-yoda*. On the W. Shore of this Bay is very good anchoring, and well sheltered, the Ground a good hard Sand; Ships come there to load *Brazil*.

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But in this Bay you may ride secure; the Cape, together with a Spit of Sand running out from the N.W. Point of the Bay, breaking off the force of the Sea: The Land upon this Coast is to exceeding high, that it may be seen 30 Ls off at Sea; and some are of Opinion it is as high as *Pico Teneriffe* in the *Cannaries*.

Due W. from the Road of the *Caracas*, and behind the Cape, is a small River, where you may have fresh Water (which is very rare on this Coast;) but if you see any of the *Indians*, look to your selves; for besides their Treachery and Cruelty, they shoot poison'd Arrows. This River is call'd the *Mina*; and from the Mouth of it, keeping your Course still westward, is another River call'd the *Cumana*, the Shore all the way cover'd with Trees; then the River *Turiano*, 3 Ls from which westward lie the Islands *Barbarota*, where there is a Salt Pond which furnishes all the Coast; there is also a good Haven, and a Road for Ships to ride in, while they are taking in their Loading of Salt.

From this River the Course lies W.S.W. to the Bay of *Triflo*, bearing with the Island of *Bon Ayra* almost due S. and N. the said Island lying in between the said Island *Barberota* and the *Punta Saceron*. There is very good anchoring in this Bay, and well sheltred from the Swell of the Sea, as also from the northerly and easterly Winds, which are the only dangerous Winds on this Coast.

From the Bay of *Triflo* the Land having for some time trended away northerly, and to the N.W. and N.W. by N. it turns again westerly, and rounding a great wild Forest-like part of the Country, where you meet with no Town or River for several Ls, goes away W. to *Punta Seco*, or Cape *Seco*, that is, the *Sandy Cape*; near which, in the Mouth of a small Bay, is the Island of *Trepanqua*: Then the last rounding again N.W. makes the E. Point of the Bay, or River of *Taratuma*.

Westward from this Point of *Taratuma* runs a great Shelf right off into the Sea; beyond which Shelf farther W.N.W. lies Cape *Romano*, the most remarkable Cape of Land on all this Coast.

Between this Shelf and Cape *Romano* are two Places, but of small note: 1. *Playa*, a small Haven, where the Ground is good, but with no secure riding, because of its being open to the northerly Winds. 2. *Coco*, where is a very good Bay and Harbour. From *Coco* the Coast thrusts out into the Sea for many Ls northerly, being the Coast of the Province of *Coco*, or *Venezuela*, to the Mouth of the great River of *Maracaybo*, call'd also the Gulph of *Venezuela*.

This Gulph is noted for its running above 80 Ls into the Land, and widening to a very great breadth, after it has gone near 40 Ls; but the Islands in the Entrance interrupt the Navigation in such a manner, that the Sailors have little Occasion

to

Sailing Directions for the North

to inquire after it, the rest being practicable only by Sloops and Barks, and such small Craft as the *Spaniards* build in that Country.

From this part of the Country of *Coco*, or the *Caracas*, the Coast goes away more to the northward, as I have said, to the Mouth of the Gulph, and then falls off again to the S. and S.W. to the Coast of *la Hache* and *St. Martha*, having but little notice taken of it by the Pilots, the chief Navigation here being among the Islands rather than to the Continent, which are some of them in the Possession of the *European Nations*, tho' not of the *Spaniards*.

These Islands lie rang'd in a Line parallel with the Coast, and trending from the S.E. to the N.W. from the *Bocca del Drago* and the Island *Margueritta*, to the Island *Oruba*, at the E. Point of the Gulph of *Maricaybo*, or *Venezuela*.

The first of these Islands, except those spoken of already, is that of *Orchilla*; it lies at the distance of about 15 to 16 Ls N.W. from the Island of *Tortugas*, in Lat. $11\frac{1}{2}$ d. it stretches N.W. and S.E. about 8 Ls in length, and the N. side is foul and rocky. It is generally a low flat Island; yet on the E. side a little hilly; there the Seamen often go on Shore to hunt Goats for fresh Provisions, which they are in great want of on these Coasts.

The S. and S.S.W. side is a fair Strand, steep too, and bold, that you may almost lay your Broad-side close to the Shore. The Land is almost all saltish, so that here is no good Water to be had, nor indeed any thing else, but Shelter from northerly Winds, and Goats Flesh; not a Plant or a Tree, no People, and no Trade.

W. and W. by S. from *Orchilla* lies the Island *la Roca*, dist. from the Main about 24 Ls: and from *Orchilla* 6 to 7 Ls. On the W. side of it lie three or four very little Islands, and several Shoals and dry Rocks stretching far S. of which you need take no other notice than to steer out of the way of them. You may see the Main from these little Shoals, being not above 7 to 8 Ls from the southermost of them: They are so steep on the S. side, that you can find no Ground, tho' within Musket-shot of the Land. On one of these Islands is a high white Hill, which seems to have a Down or Plain upon it, and is seen far off at Sea: They are all uninhabited, as is also *la Roca* itself, and are only useful, as they afford usually good Shelter for Ships riding under the S. and S.W. Coasts of them.

The Islands of *Aves*, or of *Birds*, are a Cluster of small unpeopled Islands, 8 or 9 in number, distant from *la Roca* about 10 Ls W. by N. and E. by S. from that Island, in Lat. 12 d. They lie with the Coast stretching N.W. and S.E. it is very clear Ground round about them, and you may stand boldly in as you please except on the N.E. side, where the Shore is foul, and where there are several Shoals, and Banks, Rocks under Water, and Spits of Sand, so that you must by no means come near on that side, no not within 3 Ls at least.

W.N.W. from the Islands *des Aves* lies the Island *Bou Ayre*, at much the same distance from the Main as the other, being in the same Lat. *viz.* in 12 to $12\frac{1}{2}$ d. and dist. from *des Aves* about 10 Ls.

There is a low flat Foreland stretches out from it on the S.

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The Reason of this Direction is, because if you chance to miss the E. end of the Island, and fall to Leeward, you will find it hard to fetch it up again, the Current always setting strong to the westward on all this Coast, and especially at this Island.

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The Entrance into the Port or Bay of *Curacao* is narrow; but when you are in, it is sufficiently wide for any reasonable Number of Ships. When you are in the Harbour, you will find on your Starboard-side a blind Rock, which you must take great care to avoid. If you have a scanty Wind to go into the Bay, you may nevertheless run up into the Wind, and shoot in by degrees: And tho' you should bring the W. Shore aboard, you need not be concern'd, for 'tis all good Ground on that side; only be ready with a Hauser in your Boat to go on Shore, and make fast a-shore on the W. side of the Fort, for in the Entrance of the Haven there is no anchoring at all.

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The Haven or Harbour reaches in N.E. and S.W. and you may lie any where at your pleasure, after you are pass'd the Entrance: And as to the Fort, it is 3 Ls from the S.E. Point within the Mouth of the Harbour; there you may careen, and lie on Shore just where you will, 'tis all good: The Harbour is able to receive 100 Sail of Ships of any Burden.

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W by S. from *Curacao*, and dist. about 8 or 9 Ls from Cape *Romano*, lies the Island of *Aruba*, or *Araba*, being the last and westernmost of all the Islands upon this Coast, before you come to the Gulph of *Venezuela*. There is a good Road under this Island on the N.W. side, near a Point of Land, where you will see another Island much less than this, and which you must leave to the N.W. as you go into the Road to come to an anchor. In this Road you have 5 Fa. sandy Ground; but, except that Road, there is not one Spot of Ground fit to drop an Anchor in, much less to moor a Ship in.

Island *la Roca*, dist.
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It is a small low Island about 5 Ls in Circumference, and has only two little Hills in the whole Place, one of which makes like a Sugar-loaf at a distance. The Island lies due N. and S. with Cape *Romano*, and is dist. from the E. Point of the Gulph of *Venezuela* about 7 to 8 Ls.

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W. from this Island of *Aruba*, and N. from the Gulph of *Venezuela*, in the very Entrance of the Gulph, lie the Islands of *Moages*, being 8 or 9 in number, stretching in N. and S. the southermost is the largest, they are all (but one) low flat Land and full of Trees.

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s the other, being in
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Beyond those Islands, on the other side of the Gulph, lies Cape *Coquibacoa* W.N.W. a little westerly from the most northerly of the Islands; 'tis a low Cape, and goes off smooth with the main Land, and within it on the Land-side is a high Rock call'd *Als Sierra d'Azeyta*.

ut from it on the S.

W. from the Mouth of this Gulph lies the Bay of *Honda*; yet the Course is W. by N. and W.N.W. because you make first the E. Point of *Honda*, which stretches out thwart a part of the Entrance in a crooked Bend like an Arm: The Bay is large, the Ground good, a fair Strand, and an even clean Bottom: 'Tis a desolate Country, void of Commerce, and peopled with a most barbarous wild sort of *Indians*, quite naked, uncon-

steep on the S. side, that you can find no Ground, tho' within
Musket shot of the Land. On one of these Islands is a high
white Hill, which seems to have a Down or Plain upon it, and
is seen far off at Sea: They are all uninhabited, as is also *la*
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Shelter for Ships riding under the S. and S.W. Coasts of them.

The Islands of *Aves*, or of *Birds*, are a Cluster of small
unpeopled Islands, 8 or 9 in number, distant from *la Roca* a-
bout 10 Ls W. by N. and E. by S. from that Island, in Lat. 12 d.
They lie with the Coast stretching N.W. and S.E. it is very
clear Ground round about them, and you may stand boldly in
as you please except on the N.E. side, where the Shore is foul,
and where there are several Shoals, and Banks, Rocks under
Water, and Spits of Sand, so that you must by no means come
near on that side, no not within 3 Ls at least.

W.N.W. from the Islands *des Aves* lies the Island *Bon Ayre*,
at much the same distance from the Main as the other, being in
the same Lat. *viz.* in 12 to 12 $\frac{1}{2}$ d. and dist. from *des Aves*
about 10 Ls.

There is a low flat Foreland stretches out from it on the S.
side, and reaches to the W.N.W. side: And where the Fore-
land ends you have good anchoring, only that the Shore is
very steep, so that you may lie in 50 Fa. Water with a Head-
fall on Shore. Here is a large Bay, and in the Mouth of it
another Island about 6 to 7 Ls in Circumference. Both
these Islands are inhabited and full of Cattle, which brings a
considerable Traffick to them; also the Trade for Red Wood
brings many Ships from *Cartagena* hither every Year.

The Road is on the W. side of the Island, but it is a very
bad Place, foul Ground and too deep Water; so steep too, that
the Ships ride in 60 Fa. within a Stone's cast of the Shore.
Fresh Water is also very rare to be had, the Earth in this I-
land (as in all the rest) being brackish and salt.

W. by N. and W.N.W. from the S. Point of the Island of
Bon Ayre, lies the Island of *Curacao*, dist. from *Bon Ayre*, 8 Ls,
but easily seen in clear Weather. The Island is about 15 Ls in
length, and 40 in Circumference; and in Lat. about 40 m. more
northerly than *Bon Ayre*.

It is fully inhabited and fully planted; and tho' peopled by
the Natives, is in the Possession and under the Government of
the *Dutch*, who have here a fine Bay commanded by a strong
Fort; the Bay is on the N.E. side of the Island. They have
also a Road for great Ships, well enough secured, but the depth
of Water is too great.

To know the Island of *Curacao* at a distance, take notice
of a high Hill at the E. End of the Island, which has, as you
come from the eastward, another Hill not so high lying close to
it; and a l. from the said E. end of the main Island lies an-
other low Island, stretching out towards the Shore; which
low Island you must take great care of, if you make the Port
in the night; and if you would go into *Curacao*, keep off to
the eastward, and if it be in the Night be sure to lie by, so that

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like a Sugar-loaf at a distance. The Island lies due N. and S.
with Cape *Romano*, and is dist. from the E. Point of the Gulph
of *Venezuela* about 7 to 8 Ls.

W. from this Island of *Aruba*, and N. from the Gulph of
Venezuela, in the very Entrance of the Gulph, lie the Islands
of *Moages*, being 8 or 9 in number, stretching in N. and S.
the southermost is the largest, they are all (but one) low flat
Land and full of Trees.

Beyond thoe Islands, on the other side of the Gulph, lies
Cape *Coquibacoa* W.N.W. a little westerly from the most north-
erly of the Islands; 'tis a low Cape, and goes off smooth
with the main Land, and within it on the Land-side is a high
Rock call'd *Als Sierra d' Azeyta*.

W. from the Mouth of this Gulph lies the Bay of *Honda*;
yet the Course is W. by N. and W.N.W. because you make first
the E. Point of *Honda*, which stretches out thwart a part of
the Entrance in a crooked Bend like an Arm: The Bay is large,
the Ground good, a fair Strand, and an even clean Bottom:
'Tis a desolate Country, void of Commerce, and peopled with
a most barbarous wild sort of *Indians*, quite naked, uncon-
versible, and little better than Brutes; so that you must take
care how you go on Shore.

The Coast however is full of Bays, and Inlets or Creeks,
where there is good riding, but no Trade, nor any Relief, and
hardly fresh Water; and the People taking all *Europeans* for
Spaniards, will kill every one they can. The Bay of *Portete*
is next to that of *Honda*, all Places fitted for Shipping and
Navigation but frequented by none, the Coast being intirely
void of Towns or of People, except as above.

This Bay of *Portete* is narrow at the Entrance, but wide
and fair when you are in; the going in lies S.E. by E. Some tell
us there is good Ground enough, but no depth of Water for
great Ships: But 'tis not certainly known, nor is the Bay, or
indeed any part of the Coast, accurately survey'd, the Depths
founded, or the Dangers from Rocks or Shoals sufficiently
discover'd, here being no Commerce or People to make it worth
the while; all that is known is only what has been taken
notice of at a distance, as Ships have sail'd by upon the Coast,
either to or from *Cartagena* one way, or *Curacao* the other
way.

By this Observation they can tell us of what is to be seen
remarkable off at Sea, as of a certain high Rock which lies
to the westward of this Bay some distance from the Shore, as
also some white Cliffs which the Sea beats much against in
stormy Weather, and the like; which high Cliffs they tell us
reach the whole length of this Coast almost as far as Cape
Vola. The Course from Cape *Coquibacoa* on the W. side of
the Gulph to Cape *Vola* is S.W. by W. and W.S.W. and
from the Bay of *Portete* W. by S. a little westerly.

Cape *Vola* or *Vala*, is the most remarkable Point of Land
upon this Coast, because of its running out so far into the Sea,
so that it is seen a great way in clear Weather. As you come
from

from Cape *Copulacoa*, which is N.E. it makes like an Island, and seems to be a I. from the Shore at least; and indeed it is join'd to the Main but by a narrow Slip of low Land, which is not seen at a distance.

Before you come to the Cape on that side, there is a Bay, where there is good riding for small Ships only, because unless you run far in to 3 and 4 Fa. Water, you are not fully secured from easterly Winds; otherwise you have 12 to 17 Fa. farther out. There is also a good Road on the S. side of the Cape, where there is good Shelter in northerly and easterly Winds, which ordinarily blow Trade on this Coast. The Coast thus far trends away S.W. but from the W. Point of this Bay it turns more to the southward, towards *Ranchiera* the first Place in the Province of the *Rio de la Hache*.

Altho there are so many good Bays and Roads for the Security of Shipping, yet here is no manner of use for them, other than what is casual for Ships passing by the Coast, and those are very few; for as to the Country, it is the most desolate Place in all this part of the World, being neither inhabited by Man or Beast; the very Surface of the Land yields neither Tree nor Grass, but is salt and dry, and so entirely barren, that it furnishes not so much as Water to drink.

Ranchiera is the first inhabited Place on this side from the Gulph, it lies in the bottom of a deep Bay, and the Courte to it from Cape *Vola* is due S. 'tis a small fishing Town, and the Bay is large, where fishing for Pearl Oysters was once carry'd on, and brought Inhabitants to the place; but we do not find it is continued.

Pont de Pedro, or *Punta das Pedras*, and Cape *Vola*, make this Bay of *Ranchiera*, the dist. between the Points near 12 Is. so that it is a very wide Bay; the Points trend out N.N.W. There are several dangerous Rocks which lie under Water, not far from the S. Point of the Bay, called *de Pedra*: those Rocks may be found by sounding, and by the Breach of the Sea upon them, which makes a terrible noise, and is heard a great way.

From this Point the Coast turns more to the westward, and the Courte to the *Rio de la Hache* is S.W. The River is large and the Entrance fair and deep; but it lies open without Shelter, so that the Sea comes tumbling in with a northerly Wind. The Coast is all low and flat from Cape *Vola*; but contrary to what is beyond the Cape, 'tis here all green and flourishing, and accordingly Navigation comes in use, and Ships are seen in all their Ports, some loading Salt, some Red Wood, and others bringing *European Goods* from *Porto Belo* and *Cartagena*.

On the E. side of the Entrance into the River *La Hacha*, or *La Hache*, lies a Bank of Sand which must be carefully avoided by those who go in with Ships of Burden. On this Bank they used to fish for Pearl also in former times, but 'tis now worn out.

Ships of small Draught may ride in the Mouth of the River in 2 Fa. but if they draw more, must go away to the Bay of *Ranchiera*. On the E. side of the City *La Hache* there comes in a Rivulet of good Water, where the Ships send their Boats for fresh Water, the fish they have for some way on this

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of *Chinca*, or *Choinca*: but neither of these afford any good Harbour for Shipping

When you come out of the Sea right N. and S. with this Coast, you see a white sandy Strand lying to the westward from you, there is no other such or like it. On the E. side of that sandy Shore lies a high black Point of Land called the *Ancones*, with several small Points between, called also *Ancones*.

Between these lie the City and Port of *St. Martha*, from whence the whole Coast takes its Name. The Bay of *St. Martha* is a very good Road, well secured from northerly Winds: The best of the Road lies behind 2 small Islands, which break off the Sea; so that however violent the *Tornades* blow, the Ships ride behind them.

Here the *Spaniards* frequently careen, and the Place is convenient for that purpose, the Bay being large, and the Ground good every where. Here also you have Wood and Water in abundance, which is the more remarkable, because there is no Water, and but little Wood at most of the Ports on this Coast. All which things put together, make *St. Martha* an extraordinary Harbour. The River also is very considerable, running far into the Country, and receiving many smaller Rivers into it, some of which are navigable for small Boats, Canoes, &c. farther than the main River.

It is difficult to find the Entrance of this River when you come to it from the Sea; for there appears only a long Point stretching from the Coast, as if it were a Head-Land or Cape, making a Bay. But you must pass this Cape, and stand in to the River on your Larboard side within the Point. In order to pass this Point, keep a little out to seaward, or rather put out to Sea after you have made the Point: you will know it also by a great Hill called the *Sierra de Lamba*, lying on the W. side of the River.

As soon as you come about the said Point, and open the Mouth of the River of *St. Martha*, you will see an Island, which as it were blocks up the Entrance of the River; but as you come nearer, you will find 'tis only an Island, and you may sail round it on which side you please to go into the River: it is called *Ile de Verd*, or Green Island. If the Wind should blow so hard at E. as it often does, that you cannot get about the Island, you may come to an Anchor under the Off Point of the Land, between that and the Point of the Main mentioned above: as, on the other hand, if it overblows from the W. or S.W. you may go under the inside of the same Island within the Mouth of the River. In both which places there is good Riding in 5 to 7 Fa. and well secured.

W. from the *Rio de St. Martha* lies the River and Harbour, and also the Point of *Zamba*, or *Samba*, called *Punta de Zamba* by the *Spaniards*, from the Mountain mention'd above. You will know the Entrance of this Place by a very high Hill, as it were hanging just over it, called the *Malden Crax*: There is also another Token to know it by at a distance, *viz.* that above 6 Ls from the Shore off of this Bay, the *Spaniards* have a small Island, which is called *Isle de*

the Coast, to the River *La Hacha* is S.W. The River is large and the Entrance fair and deep; but it lies open without Shelter, so that the Sea comes tumbling in with a northerly Wind. The Coast is all low and flat from Cape *Vola*; but contrary to what is beyond the Cape, 'tis here all green and flourishing, and accordingly Navigation comes in use, and Ships are seen in all their Ports, some loading Salt, some Red Wood, and others bringing *European Goods* from *Porto Belo* and *Cartagena*.

On the E. side of the Entrance into the River *La Hacha*, or *La Fleche*, lies a Bank of Sand which must be carefully avoided by those who go in with Ships of Burden. On this Bank they used to fish for Pearl also in former times, but 'tis now worn out.

Ships of small Draught may ride in the Mouth of the River in 2 Fa. but if they draw more, must go away to the Bay of *Ranchiera*. On the E. side of the City *La Hache* there comes in a Rivulet of good Water, where the Ships send their Boats for fresh Water, the first they have for some way on this Coast. The Mouth of this River is barr'd to 12 Foot; but when you are in, 'tis deep enough for any Vessel of Burden.

From the River *La Hache* the Coast reaches out W. and then S.W. to the River *Buchia* or *Bugia*. Between them lie the great Mountains, or rather a Ridge of Mountains, called the *Sierra Nevada*. The River is very rapid, occasioned by the Freshes from those Hills; the Force of the Current is such, as spoils the Navigation of the River, so that no Ships of Burden can go up there any length.

W. from the River *Bugia* lies the River *Don Diego*, which is the greatest on this Coast: There are several Rivers come in between them, as particularly the River *Piras*, then the *Pallomous*. From the River *Bugia* the Course is W. by S. and the Coast is all foul and full of dangerous Rocks; nor is there any Harbour or Road of note for Ships to take Shelter in.

N. B. The Distances of Places are seldom set down in any of the Accounts given of these Coasts, at least not with that accuracy as to be depended upon; no exact Survey having been taken of the Land any more than of the Sea, and the Latitude being much the same.

Nor are the Dangers of this Coast less from the tempestuous Climate, than from the rocky Shore, the Seas being exceeding boisterous, and the Tornados so frequent, that 'tis very rare to sail along this Coast without meeting with them, which having few or no Ports to run into, renders it very dangerous.

The *Spaniards* call all this Country *O Pavo de Cordona*, and the Mountains which lie in a Ridge W. from *Sierra Nevada*, *Sierra de Sembro*: concerning which Mountains the *Spanish* Sailors tell us, that when they are clear, and to be seen without any Clouds hanging on their tops, you may depend upon a Storm being at hand; and they say it never fails.

To the westward of the River *Diego* lies a small River called *Ancón de Guacero*; and beyond that, farther W. is the Bay

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W. from the *Rio de St. Martha* lies the River and Harbour, and also the Point of *Zamba*, or *Samba*, called *Punta de Zamba* by the *Spaniards*, from the Mountain mention'd above. You will know the Entrance of this Place by a very high Hill, as it were hanging just over it, called the *Marden Craxl*: There is also another Token to know it by at a distance. *viz.* that above 6 Ls from the Shore off of this Bay the Sea looks white and thick, as if some muddy River emptied it self with a furious Current: 'Tis also known by the Soundings at Sea, for at the dist. of 4 Ls you have 30 to 40 Fa. soft ouzy Ground.

W. of this Point of *Zamba* lies a Bay called by the same Name; and just before it are four Islands called the *Arenas*, which render the Bay an excellent Shelter for Ships in cases of Distress, let it come from what quarter it will; for you may run in either round or between them, and anchor almost where you will.

These Islands also break off the Force of the Sea, which as I observ'd goes exceeding high on all this Coast, especially with a N. and N.E. Wind, which usually blows longest here and with the most Violence. Indeed you have seldom any other except in the Tornadoes, when sometimes the Wind boxes the Compass in less than two hours.

In this Bay you have excellent Conveniencies for careening and repairing your Ships and Boats, good fresh Water, and Wood in abundance. As for the Sea, bring the Island *Zamba* to bear S.S.E. from you at the dist. of 2 Ls from the Shore, you have then good gradual Soundings from 15 to 25 Fa.

From the *Arenas Islands* the Coast trends away S.W. to *Punta Canoa*, or *Point Canoo*, called so, because it makes at Sea like two Canoes joined together. The Course to this Point is W.S.W. by reason of many Rocks and Dangers which lie in the way, some under Water at the dist. of 2 Ls from the Shore; which makes it very necessary, unless you are well acquainted, to keep a large Offing, especially when you go about the Point from the eastward, or if you come from *Cartagena*.

To the W. of this Bay, still lying along the Coast which holds on W. lies the Bay *de Gutta*, another good Retreat for Ships, but render'd the less useful by the nearness of the other, which is so very large and good, that nothing better can be desir'd.

From

Sailing Directions for the North Coast

From this *Punta Canoa* lie off the noted Shoals called *De Nigerillo*. This Point lies in Lat. 11 d. 25 m. and to the W. of Point *Canoa* the Shore falls off into a great open Bay, which has no Place of importance in it; but being a meer Strand, stretches out W. to a Point called the *Little Canoa*, from whence the Land trends inward again, till it makes the E. Point of *Cartagena*; there the whole Coast may be said to end.

Cartagena lies in a deep Bay; nay, the Port of *Cartagena* takes up the Bay, for the City is in an Island, only in one part of it: The Entrance, or rather the only navigable Entrance into the Bay, is at the W. Part; for the Bay lying almost due E. and W. parallel with the Sea, is separated from it not by the Main, but by three Islands which lie in the Front of it; one square, called the *Kares*, which is the westernmost of the three, on which is the *Fortalifa*, and makes the W. Point of the Port, or Entrance into the Road; one long, which stretches E. by N. from the E. Point of the Entrance, which is called *Isla Nova*; and one triangular, which is the easternmost, and on which the City of *Cartagena* stands. It is separated on the westernmost Point from the *Isla Nova* by a small Channel of the Sea, but not navigable: and is joined to the Main at the two other Angles by two Bridges: The Channels over which they lie are not navigable, so that there is no entering the Port but at the Opening between the *Isla Nova* and the Isle of *Kares*.

On the W. end of the *Isla Nova*, making the E. side of the Port, are two strong Forts which lie N.N.W. and S.S.E. of one another: the first near the Point opposite to the *Fortalifa* on the Isle of *Kares*, is called *Forto Granado*; and the other at the other Point, *Forto des Indies*.

There are also two other Forts on the S. Side built upon the Main; and as they lie upon the best of the Channel, so they are Guides to your entering, as well as Guards to the Entrance: one is called *Forto de Mansanilba*, and the other *Forto Zeli-ro*: The last is to the eastward of the first, and opposite to the W. Point or Angle of the City.

Before you come to enter the Port, there is a good Road even in the open Sea under the easternmost Point, where giving the Land a small Birch, you may ride in 5 to 6 Fa. with gradual Soundings off to 12 Fa. Ships ride here for a Wind, as they do on the Coast of *England* in the *Downs*, to go in or out.

The Entrance into the Harbour is S.W. from this Road, lying between the westernmost and the middlemost Island; 'tis a fair open Harbour, and bold, having no Dangers but what are seen, and in the *Fair Way*, which is Mid-Channel, inclining to the W. side, from 11 to 16 Fa.

Till you are a-breast with the second Fort, your Course in is S or S by W. After you are past the second Fort, there lies a Shoal called the *Aixos*, or the *Aixos*, that is, the Flats or Shallows, which stretches out near S.S.E. towards the Main: keep along by that Shoal to the Point of it, and then steer up the Channel due E. or E. by N. keeping in 9 to 10 Fa. by your Lead, which you must have constantly going; and stand over to the Point, passing close under the Guns and Platform of

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If you come from the westward, you may run clear of the *Salmadina*, by keeping 2 Ls off from the Island, till you make the Entrance into the Port of *Cartagena* fair open with you, due S. or at most a little westerly. Or if you please you may run in at the Channel of the *Bocrachia W.* of the Isle of *Kares*: the Channel is safe, and there is Water enough, tho it is not much frequented.

The Country is not inviting for any Strangers, were it not for this excellent Port, which is, without exception, the best in all the N. Coast of *South America*; but otherwise the constant Rains, violent Heats, and frequent Tornadoes and Tempests make both Sea and Land very uneasy to our *European* Seamen, and they die in great Numbers if they are kept long upon this Coast. From the Port or Entrance into *Cartagena* the Coast lies S.W. There are several small Bays, and some Rivers, as the River *Maturea*, but no places of Business for Shipping, or any Town or Harbour upon the Coast worth notice.

There is indeed a large Bay and Harbour at the Islands of *St. Barnardo*, which are five in number, lying in the Entrance of a large Bay, and which make the Bay an excellent Harbour for Ships; for the Entrance going in amongst the Islands, it is of course shelter'd from all Winds that can blow; for example,

The Channel goes in N.W. between the outermost Island called *St. George's*; then stretching behind the Island, it turns N.E. The innermost Island is called *St. Gilbertus*; and between them is a third called the *Goeree*; and on the off side lies a Shelf of Sand, which breaks off the Sea, and secures the Channel, which is deep and good.

After you have past a rocky Island called the *Westermost Cay*, you must haul in E. by S. and E. for the Road of *Grand Brue*. There are also four or five small *Cays* above Water, which lie to the eastward in the *Fair Way*; and as you come nearer the Road, you have at last a whole Rill of small *Cays*, that is Rocks. As you go into the Road called the *Grand Brue*, observe, that in going about the Point you give it a Birth, keeping off in 7 to 8 Fa. not nearer by any means: in doing this bring a Plantation, which you will see upon the Land over the Bay, at the very bottom of the right of it, to bear N. half W. and the W. Point of the outer *Cay* to bear W. half N. then you are in the best of the Road, and may anchor in 7 Fa. N. B. The W. Point of the outer *Cay* is higher, and is to be seen at Sea above all the *Cays* which lie without it.

W. from these Islands lies the River *Chenu*, having a wide Entrance; but as there is no Survey taken of it, nor any use made of its Channel as we can learn, so we can give no Direction about it.

From the opening of this River the Coast trends S.W. and S.W. by W. and from the Islands of *St. Barnardo* it lies nearest to the S.W. From the W. Point of this River there runs a Shoal of Sand, which must be avoided, both as you go in and go out: and just within the Point lies a small Island called *Illa Forta*: there is no good Anchoring about it, the Ground being all muddy and too soft.

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Off of the Isle of *Kares*, a little out to Sea, and lying S.W. from *Cartagena*, lies a sink Rock called the *Salmadinas*, which is dangerous; an *English* Man of War called the *Hunter* struck upon it and was in danger of being lost: it may be known by the Breach of the Sea upon one part of it for about thirty Yards; but the *Hunter* struck upon the Tail beyond the breaking of the Sea, the Pilot supposing he had been clear of it.

As you come from the eastward, you have nothing to fear, nor any Rule to observe, but to come no nearer the *Isla Nova* than 6 Fa. and sail boldly by it into the Road mention'd above, under the *Point de Granado*, and then turn in for the Channel

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W. from these Islands lies the River *Chenu*, having a wide Entrance; but as there is no Survey taken of it, nor any use made of its Channel as we can learn, so we can give no Direction about it.

From the opening of this River the Coast trends S.W. and S.W. by W. and from the Islands of *St. Barnardo* it lies nearest to the S.W. From the W. Point of this River there runs a Shoal of Sand, which must be avoided, both as you go in and go out: and just within the Point lies a small Island called *Isla Forta*; there is no good Anchoring about it, the Ground being all muddy and too soft.

S.W. from this Island lies the Island *Tortugas*: There are many Islands on the Coast of *America* of this Name, but this in particular the *Spaniards* call so, because, they say, 'tis shap'd like a Tortoise, which the *Spaniards* call *Tortuga*. It lies about a *L* from the Main; and unless the Weather is very clear, it makes at a distance as if it joyn'd to the Main.

The Land over against it is called *Punta de Delvrio*; and the Mountains behind it, for the Country is full of extraordinary high Hills, are called *Sierra de Vento*: which Land lies extended W. by N. and W.N.W. till they join with the E. Point of the Gulph of *Darien*. And so you have the N. Coast of *South America* joyned to the southermost Land of *North America*, being that called the *Isthmus* of *Darien*, where we left off.

N. B. As the Land has generally lain along E. and W. or near those Points, from the *Bocca del Drago* to this E. Point of the Gulph of *Darien*; so from hence it turns to the North, and lies due N. and S. from the other Point of the Gulph of *Darien* to the Point a little short of the City of *Nombre de Dios*, as has been fully described.

Sailing

*Sailing Directions for the East Coast of South
River de Amazones, to the River Oroonoko
Pilots or at present navigated by Europeans.*



AS this Coast is but very imperfectly surveyed, we must satisfy our selves with picking up such Fragments as we can find, and place them in the best order we can. The best that can be said of this Part is, that as it is but superficially surveyed, so it is a Coast but little used by *Europeans*.

The *Dutch* indeed have one Colony on the Main, upon the River *Surinam*, where they have a Fort and a Town called after the Name of the River; but we have no Account of any other *Europeans*, who have planted, or at least continued their Plantations, between those two great Rivers.

The first Account we find of the Coast relates to the making the Land. When any Ship bound thither from *England* designs to make the Head-Land of the *Rio d'Amazones* as his first Port, the Directions are as follow.

' If you are bound for the Coast of *Guiana*, and would take your Departure from the *Lizard*, shape your Course first in the same Latitude as you do for other Parts of the *West Indies*, viz. for the *Canary Islands*, till you come into Lat. 43 d. keeping about 60 to 70 Ls to the westward of *Cape Finisterre*, which lies in Lat. 43 d. or thereabout: Then steer away S. by W. That Course will carry you without, that is, to the Westward of the Island of *Madera*, which lies in Lat. 31 d. 20 m. Then go away S.W. by S a little westerly, and that Course will lead you clear of all the Islands, as well the *Cannies* as the *Cape de Verd* Islands, and carry you quite away to the Coast of *South America*'

N. B. About the Lat. of those Islands you will begin to fall in with the Trade-Winds, viz. the N.E. which blow constantly from the same Point, or with very little Variation; and, except in the *Travadoes* and *Hurricanes*, for eight or nine Months at least. But you may observe, that they differ at some time of the year from what they are at other times; and sometimes they go farther one way, sometimes another; and the farther you keep to the northward, the more variable you will find them to be.

If then you find the Trade-Winds variable, you must shape your Course a little more westerly, till you find your self under the Line, or near it; but as soon as you are pass'd the Equator, steer away due W. and that Course will bring you fair with the Mouth of the *Rio d'Amazones*, which lies just under the Line.

The Entrance into that River, one of the greatest in the World, opens to you N. by E. and from you S. by W. or thereabouts, tho the Head-Land of the W. Shore of its Channel lies due N. and S. and is therefore called the *Cape de Noord*, or the *North Cape*. The only Danger of that Course then is of falling too much to the westward of the Mouth of the River, that is, to Leeward of the Cape; in which case you may have great Difficulty in bearing it up against both Wind and

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for the East Coast of South America.

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them. These two are six Ls asunder ; and 7 Ls from the last lies the little *Cypurough*. Note, that all these Rivers come into the main Channel from the W. But as from the Mouth of the River *Arrowary* the Shore goes away N.W. or W.N.W. trending on a Line towards the Mouth of the *Oroonoko*; so all the Rivers afterwards come into the Sea from the S.W. or near that Point.

As I said above, the Shore trends to the N.W. and most of the Rivers take their Course from the S. or S.W. The first of these is the River *Arriary*, which is large at the Opening, but grows narrower farther in ; where there is another River extending it self southward, but only navigable for smaller Vessels. On the E. side of the River *Arriary*, or *Arriary*, lies a Bank which you should be careful to shun. The River *Arriary* is wide and large, reaching far in within the Land.

On the W. side of this River lies an Outlet or Arm, as the *Arrowary* is to the *Amazones*, and is called *Wiapoco*, or little *Wia*, which branches it self every way, like as the other Rivers do, and is navigable every way. The going into this River is much like that of *Arrowary*, that is, that after sailing 4 or 5 Ls up the *Arriary*, there lie six small Islands, directly opposite to which lies the River *Wiapoco*.

In going into this River, keep the Hill called *Carp* right a head, and so run up till you come to 3 or 4 Fa Water, and then drop your Anchor, soft Clay Ground, where you may ride with safety. There are very few of the Lands hereabout inhabited, so there can be no great occasion of Shipping.

From the opening of this River the Coast trends N.W. to the River *Capperzacco*, or *Aperzaccque*; it is an indifferent large River, with an Island lying thwart the Entrance: and all round the Island lies a Bank of Sand. After you are run in 5 to 6 Ls, it is divided into 2 great Branches, one to the southward, and one to the westward.

Off of this River lies a Clutter of very high Rocks. you may see them 4 or 5 Ls off every way ; they are called the *Constables*. Your Course either for the River's Mouth, or along the Coast, is between these Rocks and the Main ; and you may anchor also within them in 4 to 6 Fa open with the River ; so that you may go directly up the Channel. If you are bound in, keep the W. side of the Channel, and you cannot do amiss.

A little to the westward of *Capperzacco* lies a small narrow River called *Carco*, on the easternmost side whereof lies a Bank of Sand. To sail in, keep along the W. Shore, there you have 2 Fa. in the Entrance ; but after you are in, there is 5 to 6 Fa. far up. All this Coast, from the *North Cape* to the River *Wia*, you have soft muddy ouzy Ground, otherwise 'tis a clear Coast as to Rocks, and the Soundings good. On the W. Shore of this River *Carco* you will see a Town called *Cottowant*;

nine Months at least. But you may observe, that they differ at some time of the year from what they are at other times; and sometimes they go farther one way, sometimes another; and the farther you keep to the northward, the more variable you will find them to be.

If then you find the Trade-Winds variable, you must shape your Course a little more westerly, till you find your self under the Line, or near it; but as soon as you are pass'd the Equator, steer away due W. and that Course will bring you fair with the Mouth of the *Rio d' Amazonas*, which lies just under the Line.

The Entrance into that River, one of the greatest in the World, opens to you N. by E. and from you S. by W. or threabouts, tho the Head-Land of the W. Shore of its Channel lies due N. and S. and is therefore called the *Cape de Noord*, or the *North Cape*. The only Danger of that Course then is of falling too much to the westward of the Mouth of the River, that is, to Leeward of the Cape; in which case you may have great Difficulty in beating it up against both Wind and Current, and sometimes it is not to be done.

There is one way to recover this mistake, if you are not shot too far to the *Leeward*, and that is to put into, and run thro' the Channels of *Arroway*. This is called another River, and is distinct from the *Rio d' Amazonas*: the Mouth of it lies about 12 Ls to the westward of the *Cape de Noord*. Some will have it be a Branch of that great River, and it may perhaps be so, tho you go thro' many other Channels before it brings you out, and at last it falls in on the E. side of the Point, but without the Channel of the main River: so that it is rather an Arm of the Sea, making the great Island *Carponi*, than a Branch of the River; but be it which you will, if you can by the help of the N.E. Winds stem the Current, and make your way thro' this Channel, it certainly brings you out within the opening of the great River, and at least 16 Ls to the southward of the North Point.

This Channel beginning at the W. Point of the Island *Carponi*, reaches in first S.W. then goes on S. then S.S.E. as the several Windings and Reaches lead: then it goes away S. and at last opens into the grand River, or rather, into the Mouth of it N.E. The eastermost Point, which is the S.W. Point of the Island *Carponi*, is called *Cape Arroway*, from the Name of the River.

In the Passage of this Channel, or River, you have from 4 to 6 Fa. Water, a muddy ouzy bottom; and you must be sure to come to an Anchor every Tide, for the Ebb which sets out to the northward runs with such a rapid Fury, that there is no stemming it, no not with a hard Gale of Wind, unless it should blow a Storm; and then it would not be without its Dangers on other Accounts.

In this Channel lie several other Rivers, which are navigable also, as the River *Warripoco* about 2 Ls to the westward, and the Rivers *Mariporough* and *Cayporoughs*, with several others, but without Towns or Trade; so it is needless to describe

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Off of this River lies a Cluster of very high Rocks, you may see them 4 or 5 Ls off every way; they are called the *Constables*. Your Courte either for the River's Mouth, or along the Coast, is between these Rocks and the Main; and you may anchor also within them in 4 to 6 Fa open with the River; so that you may go directly up the Channel. If you are bound in, keep the W. side of the Channel, and you cannot do amiss.

A little to the westward of *Capperwicco* lies a small narrow River called *Caroco*, on the easternmost side whereof lies a Bank of Sand. To sail in, keep along the W. Shore, there you have 2 Fa. in the Entrance; but after you are in, there is 5 to 6 Fa. far up. All this Coast, from the *North Cape* to the River *Wia*, you have soft muddy ouzy Ground, otherwise 'tis a clear Coast as to Rocks, and the Soundings good. On the W. Shore of this River *Caroco* you will see a Town called *Cottowari*; there are some *Europeans* settled there, but we find no Ships use the Port, or very rarely.

S.W. by W. from the *Constables* lies the Mouth of the great River *Wia*, which goes in between the Island *Cayana* and the Main; 'tis a River of a very long Course: the length inwards is not discover'd, but may be concluded to be great by the Strength of the Current, and the greatnes of the Stream of Water which comes down.

The Island *Cajana*, or *Cajuna*, is named from a River of the same Name, which comes into the Sea on the other side of it, and makes a very good Harbour, the best in many respects on all this Coast: 'tis large enough to receive 100 Sail of good Ships, is well secur'd from all Winds, and has 4 to 5 Fa. clean Ground, any where all over the Road.

On the Island *Cajana* there is a very large Fort, or rather a fortify'd Town, which has also a Fortres within it: both are strong by Situation, and the Works about them very regular, raised by the *Dutch* when they had Possession of the North part of *Brazil*.

The Island is inhabited by a sort of People called *Sb bayes* of the *Brazilian* kind: the Fort is in their Language called *Sobarbrob*. Some Ships victual here with the Flesh of wild Swine, which cures very well, and is pickled and barrell'd up as Pork is in *Europe*.

In the Entrance into the Road or Harbour of *Cajana*, you must be careful to keep without four small Islands which lie just off of the Town: The best of the Road is to the S.W. of them.

There are also several small Islands in the Offing, due N. from the Main Island, at the dist of 3 Ls from the Shore, *etc.* the *Boos*, which is the westernmost; and E. from that dist. 4 L is the *Fortorn* or *Lost Island*, being a great Rock only: but they say it was a large Island, most of which is sunk into the Sea and lost.

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Farther E. about a mile lies a long narrow Island called the *Vaader*, or the *Father*; and 2 Ls E. by S. from the *Father* Island lies another long Island, and 2 little ones, called *de Moder* and *de Doghtors*, that is, the Mother and the Daughters: they are all little more N.W. than those mentioned before, called the *Constables*, which lie in the same Line S.E. from the *Mother* and *Daughters* about 3 Ls. There are two of these latter, one called the *Constable*, and the other the *Constable's Mate*.

If you would run in between these Islands and the *Constables*, you must not stand right thro' from the Sea with the Opening, but keep a more northerly Course; at least two or three Points, because of the strong Current which sets in from the westward between these Islands and the Main, and which will without such Caution drive you ashore upon one or other of them, or oblige you, in order to avoid them, to run too far towards the Main, and endanger your going ashore upon the Island of *Cajana*: and even with all this Caution you will have enough to do to make good your Course, which ought to be in the Midway between the Islands, in 4, 5, or 6 Fa. Water. N. B. An E. or W. Moon makes full Sea at these Islands.

From *Cajana* the Coast lies E.N.E. to the River *Caurora*; there are three Islands lie just in the Mouth of the River: if you are bound in, you must keep off from the said Islands, and go away to the westward of them, and then stand round in, with the Opening: the Channel of the River is good, and you may anchor in 7 to 8 Fa. slimy Clay Ground.

From the River *Caurora* the Land thrusts out to the northward to the River *Uracho*, the Course is W.N.W. the Entrance is on the W. side within a high Point of Land, which makes far into the Sea on the Shore of the River. The dist. from *Caurora* is 18 Ls; there lies a Spit of Sand from the eastward Point which you must take care to avoid. Having past that Shoal by your Lead, the Entrance into the River is safe, there is 2 1/2 Fa. in the *Fair Way*. There is also another River between them, called *Rio Carazowiny*; 'tis large and navigable, but of no great use, few Ships coming thither, except some *Dutch* Vessels to load a kind of Wood for Dyers use, of a kind between the *Brasil* and the *Logwood*.

W. from the River *Uracho* lies the Bay of *Arwacas*. In the bottom of the Bay is a Village also called *Arwacas*: off of the Town there is a good Road for great Ships, and shelter'd from S. and easterly Winds, but a little open to a northerly Gust, which brings in a high Sea. To the westward of the Bay lies the River *Amona*, a large deep River and navigable, not for Ships only, but for a great Fleet if need were: 'Tis also navigable far up into the Country, but no Trade requiring it, the Channel is not founded; the only Deficiency is, that the River lying almost strait in, without Reaches and Windings, as great Rivers usually have, the Tide runs with such terrible Force, especially the Ebb, that unless you can get to ride in some Bight, or in the Eddy of some Point, no Anchor can hold you. But there is another thing which renders the Navigation of this River less valuable, and that is, that there are no Towns or People to be found on its Banks, or any Produce of the Country which should bring Ships to the Place.

From the Bay of *Amona* the Course lies N.W. by W. to the River *Marrowini*, or *Morasowiny*, another great and deep

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Ships have some Trade, but chiefly for Furs and Dyers
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From hence the Coast trends away W.N.W. a fair clean Strand
to the Mouth of the River *Surinam*, the distance from *Am-*
rowiny about 25 Ls.

This is a noted Place for *European* Commerce, the *Dutch*
having a large Colony upon the River, and consequently a
great deal of Shipping, as well to the Port which is in the
Mouth of the River, as far up into the Country, and as some
say above 40 Ls.

There runs off a great Spit of Sand from the E. Point of
the Entrance, which goes far into the Sea: Keep well off at
Sea before you stand in for this Harbour, till you see fairly into
the Mouth of the River from the W. Point; then stand over to
the Point, and run in, you will have not above 2 Fa. there at
low Water; but 'tis deeper when you are gotten in. The
River is about 2 Ls wide in the Entrance, and is divided into
several fine Streams, after you are in, all navigable, and run-
ning far into the Country several ways: So that here is great
Convenience for Shipping, and several good Harbours; and
the Trade being considerable on this Coast, most of the Ships
come hither as to the chief loading Port. The best anchoring
is just under the Port call'd the *Zelandia Fort*.

From *Surinam* the next Port W. by N. is *Cupanama*, dist.
from *Bramao Point* 12 Ls, and from the Mouth of the River
Surinam 10 Ls. If you are bound from the eastward along this
Coast, you must keep a large Offing between the River *Com-*
mewiny, and *Surinam* or *Cupanama*; because in the Midway
lies a great Bank of Sand off from the Shore, reaching above
4 Ls into the Sea, and being near as many in breadth.

From *Cupanama* the Coast lies W. 10 Ls to a small River, name-
less, but call'd by the *Dutch* the *Devil's Creek*: There is a fair
Harbour and good anchoring in soft oozy Ground: Keep the
Fair Way Mid-Channel, in which you have 4 to 6 Fa. Water.

Four Ls from *Van Duyvels Creek*, so the *Dutch* call it, lies
the River *Barbiezos*, the Coast is due W. 'Tis all a fair Coast,
as before: In the Mouth of that River lies an Island, but
the Entrance is very fair on th E. side of it; only you must
keep off from the E. Point, till the Mouth of the River o-
pens due S. from you; then you may run boldly in, having
14 to 16 Foot Water in the Entrance at low Tide.

From *Barbiezos* the Coast bears out to the northward, so
that the Course is N.E. by E. to the River *Demary*, or *Dem-*
erary: 'Tis a good Coast, and good anchoring Ground all the
way, the Shore plain and clear, with good Soundings from
7 Fa. to the very wash of the Shore. Your Entrance into the
Demary lies S.W. by W. so that you must go round a long
Point of Land, which makes the E. Point of the Gulph of
Esqueba. From the River *Barbice*, so some Charts name it,
to that Point, the distance is 22 Ls. and thence to the Entrance
into the *Demerary* 8 Ls: The Course to the Point, as above,
is N.E. by E. and the Course in the Fair Way, taken at an
Offing of 5 Ls W. of the Point, is S.W. by W.

The Channel in, is in the Midway; keep your Lead going,
and when you find 14 Foot Water to 2 $\frac{1}{4}$ Fa. then you are
within 2 Ls of the Mouth of the River. As you go in, you
will deepen the Water to 15 and 2 Foot gradually; and when
you are within the Head of the River, you have 16 Fa. which

Dutch Vencils to load a kind of Wood for Dyers use, or a kind between the *Brasil* and the *Logwood*.

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From the Bay of *Amona* the Course lies N.W. by W. to the River *Marrowini*, or *Morasawiny*, another great and deep River, the distance from the River *Uracho* is 20 Ls, from *Amona* 16 Ls: The Mouth or Opening of this River is 3 Ls wide. On the E. side of the River there lie a great many little Islands, suppos'd at first thrown up by the force of the Current; but now the Set of the Stream lies in the Mid-Channel, inclining to the other Shore. There are also divers Rivers, which fall into the main River among those Islands, most of which are able to carry good Ships, were there any Use for them.

The main River is navigable far up into the Country, as some tell us above 50 Ls, and has 4 to 5 Fa. Water all the way: Your Entrance is under either Shore, rather than in the Middle, for there lie two Islands directly in the Mouth of the River, with a Bank of Sand running out to seaward. Keep your Lead and Line in Hand; and going on either side, come no nearer than 4 to 3 Fa. You may anchor on both sides in good hard Clay Ground.

From this River to the River of *Surinam* is a fine clean Strand, and a clear Coast. Between them lies the River *Commewiny*; which tho it be a large River, and of a long Course, yet when it comes as it were to the Sea from the South, it turns its Course W. and runs into the Sea at the same Opening as the River *Surinam*, making an inland Channel somewhat like the *Frischauf* on the Coast of *Prussia*, running parallel with the Sea for near 20 Ls.

But before you come to that River, lies a little River call'd *Surimina*, or *Sorominy*; which tho a much smaller River, is a very convenient navigable Channel, having 3 Fa. in the Entrance, and 4 to 6 Fa. within: The Entrance will make you cautious, for you will think you are running right a-shore, a great round Point seeming to divide the River into two Channels; but passing by to the westward of that *Bluff Point*, you will see the River fair before you. Here the *Dutch*

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to that Point, the distance is 22 Ls, and thence to the Entrance
into the *Demery* 8 Ls: The Course to the Point, as above,
is N.E. by E. and the Course in the Fair Way, taken at an
Offing of 5 Ls W. of the Point, is S.W. by W.

The Channel in, is in the Midway; keep your Lead going,
and when you find 14 Foot Water to 2 $\frac{1}{2}$ Fa. then you are
within 2 Ls of the Mouth of the River. As you go in, you
will deepen the Water to 15 and 20 Foot gradually; and when
you are within the Heads or inner Point, you have 4 Fa. which
is the deepest of the Channel.

The *Dutch* have several little Colonies within this River, and
go up to them with Ships of good burden. If you are bound
in, make a Signal, and the *Dutch* Factory will send you off
a Pilot, and bring you in; but you may come out again when
they will give you leave, which you would do well to consider
of before hand.

Four Ls from the Mouth of the River *Demery* lies the
great River *Esqueba*; the Mouth of this River, as above, in-
cludes both, and therefore the Entrance is call'd the Gulph of
Esqueba. In the Mouth of the River *Esqueba* lie three great
Islands, the *Laguaneca* or *Lagewaan*, the *Margaretta*, and
the *Parrots* Island; they lie a-breast of one another, the first
to the eastward, the last to the westward, and the other in the
middle; and behind the *Parrots* Island lies the Island call'd the
Troel: These four Islands as it were block up the Mouth of
the River; but the Channels between are very clean and good,
tho not very deep. In the E. Channel is the deepest Water;
the two middle Channels are very shoal, one has at low Ebb
but 6 Foot, at other times 13 to 14 Foot.

After you are past the Islands, and go up the Channel, you
have Water enough: Then you meet with seven other Islands,
call'd the *Seven Brothers*, and by some only the *Seven Islands*.
Farther up you have another Island call'd the *Whale-Fish
Island*, and three more call'd the *Three Brothers*: After which
the River spreads wide, and is navigable a great way.

The two westernmost Islands at the Entrance have large
Shoals of Sand running out from them to seaward; so that you
must keep to the eastward, to sail in between the Island *La-
gewaan* and the Main, where you will have 3 Fa. to 3 $\frac{1}{2}$, with
good holding-ground to anchor in if need be

On the W. Shore far within this River, the *Dutch* have a Fort call'd *See-over-all*, because built on very high Ground; but you must not venture up thither with a Ship without a Pilot, the Channels being very difficult.

If you come from the eastward, to make this Port you must run above the westernmost Shelf, leaving it on your Larboard-side, and run in between it and two other small Shoals, which lie more to the westward still: But take good heed not to come too near to a Shelf which lies off of *Lagewaan Island*, and run up between that Island and the Main, leaving the Island and also the Shoal on your Starboard-side.

When you are a-breast of the Island, you will deepen the Water to 4, 5 and $5\frac{1}{2}$ Fa. Also observe, that just a-breast of the Island comes out a Spit from the Main, lying out a good way; but you have room enough to leave it to the Larboard-side half a L., and Water enough; so keep in 5 to 6 L. and you will go clear.

W. from the Gulph of *Jfueba* lies the River *Poumaron*, or *Poumaron*: but your Course is due N. and at most N. by W. till you make a long high Point call'd by the *Dutch* Cape *Naffan*. In sailing this Course you must stand 4 to 5 Ls off to the westward of the Shore, all the way from the W. Channel of *Jfueba*, or rather from the lowermost Point of the Island of *Lagewaan*, because the Shore is flat off a long way, and full of Shoals also far out from the Main; which Shoals begin from the *Adders Bank* off of the *Rio Anubo*, and reach more or less all the way to Cape *Naffan*.

That first Shoal call'd the *Adders Bank*, reaches as far as a Point with a high Tree upon it, call'd Cape *de Hoe*; the high Tree stands on the N.W. Point of a small River, where you may send in a Boat for Refreshments and Water, but must not go in with a Ship. Off of the Cape *de Hoe* a Shoal lies a great

Sailing Directions for the Coast of Brasil, from the Amazonas, to Cape Santa Maria, being the North into the Rio de la Plata, inclusive.



As the *Portuguese* claim the Sovereignty of all this Coast, from the S. Point of the Opening into the River of *Amazones*, and annex it all to their Colony of *Brasil*; so whether they possess it all or no, as by our Account appears to be doubtful, 'tis not material to the Sailors: 'Tis sufficient that they call it all the *Brasil Coast*, and we may describe it as such, without entering into the Question whether of right it is so or no.

From *Cabo Noord*, or the *North Cape* on the Island of *Cary*, which makes the northernmost Point of the E. Shore of the *Rio d'Amazones*, to *Punta de Pedras*, which is the Head-land or first Point on the opposite Shore on the Main of *Brasil*, it is by just Measure either of the Land or Sea 75 Ls; and so wide we may reckon the Mouth of that vast River to be; measuring clear of all the Islands which lie within the

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Directions for the Coast of Brazil.

Shoals have a way into the Sea. On the outward Edge of those Shoals you have no more than 6 to 7 Foot Water. Beyond this still Ground; N. by W. lies another Shelf call'd *de Broad Hook*, which without a reaches out a long way to Sea, and keeps on to Cape *Nassau*.

you must Cape *Nassau*, (call'd by the *Spanish* Pilots Cape *Drongo*) makes the E. Point of the River *Poumaron*. As you sail N. and Larboard-als, which by W. and due N. to come out of the Gulph of *Esqueba*, and not to come that your Course for this River lies in N.E. for about 5 or 6 Ls, ed, and run so you will not see the River it self till you keep that Course, and bring Cape *Drongo* to bear S.S.E. from you; and then and also the Opening of the River will lie S. by W. from you.

deepen the The Entrance is wide, but the Water is shoal, so that great must a-breast Ships do not go in here. The *Dutch* have two or three large lying out a Settlements in this River, and a good number of Ships employ'd to the Lar- in it. When you are over the Bar, you have 4 or 5 Fa. but 5 to 6 Fa. not above 7 to 8 Foot upon the Bar at high Water. If you are bound up, as soon as you get in, run S.E. about *Muskito Point*, and then go S. in, and come to an anchor before the first Village. Also at the second Fort is a good Road.

Poumaron, There are several other small Rivers W. and N.W. of this N. by W. Port, such as the *Morngo*, another call'd *Waymay* dist. *Dutch* Cape 3 Ls, the *Amacum* 4 Ls, and the *Mocomoco* 4 Ls farther: to 5 Ls off This last some call the *Little Oroonoko*, but it is not so taken W. Chan- in the Charts.

of the long way, N.W. from this last lies the great River *Oroonoko*, with the which Shoals the Island *Trinidad* at the Mouth of it, of all which we have and reach spoken in their proper Places.

as far as a There are several good Roads about the Island of *Trinidad*:; the high but as the *Spaniards* neglect the Place, and there are very few where you Inhabitants upon it, we think Directions for sailing about it at must not very uselefs.

Brazil, from the Mouth of the River Oregliano, or de being the North Point or Head-land of the Entrance

of all this Being past this Riff, stand in S by E. fair for *Arripoka*, which go into the is the first Island you meet with in the Mouth of the *Rio de* their Colo- *Amazon*, and makes the E. Point of the Channel mention'd t all or no, above; the N. Point of a large River, which comes in from ful, tis not the Main W. by S. from it, making the other or W. Point. ll it all the

out entring Before you come to the Island *Arripoka*, you will see three and of *Car-* hard dry Banks of Sand lying triangular, at about a L. distance E. Shore of the Island, and about the same distance from one another; s the Head- the northernmost is the biggest: Leave them all on your Lar- the Main of board side, and stand in S.W. for the said Point of the River ne Sea 75 Ls; on the other Shore; the Sands are steep too, and you will have t River to have made the said namelefs Point, you Course is due S. to the within the *Red Hook*, or *Red Point*, which is the other or S. Point of the River; and from thence you have the like clear Channel



As the *Portuguese* claim the Sovereignty of all this Coast, from the S. Point of the Opening into the River of *Amazones*, and annex it all to their Colony of *Brazil*; so whether they possess it all or no, as by our Account appears to be doubtful, 'tis not material to the Sailors: 'Tis sufficient that they call it all the *Brazil Coast*, and we may describe it as such, without entering into the Question whether of right it is so or no.

From *Cabo Noord*, or the *North Cape* on the Island of *Carpoy*, which makes the northernmost Point of the E. Shore of the *Rio d'Amazones*, to *Punta de Pedras*, which is the Headland or first Point on the opposite Shore on the Main of *Brazil*, it is by just Measure either of the Land or Sea 75 Ls; and so wide we may reckon the Mouth of that vast River to be; measuring clear of all the Islands which lie within the Channel of it, whose Number is not to be cast up, and some of which are very large, particularly the Island of *Pacojares*, which is near 70 Miles long and 30 broad, and where the *Spaniards* or *Portuguese* have a strong Fort; and the Island *Jacmes*, where they have another, being upon the main Channel of the River, call'd by the *Spaniards*, *Canal de Bona Fenda*, or the *Safe and Deep Channel*.

As the Islands in this great Opening are not to be number'd, so neither are the Mouths or Passages between them into the River; for so many Islands, so many several Channels may be said to belong to the Grand River.

The chief Entrance which Navigation takes any notice of, is on the W. side of the River; due S. from the Island *Carpoy*, and S. also from the Mouth of the River *Arroyo* mention'd before. To go into this Passage, supposing you first make *Cape Noord*, stand in for the Cape, till you come into 6 Fa. Water, you will find the Shoalings gradual and just: But come no nearer than 5 Fa. at which time you will be 2 Ls at least from the Shore; the rest you must allow for a Flat, which lies off from the Cape, and continues to lie off Shore all the E. side of the Island, till you come to the Mouth of the River *Arroyo*. About 5 Ls short of that River the Land shoots out into the Sea eastward, making a large round Cape, but we know no Name given it.

Off of that Point you will find, keeping the usual distance, 7 to 8 and 10 Fa. Water: From thence steer E.S.E. till you get about 10 Ls off, to avoid a long Riff of Sand, which shoots off due N. from the other Point of the River *Arroyo*; which Sand ends in a sharp Point, and at the End of the Point lies a small Island of Sand, dry at low Water: All which you must avoid, and keep a good Offing, as above, lest you are hors'd upon that Island and Riff by the Indraft of the Ebb, which runs very strong into and thro' the *Arroyo*, as has been observ'd in its place.

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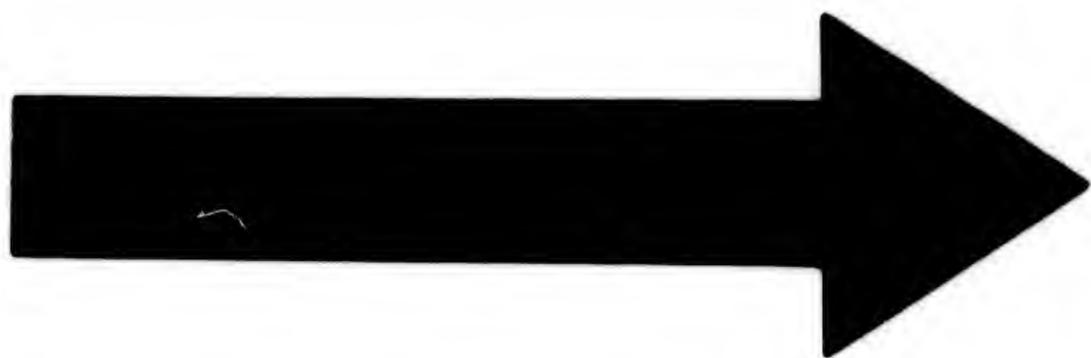
Being past this Riff, stand in S by E. fair for *Arripoka*, which is the first Island you meet with in the Mouth of the *Rio de Amazonas*, and makes the E Point of the Channel mention'd above; the N. Point of a large River, which comes in from the Main W. by S. from it. making the other or W. Point.

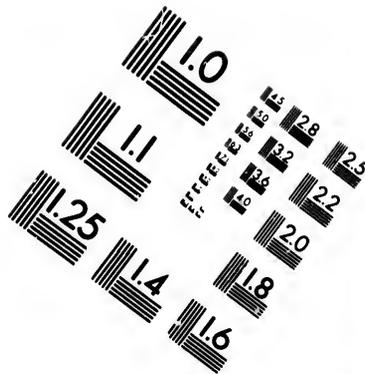
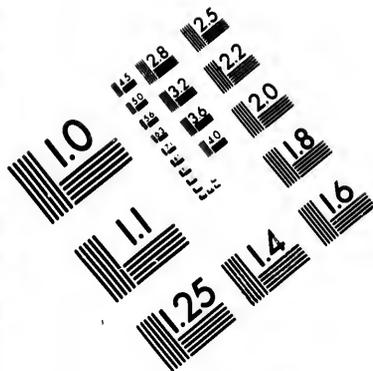
Before you come to the Island *Arripoka*, you will see three hard dry Banks of Sand lying triangular, at about a L. distance from the Island, and about the same distance from one another; the northermost is the biggest: Leave them all on your Larboard side, and stand in S.W. for the said Point of the River on the other Shore; the Sands are steep too, and you will have 5 to 8 Fa. and a very fair Channel all the way. When you have made the said nameless Point, your Course is due S. to the *Red Hook*, or *Red Point*, which is the other or S. Point of the River; and from thence you have the like clear Channel under the Main, with a continued Range of Islands on the Larboard-side, for above 30 Ls: The Channel is generally 2 to 4 Ls wide, till you come to the Country of the *Tomamos*, where the *Hollanders* had a Fort, but the *Spaniards* now possess it, and have some Ships which use this Channel: But we find no Marks of any Navigation beyond it, the Currents being so exceeding violent, and the weight of Water so great also, and which rises at certain times so much, that it drowns all the low Grounds and Islands, so that there is no knowing the Channel. The *Spaniards* call this Coast the Kingdom of the *Tuckans*, and *de Dos Marigues*.

N. B. The Entrance into this Channel is directly under the Equator.

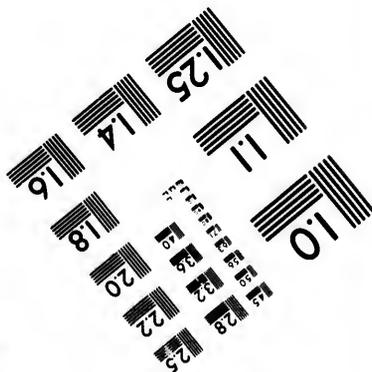
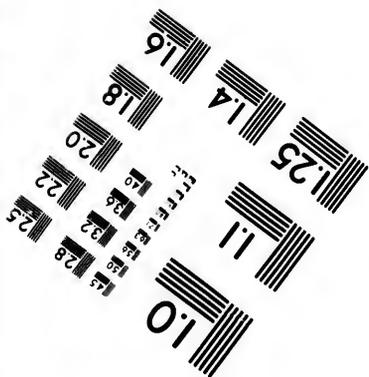
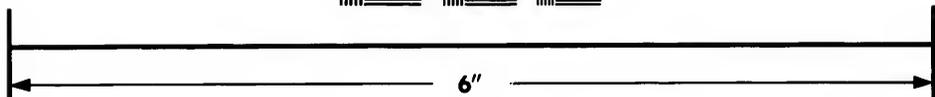
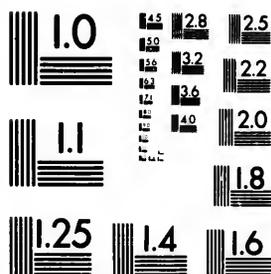
On the E. side of all these Islands, at about half a Degree S. and at the distance as above, begins the Coast of *Brazil*: The *Isle de St. Juan*, or *St. John*, is the first on that side, as that of *Arripoka* is on the other. Opposite to this Island, a great River call'd *Guama* empties it self into the *Rio d'Amazonas*; and on the Point of Land which makes the N. Head of that River the *Portuguese* have a Fort named *Cidade*, or *Cidade de Belem*, that is, the City of *Belem*, where they keep a Garrison, and where there is a very good Road for Shipping; but the Current of the great River is so strong, that Ships cannot work it up without great difficulty; and as for the City it has little but the Name.

This they say begins the Coast of *Brazil*; and from hence the Land goes away N.E. between the Islands, and under an uninhabited Shore, till you pass a Point of Land call'd *Contutaba*, distance from the Point or Road of *Belem* 10 Ls: At the coming out from this Streight you must be careful of a Riff of Sand which shoots out from the N.E. Point of *St. John's Island*, and makes a long Hook, bending eastward towards the Shore above 5 Ls in length; and opposite to which from the Main runs out another Sand, making another sharp Point; so that





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Sailing Directions for the C

that the Passage, or *Fair Way* between them, makes a kind of Streight of about 2 Ls wide: You must find the Channel by your Lead.

From this Streight to *Punta de Pedras*, the Course is E.S.E. or thereabout, the dist. 7 Ls: The W. part of the Course is full of small Islands and Shoals lying off from, and round about them; so that 'tis dangerous going within 3 Ls of the Main. There are some Inlets and Rivers also come in behind those Shoals; but as there are few or no Inhabitants on the Main, and none at all in those Islands, Navigation has no Business there. *Point Pedras* lies in S. Lat. 40 m.

From *Punta de Pedras* the Shore trends away more to the S.E. but on the N.W. side of the Point comes in the River *de Pedras*, or the Stony River, the W. Point of which runs far out into the Sea, and joins the Flats of the Islands mention'd above: So that at that Point the Mouth of the *Rio d'Amazones* may be said to end, and not before.

S.E. by E. from *Point de Pedras*, and distant from the River *de Pedras* about 5 Ls, lies the *Rio de Cayta*, or *Pyrava*, formerly call'd *Rio Fleman*, or the Dutch River. On the N. Point of the W. Shore of this River is a large Fortification call'd *Fortaleza de Pyrava*, and on the E. Shore of the River, 3 Ls within the Points, lies a Town call'd *Villa de Cayta*. Here is a good Road for Ships to anchor in, either on the E. Shore before the Town, or on the W. side under the Lee of the Castle. The Portuguese send some Vessels in here to buy Provisions, but 'tis not much frequented.

From the *Rio de Cayta* the Course is E.S.E. to the *Rio Tury* the distance 40 Ls. Between them lies the *Casa de Vygia*, the *Rio Rodomonta*, *Rio Guropy*, *Rio Carara*, and several other Places of small note for want of Commerce; otherwise they have many of them very good Bays and Roads for Shipping. In the Mouth of the *Rio Tury*, and, as it were, blocking up the Harbour, lies the Island of *St. John*, a long narrow unequal piece of Land, having a Rist of Sand running off N. from it, as big and long as it self, and much broader; this Island lying just off of the River's Mouth, makes a very good Harbour on the inside of it, as well as in the Mouth of the River it self; but 'tis very difficult going in or out, here being no Pilots to be found.

This Coast is fair and clean, but unfrequented. From *St. John's Island* the Coast shoots out a little N.E. to the Island *Sypomba*, dist. about 7 Ls. In the way lies *Barryeras Vermellias*, where there is a large Bay, and very good anchoring, as there is also within the Island to the eastward of the Bay: But here is no Shipping or *European* Plantings; so that all these Bays seem to be useless.

S.E. from *Sypomba* lies a Range of Islands, making the great Bay of *Para*; one of them is call'd the *Island of Para*, within which there is a Portuguese Fort, from whence the Province has its Name; also a small River of the same Name, in the Mouth of which is good riding for great Ships, the Island breaking off the Sea, and two high Points securing it from both the N. and E. Winds. E. by S. from thence lies the Bay *de Cabelo de Velba*, a large Bay, where is good anchoring for small Vessels.

At the Mouth of this *Rio de Para* there is a Portuguese Town call'd *Villa de Para*, with a large Fort having a Plat-

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a kind Channel On the S. side of this Harbour lies the *Portuguese* City of *Maranhao*, where they have a very considerable Trade especially for Rice and Tobacco.

s E.S.E. The Harbour is perfectly secure, the Ground good, clean
ourle is from Rocks or Shoals, and you ride in 8 to 10 Fa. with a
ound a- Head-fast a-shore just under the Citadel. The Entrance into
of the it lies in double; there being a triangular Shoal just in the
behind Mouth of the Passage, the Channel lying in on the N. and
on the S. sides of the Shoal, under the Cannon of the Fort
s no Bu call'd *Fortaleza de St. Philip*, which is on the N. and the Ci-
tadel which is on the S.

to the The Mouth of the River is 4 Ls. broad, opposite to this
River de Harbour: 'Tis call'd a great River by the *Portuguese* Maps,
runs far but others say there is no such River at all, and that it is only
ention'd a Bay receiving three small Rivers into it: The Dispute is not
d' Ama to our Purpose; 'tis sufficient to observe, that the Mouth or
Opening passes between this Island and the Main, and is a very
good Road for Ships of the greatest burden.

he River There are likewise several good Harbours on the W. side of
former- this Gulph, where the *Portuguese* have some Settlements, and
N. Point load several Ships with the Product of the Country.

on call'd On the other side of the Island eastward there is also another
er, 3 Ls Channel of the same Gulph, which they call *Barra de Tapary*;
Here is it goes up to a little Bay or Road call'd *Espreza* or *Streight de*
E. Shore *Tapyroza*. On the E. Coast of this Channel or Streight lies
e of the another Settlement call'd *Santa Maria*, with a Fort call'd
buy Pro- *Fortaleza de Santa Maria*: And N. from the Fort lies *Cabo*
de la Torta. S. of that Cape, and under the Cannon of the
Rio Tury Fort, is a very good Road, where the largest Ships may ride
er Places shelter'd from all Winds.

hey have Thus the Island *Maranhao* lies fair in N. and S. embayed in
ping. In this great Gulph of *Maranhao*, and seems to be surrounded with
g up the good Harbours and good Roads: the Navigation within among
unequal the Islands cannot be described, being for nothing but small
from it, Boats.

nd lying From *Maranhao* the Coast trends away E. by S. and E.S.E.
harbour on being generally a flat Shore, but with several good Rivers and
er it self; Harbours, which however have little Commerce; and most of
Pilots to the Rivers also are barr'd and block'd up with Sand, and ren-
der'd unnavigable for great Ships.

From *St.* From the Point or Cape of *Arbrasc*, to the *Barracco de Tor-*
the Island *tugas*, or the *Harbour of Turtles*, is 60 Ls E.S.E. the Coast
ras Ver- all flat as above, so that you must not come within 4 to 3 Ls
anchoring, at the nearest; nor is there any anchoring but in the open Sea
the Bay: upon all this Coast, except in two or three particular places,
o that all which it would be hard for a Stranger to find. *N. B.* If you
are blown upon this Coast, and are unacquainted, you may
take a Pilot at *Maranhao*.

the great In this *Barra de Tortugas*, or *Turtle Harbour*, is very good
ra, with- anchoring in 5 to 7 Fa. and good Ground; but as the Flats on
the Pro- the Shore stretch out far into the Sea, and make the Mouth of
me, in the the Harbour very narrow, you must sound your way in: for as
ddbreaking here are few or no Inhabitants, at least of *Europeans*, you
th the N. must expect no Pilots either in or out.

de Cabelo From this Harbour the Coast lies E. half a Point southerly;
all Vessels. but your Course for 6 or 7 Ls must be N.E. by E. because of
Portuguese a long Shoal of Sand which lies off, ranging with the Shore
g a Plat- for 12 to 13 Ls. There is a large Channel within it, and fe-

just off of the River's Mouth, makes a very good Harbour on the inside of it, as well as in the Mouth of the River it self; but 'tis very difficult going in or out, here being no Pilots to be found.

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S.E. from *Sypomba* lies a Range of Islands, making the great Bay of *Para*; one of them is call'd the *Island of Para*, within which there is a *Portuguese* Fort, from whence the Province has its Name; also a small River of the same Name, in the Mouth of which is good riding for great Ships, the Island breaking off the Sea, and two high Points securing it from both the N. and E. Winds. E. by S. from thence lies the Bay *de Cabelo de Velha*, a large Bay, where is good anchoring for small Vessels.

At the Mouth of this *Rio de Para* there is a *Portuguese* Town call'd *Villa de Para*, with a large Fort having a Platform of Cannon by the Water's Edge, commanding the Road; and above that, upon a high Rock, is the Castle, enclos'd by a strong Wall of Stone, also mounted with Cannon.

The Road is very good, the Ground clean within the Mouth of the River, and secured by the high Lands on both sides. The Mouth of the River is almost 2 Ls over at the Town, and you may ride in 15 Fa. within Cables length of the Shore, and 10 Fa. close under the Walls of the Fort. Many Ships use this Port for loading Provisions, which are very plentiful; also for Tobacco, which they carry to the Bay of *Pbernambuco*, to load on board the great Ships for *Europe*.

In the same Course, and distant from the Island and River of *Para* about 9 Ls, lies the *Cabo de Cuma*, the most noted Point of all this Coast, as being the E. Boundary of the Coast of *Para*, and the W. Boundary of the great Gulph of *Maranhao*: This *Cabo de Cuma* lies in Lat. 2 d. S.

The Gulph of *Maranhao* is a deep Bay full of an infinite Number of small Islands, the Channels of which are not to be describ'd: On the E. part they are so thick set, that they spoil all Navigation, except by Canoes and small Boats, by which they pass from one another.

The breadth of the Gulph from *Cape Cuma* on the W. Bank of the River *Maranhao*, to *Cabo des Arbres Secs*, or the *Cape of dry Trees*, on the E. is no less than 15 Ls.

In the W. part of this Bay, and N.E. from the Mouth of the River, lies the Island *Maranhao*, which is large, and commodiously situated for Navigation, and consequently for planting a Colony. On the W. side of the Island there is an excellent Harbour, being a mere Inlet of the Sea, no River running into it; for the Island is too small to have any great Rivers in it, being no where above 5 Ls long, and about 2 Ls broad.

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being generally a flat Shore, but with several good Rivers and Harbours, which however have little Commerce; and most of the Rivers also are barr'd and block'd up with Sand, and render'd unnavigable for great Ships.

From the Point or Cape of *Arbrafec*, to the *Barracco de Tortugas*, or the *Harbour of Turtles*, is 60 Ls E.S.E. the Coast all flat as above, so that you must not come within 4 to 3 Ls at the nearest; nor is there any anchoring but in the open Sea upon all this Coast, except in two or three particular places, which it would be hard for a Stranger to find. *N. B.* If you are blown upon this Coast, and are unacquainted, you may take a Pilot at *Maranbao*.

In this *Barra de Tortugas*, or *Turtle Harbour*, is very good anchoring in 5 to 7 Fa. and good Ground; but as the Flats on the Shore stretch out far into the Sea, and make the Mouth of the Harbour very narrow, you must find your way in: for as here are few or no Inhabitants, at least of *Europeans*, you must expect no Pilots either in or out.

From this Harbour the Coast lies E. half a Point southerly; but your Course for 6 or 7 Ls must be N.E. by E. because of a long Shoal of Sand which lies off, ranging with the Shore for 12 to 13 Ls. There is a large Channel within it, and several Rivers and Openings, which seem to have good Anchoring-places in them, and by the breadth of their Waters to be navigable far up; but as it is an unfrequented Coast, a Stranger ought not to entangle himself among those Shoals; for at the E. end of that long Bank, the Passage out is very narrow and dangerous; other Shoals lying beyond it, and a flat Shore also running out from the Main, which together almost shuts in the Passage at that end; those Shoals also not being founded, at least as we can yet be inform'd of.

For these Reasons those Ships which come out of the *Barra de Tortugas*, should stand away to Sea N.E. by E. as above, till they come clear of that long Bank of Sand, and then steer away E. and E. by S. for the *Babia Baxa*, dist. from the *Tortugas* Harbour about 30 Ls: Almost in the Midway lies the *Punta das Baxas*, or the low Point, dist. from *Tortugas* 18 Ls, and from the Bay 12 Ls.

This *Punta das Baxas* is according to its Name a *Cape of Shoals*, for it is a foul Shore, surrounded with Rocks and Shoals for almost 1 Ls off to the Sea N. and N. by E. From thence you may sail under Shore, and within the Banks of Sand, which still lie off of the Main as before; but the Channel between is at least 2 to 2 $\frac{1}{2}$ Ls wide; only you must keep a Boat a Head-founding as you go, whereas if you keep without the Banks, you have a clear Coast, and need fear no Dangers, but what are to be seen long enough before you come near them.

At the *Babia Baxa* you have good anchoring, hard Ground and deep Water: a Bank of Sand, which lies along Shore and fair thwart the Bay, keeps off the Sea, and breaks the Force of it, when the N. Wind blows, which comes right in; and the Land on both sides shelters you from all other Winds.

S.E. by E. from the *Babia Baxa*, dist. 10 Ls, lies the *Rio Lagnariba*, where the *Portuguese* begin to plant again; for except about the Island *Maranhao*, and some few other Places, all this Country from the *Rio de Amazonas* hither, and 20 or 30 Ls farther still, was usually called the *Wild Brasil* or the unfrequented Coast: But here they have a Fort on the W. Point of the Entrance into the River, called *Fortaleza de St. Lawrence*; and the Point of the River is also called *Cape St. Lawrence*, as the other Cape is called *Punta de Onzan*.

From the Entrance into this River to *Cape Cors* is 18 Ls, the Course S.E. by E. as before; the whole Coast is clear either of Rocks or Shoals, and has good gradual Soundings, till you come to the Cape it self: but there the Shore is foul, and full of Rocks, which lie off for two Ls and more into the Sea. On all this Coast, from *St. Lawrence* hither, you have a fair Strand, but no River or Creek, Bay or Harbour of any kind; so you can have no business to put in to the Shore, and you may do well to keep an Offing of 5 or 6 Ls all the way as you go towards the South.

From *Cape Cors* the Course is the same to the *Great Salinas*, or the *Salt-Bay*, a Harbour famous over all the *Brasilis* for Ships coming to load Salt. Between *Cape Cors* and the *Salinas*, almost Midway, you will see the *Monte Vermelbas*, or the *Red Hill*; the *Dutch* (for they gave *Dutch* Names to all the Places on the Coast when they possess it) called it *Rooden Burgh*, it is a high Mountain like a Sugar-Loaf, standing near the Strand, and is seen above 15 Ls to Sea, and is therefore an excellent Mark to know the Coast by.

When you make this *Red Mount*, you may stand right in with the Shore, till you come into 6 Fa. but go no nearer, because there runs a Riff of Sand with several sunk Rocks upon it, stretching out into the Sea E.byN. from the Point; but keep your Lead going, and you have nothing to fear. From this Point to the Harbour of the *Grand Salinas*, the Coast measures 11 Ls by the Scale, on the Land, but may be accounted 13 by Sea, because of your keeping off as above.

N. B. You have from 5 to 7 Fa. Water all the way to the Mouth of the Port, but 4 and 3 Fa. in the Entrance: The River is navigable far into the Country, but the Salt-Ponds lie on the W. side; some near the Point, and others, which are the chief, lie 6 or 7 Ls up the River due S. The Entrance into the Harbour lies in Lat. 3 d. 40 m. S.

As the Entrance into this Port is thus from the N.W. so in coming out you must be especially careful; for to the N.E. lies a great Bank of Sand, with many dangerous Rocks upon it, called *Baxos de Salino*, or the *Shoals of Salina*: They lie off from the Shore due N. at the dist. of 3 Ls; but then they are joyued to the Shore by a Riff of Sand 3 Ls in length, but not above half a L in breadth; upon which there is no venturing with a great Ship, there being not above 2 $\frac{1}{4}$ Fa. Water upon it: There are also many small Sands in the Channel, which none can fail among but those that are well acquainted. There are indeed good Channels between them, in most of which are

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the *Rio* hereabouts down to *Cabo St. Roquo*, which lies 3 Ls E by N. from *Rio Siara*.

Off of this Coast, dist. from the Shore 5 to 7 Ls, lies the great Sand mention'd before, called *Baxos de St. Roquo*, or the *Shoals of St. Roquo*, a great Shoal of Sand with Rocks intersperfed, reaching 18 Ls in length, and at the E. end especially 8 Ls in breadth: At the W. end it runs off to a sharp Point, and throws out a long narrow Spit of Sand, which reaches quite to the *Baxos de Salino* which however Ships do run over in many Places.

These Shoals of Rocks and Sand growing broader at the E. end, they shoot out a Point, which reaches due S. towards the Main Land directly opposite to *Cabo do St. Roquo*. On the other hand, from the Cape it self there lies off a Riff of Rocks, which not only surround the Point on every side, but lie out from the Shore due N. at least a L, and almost meet the S. Point of the Shoal as above.

The Channel between these is the only Passage leading thro' upon all this Coast, which is not above a Mile over. However, the Depth is good, having 4 Fa. in the narrow of the Strait; and Pilots will carry you thro' very well, but no Stranger ought to venture.

These Shoals are steep too in the inside, so that you may run within half a Mile of them with your Lead in 5 Fa. all the way E. and W.

Under *Cape St. Roque*, from whence these Shoals take their Name, lies a deep Bay, called by the *Dutch de Smeenda Bay*, where is very good Riding: Also at the bottom of the Bay comes in a River, called by the *Portuguese Rio do Aguada*. In this Bay you have from 5 to 3 Fa. very good holding Ground, and safe from all Winds.

From this *Cape St. Roque* the Coast of the *Brasil* turns short to the southward; and whereas it lay before E. and W. with very little Variation, *viz.* a Point or two at most, now the Land falling off, the Coast lies S. by E. and N. by W. varying very little to *Cape de Lucena*; in which Course, as the Coast is more frequented, so we find it better surveyed, and a more exact Account of the Soundings, Distances and Bearings than we had before.

From the Strait off of *Cape de Roque* to the Mouth of the *Rio Grand* is 11 Ls; the Course is under a safe Shore, full of good Bays and Anchoring-places S.S.E. You have all the way 7 to 8 Fa. within a L. of the Shore, and 5 to 6 Fa. even in the Bay, close to the Shore, that is, within a Cable's length of the very Strand.

The Entrance into the *Rio Grand* lies N.E. and S.W. You must stand off from the northernmost Point to Sea at least 3 Ls, if you come from the N. for that Shore is all foul, and full of Rocks on both sides the Point; on the N. side as far as the Mouth of the *Rio des Carlutas*, which is almost 5 miles, and on the S. side it continues foul for at least 3 Ls within the Harbour, and up the River.

In the Mouth of the Entrance lies a four square Shoal, with

N. B. From the Point 3 or 7 Fa. Water in the way to the Mouth of the Port, but 4 and 3 Fa. in the Entrance: The River is navigable far into the Country, but the Salt-Ponds lie on the W. side; some near the Point, and others, which are the chief, lie 6 or 7 Ls up the River due S. The Entrance into the Harbour lies in Lat. 3 d. 40 m. S.

As the Entrance into this Port is thus from the N.W. so in coming out you must be especially careful; for to the N.E. lies a great Bank of Sand, with many dangerous Rocks upon it, called *Baxos de Salino*, or the *Shoals of Salina*: They lie off from the Shore due N. at the dist. of 3 Ls; but then they are joyned to the Shore by a Riff of Sand 3 Ls in length, but not above half a L in breadth; upon which there is no venturing with a great Ship, there being not above $2\frac{1}{4}$ Fa. Water upon it: There are also many small Sands in the Channel, which none can fail among but those that are well acquainted. There are indeed good Channels between them, in most of which are 4 to 6 Fa. but you must have a good Pilot at the *Salinas* to carry you thro'.

When you are over the Riff that joins the *Baxos de Salino* to the Shore, you have a clear Coast within the Shoals all the way to the *Rio Siara*, which is one of the most considerable Ports on this part of the *Brazils*.

These Shoals called *Baxos de Salino* stretch from W. to E. about 10 Ls, and are in some places 3 Ls over, besides a great Ledge of Rocks which lie to the westward of them at the dist. of but half a L, which lying triangular are about 2 Ls over, and lie N. by E. from the Mouth of the *Salinas*.

Being over the Riff which joins these Shoals to the Main, you must keep an Offing of about 3 Ls; there you will have 4 to 5 and 7 Fa. Water: But go not off to Sea beyond 10 Fa. while you are in this Course; for the *Baxos de Salino* have a Tail of Sand running away E. by which it is joyned to the great Shoal called the *Baxos de St. Roquo*, of which presently.

From the *Rio Siara* the Course is E. by S. the going as before within the Sands and Rocks, is 50 Ls: in the way there are several good Bays and Harbours, but few of any Trade. There is good anchoring in the Bay *Parduba*, where you ride within a Sand which lies on the E. side of the Entrance in 3 to 4 Fa. Water, and well secur'd; the Channel goes in on the W. side, the Point of which is called *Punta de Pedras*, and has 4 Fa. in the going in.

About 10 Ls E.S.E. from *Punta de Pedras* is the Bay or *Bahia Brandibi*, where there is good Anchoring in 5 to 6 Fa. but no shelter from the N. Winds, which blow right in: From thence the Shore is full of good Roads, as at *Surgidoura*, *Punta del Gade*, the *Punta de Siara*, and then the Port of *Siara* it self, where there is very good anchoring in 5 Fa. and well secur'd. But most of all these last Harbours require the help of Pilots to bring you in, who may be had at several places, the *Portuguese* having some small Settlements

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The Entrance into the *Rio Grand* lies N.E. and S.W. You must stand off from the northernmost Point to Sea at least 3 Ls, if you come from the N. for that Shore is all foul, and full of Rocks on both sides the Point; on the N. side as far as the Mouth of the *Rio des Carlutas*, which is almost 5 miles, and on the S. side it continues foul for at least 3 Ls within the Harbour, and up the River.

In the Mouth of the Entrance lies a four square Shoal, with some dangerous Rocks in it; and S.W. from that lies the Point of *Natal*, on the Extremity of which the *Portuguese* have a strong Fort called *Fortaleza des Tres Magos*, or the *Castl of the Three Kings*: You may go in on either side the Shoal of the Rocks, but the Channel on the N. side is the best and the broadest; there you have 6 to 7 Fa. in the *Fair Way*, and 4 to 5 Fa. quite up.

On the S. Shore of the River, about 3 Ls from the Castle, lies the Town of *Natal*, before which lies the Road, where you have 4 to 5 Fa. very good Anchoring-ground, and well secured from all Winds: The River is navigable farther up; some *Portuguese* tell us 'tis so for 100 Miles, but we have no Survey of the Channel, so we can give no Account of it.

From the *Rio Grand* the Coast trends away S.S.E. 3 Ls to *Punto Negro*, and to the *Rio Pirangy*, which I name only because there runs a Riff of Sand off of *Point Negro*, which you must give a Birth to of at least 2 Ls: for the rest you have a fair Coast with 6 to 8 Fa. and good Soundings all along the Coast.

Off of *Point Negro* E. by N. and dist. about 4 Ls, there lies a Ledge of Rocks in the Sea, stretching N.W. and S.E. for the length of 3 Ls or more; you will know them by the working of the Sea upon them; yet there is no where less than 4 to 6 Fa. Water over them, so that the Ships pass ordinarily over them, without Danger, especially small Ships.

From *Point Negro* the Coast trends on S.E. to *Point de Luena*, dist. by the *Dutch Measure* 20 Ls, the whole Coast between full of good Harbours, Bays, Rivers, and Openings, so that Ships cannot want Anchorage; the Ground being also generally a good holding Sand, or sandy Clay. The Bays, &c. in this Courte are, 1. *Porto de Buzios*, a barr'd Port; yet small Vessels go in easily, and have good Riding when they are in. 2. *Rio St. Juan de Stau*; there is a Sand lies thwart the Harbour's Mouth, but you have a good Channel on the W. side of the Sand; within is a very good Harbour, where you have 6 to 7 Fa. 3. *Bahia de*

de Taubanty, a good Road, tho no Harbour; the Riding is made safe by the Sands which lie off within a L of the Shore. 4. *Rio Congobayon*, a very large and safe Harbour, the Entrance of the Opening $1\frac{1}{2}$ to 2 Ls over, in the Entrance is 5 to 6 Fa. and within the Port, 3 to 4 Ls up the River, 4 to 2 Fa. in a small Bay on the E. side of the River, where Ships go in to load the Country Produce, for here are but few Plantations of Christians. 5. *Porto Angaro*, where there is a good Road, tho no navigable River, in 5 to 6 Fa. but the W. side is rocky and foul. 6. *Bahia de Treison*, a large deep Bay, and the Entrance very wide, but made narrow by two Shoals shooting out from either Point, till they bring the Mouth of the Bay from 4 Ls wide to less than two. 7. *Ilfa de Manguas*, a little Island in the Mouth of a small Bay, behind which Island there is good Anchoring. 8. *Rio Doce*, or *Dulce*, where there is a large Bay; but the Road for Ships is without the Bay without the Sands, which lie off here, as the Sands do in *Tarmouth-Roads* in England. There are several others of less note.

When you are in this Road you have 5 to 6 Fa. very good Riding: The *Punta de Lucena* is within 2 Ls of this Road; but to go without the Sands, you make it 6 or 7 Ls to come to the Point.

N. B. In this Road off of *Lucena* the *Brasil* Ships bound for *Europe* rendezvous to make up their Fleets, as the *Spaniards* do at the *Havanna*.

N. B. South from the Point de *Lucena* the *Portuguese* have a Fortification, call'd *Fort St. Antonio*.

Punta de Lucena is the N. Point of the outer Opening into the *Rio Parayba*; under that Point W. and without the *Fort St. Antonio*, is a very good Road, where you may anchor in 4, 5, and 6 Fa. within which Fort a Riff shoots out S. opposite to Cape *Ledo*, where there is also a *Portuguese* Fort: And those two Forts make the inner Passage or Mouth of the River, the Channel between being clean and clear of Sands or Rocks, and about a L wide.

About half a L up the River within the Forts lies the Island *Fratres*, or *Brothers*, at the N.E. end of which is another strong Fort, so that the Entrance into this great River is defended by three Forts, the best of the Channel goes in on the S. side of the Fort, and also of the Island. The River is said to be navigable above 30 Ls up the Country; but as we are not certain of it, 'tis not material for us to enquire, since 'tis but of little use to Navigation. About 8 Ls up the River, 10 Ls from *Punta de Lucena*, lies the City *Parayba*, where you have good anchoring-ground in 4 to 5 Fa. Water.

From the River *Parayba* the Coast trends on due S. to the *Porto dos Francezes*, dist. 10 Ls. This is a large Bay, into which several Rivers empty themselves. There is good Riding in it, but the N. Shore is rocky and foul. Between these two lies Cape *Blanco*, and also the *Rio Gramama*.

All along this Coast there lie small narrow Shoals, parallel with the Shore, like the *Grounds* off of the *Irish* Coast between *Wexford* and *Dublin*: The Channels between these Shoals and the Main are narrow and foul, neither is there any depth of Water for Ships: One Fa. to $1\frac{1}{2}$ is the most for above 20 Ls in length; but the Sea, at an Offing of about a L

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with Sands and Shoals, that the main Entrance is by the *Punta Marine*, an Island where the *Dutch* built a Fort to guard the Entrance into the Harbour of the *Recief*. Below this Fort more out at Sea, stood the City of *Olinda*, which the *Portuguese* call *Olinda de Pharnambuquo*. By this City lies the Entrance into the Port, and here the Ships also had a Road ; but the City was demolish'd by the *Dutch*, and another built within a long Peninsula, which runs from the Point S.W. towards the Main : When the City was remov'd, the Harbour also was remov'd, and the Ships rode perfectly shelter'd within the Point of the Peninsula, with three strong Forts, which guarded the Port, *viz.* One on the Point call'd the *Recief*, which afterwards increas'd to a Town ; one on the Island call'd *Antonio Vaz*, which grew up also into a City, and was call'd *Mauritzstadt*, and one due N.W. from the Road, call'd *Vaardenburgh*.

We have nothing to do here with the History of the *Dutch* taking and losing this part of the *Brasils*, but to note what is to the present purpose ; that as here was the Capital of the *Dutch* Colony, so here was the Harbour of their Merchants Ships, and also of their Ships of War.

The Harbour is good, tho difficult ; there is 4 to 5 Fa. under the Lee of the Point, on which stood the ruin'd City of *Olinda* ; and the Ships rode there when strong enough to defy an Enemy ; but if it was otherwise, they run in under the Cannon of the *Punta Marine*, behind which there is 3 Fa. to 3 $\frac{1}{2}$ at low Water ; so that they ride there well secur'd also.

It is absolutely necessary for any Stranger to take a Pilot here, if he is bound into the Haven. The *Portuguese* bring a very great part of the Loading of their Fleets from the *Brasils* from this Port, especially Sugar and Tobacco.

From this Port the Shore pushes out a little to the E. and the Coast trends S. by E. to *Rio St. Angelo*. Here is a large Opening, but no depth of Water, it being so block'd up with Shoals, that it is render'd almost useless to Navigation ; nor can any Ships enter here : It is dist. about 5 Ls from *Olinda*. There is 4 Fa. without the inner Sand, and within the outer ; so that there is a very good Road, tho not a complete Harbour.

N. B. In all this Coast you have the same Soundings, and the same Depths of 7 to 9 Fa. in an Offing of 3 to 4 Ls off of the Sands.

From *Rio St. Angelo* the Coast continues to thrust out to the E. and the Courie lies S.E. by S. from thence to *Cabo St. Augustine*. This Cape lies in Lat. 8 d. 24 m. S. and is the first Land of *Brasil* which the *European* Ships make when bound to the Bay, and taking their Departure from the Coast of *Africa*, or from the *Cape de Verd Islands*. There is very good anchoring in a little Bay to the southward of this Cape, under the Cannon of two good Forts which the *Portuguese* have built there, one call'd the *Puntal*, and the other *Portaleza de Nossa Senhora de Nazareth* : The Harbour also is very good ; it goes in W. by S. under the Command of many Forts formerly built by the *Dutch*, but kept up by the *Portuguese*, whereof two are on the *Island Houten*.

There are several Rivers which come into the Channel behind this Island, but none navigable for Vessels of burden ; yet the Port is much frequented by the coasting Vessels of the *Por-*

strong Fort, so that the Entrance into this great River is defended by three Forts, the best of the Channel goes in on the S. side of the Fort, and also of the Island. The River is said to be navigable above 30 Ls up the Country; but as we are not certain of it, 'tis not material for us to enquire, since 'tis but of little use to Navigation. About 8 Ls up the River, 10 Ls from *Punta de Lucena*, lies the City *Parayba*, where you have good anchoring ground in 4 to 5 Fa. Water.

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All along this Coast there lie small narrow Shoals, parallel with the Shore, like the *Grounds* off of the *Irish* Coast between *Wexford* and *Dublin*: The Channels between these Shoals and the Main are narrow and foul, neither is there any depth of Water for Ships: One Fa. to $1\frac{1}{2}$ is the most for above 20 Ls in length; but the Sea, at an Offing of about a L without the Shoals, is very clear, and has from 10 to 13 and 15 Fa. till you come off of *Rio Guiryo*, and then 7 to 9, and 4 to 5 Fa. close on the Back of the Sands.

From *Rio Guiryo* the Course is still S. and S. by E. to the *Rio Guiana*, the Shoals reaching all the way as before, the dist. about 4 Ls. Here the Channel within the Shoals widens to a L broad, and deepens to 2 Fa. so that small Ships may run thro' here to the Island *Tamerica*. The same Channel continues round the Island, coming out again at the S. end of it, where there is 3 to 5 Fa. again, and a fair Road for large Ships. At the N. Point of the Island *Tamerica* is a Fort built, or at least enlarg'd by the *Dutch*, and call'd *Fort Kostverlooren*, or the *Fort upon the Forsaken Coast*.

There are abundance of small Rivers and Openings within this Island, but of little Consequence: The Entrance at the N. end of the Island is so narrow, occasion'd by a Spit of Sand which runs off from the opposite Point, that such Vessels as go in are oblig'd to come close under the Cannon of the Fort which is upon the Island, the Passage or Channel not being half a Mile wide. S. from this Island the Shore is cover'd with Shoals of Sand, and some Ledges of Rocks. There is indeed a wide fair Channel lying next to the main, and within all the Sands; 'tis half a L wide, but has no depth of Water for any Ships of burden, there being not above $1\frac{1}{2}$ Fa. in many places, and then shoaling to $5\frac{1}{2}$ and 6 Foot: Such Ships therefore as use this part of the Harbour, must run out to Sea N:E. by E. till they come clear without the Sands, which they will know by the depth of Water; being not quite clear, till they come into 7 to 9 Fa. then they may bear away due S. and are sure to go without all the Sands.

Holding this Course about 8 Ls, brings you the height of the *Recief*, being the Entrance into the *Rio de Pharnambuquo*: The River it self lies at least 3 Ls farther S. but is so block'd up

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to that there is a very good Road, tho not a complete Harbour.
N. B. In all this Coast you have the same Soundings, and
the same Depths of 7 to 9 Fa. in an Offing of 3 to 4 Ls
off of the Sands.

From *Rio St. Angelo* the Coast continues to thrust out to
the E. and the Course lies S.E. by S. from thence to *Cabo St.*
Augustine. This Cape lies in Lat. 8 d. 24 m. S. and is the
first Land of *Brasil* which the *European* Ships make when
bound to the Bay, and taking their Departure from the Coast
of *Africa*, or from the *Cape de Verd Islands*. There is very
good anchoring in a little Bay to the southward of this Cape,
under the Cannon of two good Forts which the *Portuguese*
have built there, one call'd the *Puntal*, and the other *Forta-*
leza de Nossa Senhora de Nazareth: The Harbour also is
very good; it goes in W. by S. under the Command of many
Fortes formerly built by the *Dutch*, but kept up by the *Portu-*
guese, whereof two are on the *Island Houten*.

There are several Rivers which come into the Channel be-
hind this Island, but none navigable for Vessels of burden; yet
the Port is much frequented by the coasting Vessels of the *Por-*
tuguese; the Ledges of Sand and Rocks, which as it were
cover this Island, render the Port very secure, and for Ships of
small draught make it convenient for Navigation.

Due W. from *Cape St. Augustine*, and opposite to the *Rio de*
Sarinbaym, lies the Island *Alexo*, well known for two excellent
Roads; one on the W. side of the Island next the Main, where
you ride well shelter'd from all Winds but a N.E. in 7 to 8 Fa.
good holding Ground: The other on the S.W. side of the
Island, where the Road is secur'd by a long Riff of Rocks,
which run out near a L from the Island, making a Bend
like a Hook towards the W. On the back of the Island N.
there is a clean Strand, and 9 to 12 Fa. with good Ground;
but no Riding except in the open Sea, which if a N. or N.E.
Wind should blow, brings a great Sea in, and would endanger
their running on a Lee-shore.

From this Island the Shore of the Main falls off again wester-
ly, but the Course is S.W. by S. to the *Barra Grande*, about
15 Ls. On all this Coast keep still an Offing of 3 to 4 Ls.
where you will have the usual Depth of 6 to 10 Fa. with good
gradual Soundings: There are several small Harbours and Roads
between, but the Entrance into them is generally difficult, and
it is but in few Places that Pilots are to be had. The *Barra*
Grande is a large wide Road off of a small Town and Fort
call'd *San. Benito*, and at the Mouth of the *Rio Salgado*: The
River is not navigable except for small Boats; but the Harbour
is very good, lying behind the Sands: The going in is
very narrow between the Riffs, which almost meet together,
making two Channels; the northernmost has 5 Fa. in it, and the
southernmost but 4, having a small Shoal of Sand between.

From hence the Coast lies fair S.W. to the *Rio Lagao de Sal*,
or the *River of the Salt Lake*, dist. 13 Ls. There are several small
Rivers in this Course, but of no Importance. On the N.E. side
of the Entrance into these Lakes there is a good Road in a round

Bay, under *Punta Saragoa* or *Saragoza*; there is a long Riff of Sand shoots out from the Point a full L into the Sea to the S.S.E. which breaks off the Sea, and makes it very good riding. Within that Riff the Ships lie in 5 to 7 Fa. close under the Shore. The Entrance into the *Lagoa de Sal* lies S.W. from this Bay, not full one L dist. from the western Point; the way in lies N.W. and S.E. There are two of the great *Lagoas*, or Lakes; one call'd the *Lagoa de Sal*, goes in about 7 Ls N.W. and about 2 Ls wide, being a very large inland Water, but of no Importance in Navigation; the other goes in from the first, after about a L within the Entrance, and lying away N. is call'd the *North Lake*, about 3 Ls in length, and 1 L and half over.

From the *Lagoas de Sal* the Coast trends on S.W. to the River *St. Francisco*. There are several inland Lakes near the Coast, which spread themselves as the other do; but we do not find they are navigable, or at least made use of; as *Lagoa de Acarpeba*, *Lagoa de Yaguacacu*, *de Ipochi*, and several others. The distance between the Entrance into the *Lagoa de Sal* and the *Rio St. Francisco* is 25 Ls, the Shore full of Shoals, Sands and Ledges of Rocks, till they come to the southward of the *Rio Coroipo*; then you have a clear Strand, and a fair Offing to the Entrance of the great River it self.

Off of the *Rio Coroipo* lie those known Rocks and Sands call'd the *Baxos Diego Roderiques*, or the *Shoals of Roderiques*; they are nine in Number, and lie N.N.E. and S.S.W. in three or four several Ranges, There is a good Channel between the innermost Shoals and the Main, where you have 3 Fa. and clean Ground; but the Passage is narrow, and you must keep your Lead going, and be very careful, especially on your Larboard-side.

E. from the *Baxos Diego Roderiques*, dist. about a L. lie two other Riffs of Rocks call'd *Reciffo de St. Francisco*, being in the *Fair Way* from the N. Coast to the *Rio de St. Francisco*.

N. B. All the Ships of burden which come from *Pharnambuco* or other Ports on this Coast, go without the *Baxos Diego*, keeping an Offing of at least 4 Ls, in 9 to 14 Fa. in which Course they are sure to meet with the *Reciffo de St. Francisco*, which they must take care of.

The *Reciffo's* are two separate Ledges of Rocks and Sand, stretching due N. and S. they lie in Lat. 10 d. 30 m. S. There is a good Channel between them, near 2 Mile broad, and with 7 Fa. Water; but you ought to be very well acquainted to go thro' it: keeping to the E. of them both, you are sure of 8 to 10 Fa. all the way to within 3 Ls of the Mouth of the *Rio St. Francisco*. There is a large Bank of clear Sand without Rocks, which lies off in the Sea S. by E. from the *Reciffo's*, and due E. from the Main, distance from the first about 4 Ls, and from the latter almost 5 Ls. 'Tis a large Bank lying N.E. and S.W. in an oblong Square, 3 Ls in length and about 1 1/2 in breadth; but it is not dangerous, having 6 Fa. on it at the least: Yet 'tis needful to direct the finding it, that Sailors may know where they are, for 'tis a sure Guide coming from out at Sea, to direct to the Mouth of the *Rio St. Francisco*, which

Directions for the Coast of Brasil.

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ward of this River was for many Years call'd the *Dutch Brasil*.

On the N. Bank of the River the *Dutch* built a Fort, which still retains the Name of *Fort Mauritius*, close above which lies the City of *Penedo*. Between the City and the Sea the River is full of Islands, some of which are very large, as *Ruyter's Island* for one : Hither small Coasting Ships come to load Tobacco, Cocoa, and Fruits.

S.W. by W. from the Mouth of *Rio de St. Francisco* lies the River *Serugippa*, a much less River than that of *St. Francisco*, but with a better Entrance, having 2 and 3 Fa. on the Bar, and 4 to 5 Fa. several Ls up the Channel. There are 2 Rills of Sand, which shoot out from either Point directly into the Sea S.E. which make the Entrance about half a L wide ; and just without the northermost Riff is a little Bay, where there is good anchoring in 6 Fa. good hard Sand, and opposite to a *Portuguese* Town called *St. Christianao*, where Shipping generally lie to wait for small Vessels to load them from *Rio St. Francisco* ; the dist. from which River to the *Rio Serugippa* is 6 Ls upon a Line ; but measuring round the Sands to come at the Entrance of the River, 'tis full 9 Ls.

S.W. from the Mouth of this River lies the River *Vazabaris*, the Mouth of which River is also very much block'd up with Sands, and especially one large Sand in the very Entrance, which lies thwart the Channel two thirds over : but there is a very fair Channel on the W. side of the Shoal, in which you have 3 to 5 Fa. quite thro' ; and yet without the Channel it is shoaler than in the very Entrance. The City (so the *Portuguese* call it) of *Serugippo del Rey* lies on the N. Shore of this River, about 9 Ls up the Channel, including the Turnings of the River ; and small Vessels go quite up to the Town in 2 Fa. Water.

From hence the Coast is called, by the Name of the River, the Coast of *Vazabaris*, as is also the next Point called *Punta de Vazabaris*, which is the N. Point of the Entrance into the *Rio Pio Wie*, a large River, as the others are, and a deep Channel, but barr'd almost up with Sands at the Mouth ; so that you have no where above 2 Fa. at the Entrance, tho there is from 5 to 3 for 10 Ls up the River, and 2 Fa. up to the Town of *Pio Wie*, which lies near 20 Ls up the River.

S.W. from *Rio Wie* lies *Cabo Colem*, dist. about 10 Ls, with no Openings or Rivers between ; nor are there any Shoals of Sand or Ledges of Rocks upon the Coast, but a clean fair Strand ; and the same from *Cabo Colem* to the Mouth of the *Rio Ponico*, the whole Coast lying N.E. and S.W. There are two or three small Rivers indeed close to the Cape *Gartia das Villas*, but of no importance.

All along this Coast you have from 15 to 30 Fa. Water good Ground, gradual Shoalings, and a clean Shore : This Depth is found at about 4 to 6 Ls from the Shore. In the *Rio Ponico* you have a very good Harbour, good Anchor Ground, and 5 to 6 Fa. Water.

From the *Rio Ponico* the Shore lies S.W. by W. to the great *Bahia de todos los Santos*, or the *Bay of All-Saints* ; the dist.

which Course they are sure to meet with the *Reciffo de St. Francisco*, which they must take care of.

The *Reciffo's* are two separate Ledges of Rocks and Sand, stretching due N. and S. they lie in Lat. 10 d. 30 m. S. There is a good Channel between them, near 2 Mile broad, and with 7 Fa. Water; but you ought to be very well acquainted to go thro' it: keeping to the E. of them both, you are sure of 8 to 10 Fa. all the way to within 3 Ls of the Mouth of the *Rio St. Francisco*. There is a large Bank of clear Sand without Rocks, which lies off in the Sea S. by E. from the *Reciffo's*, and due E. from the Main, distance from the first about 4 Ls, and from the latter almost 5 Ls. 'Tis a large Bank lying N.E. and S.W. in an oblong Square, 3 Ls in length and about $1\frac{1}{2}$ in breadth; but it is not dangerous, having 6 Fa. on it at the least: Yet 'tis needful to direct the finding it, that Sailors may know where they are, for 'tis a sure Guide coming from out at Sea, to direct to the Mouth of the *Rio St. Francisco*, which lies exactly 3 Ls S.W. from this Sand.

The Mouth of this great River is very wide, but the Entrance is narrow, being block'd up with three great Sands: The first is a Riff, which runs from the N.E. Point of Land, and stretches out in two Points like Horns, almost half Channel over: One S.W. and the other W. by S. Due S. from the S.W. Point of the Sand lies a large Flat or Shoal of Sand, triangular in Form, the Sides about a L equilateral: The W. side of this Flat reaches N. almost to the S.W. Point or Horn of the Riff last mention'd, leaving a Channel of about half a Mile only, between them; and S. almost to another Riff, which stretches out E. from an Island call'd *Ilha des Passaros*, and blocks up the whole W. part of the Entrance, leaving a Channel between the said Riff and the triangular Shoal much narrower than the other, and very difficult, also shoal and not passable by Ships of burden.

These are the only two Entrances into this great River: The first Channel has 2 Fa. in it, and the other but $1\frac{1}{2}$ at low Water; so that tho' this is a noble River when you are entred, yet it admits no Ships of burden. After you are entred, there is 5 to 9 Fa. in the Channel, and the *Dutch* search'd up the River above 40 Ls, and found it navigable for great Ships 30 Ls, for smaller Ships above 10 Ls farther; and for Barges and Shallops they suppose it might be navigable as much farther, the Stream still appearing to be very large and deep. But all this is to no purpose as to Navigation, while the Mouth of the River is bar'd up with Sands and Shoals, and which cannot be remov'd.

The Entrance of the River, after you are thro' the narrow Passage, goes in due N. for about 3 Ls, and then turns N.W. for 3 more, and then turning again to the N. for about 6 Ls it turns again N.W. and holds that Course as far as we have any Survey of it. The W. Point is call'd by the *Portuguese* *Punta de St. Antonio*; and just within the Point lies the City of *St. Antonio*, built by the *Portuguese*.

N. B. This River was the Boundary of the *Dutch* Conquests in *Brasil*; from whence all the Coast to the north-

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Channel, but barr'd almost up with Sands at the Mouth, so that you have no where above 2 Fa. at the Entrance, tho there is from 5 to 3 for 10 Ls up the River, and 2 Fa. up to the Town of *Pio Wio*, which lies near 20 Ls up the River.

S.W. from *Rio Wio* lies *Cabo Coleur*, dist. about 10 Ls, with no Openings or Rivers between; nor are there any Shoals of Sand or Ledges of Rocks upon the Coast, but a clean fair Strand; and the same from *Cabo Coleur* to the Mouth of the *Rio Ponico*, the whole Coast lying N.E. and S.W. There are two or three small Rivers indeed close to the Cape *Gartia das Villas*, but of no importance.

All along this Coast you have from 15 to 30 Fa. Water good Ground, gradual Shoalings, and a clean Shore: This Depth is found at about 4 to 6 Ls from the Shore. In the *Rio Ponico* you have a very good Harbour, good Anchor Ground, and 5 to 6 Fa. Water.

From the *Rio Ponico* the Shore lies S.W. by W. to the great *Bahia de todos los Santos*, or the *Bay of All-Saints*; the dist. to *Cabo St. Anthony*, which is the E. Point of the Entrance into the Bay, is about 23 l s. In this Course are very few Rivers or Openings; the chief is at the Island *Praya de Zamb*, lying at the Mouth of the *Rio de St. Joanna*. The Shore for all this length is a clear Strand, the Depths and Offings to be observ'd as before.

The Mouth of the Bay of *All-Saints*, like that of the Rivers last mention'd, is contracted by two Riffs of Sand, (but without Rocks) running out from each Point: the Bay goes in due N. the E. Point is called *Cape St. Anthony*, and stretches a great way into the Sea W. and from it a Riff of Sand runs out farther W. by S. above a L, so that they threaten as it were to block up the Mouth of the Bay, and the rather, because opposite to this Point a long Riff from the other Point shoots out S.E. as if Nature designed them to meet, and lock up the Bay, as is the Fate of *Rio St. Francisco*.

But the Difference is manifest; for tho the Entrance is narrow, compared to the vast Extent of the Bay within (being not a full L in breadth) yet the Channel is deep and safe, having from 20 to 24 Fa. Water in the very Entrance, and 30 Fa. as well within as without; also there is from 10 to 16, 20 and 30 Fa. up to the *Ile de Frados*, which is above 10 Ls within the Bay, and 7 to 10 and 12 Fa. for 20 Ls farther up the River.

On your Starboard side, as soon as you are enter'd the Bay, and past the *Cabo St. Anthony*, lies the City of *St. Salvadore*, in a wide Bay, having a Shoal of Rocks called *Baxos de Alberto* lying before the Town; on one of which there is a strong Fort which commands the Road: and between these Rocks and the City is a very good Harbour, where Ships ride with great safety, being well shelter'd by the Rocks and the Main from all Winds. N. from the Road, and which shelters it on that side also, lies another Point of Land shooting W. into the Bay, almost as far out as the *Cabo St. Anthony* does S. and a Riff of Sand running out from it still farther due W. almost a L into the Bay.

Op-

Sea and the S.W. Winds, they make within a very good Harbour, which is therefore called *Porto Segura Veijo*, or the *Old safe Harbour*.

N. B. This is the Harbour *P. Al. Cabriota*, the first Discoverer, took shelter in; and he gave it the Name.

S. from this Harbour lies the *Rio Doce*, a River of Business, and tho' not navigable for great Ships far in, yet there are very good Roads without it, as well to the N. as to the S. of the Entrance: This is occasion'd by a long Tract of Islands, which lie before the Mouth of the Port in three or four Ranges, one Range without another, as also several Shoals and Ledges of Rocks, altogether extending along the Shore for near 15 Ls.

On the off side of all these Islands, about 2 Ls to Sea, E. from the middle of them lies an Island larger than the rest, called *Nostra Cyrio de Mareny Fara*, from the Passage which lies between that Island and the rest, which is called *Canal Grande Taypas*. Thro' this Channel, which is more than 2 Ls wide, the Ships pass which coast all this Sea from *Rio Janiero* to the *Babia de todos Los Santos*.

From this Canal the Course varies a little from the scite of the Shore, because of a yet greater Number of Islands and Shoals as well of Rocks as Sands, which lie out into the Sea from the *Rio das Caravelos*, and off of *Punta de Agussya*, stretching N. and S. about 23 Ls, viz. from the great Mountain called the *Pasqual*, a little S. of the Mouth of *Rio Jacobo*, in Lat. 17 d. 22 m. to *Punta de Abreolhos* in Lat. 18 d. 31 m. They reach out to Sea likewise due E. and W. full 20 Ls to a large Bank or Shoal of Sand, lying due E. from the *Rio de Caravelos*, called *Baxos de Abreolhos*.

In order to pass among these Islands and Shoals, some of which are very dangerous, there are two Channels, one called *Canal Grande pour Navios de India*, or the great Channel for the *East-India Ships*.

N. B. The *Portuguese Ships* from *Goa* bound to *Europe*, usually make the Coast of *Brasil* about *Cape Frio*; and then steering N. come along this Coast to the Bay of *All-Saints*, in order to revictual, and get Convoy for *Lisbon*; and in that Course pass thro' this *Canal Grande*, which is on that Account called the *Channel for the India Ships*.

Besides this, there is another Channel among the same Islands nearer the Shore, which the *Dutch Charts* call *De Kleyne Canal*, or the *Little Channel*; which small Ships, and Coasters that are well acquainted, often pass; but it is not safe for great Ships, and especially for Strangers, unless they have Pilots with them.

From the *Canal de Taypas* mention'd above to this *Canal de Navios India*, the Course is S.E. dist. 28 Ls, a clear Coast without any Rocks or Shoals, with 20 to 26 Fa. (and sometimes more) all the way: Likewise the Channel it self is fair, being near 3 Ls wide, and 16 to 12 Fa. in the *Fair Way*; but a Stranger should have the Lead going as he passes; because of some Shoals on the W. side of the Passage.

On the E. side of this *Canal Grande* lie two other Islands bearing N. and S. from one another, the northermost called by the *Portuguese* *Ilha Seco*, or the *Dry Island*: The southermost is the *Ilha St. Barb*, or *Barbara*. There are two very good

de Morro; here the Coast lies due N. and S. The Islands ranging close with the Shore, having only small unnavigable Channels between them and the Main, they are therefore reckon'd as the Coast of the Main.

South from this Island lies the Island of *Suaguaripa*; the Channel which parts them is called *Barra de Tabatinga*, 'tis a small Channel, not for Ships, but Shallops and small Boats. On the Island stands the *Villa de St. Anthony*, or the Town of *St. Anthony*, close to the Sea; but the Shore is so flat off, that there is no Road or Harbour near it.

From the S.E. Point of this Island which is called *Punta de Suaguaripa*, goes in the Opening of the *Rio de Serinbaan*: It is an Inlet among innumerable Islands, and either goes up into the Country W. or away among many Flats and Shoals, S. into the *Rio Comomoan*, and up to a Town of the same Name S.W. These difficult Places are so many all, that they are not to be described by Book or Chart; 'tis sufficient to say, there is a good Depth of Water almost in all the Channels, and even far up the Rivers: but you must take Pilots to carry you to any particular Town or Plantation where-ever you would go.

From *Rio Comomoan* the Shore is a clean Strand, without any Rocks or Shoals, lying due S. to *Rio Contas*, the dist. 8 Ls. In this Course you have a bold Shore, and may keep to 12 and 16 Fa. within $\frac{1}{2}$ a L of the Main; but in the River it self you have no Depth for Vessels of Burden.

N. B. From the S.W. end of the Island *Taporica*, making the farthest Land of the Bay of *All-Saints*, the whole Coast of *Brazil* lies due N. and S. without any considerable Variation, to *Cabo St. Thome*, and only allowing two Points Variation, goes on so to *Cape Frio*, dist. from the Bay of *All-Saints* to *Cape St. Thome* 165 Ls, as follows.

From *Rio das Contas* to the *Rio das Ilhas* is 9 Ls, the Course the same, due S. The N. Point of the Entrance is called *Punta de Caon*: the Mouth of this River is block'd up with Islands, from whence I suppose it had its name, the *River of Islands*; yet there is 3 Fa. Water in the Entrance, and a good Harbour on the N. side of the River, under the *Fort de Caon*, where you may anchor in 4 Fa. well secur'd; also higher up on the other Shore, where there are some *Portuguese* Settlements. This River, as it is full of Ingenios and Sugar-Works, so it has much Trade; a great number of Ships come hither to load Sugars for the *Lisbon* Fleets, and carrying it to the Bay for the greater Ships: The S. Point of this River is called *Praya de Zumba*.

As the Coast trends away due S. for so many Ls, so the Rivers generally go in due W. (very few excepted.) The first of note is called the *Rio Grande*, tho not so great a River as some others of the same Name; the Entrance is not deep enough for great Ships. Off of the next Shore S. lies a long Ledge of Rocks, called *Baxos de St. Anthony*, because they reach from the S. Point of the *Rio de St. Anthony* almost to the S. Point of the *Rio Grande*. This Ledge of Rocks runs out N.W. from the *Rio de St. Anthony*, slanting from the Shore about a L at first, so encreasing to above 2 Ls; at last, when by keeping off the

Summs, in order to revictual, and get Convoy for Lisbon; and in that Course pass thro' this *Canal Grande*, which is on that Account called the *Channel for the India Ships*.

Besides this, there is another Channel among the same Islands nearer the Shore, which the *Dutch Charts* call *De Keyne Canal*, or the *Little Channel*; which small Ships, and Coasters that are well acquainted, often pass; but it is not safe for great Ships, and especially for Strangers, unless they have Pilots with them.

From the *Canal de Tappas* mention'd above to this *Canal de Navios India*, the Course is S.E. dist. 28 Ls, a clear Coast without any Rocks or Shoals, with 20 to 26 Fa. (and sometimes more) all the way: Likewise the Channel it self is fair, being near 3 Ls wide, and 16 to 12 Fa. in the *Fair Way*; but a Stranger should have the Lead going as he passes; because of some Shoals on the W. side of the Passage.

On the E. side of this *Canal Grande* lie two other Islands bearing N. and S. from one another, the northernmost called by the *Portuguese Ilha Seco*, or the *Dry Island*: The southernmost is the *Ilha St. Barb*, or *Barbara*. There are two very good Roads under this Island, one on the S.W. side, and the other right against it on the N.E. side; so that whatever Wind blows, and whatever Distress a Ship may be put to by bad Weather, there is good Security here till Wind and Weather allow them to proceed. The Road on the N.E. side of the Island is likewise secur'd by two other Islands lying on the out or E. side of the other, one called *Illa Monte das Pedras*, or the stony Mount, and the other *Ilha dos Passaros*.

From these Channels you have a fair Coast again; and bearing in with the Shore S.W. you go on due S. again, as before, to the Bay of *Spirito Sancto*, dist. from the *Canal de Navios India* about 35 Ls.

In this Course you have a great Number of Bays and Harbours, Roads and Rivers; and the Coast is adapted for Shipping, as the Traffick of the Country is for furnishing Goods to freight and employ them. These Ports are *Rio dos Reys Magos*, with a Town of the same Name about 7 Ls farther S. on the *Rio Aldea*. Between them is another *Rio Doce*, and a high Hill on the Shore called *Monte dos Reys Magos*. There is good anchoring in the Mouth of the *Rio dos Reys Magos*, within or behind an Island called the *Goeree*, as likewise before the *Monte dos Reys Magos*, behind another Island called *Ilha de Reposa*, named so from the safe Harbour or Road between that and the Main. On the S. side of this Island the Land forms a large Cape called *Punta Pera Coam*.

The N. Point of the Entrance into the *Rio de Spirito Sancto* is called *Cape Tuberaon*: here is a good Entrance, and a bold Channel up to the Town, which is called *Porta*, or *Villa de Porta*, where much Shipping is employed, likewise on the S. side of the Island *de Don Jurga*, which lies within the *Rio de Spirito Sancto*. There is good anchoring before the Town of *Azaredo*, which is a noted Port for loading Sugar; and a Town near the Point is called *Pan de Sucre*, or *Sugur*, from the Number of Plantations of Sugar about it.

7 Ls farther S. from *Pan de Sucre* lies the *Rio Guaropary*; and from thence the Coast reaches still S. without any considerable Places, except the *Lagos de Grande Piscaria*, to *Cape St. Thome*, or *St. Thomas*, dist. from *Rio Guaropary* about 23 Ls. This fishing Lake is noted, because many Vessels are employed in fishing upon it; it lies in due W. as the other Rivers do, but immediately spreads N. and S. The Mouth of the River is not above a mile over, but the Lake it self spreads to above 2 Ls broad every way; and being very deep, has abundance of good Fish, which brings many Vessels to it, as above.

From *Cape St. Thome* the Shore falls off W. and changes the Course for about 30 Ls to *Cape Frio*, making a Gulph or Bay of near that Breadth, *Cape Frio* not coming out so far E. as *Cape St. Thome*; the Course in a Line from Cape to Cape lies S S.W. and N.N.E.

In this Gulph are some small Islands, Rivers and Harbours, as *Rio Sabador*, and *Rio des Bagas*, and others. Here is good anchoring within the two Isles of *St. Anne*, under the N. side of *Cape de Frada*. Also about 4 Ls S. are some other Isles, called the *Three Isles of St. Anne*, South of which stands a very high Mountain called *Monte Morro*, which is seen far at Sea, and by which the Coast is to be known.

S. by E. from that Hill opens the *Rio de Fermoza*, a large River, but not a deep Channel: and from thence the Shore pushes out again S.S.E. to *Cape Frio*, dist. 8 Ls.

From *Cape Frio* to the *Rio Janeiro* the Course lies W. by N. dist. about 12 Ls, *viz.* 10 Ls to *St. Maria*, and 2 from thence to the opening of the *Rio Janeiro*.

N. B. This is the third and most southerly Port, from whence the *Brasilian* Fleets load for *Europe*; the other being the Bay of *All-Saints* and the River of *Pbernambuco*.

The Road in this Harbour is on the S. Shore of the River or Entrance before the Town of *St. Sebastian*, called also *Janeiro*, 'tis well secur'd both from Enemies and Winds; it is secur'd from the easterly and S.E. Winds by a Point of Land running out into the Bay, called *St. Iago*, with a strong Fort upon it; and from N.E. Winds by the Island *Cobras*, within which Ships usually ride at anchor in 8 Fa.

The Entrance into this Port at the Mouth of the River is very good, but narrow, two Islands and a broad Riff on the W. Point lying just thwart the Mouth of it: The eastermost of these is called *Santa Cruz*, and is wholly inclosed in a Royal Fortification called *Fortaleza de St. Cruz*, which joins to the Main, except a very narrow unpassable Channel: The other is called *Ilha Lagoa*. Between these two Islands goes in the main Entrance into the River, called *Barra Granda*; it is a good Channel, tho narrow, having 15 Fa. in the *Fair Way*, passing close under the Cannon of the Fort. Between the smaller Island and the Main, being the W. Point of the Entrance, is a small Channel called *Barra de Nova Funda*; and on the W. side of the Channel, tho not passable by great Ships, there is another Fort called *Paon de Sequero*, to secure the Channel from Shallons and small Boats.

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Within the Island goes up the *Rio de Concepçao*, on the S. side of which, 3 Ls from that Island, is the City as they now call it of *Angra dos Reys*, formerly called *Neustra Senhora de la Concepçao*; where Provisions are also had very reasonable.

N. B. As you come into the Road on the inside of *Ilha Grande*, at the northerly end of the Island, so you go out at the southerly: both the Passages are bold and good, and almost the same Wind that carries you in may carry you out, for you go in from N.N.W. and come out to the E.S.E.

N. B. *Ilha Grande* lies in Lat. 23 d. 5 m. S.

From the *Rio Janeiro* the Coast goes away W. by N. to the Island *Marembaya*; and then, leaving an Inlet for the *Canal do Padras*, or the *Channel of the Fathers*, in which there is 6 Fa. Water, goes on to the *Ilha de Grand Ingenios*, or the Island of *Large Sugar-houses*, which is behind that which we call *Ilha Grande*. Behind this Island comes in the River *Patagoa*.

W.N.W. from this Island goes in the Entrance of the *Rio Guagendy*, which opens into a large Bay, into which several other smaller Rivers empty themselves. At the bottom of this Bay to the W.N.W. lies the City of *Angra dos Reys*: There is very good anchoring in this Bay in almost any Depth. This Bay lies due W. from *Cape Frio*, dist. about 53 L.

From the Bay of *Angra dos Reys* the Land thrusts out again a little to the southward, and trends away S.W. by W. to the Island of *St. Sebastiano*. There are several other Islands of lesser note to the eastward of this Island, as *Ilha de Victoria*, *Ilha des Porcas*, or the *Isle of Hogs*, and some others. There is a Road for small Ships between this *Isle of Hogs* and the Main, under a Cape on the S.E. Point of the Island called *Punta dos Castillanos*, but the rest are foul. In sailing to the southward, you must go without all these Islands, and several more beyond them; and steering due W. about 20 Ls. you come to the *Bahia* or *Barrada dos Santos*, that is, to *Saints Bay*. The City of *dos Santos* lies in an Island called *Amiaz*, on the W. side of the Entrance into the Harbour, as does also the Town of *St. Vincent*. There is good anchoring before the Port of *dos Santos*, and also farther up at the N.E. end of the Island before the Town of *St. Vincent*. There are abundance of small Rivers come into this Gulph or Bay, and all the Ports well defended with Forts. On the W. side of the Island goes in the other Channel called *Barro de St. Vincento*. The upper part of this Gulph turns away N.E. to *Aldea de Trinidade*. This River is all the way navigable, and in it there are several good Harbours for small Ships.

W. by S. from this Port lies another *Rio Grande*, distant about 10 Ls: at the N. E. Point of it lies a small Town called *Nostra Senhora de Candillao*, but this is not a Port of great business. From this River the Land draws round again towards the S. in a large Bay, but not deep in. till the Coast lies due N. and S. to the *Ilha de St. Catherina*. There are some small Rivers and Bays between; but as the trading part of the Coast of *Brasilis* is now almost over, the greatest Navigation of this part is for Provisions or for Hides, especially for shelter for Ships bound farther S. and this is the reason of

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Within the Bay, but without the Point mention'd above, lies an Island called *Ungalbamo*, S. of the Island: there is a good Road in 20 to 28 Fa. and here the great Ships wait for a Wind to carry them in and out, as their Course guides them. The Bay goes up N. beyond that Road 6 or 7 Ls; the Ships go to several Ports and Creeks within to load and unload: but if you are bound up, you may have a Pilot at *St. Sebastian*, for all the Bay.

Here lies a long Island parallel with the Shore, called *Ilba Granda*, being a Place frequently made use of by the *English* and *French* Ships bound to the *South-Seas* to victual and refresh, and especially to lay in Stores for so long a Run; as particularly the two *Bristol* Cruizers (the *Duke* and *Dutchess*) did, of whom hereafter, and as Captain *Dampier* and others had formerly done, and of late the *French* Traders to the *South-Seas* do the like.

When you make this part of the Coast, coming the ordinary Course from the Coast of *Africa*, you generally find Cape *Frio* bears W. or W. by S. and that you make the Hills above the Cape at 8 or 9 Ls dist. if clear Weather; then standing away W.S.W. and leaving the Cape on your Starboard side, you keep off in 40 to 50 Fa. where you have good Soundings quite in to the Shore: then slanting to the W. and W. by N. (for so the Shore trends) and passing the *Rio Janeiro*, you come with the N.E. end of the Island, called *Ilba Grande*, where you may bring too, and anchor in 11 Fa. in the Entrance of the Harbour.

The Harbour goes in W. by S. after you are thro' the first Opening. There is a remarkable white Rock on your Larboard side, as you go into the Bay; and it bears S.E. as you go in, dist. about a mile and half. The Entrance lies above 5 Ls in the Bay; the Place where the Ships ride, is on the W. side of the Island, between that and the Main; and there are several good Coves, where Ships tow in to lie easy, and where they have the best Convenience both to wood and water.

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W. by S. from this Port lies another *Rio Grande*, distant about 10 Ls: at the N. E. Point of it lies a small Town called *Nostra Senhora de Canailhao*, but this is not a Port of great business. From this River the Land draws round again towards the S. in a large Bay, but not deep m. till the Coast lies due N. and S. to the *Ilha de St. Catherine*. There are some small Rivers and Bays between; but as the trading part of the Coast of *Brazil* is now almost over, the greatest Navigation of this part is for Provisions or for Hides, especially for shelter for Ships bound farther S. and this is the reason of the Island of *St. Catherine* being often visited by *European* Ships, *viz.* for fresh Water and Provisions. The Island affords very good anchoring in several Parts of it, especially on the Coast next the Main, as does also the *Ilha Alvorado*, which lies 3 Ls to the S. of it.

The Island *St. Catherine* or *Ilha de Catherine*, lies in Lat. 27 d. 52 m. to 28 d. 20 m. The Island of *Gal*, or *Gale*, bears N.E. by E. from it, dist. about 3 Ls, and in a Line with the two most northerly Points of *St. Catherine*, and with the N. by E. Point of the main Land of *Brazil*.

The Road or Anchoring-place is on the inside of the Island, between the Island and the Main, where you have a safe Shore, good Ground, and what Depth of Water you please; but the best Place for Provisions is at the S.W. end of the Island, where there are great Numbers of black Cattle kept on purpose for the Supply of Ships which use the Coast, and is the chief Trade of the Place.

There is a narrow Streight between the middle of the Island and the Main, where the Channel is not above 200 Fa. wide, and not above $2\frac{1}{2}$ Fa. Water in it; nor when you are thro', is there a Depth sufficient for a great Ship; so the Ships of Burden go about the S. part of the Island into the Bay of *Ara-zatiba*, where there is an excellent Road well secur'd.

However, that Road is out of the way, it being not easy to go in and out: and Ships bound to the southward chule to ride at the N. end of the Island, and send their Shallops and Boats thro' the inner Streight, to purchase Provisions. The Tides here run sharp, but very irregular, and seldom rise above 5 or 6 Foot upon the Flood.

From the Island of *St. Catherine* the Land trends away S.W. to the *Porto de St. Pedro*, and thence to the *Cape St. Maria*, which ends the long extended Coast of *Brazil* upon the side of the Ocean, and makes the N. Point of the Entrance, or great Opening of the *Rio de la Plata*. *Cape St. Maria* lies in Lat.

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34 d. 45 m. S. and Cape *St. Antonio*, which is the opposite Cape, lies in Lat. 35 d. 50 m. so that the Mouth of the River is above 23 Ls wide, not 60, as some Writers have affirmed.

The Coast of *Brazil* from *St. Catherine* hither has very little to describe, being a wild Country, like the N. Coast; nor have we any exact Survey of it, other than to let us know in general that great part of the Coast is desert and unplanted, at least by *Europeans*. The Islands of the *Castillios* finish the

Sailing Directions for the Coast of South America five to the Streights of Magellan exclusive, and de la Mare, and about Cape Horne on the T of Magellan in the South-Seas.



THE *Portuguese* being wholly Masters of the Country and Coast of *Brazils* to *Cabo St. Maria* in the Mouth of the *Rio de la Plata*, they are consequently Masters of the N. Shore of the River also, far up the Channel; and as the *Spaniards* have the Port and Harbour of *Buenos Ayres* on the S. side, near 70 Ls within the River, so the *Portuguese* are Masters of the *Rio St. Juan*, or *St. John*, 10 Ls higher up the Stream on the other Shore, and of all the Creeks, Harbours, Ports and Rivers on the Shore, between that part and the *Cape St. Mary's* E. 'Tis almost 30 Ls N.W. from this River of *St. John* to the parting of the main Rivers, where the great Rivers *Parana* and *Paraguay* fall into the Channel; and where, tho 100 Ls from the Sea, yet the breadth of the River is at least 10 Ls over.

Upon all this Coast the *Portuguese* have a considerable Commerce; but as that is not our business here, we shall speak only to the Shipping and the Navigation. The Channel of the River being so exceeding broad, and the Current rapid to such a degree, as that the fresh Water is taken up far out to Sea, it cannot be expected it should be extraordinary deep, much less free from Sands and Shoals, especially in its Entrance into the Sea: But that it should be entirely barr'd over from Shore to Shore with a Sand, on which there is but $2\frac{1}{2}$ Fa. Water, is something wonderful, especially seeing several Draughts and Charts publish'd in other Languages take no notice of it; but as the *Dutch* Charts expressly say so, we shall leave it as we find it; some saying it is able to carry great Ships 200 Ls up the Channel, and others just the contrary. Under the N. Shore, and for 10 to 12 Ls off into the Channel of the River, they have from 10 to 25 Fa. as high as the *Baxos de Ingros*, which is about 12 Ls up the River.

This Sand is very large, and lies far over thwart the Channel, having a Tail or Spit reaching out S.W. the whole stretching out 15 Ls in length: yet I say, the Channel on the N. Shore is reckon'd to be very fair, and has from 10 to 25 Fa. but beyond that Shoal the greatest Depth they give an Account of is from 5 to 3 Fa. But as in certain Seasons the quantity of Water from the Mountains, especially in the *Rio Pa-*

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Coast, lying out to the northward of *Cape St. Maria*, where there is good Riding, especially within the most northerly Island of them. But there is little to be had but Anchorage; for the Country is mountainous, and the Shore foul. Under the Cape, a little to the westward of the Pitch of the Shore, is a very good Road for northerly and westerly Winds, in 10 to 12 Fa. opposite to the Isle *Dos Lobos*, which is the first Island within the *Rio de la Plata*.

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given some Account of the Port: But all allow, that from the *Rio de la Plata* thither there is nothing worth notice, no Bu-
siness for Shipping, or Succour or Relief for Men, except Fish,
fresh Water, Seals, Penguins, and such like.

It is true, there are other Harbours on this Coast before
Port St. Julian, as *Cape Blanco*, which was the first Land
that Sir *John Narbrough* made of *America* in his whole Voy-
age, having not seen the Coast of the *Brazils* at all; it lies in
Lat. 47 d. 14 m. by Account, not by Observation. S. of
Cape Blanco lie the several Anchoring-places of *Port Desire*,
Seals Bay, *Spirings Bay*, and others, in all which the Ad-
miral found both Provisions and Shelter; but his Provisions
were only Seals, Penguins and Fish, very little fresh Water,
and nothing on Shore.

N. B. The Flood sets along this Coast very strong to the
northward.

Also there is *Tomabauke* Island, named so by Sir *John Nar-
brough* only, lying 8 Ls N.E. from *Seals Bay*: To take them in
order; *Spirings Bay* lies to the N.W. you have 21 Fa. in this
Bay, being 2 Ls wide, and about 3 Ls deep; it goes in round-
ing with a Point towards the N.N.W. upon which rounding
Point are several high black Rocks, which make at Sea like a
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and some Bays, with Pebble Stones and a sandy Beach, Grass
upon the Hills, but no Wood or fresh Water to be got on all
that part of the Coast.

The Land on the N.E. Point of *Spirings Bay* makes out full,
like a bluff Point or a Foreland, being a fair high Land in large
plain Hills. Off of this Foreland lie the rocky Islands men-
tion'd above, the nearest about Musket-shot from the Main,
the rest farther out; they are six in all; the outermost is
the largest, a mile from the Main, and is called *Penguin Island*;
it lies N.N.E. and S.S.W. about $\frac{1}{4}$ of a mile in length, and a-
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The Port of *Buenos Ayres* lies on the S. Shore of the River about 70 Ls, and about 10 Ls above the Bar mention'd before: on which Bar, by the said *Dutch* Charts, there is but $2\frac{1}{2}$ Fa. Water, nor is it deeper by the same Charts in the Harbour of *Buenos Ayres* it self.

From *Buenos Ayres* to the Mouth of the River on the S. Shore we have no exact Survey, or Account of the Depths and Soundings of the Shore; nor are there any Towns or Inhabitants found upon the Shore, to form any business for Ships to come there: What may be done for the future upon the *English* being allowed a Trade in that River, is not to the present purpose.

In like manner, from Cape *St. Anthony* southward for many Leagues, nothing can be said in particular, but what is gathered from the Accounts of those Navigators, who have called here in their Voyages to the *South-Sea*, such as *Magellan*, *Le Mare*, *Drake*, *Sir John Narbrough*, and others; it may be properly called a *Costa Deserta*, as it is by the *Spaniards*, there being no Inhabitants settled in any particular Place for a great many Ls, *viz.* from Lat. $26\frac{1}{2}$ to 47 or 49 d.

The first Place of note we find mention'd, is *Port St. Julian*, where several *European* Ships have winter'd, especially while the passing thro' the *Fretum Magellanicum* was in use: among others we find *Ferdinand Magellanicus* stopt hereabouts in his first Discovery of the *Streight* it self, *Anno* 1519. after him *Sir Francis Drake*, and *Sir John Narbrough*, who have

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Sands, about the sides and upon the tops of the highest Rocks.

Many Rocks and foul Grounds lie among those Islands; you
must therefore keep off about 2 Ls to Sea, and send your Boat
on Shore for what you want. You may load a good large
Long-Boat in an hour with Penguins only, mean time your
Ship may stand off and on, or go to the northward to *Port*
Desire.

Port Desire lies to the northward of these Islands, and
N.N.W. from this *Penguin Island* in particular, dist. about
3 Ls, in a Bay of 4 Ls broad and 1 $\frac{1}{2}$ deep.

About the middle of this Bay lie several white Cliffs for a-
bout 2 miles in length; on the top of them the Land is plain,
but the Country behind them lies in high round Hills and
Downs, sloping low towards the Water-side: By all these
Marks the Coast is to be known. On the S. side of the Bay
there is a sandy Cove, very convenient to hale a Boat on Shore
in foul Weather; and over it a Range of craggy broken Rocks,
which look like a Wall.

Here Sir *John* sounded the Harbour, and found it deep enough
for great Ships at low Water; but nothing on Shore, all waste,
and neither Wood nor Water as before. This I take to be the
same which he calls *Coopers Bay*, and the Harbour in it *Port*
Desire. In this Harbour *Jacob Le Mare* and his Company in
the Ship *Horne* put in and staid near six Weeks to refresh.
And here he set up a Post with an Inscription, which Sir *John*
found and brought away, giving an Account of their Names
and Ship's Name, and the Date, viz. the 10th of *January*
1616. The Spot of Land where it stood he called *Le Mare's*
Island, for it was at a small dist. from the Main.

N. B. *Port Desire* lies in Lat. 47 d. 48 m. S. in Lon-
git. from the *Lizard W.* 61 d. 56 m. and in Meridian dist.
from the *Lizard W.* 1014 Ls $\frac{1}{2}$. the Variation of the
Compass 17 d. 10 m. easterly.

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N. B.

N. B. *Scals Bay* lies in Lat. 48 d. 10 m. the Land is called the Coast of *Patagonia*. The Coast from hence towards *Port St. Julian* lies S.S.W. and S. by W. the Depth of Water 20 Fa. 3 Ls from the Shore, the Ground a black Sand.

S.S.W. of those Islands and Ports lies another small nameless Island 1 L from the Shore; the Land is flat and low, it lies in Lat. 48 d. 40 m. the Main against it is mountainous, and the Hills very large and spreading as well as high with pointed coping Tops, the Land low and spreading into a great Plain; and a Beach lies all along the Shore, except just against the Island, where it is rocky and foul.

In an Offing of 2 Ls from this low Island you will have 23 Fa. all black Sand; but you may sail within 5 miles of the Main in 18 to 20 Fa. in which case you go close under the Shore of the Island.

All along from hence to *Port St. Julian* you have the same depth and the same Ground, and the Shore a kind of Bay, with a long Beach; which, with here and there a Rock on it, holds for 4 Ls together, being a L to the southward of this flat Island, the Shore lying still S.S.W. and N.N.E. At the southermost end of the long Beach the Land within rises in high round Hills; and at the Sea side there is a large white Cliff indifferent high, stretching almost to *Port St. Julian*.

Over the white Cliff the Land rounds up to the top of the Hills, and you will see under it upon the Cliff a long black Strake in the white, like a Vein of Flints in a Chalk Rock; by all which Marks you will certainly know the Place. The Hills may have some small black Bushes upon their sides, but none on the top: nor is there any Wood or Trees to be seen.

In this Bay lies the *Port St. Julian*; the going in lies W. in the middle of the Bay; yet you cannot see it in the Offing, because one Point shuts in the other, shooting out E.S.E. the Harbour going in W.S.W. you must therefore send in your Boat to discover the Harbour, and to sound the Bar, which should be done at low Water, and not omitted, lest the Bar should shift and alter between the former Soundings and the time you come there.

The Land behind the Harbour lies in high rising Hills, standing thick together like blunt Sugar-Loaves, being the highest Land to be seen on all the Coast. In the Bay you have 12 Fa. black ouzy Sand, opposite to the Harbour, dist. E.N.E. 2 Ls.

N. B. The Tides flow and ebb here 3 Fa. right up and down.

This Port is dist. from the flat Island near 9 Ls, the Course as before S.S.W. *N. B.* The Entrance into the Harbour lies in Lat. 49 d. 10 m. Longit. from the *Lizard* 63 d. 10 m. Meridian dist. from the *Lizard* 1030 Ls; Variation of the Compass 16 d. 10 m. East.

The Harbour is safe, and Ships ride secur'd from all Winds: also the Points reaching out before one another, keep off the Swell of the Sea, be it ever so rough in the Offing.

It is a good Harbour for wintering, were it not for want of Fuel and fresh Water, yet both may be had with some difficulty.

Directions for the Streights of Magellan.

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Abundance of Fish, Fowl, and Seals, for Provision are every where to be found, but nothing on Shore for Sustainance but Salt, of which Sir *John* says there was enough to load a thousand Ships, very white and good.

N. B. Stars near the S. Pole are very visible here, and useful to Sailors, tho none fit for Observation nearer the Pole than 18 d. And in particular no Pole-Star, as the Star in the Tail of the *Ursa Minor* is to us at the North-Pole.

From hence southward is nothing worth a Sailor's Notice, no Bay to ride in, or Harbour to winter in: the Coast indeed is fair, and there is a River opens into the Sea called the *Galegos*, in Lat. 52 d. 5 m. and a long Shoal, with several other Shoals without it, reaching from Lat. 51 d. 30 m. to the Mouth of the River *Galegos*, and lying 5 Ls E. and W. from the Shore. There is good anchoring without these Shoals in 12 to 25 Fa. pretty near to them; but the best of the Course is to keep 3 to 4 Ls without them, till you come to 52 d. 20 m. Lat. then stand in again to the usual Offing of 3 Ls, where you will have from 28 to 30 Fa. and a clean Coast all the way to *Ca. Virgin Mary*, as Sir *John Narbro* calls it, or *Cape 11000 Virgins*, as the *Spaniards* call it, which is the N. Point of the Entrance into the *Streights of Magellan*.

Before you make the *Streight*, you pass by *St. Ives*, which is a high Hill on the Main, and a Point which they call *Beachy-head*, Lat. 50 d. 10 m. the Variation 16 d. 37 m. easterly. Here in a little Bay comes in the River *Santa Cruz*. Then you pass *Fair Weather Cape*; and here the River *Galegos* mention'd above comes in. Then you come to the *Cape Eleven Thousand Virgins*, as above, Lat. 52 d. 26 m. the Mid-Channel or the Fair Way into the *Streight* is 14 Ls off the Point, in Lat. 52 d. $\frac{1}{2}$ S.

It has been observed in our Description of this *Streight* called the *Fretum Magellanicum*, that as it was never likely to be in use again, (the Passage about by *Cape Horne*, which was much easier, being now discover'd) it was therefore needless to describe it; and we might let it drop out of our Memory as if it had never been in our Knowledge. But it may be also observ'd here, that the Seas are so tempestuous in the E. and W. side of the *Terra del Fuego*, and especially those to the S. of *Cape Horne*, where our People now run away into the Lat. of 60 to 63 d. S. and that in particular there come such violent Waves from the S. and S.W. that the best and strongest Ships are in danger of foundering, and that if they escape, yet the Men are so fatigued with the Labour and Watching, and particularly with the Cold which is extremely piercing, that the *Europeans* begin to think again of the *Streights of Magellan*, and many of the *French* Ships trading to the *South-Seas*, in the late time of Friendship between *France* and *Spain*, chose to go that way, and generally had a quicker Passage; and that some *English* do so still.

For this reason I think it should not be omitted to give a summary Account of the *Streight*, as it has been surveyed at the publick Expence by the said Admiral Sir *Jakov Narbro*.

be done at low Water, and not omitted, lest the Bar should shift and alter between the former Soundings and the time you come there.

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The Harbour is safe, and Ships ride secur'd from all Winds: also the Points reaching out before one another, keep off the Swell of the Sea, be it ever so rough in the Offing.

It is a good Harbour for wintering, were it not for want of Fuel and fresh Water, yet both may be had with some difficulty. Sir *John Narbrough* lay here all the Winter; moored, and unrigg'd his Ship; and tho a very stormy Winter at Sea, felt nothing to hurt them, or to put the Ship into any great Motion: Depth of Water 7 to 10 Fa.



Sailing Directions for the Streights of Magel Journal, October

Being come into the Latit. of *Cape Virgin Mary*, I stood off about 4 Ls; and having 28 Fa. Water, and the Wind springing up fresh at N.E. I stood in for the Point, passing to the northward of two Banks of Sand which lie due S.E. from the Cape; so running in between those Banks and the Port 2 Ls from the last, having 33 to 36 Fa. in the *Fair Way*.

N. B. The Cape is in Lat. as above, Longit. from the *Lizard* 65 d. 52 m. Merid. dist. from the *Lizard* 1662 Ls, Variation of the Compass 17 d.

In the *Fair Way* from the Cape into the *Streight* to the first Narrow, is good anchoring in 30 to 36 Fa. not much Tide, till you come to the Narrow, where it runs stronger than the Thames does in the Hope below *Gravesend*.

N. B. The Tide runs here 6 hours Flood and 6 hours Ebb, and rises 4 Fa. right up and down: The Flood sets in, and the Lbb sets out, and the Full and Change make high Water at 11 a-Clock.

This Day at 2 a-Clock I was a-breast of *Point Possession*, when finding a deep Bay on the N. side, and not knowing the *Fair Way* for the *Narrow*, I run into the Bight, steering W.N.W. about 2 Ls, then W. and W.S.W. and S.W. by S. roun-

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For this reason I think it should not be omitted to give a summary Account of the *Streight*, as it has been survey'd at the publick Expence by the said Admiral Sir *John Narbrough*, by order of *K. Charles II.* which Survey has been published under his own hand, being an Abridgment of the Journal of his passing thro' the *Streight* both forward and backward, *Ann. 1669.* as follows.



ights of Magellan, extracted from Sir John Narbro's
ournal, October 23, 1670.

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ding the Bay as I saw the Land lie, keeping my Eye upon the
' N. Shore.
' As I shoal'd my Soundings, I had 22, 18, 16, 12 to 9 Fa.
' sandy gravelly Ground, and some times Pebble Stones. I
' rounded the Shore thus becaule we were all unacquainted,
' and we could not see the Opening of the *Narrow*, or where
' it lay, one Land shutting it in within another.
' About 5 a-Clock we were open with the *Narrow*, and
' and had still a fine Gale at N.N.E. which had it held would
' have been a leading Gale thro'. Accordingly I run into the
' Chops of it, keeping a S.W. by S. Course; but the Ebb being
' made, run so strong out, that I could not stem it; and being
' not able to make above a L into the Passage, I was forc'd to
' fall back again out of it as well as I could.
' Here we were in great danger of tailing ashore upon some
' steep Rocks, which lie on the N. side of the Entrance; the
' Ship taking a Sheer with the Force of the Tide, and the
' Wind blowing fresh from the N.E. We saw the Rocks by
' the long Rock-weed which grew on them, and sent the Boat
' to sound them, who found but 5 Foot Water upon them.
' tho' there was 14 Fa. close to them on the off side next the
' Channel or *Fair Way*: they lie stretching from the N. Point

Sailing Directions for the Streights

‘ of the *Narrow* about a mile off into the Channel, and are
‘ very dangerous.

‘ Having escaped this Danger, and got farther out into the
‘ Channel, about 6 a-Clock the Wind veer’d to the N. and at 8 to
‘ N.W. with much Rain and very dark; when being got out
‘ of the Passage, I stood in for the Bay on the N. side, where
‘ we had been before: but being so very dark that we could
‘ not see the Land, and finding 20 Fa. Water, Pebble Stones and
‘ ouzy Ground, we anchored and rode there all Night, at first
‘ stark calm, afterwards a little Wind at S.W.

‘ The next Morning we weighed with the Flood, having
‘ little Wind N. by E. and enter’d the *First Narrow* the second
‘ time; and having the Tide under Foot, passed it happily e-
‘ nough, and with little Difficulty, the Passage being not a-
‘ bove 4 Ls thro’: the northermost Point of the Passage under
‘ the N.E. part of which we had anchor’d all Night, and
‘ where it first grows narrow, we called *Cape Entrance*, the
‘ Passage about 1 $\frac{1}{2}$ L over, from 27 to 30 Fa. all the way
‘ thro’.

‘ It is something above 8 Ls from the first *Narrow* to the
‘ second, the Course W. by S. and E. by N. the Reach between
‘ is 7 Ls broad N. and S. it shows like the open Sea, when we
‘ enter it, being not able to see over it to the *Second Narrow*,
‘ till we were half over: Nor did we well know where to look
‘ for it, but by observing the Set of the Tide, which seem’d
‘ to run right over W.

‘ Being enter’d this open Reach, between the two *Narrows*,
‘ it is to be observ’d, you have at least 25 Fa. all the way in a
‘ strait Course W. But if you have a mind to round the Bay,
‘ as we did the other, and was done afterwards at our Return
‘ by the Pinnacle, you will find from 7 to 8 Fa. close under the
‘ Shore; all the way, a clear Strand and good anchoring under
‘ the N.W. Land, in a small Bay, which we called *Gregory’s*
‘ *Bay*, about 2 mile N.E. from *Cape Gregory*: There you may
‘ ride in 8 Fa. fine clean sandy Ground, within half a mile
‘ from the Shore; it is a very good Road for any Wind between
‘ the N.E. westward to the S.W.

N. B. The Winds here are very variable, but generally
hang westerly. As we sailed thro’ the *Second Narrow*
from *Cape Gregory*, I founded in the *Fair Way*, and had
28 to 30 Fa. all the way, the Ground small Stones.

‘ At the Point of the N. Shore, at the Entrance of the *Se-*
‘ *cond Narrow*, there lies a white Cliff indifferent high, shoot-
‘ ing a little out S.E. This we named *Cape St. Gregory*; it is
‘ without the Bay mentioned above, a little to the S. by E. or
‘ S.S.E.

‘ There is also a Bay a little within this Point, in the Passage
‘ of the *Second Narrow* on the N. Shore; but to that we gave
‘ no Name. The *Second Narrow* is broader than the first, and
‘ the Passage not so long; so it is the less difficult.

‘ The N. Shore of this *Narrow* makes in a Bay at the E.
‘ Point, and the Shore is full of white Cliffs all the way
‘ thro’.

‘ This *Narrow* lies thro’ W.S.W. and E.N.E. at the W.
‘ end of it the Land is steep up in white Cliffs, the S. part
‘ of it rounds away in a Foreland; and the Shore rounds

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dry on the Ground, the Trees blow'd down as they sup-
pos'd by the Storms.

' On this Account we call'd this *Fresh-water Bay*; it is
' 9 Ls to the southward of *Sweepstakes Foreland*: And from
' *Elizabeth Island* to this Bay the grand Channel of the
' *Streights* turns away due S. holding generally the breadth
' of 6 to 8 Ls; but at *Elizabeth Island* it is 10 to 12 Ls wide.

' The S. Shore of the *Second Narrow* we call'd *Sweepstakes*
' *Bay*, and the W. Point of the Bay on the S. Shore of it is
' call'd *Sweepstakes Foreland*. Opposite to this *Foreland* N.W.
' is a small round Inlet, or Gulph, call'd *Onzy Harbour*, as
' above. From the Bay, beyond that to the *Foreland*, the
' *Streight* is 13 Ls broad.

' From *Fresh-water Bay* due S. lies *Port Famine*, call'd so,
' because it seems some *Spaniards* formerly landed and settled,
' and were starved to death here, no Relief from *Europe* be-
' ing sent to them. The distance from *Fresh-water Bay* hi-
' ther is 6 Ls due N. and S. You cannot see the Opening into
' the Port as you come from the northward, till you come lo
' low as to bring Point *St. Ann* to bear N.W. from you: For
' the Bay lying up in a little Hook N.W. and the Land on the
' W. side lying low, the other Shore conceals the Port. Here
' we found Heaps of drift Wood lying on Shore, cast up by
' the Winter Floods, so that it look'd like a Carpenter's Yard.

' This Point of *St. Ann* is rocky on the Shore, but you
' may run into the Port bold with the Point. Here is likewise
' good wooding, watering and fishing. The Men haul'd 500
' large Mullers, or Fish as large and good as a Mullet, on Shore
' at one Haul; also Smelts of 20 Inches long, with Anchovy
' and Skate.

N. B. *Port Famine* lies in Lat. 53 d. 35 m.

' S. from Cape *Famine* the Reach goes on still S. about
' 4 Ls farther, and then turns away to the westward, the
' Streight also or Channel growing narrower to about 5 Ls.
' Just at the Turning off of the Channel to the W. the N.
' side necessarily makes a Point, which running out to the
' S.E. we call'd Cape *Froward*. This is the southermost
' Land of the main Continent of *America*, and lies from
' *Greenland*, and the height of the N. Pole, due S. or S.W.
' the greatest Continuity of Land in the known World.

' It is very high Land, especially on the inside of the Cape:
' The Front is steep up, consisting of a high Ridge of Cliffs of
' a blackish-grey Colour. There is a great depth of Water
' near the Shore off of the Cape, in some places no Ground at
' 150 Fa. within half a Mile of the Shore. The opposite
' Shore is high and very mountainous, but has more Inhabi-
' tants than on the N. side; yet the Shore is not so safe as the
' N. side: And the other being a Lee-shore, with westerly
' Winds, and those frequently blowing here, it is worse riding
' there, and more dangerous.

' The Streight here is not above 3 Ls over, but exceed-
' ing deep, no Ground at 250 Fa. in this Channel; and the
' depth being so great, there is but little Tide, nor any Rip-
' pling to be perceiv'd, but a fair Course thro' an open clear
' Channel; nothing wanting but a fresh Gale abait the Mast.
' It is still best for any Ship to keep nearest the N. Shore, for

from the Shore; it is a very good Road for any Wind between
the N.E. westward to the S.W.

N. B. The Winds here are very variable, but generally
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end of it the Land is steep up in white Cliffs, the S. part
of it rounds away in a Foreland; and the Shore rounds
away S.E. from it, and then it trends away to the southward
in low Land. The N. Shore of this *Narrow* or *Streight*
rounds up to the northward in white Cliffs, and falls into
Shoals. There goes in a Harbour, which has 4 Fa. in the
Channel at high Water: It is a flat round Harbour within,
and ouzy: I called this *Ouzy Harbour*. When you are at
the W. end of this *Narrow* you will see three Islands come
open, which shew to be steep up Cliffs; they lie triangular-
wise one of another; they are 4 Ls dist. from the *Narrows*
W.S.W. the smallest and easternmost Isle we called *St. Bartho-*
lomew's; the biggest is called *Elizabeth*; the middlemost
and southermost is called *St. George's*, and by some *Pen-*
guin's Isle, for indeed there are many *Penguins* on it. This
Evening I got up to *Elizabeth's Island* and anchor'd in 8 Fa.
and a half, fine black Sand, two miles off the Island; the E.
Point bears S. by E. of me; fair Weather all Night, the Wind
at S. by W. Being at an anchor under the Lee of this
Island, we founded the Channel between that and the next
Island bearing S. of it, which we call'd *St. Bartholomew's*,
and found it a fair Channel, deep Water, and a Mile broad.
In the *Fair Way* is 38 Fa. and 9 to 10 Fa. near the Shore
on either side of *Elizabeth Island*.

October 30. We weigh'd from *Elizabeth's Island*, and
standing away S. anchored in a little Bay in 11 Fa. gravelly
Ground, and about half a Mile off the Shore, the Tide not
so strong as before; and the Flood rises but 10 Foot up and
down. In this Bay we found both Wood and Water, here
being large Trees of 18 Inches thro', somewhat like Beech,
and two Rivulets of fresh Water; both which, especially
the Wood, had been very scarce with us for a long while.

N. B. The Woods being thick, they cou'd not travel thro'
them; but they found Wood enough lying perishing and

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pling to be perceiv'd, but a fair Course thro' an open clear
Channel; nothing wanting but a fresh Gale abast the Mast.
It is still best for any Ship to keep nearest the N. Shore, for
the same Reason as before, because the Winds hanging gene-
rally in the western Quarter, the N. Coast is more a Weather
Shore than the S. Coast.

N. B. Cape *Froward* lies in Lat. 53 d. 52 m. S.

On the 4th of *November*, the Wind springing up fresh at
W.N.W. and the Reach from Cape *Froward* lying due W.
we were oblig'd to put in towards the N. Coast, and come
to an anchor 5 Ls to the W. of Cape *Froward* in a very
good Bay, which we call'd *Wood's Bay*.

N. B. This was call'd so after the Name of one Mr. *Wood*,
who was Sir *John Narbrough's* Chief Mate, and very in-
strumental in giving this full Account of the Voyage.

Nov. 5. we weigh'd again, and came a-breast of Cape
Holland. These are all Points of Land on the N. Shore of
this Reach, as is also Cape *Coventry*, *Andrews*, *Cordes*, and
Fortescue's Bay, Cape *Gallant*, and Port *Gallant*: All these
lie on the N. Shore, and there is very good anchoring in
most of them, tho there are some Rocks under Shore upon
most of the N. Coast from *Wood's Bay* to Cape *Gallant*.

Opposite to this Coast lie many Islands, rather inclining
to the S. Shore, but a breast of *Cordes Bay*, and distance
2 Ls: These are, *Charles Island*, *Monmouth Island*, *Rupert's*
Island, *St. George's Island*, *Arlington's Island*, *Sandwich I-*
sland, *Wren's Island*, with abundance of nameless Rocks,
which we did not think worth notice. Most of these lie
E. and W. stretching from the S. Shore opposite to Cape
Coventry, and then crossing a deep Bay call'd *Whale Bay*
(because of a great many Whales we saw in the Bay) go off
at *Whale Point*.

This *Whale Point* is a Foreland on the S. Shore, where
the Shore runs out N. into the great Channel: And this
Passage makes the *Third Narrow* of the Streight.

N. B.

N. B. This is thought to be the most difficult part of the Streight, by reason of the breadth of the Channel and Depth of the Water, and especially the Number of Rocks. The Passage of this *Narrow* is about 2 Ls wide. The E. Point on the S. Shore is *Whale Point*, and the W. Point on the same Shore is call'd *Cape Middleton*; and the Reach before it we call'd *English Reach*, because of so many *English* Names given to the Islands and Shores.

The Streight shews here as if it was a mere Gulph, and that there was no farther Passage to the westward: For the S. Land rounds up so much to the N. westward, that it seems to shut up the Land into one even Strand. At this distance we saw two large Openings into the S. Land, one opposite to *Charles Island*, the other farther W. There we saw many Whales playing in the Sea, and therefore call'd it *Whales Bay*.

N. B. It was a great Mistake not to go in here.

But to come back to the N. Shore from the Pitch of *Cape Forward*, the Channel of the Streight lies nearest W by N. to *Cape Holland* dist. as above full 5 Ls. From the Pitch of *Cape Holland* to the Pitch of *Cape Gallant* it lies W. by N. a little northerly, dist. 8 Ls; and from the Pitch of *Cape Gallant* to a low Point which lies to the westward, it is N.W. by W. a little northerly, dist. 3 Ls.

This Reach is not more than 2 Miles wide, that is, from the N. Shore to the Islands, which we call'd, as all together, the *Royal Isles*. When we were a-breast of the westernmost of them, which is *Rupert's Island*, and sailing Mid Channel, we shot off a Sakre, and lodg'd the Shot close in the Island's side.

Opposite to *Rupert's Island* on the N. Shore lies a low Point or Cape, which we call'd *Point Passage*. We shot past this Point half a Mile to the westward into the *Narrow*, having a fine easy Gale; but the Wind coming westerly, with cloudy Gusts sometimes at N.W. we run into a little Bay to the westward of the Point, which we call'd *Elizabeth's Bay*. Here we rode fast all the Day close aboard the Shore, the Wind blowing hard.

The S. Shore right against *Elizabeth's Bay* is mountainous and high, with several fine Coves like wet Docks, very safe to run a Ship in, to secure it from Wind or Sea. This Bay we call'd *Muscle Bay*; and a River which comes into it we call'd *St. Jerom's River*. The Shore is rocky and steep too, no Ground in the Channel of the *Narrow* at 100 Fa. also in most of the Bays on the S. Shore there is very deep Water, especially among the Islands, which lie very thick and close along the Shore.

From *Elizabeth Bay* westward, the Land of the N. Shore next the Sea side is low and woody: A small River comes into the Bay on the N. Shore, which we call'd *Batchelours River*, where is good fresh Water, and sufficient depth in the Entrance for Shallops and small Vessels, but how far in we knew not. Before the Mouth of this River, in the *Streight*, is good anchoring in 9 to 12 Fa. sandy Ground, and a fair Birth from the Shore. The Tide runs here but ordinary for strength, the Flood coming from the westward, and rising

Directions for the Streights of Magellan.

part of the Channel and r of Rocks. c. The E. V. Point on e Reach be- ny *English* Gulph, and d: For the hat it seems his distance ne opposite e saw many *Whales Bay*. ch of Cape st W by N. he Pitch of es W. by N. ch of Cape tward, it is at is, from all together, westermost Mid Chan- clofe in the e lies a low We shot past *Narrow*, ha- sterly, with ttle Bay to *Abert's Bay*. Shore, the mountainous s, very safe his Bay we into it we d steep too, Fa. also in deep Water, ck and clofe he N. Shore River comes *Batchelours* depth in the w far in we he *Streight*, and a fair ordinary for and rising

this seems to be the most dangerous part of the whole Streights as wanting both Harbour under Shore, and Anchoring in the Offing. I mean to the eastward of this *Cape Quad*.

On the other Shore however a little farther, there is a fine Bay, which we call'd *Rider's Bay*: We did not found it, but it promises fair, being large and well-shelter'd from any Winds. What depth there is we know not, but in the Channel before it we had no Ground at 100 Fa. From *Point Passage* to this Cape is also the most crooked part of all the Streight, which adds to the difficulty of the Passage, because it requires so many Winds to get thro' it: We call'd it *Crooked Reach*.

A little to the eastward of *Cape Quad* lie two small Islands, but of no importance to the Navigation.

W.N.W. from *Cape Quad*, the Streight lying to the N.W. lies *Cape Monday*, being on the S. Shore of the Passage, and dist. from *Cape Quad* 13 Ls. Opposite to this Cape the Streight is contracted to about 4 Miles breadth. The N. Shore is full of deep Sounds, broken Islands, and large Points shooting far into the Sea, both Shores are rocky, high, mountainous, un hospitable Countries, neither Wood or Grass.

From *Cape Monday* the Shores fall off on both sides; and the Streight in general grows wider and wider, keeping one due Courfe N.W. by W. to *Cape Upright*, a steep high Cliff on the S. Shore. dist. from *Cape Monday* about 4 Ls.

Here the Channel inclines half a Point to the westward, and you have no more Turnings or Reaches in it; but it lies open W.N.W. half a Point northerly right out into the *South-Sea*.

We found little or no Tide or Current here; that is to say it could not be felt because of the great depth of Water: For here, tho the Channel grows broad to 6, 7 and 8 Ls, yet we had no Ground at 200 Fa. a Musket-shot from the Shore on either side. We sail'd fair along the S Shore a whole Day; we could see many Sounds and Coves run deep into the Land, also several small Islands, but no visible danger; for all the Islands that we came near enough to found are steep too, so that the Streight is here a very fair Channel to sail thro', or (as the *Spaniards* call it) to ditenbogue into the *Southern Ocean*.

We saw likewise on the N. Shore several Sounds going in to the Land, and many small Islands; but one Island we were a-breast of larger than the rest, which we call'd *Westminster Island*; and there are some Rocks, and much broken Ground about it, and several Islands also; which Islands we call'd the *Lawyers*. *Westminster Island* is high and rocky, and makes at a distance like *Westminster-hall*, and therefore we call'd it *Westminster Island*.

Here the Streight is open'd to 5 Ls. that is, from the Island to the S. Shore: But the Island is also at some distance from the N. Shore, and has many Rocks and Islands between, so the whole Streight may be here near 7 Ls broad.

And now we began to see our way out, for the Streight grew wider and wider, and seem'd to promise us that we should find no more narrow Passages.

Wind blowing hard.

The S. Shore right against *Elizabeth's Bay* is mountainous and high, with several fine Coves like wet Docks, very safe to run a Ship in, to secure it from Wind or Sea. This Bay we call'd *Muscle Bay*; and a River which comes into it we call'd *St. Jerom's River*. The Shore is rocky and steep too, no Ground in the Channel of the *Narrow* at 100 Fa. also in most of the Bays on the S. Shore there is very deep Water, especially among the Islands, which lie very thick and close along the Shore.

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N. B. The Tide that comes out of *St. Jerom's Channel* makes a Rippling with the Tide that comes along the Stream off the Channel of the *Streight*, as when Tide and Eddy or two Tides meet.

We call'd this *Tork Road*; 'tis very good Riding with westerly Winds, for here cannot go any great Sea, nor can a Ship be embay'd: But if a Cable gives away, or an Anchor comes home, you have the *Streight* open to lead it away one way or other.

It is evident here, that the westerly Winds are the chief Winds that blow in this *Streight*; for all the Trees on both Shores stand leaning to the E. as if they gave way to the westerly Storms; and the W. side of the Tops of the Trees are blown flat with the Violence of the continual westerly Storms.

There may be easterly Winds too, and some we had; but they generally blow gently and mild, and bring good Weather.

W. from *Elizabeth Bay*, and on the N. Shore of the *Streight* lies *Cape Quad*; the Land like the former Points shut in one another, as if there was no farther Passage: But as you make nearer to it, you come fair with the Opening, the *Streight* also rounding there to the northward.

Cape Quad is a steep-up Point on the N. Shore of the *Streight*; it has a rocky greyish Aspect, and is of a moderate height. Before you come at it it shews like a great Building, or an old Castle; it Points off with a Race so much from the other Hills, and into or towards the Channel of the *Streight*, that it makes a Close, and shuts in as it were upon the S. Land, making an Elbow in the *Streight*.

The grand *Streight* is not above 4 Miles wide here from the Main to *Terra del Fuego*, the Land mountainous, rocky, and steep too on both sides, and the Channel deep; so that

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' And now we began to see our way out, for the Streight grew wider and wider, and seem'd to promise us that we should find no more narrow Passages.

' From *Cape Monday* the Channel lies away W.N.W. half a Point northerly, and E.S.E. half a Point southerly, to *Cape Deseado*, dist. from one another 15 Ls; which finishes the Streight, and opens into the Ocean.

' From *Cape Quad* into the *South-Sea* the Course of the Streight lies N.W. by W. and from *Cape Quad* to *Cape Deseado* the dist. is 28 Ls: It lies all in one strait Line, which therefore we call'd *Long Reach*, and the Land on the S. Shore we call'd *South Desolation*, in Opposition to the Coast of *Greenland*, which Sir *Martin Forbisher* for the same Reason of Wildness and Barrenness call'd *North Desolation*.

' *Cape Deseado* lies in Lat. 53 d. 10 m. S. and *Cape Pillar* lies in 53 d. 5 m.

' Thus we made the whole length of the Streights to be 116 Ls from *Cape Virgins* to *Cape Deseado*, reckoning all the Turnings and Reaches: And thus we happily sail'd thro' it in 16 Days.'

Thus far Sir *John Narbrough's* Account, and also the Additions from Lieutenant *Wood* and others, corresponding with his Account: All which may serve for a full Chart of the Streights themselves, in case any Persons should, either by Choice or Necessity be oblig'd to take this Passage for the *South-Seas* in time to come, which it seems is more probable than for many Years we thought it to be.

Sir *John Narbrough* did, and several other skilful Navigators since that, have come back by the same Streight from the *South-Seas* into *Europe*; and some Directions might be drawn from the Continuation of his Journal in his Return: But we think that what has been extracted from his Diary outward-bound may be sufficient.

We must now go back, and with the modern Navigators look into what Authors have left upon Record for Directions in sailing the

Sailing Directions for the Streights

the other Course, viz. by the Streights *de la Maire*, and the *Terra del Fuego*; a Course, which tho it is not without its Dangers, has of late obtain'd in the World, and been esteem'd for some time the best and easiest, tho we cannot say it is the safest Passage into the *South-Sea*.

We have three particular Journals of this Passage left in print by the Persons who have successfully pass'd it, and of three different Nations: And as they are all very important, being well describ'd, as they were skilfully perform'd, and are not tedious, we think it may be useful to give an Extract of them all, the thing it self being of so great importance in Navigation.

1. *Jacob le Maire*, a *Dutch Man*, who was the first that ever made that Attempt, and perform'd it successfully.

2. *Mont. Frezier*, a *French Man*, and Engineer to the *French King*, whose Account was publish'd in *France* by the King's Authority, and translated into *English*, with an Appendix or Postscript by *Dr. Halley*.

3. The two Captains *Rogers* and *Cook*. *English Men*, who took the *Acapulco Ship*; and each publish'd a Journal of their Voyage, and in that Account gave a particular Description of this part round by *Cape Horne*.

Thus we have the Authority of the Navigators of three Nations for the Passage.

N. B. *Jacob le Maire* set out with two Ships from the *Texel* the 14th of *June* 1615, and to omit the rest of the Voyage, as not to our purpose here, they arrived at *Port Desire* in Lat. 47 d. 40 n. S. on *Dec. 7.* the same Year, where they staid about five Weeks; but did not winter here, as *Sir John Narborough* did.

The 9th one of the Ships having been cast on Shore upon the Rocks, and almost miraculously escaping, they went into the Port, and up the River, to the Island mention'd by *Sir John Narborough*, call'd *King's Island*, in order to get Provisions and fresh Water: Of the first they found nothing but Eggs and Penguins; and for fresh Water, they found none.

As for the rest of the Voyage, containing a Description of the Coast, and Directions for sailing on it, I shall give it in their own Words.

Jan. 13. 1616. **W**E sail'd out of *Port Desire*; but being calm, we anchored before the Bay till the Evening, when with a fair Wind we set sail again to the southward.

The 18th we saw *Schaid's Islands* bearing S.E. from us, about 3 Is: We found them lying, as *Schald de Wert* who discover'd them, describes them, viz. distant from the Streight of *Magellan* about 5 Ls E.N.E. and W.S.W. When we got Sight of them, we were in Lat. 51 d. S.

N. B. These are suppos'd to be the same which we call *Falkland's Isles*, and *Sibauld's Isles*.

The 20th we saw *Steen-Grafs* drive in the Sea (that is, what we call *Rock Weed*) and perceiv'd a great Current running from the S.W. We were then in Lat. 53 d. and suppos'd by our Reckoning we were about 20 Ls S. of the En-

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' in our Opinion, because we found a strong Current in the
' Opening between, coming from the southward.

' About Noon we had an Observation, and found we were
' under Lat. 54 d. 46 m. In the Afternoon the Wind coming
' N. we stood in fair with the Opening, resolv'd to see if it
' went thro', or that we were embay'd: Being enter'd, it fell
' calm, when we found a strong Current of the Tide running
' right in, and that we drove forward all night at a great rate.
' In the Opening we saw endless Flights of Penguins, and
' thousands of Whales; so that we were forced to wind and
' tack, and stand this way and that, to avoid them, lest our
' Ship should run foul of them.

' The 25th in the Morning we were close in with the E.
' Coast of the Land, which we had seen the Day before, which
' was very high and craggy, and reach'd E.S.E. as far as we
' could see: This we named *Staten Land*, or the *States Land*:
' towards night it lay from us N. so that we seem'd to be run
' past it S. But on the W. side the Land continued, and lay
' W. by S. from us, and this we named *Maurice Land*. We
' perceived good Bays and deep Sounds on both sides as we
' pass'd, with fine sandy Strands, and as we had reason to be-
' lieve good anchoring-ground.

' All this first part of our Entering we had the Wind at N. and
' went away S.S.W. with a stiff Course and a fresh Gale. At
' Noon we were in Lat. 55 d. 36 m. Whereupon we held our
' Course as before S.W. having a hard Gale.

' Keeping this Course, we perceived the Land on the S. side
' of the Passage, being the W. end of *Maurice's Land*, trend
' off also, falling away W.S.W. and S.W. as far as we could
' make it from our Round-Tops, all very high craggy Land.

' In the Evening we had the Wind S.W. and all that Night
' we stood S.S.E. having a great Sea out of the S.W. going ve-
' ry high, and the Water looking blue; whence we concluded
' we had a great Extent of Water, and very deep to the Lee-
' ward from us; nor did we doubt but it was the great *South*
' *Ocean* that was then before us, which made us exceeding
' joyful, believing we should discover the Way into it which
' was never heard of before, especially not this Way.

' The 26th we had another Observation, and found our
' selves in Lat. 57 d. with a flying Storm out of the W. and
' S.W. with blue Water and very great Billows. All that Day
' we held our Course southward, and saw very high Land to
' the N.W. In the Night we tack'd, and changing our Course
' stood to the N.W.

' The 27th, having run this Course all Night, we found
' we were in Lat. 56 d. 51 m. The Weather was now ex-
' ceeding cold, with Hail and Rain, the Wind W. and W. by N.
' So we went S. again: Then having made a long stretch we
' tack'd, and stood N.W. again under our Courses.

' The 28th we carried our Top sails, but had a great hollow
' Sea out of the W. with first a W. Wind, then a N.E. and
' with that we held our Course S. as before, then W. and
' then W. by S. being in Lat. 56 d. 48 m. so that for these fe-
' veral Days we made but little way southward, but gain'd up-
' on our Longitude, by westing as above.

' The 29th we had the Wind at N.E. which was a great help

nothing but Eggs and Penguins, and for fresh Water, they found none.

As for the rest of the Voyage, containing a Description of the Coast, and Directions for sailing on it, I shall give it in their own Words

Jan. 13. 1616. **W**E sail'd out of *Port Desire*; but being calm, we anchored before the Bay till the Evening, when with a fair Wind we set sail again to the southward.

The 18th we saw *Schald's Islands* bearing S.E. from us, about 3 Ls: We found them lying, as *Schald de Wert* who discover'd them, describes them, viz. distant from the Streight of *Magellan* about 5 Ls E.N.E. and W.S.W. When we got Sight of them, we were in Lat. 51 d. S.

N. B. These are suppos'd to be the same which we call *Falkland's Isles*, and *Sibanid's Isles*.

The 20th we saw *Steen-Grass* drive in the Sea (that is, what we call *Rock Weed*) and perceiv'd a great Current running from the S.W. We were then in Lat. 53 d. and suppos'd by our Reckoning we were about 20 Ls S. of the Entrance into the Streights of *Magellan*.

The 21st we made no way S. being driven to the E. found by an Observation that we were still in Lat. 53 d. S.

The 23d in the Morning we had the Wind at S. about Noon a Calm, (which we were rarely troubled with) towards Night the Wind sprang up at W. and we made sail standing S.S.E. We had Ground at 50 Fa. black Sand, with small Stones.

N. B. Sir *John Narborough* observes exactly the same at the same depth upon all the Coast.

The same Day about three, the Wind came to the N. fair Weather and a smooth Sea; and we made fresh way to the southward and S. by W.

N. B. The Water appear'd white, as if it had been in a River.

About three or four in the Afternoon we saw Land bearing W. and W.S.W. from us; and soon after saw it again due S. from us: Upon which having the Wind at N. we went away large E.S.E. supposing we ought to get about to the southward of it. But it blew so hard and we had such a hollow Sea, that we were oblig'd to take in our Top-sails.

On the 25th in the Morning we saw Land on our Starboard side, as we were standing away S.E. and E.S.E. not above a L off, the Wind then blowing fresh at W. We had Ground there at 40 Fa. the Land trending E. by S. very high and mountainous, and the Hills cover'd with Snow. We kept on our Course with the Land, and about Noon went about it, but saw other Land to the E. of it, which was also rocky and high.

These Lands we presently understood to be two different Mains, separated from one another: Also it seem'd as if there was an open Sound or Passage between, the Land lying as we guess'd about 8 Ls alinder. We were the better confirm'd

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 veral Days we made but little way southward, but gain'd up-
 on our Longitude, by westing as above.
 The 29th we had the Wind at N.E. which was a great help
 to us; for holding our Course S.W. we gain'd both on our
 southings and westings; but that Day we saw two Islands lying
 as it were in our way S.W. from us. About Noon we got to
 them, but could not go about them, so that we were oblig'd
 to stand N. again, and so went above between them and the
 Main: They were large Islands, had dry grey Cliffs on the
 E. side, and lower Cliffs on the N. side, and lie in Lat. 57 d.
 S. We call'd them *Barnewelt's Islands*; and having open'd
 the Passage between them and the main Land, we steer'd
 W.N.W. About Evening we saw the main Land again,
 bearing N.W. and N.N.W. from us; which Land was the
 same we had seen stretching S. and S. by E. from the Straights
 of *Magellan*, and which now stretch'd away S. by W. and
 S.S.W. It was all hilly and very high, cover'd over with Snow,
 and, as we perceiv'd the next Day, ended in a sharp Point
 stretching out into the Sea full S. This we call'd *Cape Horne*,
 lying in Lat. 57 d. 48 m.
 Then we had fair Weather and a N. Wind, but found a
 frightful Sea and vast Billows, the like hardly ever seen,
 out of the W. We held on our Course W. by S. and found
 a strong Current running within from the N.E.
 The 30th we had still great Billows out of the W. and a
 hollow Sea, a strong Current still running to the westward,
 which to be sure made these Billows the greater. This all
 concurred to satisfy us that we had certainly an open way
 upon that Course into the great *South-Sea*. We were then in
 Lat. 57 d. 34 m.
 The 31st we had the Wind at N. when sailing W. and W.
 by S. as before, we came into Lat. 58 d. the Wind often
 veering, and proving variable between the W. and S.W. In
 this Course we intently doubled *Cape Horne*; after which
 we saw no more Land in these Seas; but had still very great
 Seas with blue Water out of the W. All which farther at-

‘ fured us that we had the broad *South-Sea Ocean* right before
 ‘ us. The Winds were very variable, with Storms from
 ‘ almost every Corner, but chiefly W. and S.W. with Hail and
 ‘ Rain great store, and very cold.

‘ The 1st of *February*, tho the height of their Summer,
 ‘ and equal to our *August*, we had extreme cold Weather,
 ‘ with a Storm out of the S.W. Upon which we lay under our
 ‘ main Courfes, steering N.W. and W.N.W. with a terrible Sea.

‘ The 2d the Wind came W. and blew still very hard; and
 ‘ we stood away large S. into 57 d. 58 m.

‘ The 3d holding the same Courfe, we found ourfelves in
 ‘ 59 d. 25 m. which was the most southern Lat. we were in
 ‘ during the whole Voyage.

A. P. Most if not all the Ships that have gone this way
 since have not been able to keep so well to the north-
 ward, but have been driven into 60, 61, and 62 d. S. Lat.
 before they could get their Westings far enough, to ven-
 ture standing N. and N.W. again.

‘ The 3d in the Evening, the Wind veer’d to the southward
 ‘ of the W. and then we steer’d N.N.W. lying near the Wind
 ‘ as we could, the Sea going very high. We guess’d we had
 ‘ been in 59 $\frac{1}{2}$ d. S. but not by Observation: However, see-
 ‘ ing no Land in that Latitude to the S. and finding the Winds
 ‘ continued S.W. by S. or thereabout, we stood fair N.N.W. all
 ‘ Night; and the next Day we found our selves in Lat. 56 d.
 ‘ 43 m. the Winds variable, but chiefly at S.W.

‘ The 5th we found a strong Current out of the W. the Sea
 ‘ went very hollow, and we had a hard Gale, so that we could
 ‘ carry no Sail, but drove afore it, (the Wind being S.W.) to
 ‘ the northward; keeping her Head as near it as we durst, ly-
 ‘ ing thus a Hull two Days and Nights.

‘ The 8th the Wind came to the S. and we stood W. but the
 ‘ Wind coming to the N.W. we were driven to the southward
 ‘ again into 59 d. something less, the Wind blowing hard at
 ‘ N.W. and W.N.W. While it blew hard at N.W. we lay
 ‘ close to it with our Courfes out, and kept our Course W.

‘ The 10th the Wind veer’d S.S.W. and blew a fresh Gale,
 ‘ when believing we had run full enough to the westward, we
 ‘ steer’d boldly N. not doubting but we were now for some
 ‘ time fairly entred the *South-Seas*. Holding which Course till
 ‘ the 12th, we then found our selves in the Lat. 54 d. 15 m.
 ‘ Whereupon we call’d all our Men up, and gave every one

*An Extract of Sailing Directions for passing
 Cape Horn on the Terra del Fuego, into the
 Monsieur Frezier, Engineer to the French*

‘  HE Night between the 5th and 6th of *May* 1712,
 ‘ knowing our selves to be far S. we thought it proper
 ‘ to lay by, lest, as we supposed we were near upon
 ‘ the Coast of the *Terra del Fuego*, we should range
 ‘ too near the Land; and we found we had good reason, for

Directions for the Streights of le Maire.

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‘ three Cups of Wine to cheer them up; for we then found
‘ the Streights of *Magellan* lay due E. from us.
‘ The same Day, by Advice of our Council, and at the De-
‘ mand of our chief Merchant *Jacob le Maire*, the new Pas-
‘ sage we had now discover'd, and by which we had so happily
‘ got thro' into the great *South-Sea*, was named the *Streights*
‘ *of le Maire*: Tho by right it should have been call'd
‘ *William Schouten's Streight*, after our Master's Name, by
‘ whose great Judgment and Skill in sailing all was chiefly
‘ directed.

Thus far *le Maire's Journal*, which is the most particular,
and was the most successfully perform'd of any that have gone
that Way since, and perform'd in 25 Days.

N. B. This Journal mentions in express Words the great
Difficulty and Extremity they went thro' in performing
it, much more than Sir *John Narborough* found in twice
passing the Streights of *Magellan*, which he perform'd al-
so in 16 Days.

‘ For the most part, says *Schouten*, we had a strong
‘ Current, hollow Water, continual Mists, Rain, moist
‘ thick Weather, with much Storm, Hail, and Snow;
‘ whereby we endured much Trouble and Misery.

The next Journal of this kind is the *French Account* given
by *Monf. Frezier*, sent by the express Direction of the King
of *France*, *Lewis XIV.* (as Sir *John Narborough* was sent to
the Streights of *Magellan*) to make a more full Discovery than
had been made before.

As the former Account of *le Maire* was necessary to shew
the happy steps taken by the first Discoverer, and to encourage
others in new Attempts of that kind; so this is in a more par-
ticular manner suitable to our present Purpose, as the Author,
from a most correct and exact Observation, has detected all
the former Accounts either of Fraud or Ignorance in all their
Charts; misplacing the Latitudes, Bearings and Distances of al-
most all the Capes and Shores upon the Coasts, and in giving
wrong Directions for Working thro' and by almost every Place;
and has given more perfect Directions than any other for the
passing those difficult Coasts and dangerous Seas about the *Terra*
del Fuego and *Cape Horne*.

Directions for passing by the Streights de la Maire, and about Fuego, into the South-Seas; taken from the French of to the French King Lewis XIV.

h of May 1712,
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‘ Sunday the 8th, we put in boldly for the *Streight Le Maire*
‘ The Entrance is known by three uniform Hills, which we
‘ called the *Three Brothers*, lying in a Line near one another,
‘ and over them a high Mountain within Land cover'd with
‘ Snow.

The 15th the wind veer'd S.S.W. and blew a fresh Gale, when believing we had run full enough to the westward, we steer'd boldly N. not doubting but we were now for some time fairly enter'd the *South-Seas*. Holding which Course till the 12th, we then found our selves in the Lat. 54 d. 15 m. Whereupon we call'd all our Men up, and gave every one

*An Extract of Sailing Directions for passing
Cape Horn on the Terra del Fuego, into the
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THE Night between the 5th and 6th of *May* 1712, knowing our selves to be far S. we thought it proper to lay by, lest, as we supposed we were near upon the Coast of the *Terra del Fuego*, we should range too near the Land; and we found we had good reason, for in the Morning the Sea appeared very much changed in colour; and the next Evening we discover'd Land lying low, and bearing W.S.W. from us, dist. 9 to 10 Ls. It made at first in 5 or 6 Hillocks like little Islands: we took it for *Cape Virgins*, the E. Point of the N. Shore of the *Streights of Magellan*; and this we did on the Credit of the Charts and Journals, all which place it in Lat. 52 d. 30 m. but our present Observation alter'd much from that Situation; so we concluded it was the *Cape Spirito Sancto*, on the *Terra del Fuego*, which we afterwards found it to be. We heav'd the Lead, and found 36 Fa. with black Sand mixt with small black Stones.

The next Morning, the 7th, we distinctly saw the Coast of *Terra del Fuego*, and coasted it S.E. in an Offing of 4 to 5 Ls; 'tis indifferent high, rocky, and in Precipices along the Shore, with some Tufts of Trees, not many: the Land appear'd double, and over the first Coast the Mountains behind were all cover'd with Snow.

The bearing of that Part of the Coast may be ascertain'd to N.W. by N. and S.E. by S. with respect to the whole Globe, measuring it from the *Streights of Magellan* to that of *Le Maire*, and correcting it a half Rhumb, or 23 deg. for the Variation N. E.

Having thus coasted the *Terra del Fuego* within 5 to 6 Ls of the *Streight of Le Maire*, we lay by during the rest of the Night, at a dist. of about 4 Ls to Sea, in order to enter the *Streight* the next Morning; here we had 40 Fa. large clean Sand, as is usual in Roads.

All the Night we had heavy Blasts at S.W. by Squals and Gusts, which brought the Snow or Sleet from the Mountains up the Country: yet we fell off but little, which we took for a Sign that the Current was not violent, or that it set to Windward; which also is not likely, by reason of the opposite bearing of the Coast.

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' and over them a high Mountain within Land cover'd with
' Snow.

' E. from those Hills at the dist. of little more than a L lies
' *Cape St. Vincent*; and a little farther E. from that, another
' Cape called *St. James*: tho I have reason to believe this first
' Cape is really *Cape St. James*, and that *Cape St. Vincent*
' lies much more to the N. which I take from an ancient *Spa-
nish* Manuscript Chart, made, as I believe, by more ancient
' Discoverers.

' Standing N.N.W. and N. from these low Capes, as we ad-
' vanced, we plainly discover'd the *Streight of Le Maire*, o-
' pening by little and little; till at length being $\frac{1}{2}$ of a L E. from
' the first Cape, all the opening appear'd, which before was
' shut in with the opposite Land, called, as by *Schouten's* Ac-
' count, *Staten Land*. This remark is necessary, to direct you
' to make sure of the *Streight*, when you are in the *Fair Way*
' of it: Many skilful Mariners have been mistaken here, and
' that very lately, particularly the Captains of the *Concord* and
' the *Incarnation*, two able *French* Commanders, who think-
' ing to have gotten their Passage here, found themselves al-
' ready to the eastward of *Staten Land*, and were obliged to
' go without all, only seeing this Coast at a great dist. W. from
' them, and being deceived by other three Hills like the *Tres*
' *Freres*, which are on the *Terra del Fuego*.

' As soon as we were to the eastward of *Cape St. Vincent*,
' we found a rapid Tide like a Torrent; which made our Ship
' heave, and set so violently, that the *Sprit-sail-Top-sail* pitch'd
' often into the Water: but having some notice of this, and
' observing the Course of the Tides, which is 6 hours or 6 and
' a half, we had so taken our time, that it might favour us,
' and ranged along the Shore within a L and a quarter at most.
' By this means we just enter'd the *Streight* with the Flood,
' which runs as rapidly to the southward as the Ebb had done
' to the northward; and this carry'd us quite thro' the *Streight*.
' N.B. The Flood here divides it self into two Channels;
' one sets along the *Streight*, which is but 6 to 7 Ls wide,

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Sailing Directions for the Streights of le

(*Le Maire* said 8 Ls) and the other sets along the out Coast of *Staten Land*, running to the eastward.

About the middle of the *Streight* on the Starboard-side is *Port Maurice*, a small Creek about half a L wide at the Entrance, at the bottom of which there is a little River of good fresh Water; also you may have Wood very easy and plentiful.

More to the southward about $\frac{1}{4}$ of a L is a Bay about $\frac{1}{2}$ of a mile wide, but goes farther in; some call this *Port Good Success*, and others *Valentine's Bay*. Here also is Wood and Water to be had, and good light Timber to make Topmasts of. The Port is good; a *French* Captain named *Brunet*, in a Ship called the *Queen of Spain*, put in here *November* the 12th 1712. and anchor'd in the Mouth of the Bay in 10 Fa. ouzy Ground, letting us know that other Ships may do so after him, as Wind and Weather may permit: He water'd there also in a little River on the Starboard-side of the Bay; the Water at first look'd somewhat reddish, but soon became clean and good: they also wooded there, and found Trees fit to make Topmasts.

About Noon, being a little to the eastward of *Valentine's Bay*, the Tide turn'd, and run so strong, that we could not stem it: here we had a stiff Gale of Wind at S.W. which afterwards increased, and blew very high, with such dreadful Squalls and Gusts, that they brought the Ship's Gunwale too, under our two Courses reef'd.

However it was requisite to carry more Sail, seeing we stood over S.E. by S. to go about *Cape St. Bartholomew*, which is the southermost Point of the Coast of *Staten Land*. Here we stood S.S.E. by the Compass, and yet our true Course was scarce E. by S. the Violence of the Ebb carrying us away: The Ebb sets all along the S. side of *Staten Land*, and so comes round that way into the *Streight of Le Maire*.

At length we past the Cape, and at the Close of the Night it bore N.W. from us about 2 Ls dist. but the Weather being tempestuous, we were oblig'd to lie by under our Main-sail back'd and reef'd, being in great fear of our Lives, knowing we were to the Windward of the Land, and so near it, that the most undaunted among us were made sensible of this Extremity. In a word, we expected every Moment to run ashore in the darkeft Night and the dreadfuleft Weather imaginable, where there would be no room to help our selves. The Charts threatned certain Shipwreck, and we knew no other Rule; and as we lay by, we must have fallen off E. and by S. respecting the Globe; which if we had done, and things had lain as they were described, we must all have been inevitably lost; but thank Heaven, the Charts were all mistaken, and *Staten Land* on the S. side does not bear E.S.E. and W.N.W. as they lay it down, but lies E. and W. in respect to the Globe, and inclines a little to the N. near *Cape St. Bartholomew*; and that was just where we happen'd to be, and where we observ'd it a little before Night.

It might be objected here, that the same Current which carry'd us thus fiercely along the Coast of *Staten Land*, prevent our driving so much to the N.E. as we should

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pleased to endure the most extreme Cold, which it necessarily brought with it, and the tossing of a dreadful Sea, because it still carry'd us on our Course, which was to the N.W. but even that Comfort lasted not long, for the Wind came about again to the S.S.W. and blew so furiously, that we could scarce carry our two Courses reef'd.

May the 14th, we were in 58 d. 5 m. the Wind blowing hard at N. we stood away W.S.W. when we lost sight of our Comfort, and saw her no more, till we came to *La Conception* on the Coast of *Chili*.

On the 17th the Wind veer'd again to the S.W. and we found it necessary to alter our Course also, not daring to stand to the northward for fear of falling in with *Barnevelt Islands*; so we steer'd S.E. by S. Some Manuscript Charts we had, place those Islands in Lat. 57 d. whereas the common Opinion places them in 56 d. 30 m. However, as we were then in 57 d. 30 m. and the Fog or Mist very thick, had we been upon or near them, the Wind blowing so very hard, and the Sea going so high, we should not have been able to weather them.

On the 18th early, the Wind came about more southerly, and deliver'd us from the Apprehensions of running ashore: so we bore away N.W. the Wind blowing excessive hard, and the Sea running Mountains high; and to add to our Hardships, the Weather was so extremely cold, that our Men could hardly bear to stand upon the Decks.

This held us for three whole Days and Nights, the Wind often varying, but never abating. The 4th day, (the 22d) it came to the N.W. and the Air was milder; the Mist drove away to the S. eastward, and it clear'd up a little: but still we had a grown hollow Sea, and we lay by some hours with our Courses reef'd. The 25th we did the like; and the 26th we had it quite calm, which was a great Rarity in these Seas.

We had now hung a great while lingering in the Lat. of 59 d. 58 m. for fear we were not out of the Longit. of *Cape Horn*: but as I conceived Hopes we were 9 d. to the westward of it, I propos'd, and it was resolv'd at all hazards to stand to the N.W. in order to stretch into the *South-Seas*, along the W. side of the *Terra del Fuego*.

But just as we were preparing for this Course, the Wind sprung up N.W. and W.N.W. and blew with such Fury, and brought such a dreadful Sea along with it, that we were oblig'd to strike all our Yards and Top-masts, and even our Mizzen-yard and Mizzen Top-mast to the very utmost, and put right afore the Wind for our Lives.

N. B. Here the Author breaks out in an Exclamation at the Misfortune of being expos'd to such a dismal Voyage, and such Terrors and Hardships as he had been under for so many days, in passing this dreadful part of the World; where, as he says, besides the Reflection on Dangers past, and the hourly Dread of what was to come, he had been for near a Month without Intermission in such Agitations by Shocks and violent Rollings of the Ship; and by the Horror of the Waves, which swell'd Mountain high, that there was no standing, sitting or lying, without grasping

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It might be objected here, that the same Current which
carry'd us thus fiercely along the Coast of *Staten Land*,
might prevent our driving so much to the N.E. as we should
otherwise have done, and as we fear'd we should, because it
must have run as the Coast lies, and so have kept us at the same
distance. But other Ships have observ'd the Position as well
as we, and found the Difference: Besides that, 'tis evident
that we drove very much to the E. which could not have
been if the Coast had lain as the Charts describe; for about
nine in the Morning the Weather clear'd up a little, yet we
saw no more Land that way, tho by the Charts we could not
have been above 2 Ls S. or S.E. from it at most, especially if
the Land on that side extends full 13 to 14 Ls S. from the
Entrance of the *Streight*, as all who have coasted it assure
us, and as we have reason to believe.

While we were rejoicing for having escap'd this imminent
Danger, we were made uneasy for our Consort the *Mary*,
which we had left in the dark to Leeward of us; but we spy'd
her again in the Morning, safe, having fallen off with us a-
bout a L from the Coast. Now a Calm succeeded that hor-
rible Tempest, and we had had some Leisure to repair our
Damage, and assist one another.

After this the Wind came about from the N.N.W. where it
was when it blew such a Storm to N.N.E. and blew a fresh
Gale, by which in about 24 hours we recover'd part of our
way we had lost by driving. Indeed from 43 $\frac{1}{2}$ d. to 57
where we now were, we had no easterly Winds, and scarce
any fair days, but foggy and changable, the Winds still rang-
ing from N. to S. (*West about*) and generally hard Gales: We
scarce knew what it was to have a moderate Gale; and from
46 d. to 50, we had but two days of gentle mild Weather.
This Blast therefore from the N.N.E. was the more welcome
to us, because unexpected, and because it carry'd us off from
a Place where we were in the utmost Danger and Distress.

Yet this kind Gale soon shifted too, and came to the S.E.
and blew violently there for some time; but it slack'd again,
and we took the Advantage of it for 24 hours, well enough

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It was our good Fortune that this Storm lasted but 24 hours, at least in its first Violence; after which it came about by the W. to E.S.E. and blew a more moderate but fresh Gale; and the Sea continued running very high for several days, even after the Wind was quite flatted.

By this Change of the Wind to the eastward, we got so far to the westward, that to our great Comfort we were able afterward to make use of the S.W. and S.S.W. Winds, which we could never do before, but were oblig'd to lie by or drive before them, and so go every Day farther out of our Course. But now we could lead it away N.W. and N.W. by N. by which happy Relaxation of the Weather, and its continuing for three days together, we got into the Latit. of 51 d. having been 28 days in the Passage, making then the best of our way for the Port of *La Conception* on the Coast of *Chili*, which was our appointed Place of meeting with the *Mary* our Consort, if we were separated one from another, and where we very happily found her, or rather were found by her, we getting there 2 days before her.

Having given these two Accounts of the Passage round the *Terra del Fuego* by two Foreigners, we shall make the third the shorter, tho' of our own Countrymen; which however is necessary

necessary, because they took a different Course from the other two; and perhaps theirs was the best of the three, for they went round the Island of *Staten Land*, and passing neither the *Streight of Magellan* nor of *Le Maire*, but keeping out at Sea E. by S. and E.S.E. avoided all the Dangers of Lee Shores, Islands, Rocks and Capes, mention'd by both the other; and

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*An Extract of the Account given by Captain W
Cooke, from on board the Duke and Duchefs,
with the Particulars of their Passage round th
Seas.*

*To avoid a Repetition of Particulars much the same in Sub-
stance as the others, this Account amounts in Substance to
this.*



IRST, That they took their Departure *Decem* 2,
1708. from the *Island Granda* on the Coast of
Brazil, where they had staid 12 days, and had re-
victual'd and refresh'd themselves sufficiently for
their long Voyage, and intending to put in no where,
or make any other Port, except forc'd in, till they came to the
Island of *Juan Fernandes* in the *South-Seas*.

Accordingly they set their Course from the said Coast Lat.
23 d. or thereabouts as above, E.S.E. and by the 15th of *De-
cember* were by a good Observation in Lat. 49 d. 32 m. S. Here
or hereabouts they made Land, but it was evident it was not the
Continent or main Land of *America*, for it bore S.S.E. from
them dist 9 Ls, and at 12 a-Clock the 28th it bore S. 4 W. the
W. end dist. 6 Ls appearing as a long Tract of Land, whether
Islands or not they did not know: but after some time it ap-
pear'd in three Islands, and the next Day in several more, so
that they believ'd all the Coast which they had seen so long
was only a continued Range of Islands, tho joining to some
low Lands, which they could not fully discover.

They could not weather this Land, the Wind blowing hard
westerly; so they were forc'd to bear up, and run along the
Shore of it, in from 3 to 4 Ls Offing, the Land lying as near
as they could guess E.N.E. and W.S.W.

N. B. This is certainly the Land called *Falkland's Islands*,
which some Charts do describe, but very few; and those
few it seems do not lay it down right: The Middle of it
(by *Mr. Rogers's* Account) is in 51 d. and he makes the
Longit. to be 61 d. 54 m. W. from *London*; the two first
Islands extending about 120 miles in length.

They could not depend on their being clear from going on
Shore upon them in the Night, not knowing how far they
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the other yet they met with their Difficulties also. so that all the Accounts being duly weigh'd, the skilful Mariner who is resolv'd for they to adventure into these difficult Parts of the World, cannot either the be at a Loss for Directions. and may make a Choice for himself. g out at the Shores. her; and

by Captain Woods Rogers, and Captain Edward and Duchefs, two Private Men of War of Bristol, passage round the Terra del Fuego into the South-

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the Sail to Leeward hung in the Water, and all a-back In this Condition the Sea breaking over them in a terrible manner they took in a great deal of Water to Leeward; and being ready to founder, wore the Ship, and flood away afore it.

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The Storm increasing, tho they recover'd their Main-sail, yet they were not able to bring to again, the Sea going Mountains high, but kept standing and run away to the southward, her Consort the *Duke* following her expecting she had sprung her Main-Mast. They continue in this Condition till about 3 in the Morning, when the Storm began to abate; but the Sea continued to go very high. The *Duchefs* had suffer'd very much; the Sea had broke in at the Cabin-Windows and over the Poop, had fill'd the Steerage and the Wasse; and one Sea broke to entirely over them, that the Ship receiving as it were a Check in her Course, seem'd to stand stock still for some Minutes; which put the Men into the utmost Confusion, expecting they should immediately founder: but being a strong well-built Ship, and the Men very handy at clearing their Wasse, they recover'd it, and went on, tho in a dreadful Storm, not to be describ'd by words.

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N. B. These things are mention'd, farther to confirm what has been said, namely, that the Rage of the Winds and the Violence of the Waters in this Part are such as are not ordinarily met with in any other Place if ever: and as it is almost out of the Power of Art to carry a Ship thro' them; also to note, that no Ships have pass'd this way but at the extremest Hazard; which adds to the Force of what has been offer'd, of its being thought better by modern Sailors to return to the old Passage of the *Streights of Magellan*; and therefore those things may well be call'd part of *Sailing Directions for passing into the South-Seas.*

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On the 10th of *Jan.* the Storms abating, they had an Observation, and found themselves in Lat. 61 d. 53 m. Longir W. from *London* 79 d. 58 m. so that now they were assur'd of being far enough to the westward of *Cape Horne*, and open with the great southern Ocean. 'Tis also the farthest S. that we have any account of, has been run by any other Ship.

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On the 24th, being clear of the Island above, they set sail again, steering S.E. Lat. 52 d. At Noon they saw the Land again, and observ'd that it went trending away southerly.

On the 25th they had a strong Gale at S.W. the Islands still in view; but at 6 in the Evening lost sight of them, and could never come near enough to see whether they were inhabited or no. Here they spent some time in giving Chase to a Ship which they saw under their Lee-Bow standing S.W. But next night lost sight of her, and the next Day gave her over, and return'd to their former Course S.E. which is mention'd, to note that Ships from the *South-Seas* (as that must be) have kept this outward Course, as well returning as going out, even before this.

On the 26th at Noon they saw Land again, being a low plain Island, bearing W.N.W. dist. 4 Ls, and not taken notice of in any of the Charts. The Wind blowing S. they stood away E. for fear of running ashore upon the said Island, and kept as near the Wind as they could. The next Day it blew very hard with strong Squalls from the S. and about to the W. Now being past the Latit. of the *Streights of Magellan*, as also of *Le Maire*, they made all snug, lowering their Guns into the Hold, and reefing their Courses, expecting hard Gales, and a high Sea, Latit. 55 d. 38 m. the Course S. by E.

Dec. 30, having had fresh Gales from the W. and W.N.W. they had run at a great Rate; and having an Observation, found themselves in Lat. 48 d. 20 m.

Jan. 1. Fresh Gales from the W.S.W. to W.N.W. with Mist and Fog, but the Sea moderately smooth, which continued to the 4th, when just at Noon the Wind having flutter'd a while about W.S.W. it began to blow very hard. The *Duke* expecting the worst, got down her Fore-Yard, and reef'd her Fore-sail and Main-sail. About 2 a-Clock it blew a violent Storm, and came on with a great Sea prodigious high and hollow.

A little before six the *Duchess* made Signals of Distress: In lowering her Main-yard, the Tack flew up, and the Lift unreev'd;

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The Winds were abated from the 5th to the 10th of *Jan.* yet they had a grown Sea, and especially out of the W. with strong Gusts and Squals of Wind; which kept the Men to such hard Service, that with the Extremity of Wet, Cold and Labour, many of their best Seamen sicken'd, and almost sunk under the Weight of it.

From the 10th they steer'd away N.W. and N.W. by N. and on the 15th found themselves in Lat. of 56 d. so that then they accounted themselves in the *South-Seas*, having in all this Run never made any Land either of *Staten Land* or the *Terra del Fuego*, *Cape Horne*, or any where else, except the Islands mention'd above; and having been 23 days in the Voyage round, *viz.* from the 22d of *Dec.* to the 15th of *Jan.*

Thus you have Directions founded on the Experience of able Mariners of all the three Nations, for sailing thro' this difficult tho' important Passage.

But it must not be omitted, that besides all these ways, there is yet a fourth, which has been discover'd very lately by the *French*, and which bids fair to be the easiest and safest of all; and this was unhappily over-look'd by Sir *John Narborough* in his Observations, which we have already given an Account of.

In that Account you may observe a deep Bay, which Sir *John* gives a short Description of, on the South Shore of the *Streight*, and opposite to *Elizabeth's Island*, which he calls *Whale's Bay*, because he saw thousands of *Whales* playing in it; but adds, that he did not search far into it.

It was very unhappy that Sir *John*, whose whole Errand and Design was to take a perfect Survey, and make a complete Discovery, should see such a deep Sound or Bay, and not search into it; especially if it is true, as *Mont Tрезier* asserts, and as we have great reason to believe, that this Sound was an Opening into the great *South-Sea*; and not only so, but that whereas the *Crooked Reach* and the *Third Narrows* of the *Streight*, which Sir *John* confesses to be the most difficult and hazardous of all the Passage, are by that Opening avoided, and that the other, which is now call'd the Channel of *St. Barbe*,

Sailing Directions for the Coasts of

is an easy and much shorter Passage, having good Soundings, safe Harbours, and several Roads and Anchoring-places on both sides; so that there are no visible Dangers yet discover'd.

This Outlet or Passage, we are told by Monf. *Frezier*, was discover'd *Anno* 1713, *May* the 15th, by Capt. *Marcanille*, in a Ship or Tartane of *Marseilles*, call'd the *St. Barbara*. Take the Account from his own Words thus:

‘ About six in the Morning they sail'd from *Elizabeth's Bay* on the N. side of the Channel of the Streight of *Magellan*, steering S.W. and S.W. by S. They took the common Channel for that of the *Rio de Massacre*, and were standing to the S.W. on an Island which they took for that call'd *l'Isle Dauphine*. They were assisted by the Currents, and a good Gale at N.E. both which were in their favour: With these Helps they ran along the Island; and within an Hour after they had pass'd it, they found themselves entred into a large Channel, where on the S. side they could see no Land, except a great number of small Islands, or rather Rocks, among abundance of Breakers of the Sea, which when the Wind blew off Sea made a horrible noise.

‘ As the Design of their Voyage was to pass thro' the usual Channel of *Magellan*, they began to be convinced they were out of the way, having a true Chart of Sir *John Narborough's* Voyage before them: They sought therefore for some Road or Bay, where they might come to an anchor, so to gain time to send their Boat to make some Discovery of the Coast, and if possible to learn whereabouts they were: Accordingly the Boat went off, and found a little Bay; and making the agreed Signals, the Ship went in, and anchored

Sailing Directions for the Coasts of Chili and Peru in the South Seas, from Cape Deseada at the Entrance in Lat. 53 d. 10 m. to Chulao on the Coast of to the Bay or Gulph of Panama.



FROM *Cape Deseada*, which is the southermost Point of the Mouth of the Streights of *Magellan*, to *Cape Pillar*, which is on the same Shore, but a little more opening with the Streight, is about 2 Ls N.N.E. From thence N.N.W. lie 4 Islands in the open South-Seas, and quite clear of the Streights call'd the *Isles of Direction*, dist. from *Cape Pillar* 6 Ls, from *Cape Deseada* 7 $\frac{1}{2}$ to 8 Ls, and from *Cape Victoria*, which is the N. Point of the Streight, a little less than 4 Ls, being in the *Fair Way* or Entrance into the Mouth of the Streight; the eastermost of them standing up in a *Pico* or high Rock, is call'd by the Sailors *Sugar-loaf Island*.

From *Cape Victoria* the Land falls off at once to the N. and the Coast of *Patagonia* appears trending away due N. and S. a wild desert Coast, which makes in Islands and Rocks next the Sea, and high Mountains within the Land, the Tops of them generally cover'd with Snow.

oundings, ' there in 14 Pa. very good Ground, the Bottom a grey and
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 all'd *l'Isle* ' There was also a larger Island, the S.E. Point of which
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 Hour after ' is a Rock shaped like a Tower, of an extreme height, by which
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N. B. The Ship's Crew say there is a good Bottom and moderate depth thro' that whole Channel, and that great Ships may pass there without any Danger, the Channel it self also being 2 Ls broad in the narrowest part.

I leave this Account as I find it, having satisfy'd my self by giving all the sailing Directions that have come to our Hand, or are possible to be had, concerning this important Passage to the *South-Seas*; without passing any Judgment on the whole, other than this, That certainly this last merits to be farther search'd into, as being in all probability capable of giving the easiest and safest Passage of all the rest.

*Chili and Peru, on the West Shore of South America
 Heads at the Entrance of the Streights of Magellan,
 and the Coast of Chili in the Lat. of 43 d. S. and thence*

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N. B. All our modern Navigators and Men of Art complain that the Charts are false in describing this Coast: Sir *John Narborough* says they do not lay down the several Islands which lie upon it, but describe it all along as a strait Coast, and complains that there are, besides the above-mention'd, several other Islands adjacent to the Coast more southerly, particularly in Lat. 45 and 45 $\frac{1}{2}$ d. but that none are laid down.

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It may be observed also that *Monf. Frezier* makes the like Complaint of the old Charts, and particularly of the Manuscript *French* as well as *Spanish* Charts, relating to this part of *America*, which we call the Coast of *Patagonia*: He says,
 ' When we came up to 40 d. 40 m. Lat. we were surprized
 ' to see Land 40 Ls sooner than we expected, according to the
 ' Manuscript Chart of *St. Malo*; tho we had found it better
 ' than the *Dutch* as far as the *Streight of le Maire*. In short,
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The first known Land, tho uninhabited, is an Island call'd by the *Spaniards*, *Neustra Senuora del Socoro*, or *Our Lady of Socoro*, or of *Succour*: The Course lies along with this Island N.E. by E. the Land makes rounding up at the eastermost end, and with a Ridge running from end to end, tho lower in the middle than at either end. The S. Shore is all rocky and foul, and the Rocks lie far out very dangerous. This Island is in Lat. 45 d. The Variation of the Compass here 11 d. easterly.

N.E. from this wild Place lies another large Island, which *Sir John Narborough* went a shore upon for Discovery, expecting it had been the Main of *Patagonia*, but found it an Island, and uninhabited also; and not finding it in any of his Charts, or any Name for it by the Inhabitants of other Parts, he gave it his own Name, and it is now mark'd down in the Charts for *Narborough's Island*: He found Wood and Water here in great plenty, and good anchoring, but neither Man nor Beast on the Place, or any Refreshment.

There is a Channel between this Island and the Main, but it is foul and dangerous, many Rocks lying in it under Water: The Passage is about 4 Ls in length.

S.E. from *Narborough's Island*, upon the Main, and dist. 3 Ls, there lies a large Sound running far into the Land, and into which a large River empties it self: The Opening lies in E. and W. in Lat. 44 d. 50 m. All the Coast to the southward is wild, uninhabited, and strew'd with Islands and Rocks, which stand up copling like *Pico's*, as if giving warning to Sailors to keep off at their peril.

N. from *Narborough's Island*, in Lat. 43 d. 47 m. lies another call'd *No Man's Island*: This is the same which the Charts make to lie at the S. end of the Island *Castro*, and at the Mouth of the Channel which runs up between *Castro* and the Main.

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There is little of note from the Mouth of the Streight of Magellan, except as above, to the Island of Chiloe or Chulao, in Lat. 42 d. 30 m. From the N. Point of the Streight call'd Cape Victoria, to the southermost Point of the Islands in the Gulph of Chilo, called Acon sin Salida, is 62 Ls ; from thence to Cape Corzo, in a Nook or Bay, 36 Ls : And from Cape Corzo to Cape Tres Montes 63 Ls more N. and S. In all which distance there are some Bays and Rivers, but no Ports or Towns ; neither do we meet with any Inhabitants, at least Europeans, and very few others.

N. B. From the Streight of le Maire, to Cape Dessèada, or to the twelve little Islands off of that Point call'd the Twelve Apostles, the Coast winding round Cape Horne, the distance is accounted, without allowing for the southing and westing, 125 Ls.

The Island of Chiloe is very large, tho unequal in its parts ; 22 Ls in length N. and S. but in some places not above 4 Ls in breadth. At the N. Point is the Cabo del Anco, from whence all the Gulph or Inlet between the Island and the Bay is call'd the Bay of Ancon. It is full of Woods and large grown Timber generally Cedar, but very fit for building of Ships ; and they build Ships here for carrying the Timber to other places, so that here must be both Business and People.

On the inside of the Island is a good Road ; the Entrance goes in, on the S. of the great Island, and between that and the Island Guafò. The Bay is full of Islands, too many to describe ; nor are they of any use in Navigation, seeing there

are no Ports or Commerce to bring Shipping to the place, except to the great Island, as above. All the W. side of the Island is craggy and foul, except one little Bay in the Middle, where is the Port of *Chulao*: But the best, or at least the chief Settlement, is on the E. side of the Island, at the *Spanish* Town of *Cajiro de Chiloe*. Here the Ships come from *Peru* to load Timber as above for the Shipwrights of *Callao*, *Guiaquil*, &c. and here are oftentimes Ships of War also built. If you would go in here, it must be by the S. Channel; also between the main Island, and the Isle *Guafò*. It is a fair deep Channel, no less than 10 Ls wide; and you may turn it up or down, it is all clean from side to side, neither Rock or Island in the way.

The Island *Guafò* is 4 Ls in length, with two great Points, one stretching out N.E. and the other S.E. the Island lying in that Position. The S.E. Point is foul, and has several Shoals running out from it half a L to Sea, and several Ships have been lost upon them; therefore you must keep off at least near a L. and keep your Lead going all the way.

N. B. The middle of the Island where the Castle is, lies in Lat. 43 d.

The whole length of the Bay of *Ancon*, or *Chiloe*, is 96 Ls in length; the S. part is call'd *Cabo Tres Montes*, lying 10 Ls S. from *Guafò*, trending N.E. and S.W. The Cape is high and mountainous, and at the Exremity forms three Points, from whence it has the Name of *Tres Montes*.

At the N. part of the Bay lies the Port and Fort of *Caralmapo*: Here the *Spanish* Ships put in, to land the Supplies necessary for the several Garrisons upon this Coast. To go safe into this Harbour you must lie close aboard the Shore on one side or the other: else the Current, which sets out between the *Island Chiloe* and the Main, and is very strong in the Middle Channel, will push you out, and you will not be able to stem it, no not with a stiff Gale of Wind.

The Port of *Caralmapo* is at the Bottom of a small Bay, in Lat. 42 d. 30 m. There is deep Water, and you may anchor close to the Shore. From this Port to the nearest Land of *Chiloe* is 2 Ls N. and S. The N. Land of the Island is call'd *Punta de Anco*.

From hence the Shore lies N. and S. to the *Babias*, or *Pays of Lago*, dist. 3 Ls; and from the Bays of *Lago* to *Point Godoi* is 4 Ls more N. and S. None should go into the *Bays of Lago* but upon evident necessity; and then at their peril let them keep close to the N. Shore of the Entrance, for the S. Shore is foul, and has many dangerous Shoals, which run out very far into the Sea, and make it difficult to know the Channel: And 'tis very rare to get a Pilot there.

From *Point Godoi* to *Rio St. Pedro*, or *St. Peter's River*, or as some write it, *Puerto de San Pedro*, the Port of *St. Peter*, is 12 Ls. On the Coast between lies *Point Quedar*, 8 Ls to the S. of *St. Pedro*, the Course N.N.E. The Coast between trends N.N.E. and S.S.W. There are three Rocks lie off the *Point Godoi*, but they are bold and steep too, so that you may sail close to them on any side.

From this *Point Pedro* to *Cabo de Galera* the Coast continues to stretch away N.N.E. The distance from *Point Quedar* is 22 Ls, and from *San Pedro* 11 Ls. This *Cabo Galera*

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Directions for the Coasts of Chili and Peru.

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S.S.E. and going under the E. Shore in 9 to 6 Fa. The Point under *Fort de Morgue* being flat off, almost half Channel over.

Keeping thus under Shore, you come to another Point on the Larboard side, called *Point de Corral*, on which there is also another Fort called *Fort du Corral*; under which there is very good anchoring as in a Harbour, and which is called *Port Corral*, but that is out of the ordinary Channel: To go in there, Ships must of necessity round the Shoals of the first Fort, and then steer in on the Starboard side to a Fort which lies on that Shore, purely to defend the Road, which is very good: also when they round the said Shoals, they must go so far over to the other Shore, as to come under the very Muzzles of the Guns of a Fort on the Larboard side, called *Fort de Niebla*, the Shoals lying off so far into the Channel as to make it necessary.

Opposite to this Road, under *Port Corral*, lies an Island due E. and W. from it, called the Island of *Constantine Peres*; on which there is another Fort called *Mansera*, with a large Battery of Cannon. Between this Fort and Battery of *Mansera*, and the Fort *Niebla* on the Point mention'd before, goes the Entrance into the Harbour of *Baldivia*. There is another Entrance also on the back of the Island *Constantine Peres*, but it is only for small Boats.

If you go up to the Town, you must go in here between these two Forts, ranging along the side of another large Island; behind which, upon the Main, is the Port, which is so commodious, that you may lay your Broadside to the Wharf, and land or load Goods without the help of Boats, as at a Crane or Key.

Wherever you anchor in these Channels, you are safe against all Winds: also if you have but Water enough, you are sure the Bottom is good, being a hard oaze; and there's no Sea or Swell, except in *Port Corral*, and there only when the N. Wind, which blows right in, blows hard off at Sea.

From the *Morro de Bonifacio* to the *Port du Corral* is 5 Ls S. by E. From the Headland, or *Point Gonzales*, to *Fort Corral*, is a little above 2 Ls. The Course from the same Mouth of the Harbour to *Fort Niebla* is N.W. and S.E. when you are in this Course, Mid-Channel, opposite to *Port Niebla*, you are just between the two Forts *Niebla* and *Corral*, the latter due S. the former N.N.W. In the Road of *Port Corral* you have from 4 to 7 Fa. where you please: and at the end of the Strand towards the S.E. is the Watering-place, which is very convenient for the Water; but take heed of the Natives, who not knowing your Nation, and mortally hating the *Spaniards*, will cut all your Throats for *Spaniards* if they can: you must therefore take care not to let your Boat lie a-ground, and to keep your Oars as well as Arm. ready. Many *Europeans* have been murder'd here for want of this Care.

The *Spaniards* call this the Key of the *South-Seas*; and the Port being so good, it is for this reason they have fortify'd the Entrance with so many Lines and Batteries, there being above 100 Guns to pals before you can come into the inner Channel, besides what are at the Town it self: yet it is not difficult to attack the Place by a small body of Men landing below the Forts; the *Dutch* once took it by that Method, but were obliged to abandon it again in 1613. after which, the Fort *Mansera*

in Lat. 42 d. 30 m. There is deep Water, and you may anchor close to the Shore. From this Port to the nearest Land of *Chiloe* is 2 Ls N. and S. The N. Land of the Island is call'd *Punta de Anco*.

From hence the Shore lies N. and S. to the *Babias*, or *Pays of Lago*, dist. 3 Ls; and from the Bays of *Lago* to *Point Godoi* is 4 Ls more N. and S. None should go into the *Bays of Lago* but upon evident necessity; and then at their peril let them keep close to the N. Shore of the Entrance, for the S. Shore is foul, and has many dangerous Shoals, which run out very far into the Sea, and make it difficult to know the Channel: And 'tis very rare to get a Pilot there.

From *Point Godoi* to *Rio St. Pedro*, or *St. Peter's River*, or as some write it, *Puerto de San Pedro*, the Port of *St. Peter*, is 12 Ls. On the Coast between lies *Point Quedar*, 8 Ls to the S. of *St. Pedro*, the Course N.N.E. The Coast between trends N.N.E. and S.S.W. There are three Rocks lie off the *Point Godoi*, but they are bold and steep too, so that you may sail close to them on any side.

From this *Point Pedro* to *Cabo de Galera* the Coast continues to stretch away N.N.E. The distance from *Point Quedar* is 22 Ls, and from *San Pedro* 14 Ls. This *Cape Galera* is a low Point; but from it the Land rises to the S. and makes the Coast higher Land than the Cape. The Land also to the N. tho low to the seaward, doubles, and lies high within Land, the Mountains appearing one above and within another, reaching so to the *Morro Gonzalo*, or the Head-land of *Gonzalo*, being the S. Point of the Entrance into the Port of *Baldivia*, dist. from *Point Galdera* 3 Ls E. by N. and W. by S. The Head land lying so far within the ordinary Situation of the Coast, is occasion'd by the wide Opening of the Bay going up to the River of *Baldivia*, which being a very remarkable Port, and of consequence in Business, we have a great many Charts, as well printed as manuscript, for the Description of it: Take a Summary of them in a few Words.

Coming from the southward up the Coast of *Chili*, you first see *Punta de Galera*, lying S. by W. from *Morro Bonifacio*, dist. near 1 Ls, Lat. 39 d. 36 m. Off from this Point of *Galera* lies a Riff of Sand, and Rocks shooting N.N.W. into the Sea above a L. You must give it a good Birth, and double it as if it were a Cape; then steer away E. into the Bay, with a E.N.E. Course.

After standing in thus sometime, you will see to the E. of you, a Point with a Battery of Guns upon it; this is call'd *Morro Gonzales*, which lying S.W. by S. in a strait Line from *Morro Bonifacio*, makes together the Inlet or Mouth of the River of *Baldivia*; the Mouth of the Harbour properly indeed beginning here, tho some place it at the *Punta Galera*.

The Entrance at *Point Gonzales*, or *Gonzalo*, is about 4 Ls wide, drawing a Line to the N.E. by E. from it; and the going in lies Mid-Channel S.E. having 23 to 20, and so shoaling to 12 Fa. Water, till both Shores drawing towards one another, contract the Channel to something less than a L in breadth; where on the S. Shore stands a Fort with a Battery, call'd *Fortaleza de Morgue*. Here you steer forward, keeping

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If you are bound to the northward from this Port, you must always endeavour to stand out to Sea for at least 7 to 10 and 12 Ls; for the westerly Winds which blow here so frequent, are often so violent, that they will endanger beating you back again into Harbour, or putting you to struggle with a Lee Shore which may be very dangerous.

From the *Morro del Bonifacio* at the entering into *Baldivia*, to the Island *Mocha*, the Coast lies N. and S. the dist. between them 25 Ls. Opposite to it on the Main is the *Rio de Imperial*, the Island *Mocha* bearing from the Main E. by S. and with *Rio Imperial* N.W. by W. and S.E. by E. also it bears with *Point Galera* N. by W. and S. by E. and with the Island of *Juan Fernandes* N.W. by W. and S.E. by E. dist. 80 Ls.

Between *Morro del Bonifacio* and the *Rio Imperial*, lie first the Coast of *Quevete*, or *Alquerite*, the lowest flattest Land on all this Coast, dist. 15 Ls; from thence to *Imperial* 10 Ls. There are some Shoals lie off from the Island of *Mocha* W.S.W. keep off therefore from that side of the Island, with your Lead and Line in hand: The Land is high, and the rest of the Shore of it bold and clean.

The River *Imperial* has a good Depth of Water, and good anchoring in the Mouth of it, but not far in: the Land is low, but the Bottom is clean and good. From hence the Coast lies N.N.E. and S.S.W. to the Island of *St. Mary*, or *Santa Maria*: The dist. is 10 Ls to *Tucapel*, and 10 more from *Tucapel* to *St. Mary*; or according to other Charts it lies thus: From the River *Imperial* to *Tucapel* 10 Ls; from *Tucapel* to *Porto Cornero* 4 Ls, and thence to *St. Mary's* 10 Ls. The Difference seems to be occasion'd by a Bight or Bay, which goes in to *Porto Cornero*.

The Island of *St. Mary* lies opposite to, or as it were in the Mouths of the Bay of *Lavapie*. Here is good Anchoring-ground

Sailing Directions for the Coasts

ground under the Island on the side next the Main, and the Bay affords good Shelter from southerly and westerly Winds ; but the N. or N.N.W. blows right in, and makes a great Sea. The Bay is dist. from the River *Biobio*; or *Viovio*, near 7 Ls.

On the off or W. side of *St. Mary's* Island, there runs out a Shoal near half a L into the Sea ; you must be very careful of it, for several Ships have been lost upon it. This Shoal and the *Tetas de Viovio* bear from one another N.E. and S.W. There are two high Rocks at the Mouth of the River *Biobio*, and by which the Entrance into it is known ; for the River is large, and the Mouth of it very wide.

Two Ls N.N.E. from the Mouth of the River lies *Port St. Vincent* ; 'tis a safe Harbour, and secur'd against all Winds except a W Wind, which blows right in.

From the Island of *St. Mary* to the Port of *Talcaguama* is 11 Ls N.E. and S.W. being 2 Ls to the northward of *Port St. Vincent*.

This Point of *Talcaguama*, with the Island *Quiriquina*, make the true Port or Haven of the *Conception* ; that is, they lie in the Mouth of the Bay, the Island lying off and thwart the River, and within the Bay, and the Point of *Talcaguama* on the Starboard side of the Entrance due W. from the Island, and lastly, the City of the *Conception* S.E. from the Island in the Bottom of the Bay. The City is rather called *Penco*, and the Bay and River *La Conception* ; but the latter has swallowed up the former, and they are ordinarily called all by the same Name.

This Port is distinguish'd also by the Island *Quiriquina*, lying 2 Ls N. from the *Tetas* or *Dugs* of *Biobio*. That Island forms 2 Passages, one N.E. from it, and one W.S.W. The former is the best for large Ships, being half a L wide, and clear of any Danger ; the other may be pass'd with Care, and in case of necessity ; but it ought to be well known, or it is dangerous venturing, there being a long Ridge of Rocks, which advances far into the middle of the Channel.

When you are enter'd, you may anchor in 15 Fa. soft black ouze : take care to lie to the southward of the Point called *Her-radura* on the Continent, and S.E. by S. of the Point of the Island *Quiriquina*, with which the Point *Talcaguama* forms the Entrance.

Within the Point *Talcaguama* lies the Port or Harbour of the same Name, dist. about 2 Ls. You may ride there in 3 to 4 $\frac{1}{2}$ Fa. soft ouze ; and you ought to moor N. and S. two little Points of the *Peninsula* bearing from you N. by W. upon a Line from each other, and a Crook called *The Three Maids*, N.W.

The whole Bay is a beautiful Place ; it is 2 Ls wide E. and W. and 3 Ls deep in, N. and S. most of it clean Ground : yet there are but 2 good Roads in the whole Bay, one at the S. Point of the Island *Quiriquina* in 10 to 12 Fa. a Cable's length from the Shore, and which, tho' a good Road, is less frequented than the other, because remote from the Town : the other at the bottom of the Bay, as is said, near the Village *de Talcaguama*, in 4 to 7 Fa. the bottom soft black oaze.

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from the Houses, (for the Buildings lie along the Strand) so that if a N. Wind blows in, you may be ready to weigh and stand over to the southward Passage, and anchor again under the Point of *Talcaguama*, and under the Lee of the Island *Quriquina*: bring the Island and the Point in a Line bearing from one another, and you will ride easy shelter'd from the N. Winds.

The Port of *Herradura* is in Lat. 36 d. 15 m. S. it lies in a small Bay like a Horshoe, from whence it takes its Name: There are 3 or 4 high Rocks in the Entrance into the Bay, by which the Road within is Landlock'd from all Winds that can blow. From this Bay, or the Point of it, the next Port N. is *Itata*, or *Ytata*, dist. 5 Ls, no Place of importance between; neither is *Ytata* itself a Place of any Business: there is indeed a small River called *Itata* also, but the Port is not good.

From *Itata* to *Point Humos*, the Coast lying still N.N.E. and S.S.W. is 7 Ls. It is remarkable, that between *Point Humos* and the Bay of *Herradura* the Sea is so deep, that for 12 Leagues together you have no Soundings, nor any Bottom except about the Mouths of the Rivers, and some few places under Shore, where Ships come to an anchor under the Shelter of the Points and Bays on the Land-side.

From *Point Humos*, or *Ymos*, to the River *Maul*, the Course is N.N.W. dist. 10 Ls. The River *Maul* lies in Lat. 35 d. 30 m. This Point is accounted very dangerous, because of several Shoals which lie before it, upon which many Ships have miscarry'd. The River *Maul* is navigable 3 to 4 Ls up the Country: there is 3 Fa. in the Entrance at low Water Mark. There are 2 great Rocks in the Mouth of the River, but they are seen above Water, and the Channel is good on both sides of them. They build good Ships here, the Banks of the River being full of good Timber. There is good anchoring to the Leeward of the Port with a southerly Wind, but northerly Winds make a foul Shore here.

From the River *Maul* to *Quebrada de Lora* is 7 Ls, the Course N.E. Here is a great Break, like that of *Lime*; and the Coast for some Space lies low and flat with the Sea, being sandy also like the Shore. The Coast here trends away N.E. and S.W. Here the Mountains are cover'd with Trees, which is no where seen upon this Coast northward, till between this Place and *La Conception*.

From *Lora* the Coast trends N.E. to *Potocalmo*, dist. 14 Ls. You may anchor safely within the Headland of *Potocalmo*, and all along this Shore, especially with a southerly Wind; but if you run only a quarter of a L within the Cape, you will be liable to terrible Flaws from off the Shore. There is a small Island within, where you may ride secure in 25 Fa. clean Ground. This Headland of *Potocalmo* is in Lat. 34 d. S.

From the Cape or Point of *Potocalmo* to the Headland of *Curaoma* is 18 Ls, the Course still N.E. between these, and about 6 Ls short of *Cape Curaoma*, lies the small Port of *Saltinas*, or the *Salt-Ponds*, where there is a vast quantity of fine Salt, and many Ships use the Place to load it here. The anchoring-place is under a high Rock to the southward. The Land is low, and the Sea flat; and there are several Shoals from the Anchoring-places all along to the River *Rapel*, which Shoals you must be very careful to avoid.

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To come to this Bay, Care must be taken to avoid the Tail of the Shoal I have just spoken of, which stretches out a quarter of a L E.S.E. from what appears at the lowest Ebb, where there is but 3 Fa. Water : To shun it, a Ship drawing near the Land on the Starboard side, is to keep a little low uneven Cape at the end of the Bay, open with a little Hill of much the same height, lying somewhat farther up the Land ; that is, the Cape of *Estera de Talcaguama*, with the western part of the little Hill of *Espinosa* : and if at the same time the S. Point of *Quiriquina* be kept in a Line with the W. part of the Island, you are exactly at the end of that Tail of the Sand ; and then you draw near to the Houses of *Talcaguama*, till having closed *Quiriquina*, behind the Point *de la Herradura*, you may then come to an Anchor under Shelter from the N.Wind. Care is also to be taken not to come too near *Talcaguama*, for fear of a Shoal within a Cable's length of the Shore : This is the only Place of safety whilst the N. Winds prevail ; but being entred you may anchor before the Town, N.W. from the Castle, or which is the same thing, S.E. from the S. Point of the Island *Quiriquina*, closing it with the outward Cape of *Talcaguama*, or before *Irequin*. Take care to lie a good quarter of a L from the Shore, for fear of the Rocks. There is every where Conveniency for wooding and watering, and even for building of Ships. In Summer Boats go easily a Shore ; in Winter the Case is quite alter'd.

La Conception is certainly the best Place of all this Coast for a Ship to put in at for all things that a Ship's Crew made sick of a long Voyage can want, and for the goodness of Provisions which are to be bought there, and the moderate Price they are bought at.

From this Island of the *Conception*, or *Quiriquina*, to the *Cape Herradura*, or the *Horshoe*, is 2 Ls N.E. and S.W. that is, the Mouth of the Bay is so wide, the *Cape Herradura* being the North Point of the Bay. This Passage lies in S. so that the N. Wind blows right in to the Bay, but as has been said. If you go in this way, you anchor before the Town $\frac{1}{2}$ of a L

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From this Cape *Curaoma* to *Puerto del Valparisso*, otherwise *Santiago*, is 2 Ls, the Course W.N.W. Here is a good Road within the Point for Ships of any Burden. This Point, and the Islands of *Coquimbo*, the Headland of *Copiapu*, and *Morro Moreno*, or the *Brown Point*, all bear with one another alike, viz. N.E. and S.W.

Two Ls to the southward of *Cape Curaoma* lies a Point called *Morro del Obispo*, or the *Bishops-Headland*: this is generally made from the Sea, in order to get to the Windward of *Valparisso*, to the end that the strong Winds from the S. and S.W. which blow often here, may not put Ships beside the Port, in which case it would be hard to recover their Latitude, without running out too far to Sea.

After doubling *Cape Curaoma*, 2 Ls to the N.E. by E. appears the Creek of *Laguanilla*, which with the Cape makes the Port of *Valparisso*; yet no Ships anchor here, the Bottom being naught.

Upon turning this Point, in order to enter the Harbour of *Valparisso*, you must range close along a Shoal, which shews it self within about half a Cable's length of the Shore: This must be done in order to get to windward. That Shoal is a great Ledge of Rocks, whereof one part lies above Water, but 'tis very safe; for the *Spanish* Ships have been seen to ride within a Boats length of it in calm Weather, without touching it.

On the other hand, when Ships keep off too far from it, they are often obliged to make several Trips to recover the Road, for the Anchoring-place is high up the River: bring the Point of *Valparisso* to bear N.E. by N from you, the

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White Battery W.S.W. and *Cape Cancon* N. by E. and you have then the best of the Anchoring-place, being in 27 Fa. grey oazy Ground, and secur'd from all Winds.

N. B. If you salute the Fort with 7 Guns, the proud *Spaniard* haughtily answers you with one, or perhaps none at all.

Abundance of *Spanish* Coasters use this Port to load Corn for *Callao* and *Panama*, so that the Harbour is well frequented, and you may have Pilots here for almost any Port on the Coast, especially to the northward. Those Ships generally run in so close to the Town, that they make fast with their Cables on Shore; they are generally made fast to Piles, or great Stones with Rings in them; and yet tho' so near the Land, they have 8 to 10 Fa. Water.

This way of making fast ashore is very good here, because every Day during the Summer Months, the Breezes come so regularly about Noon from the S. and S.W. and blow so strong, that no Anchor will hold.

However, Care must be taken also of a Shoal which lies within a Cable's length of the Shore, near the Battery called the *White Castle*: On this Shoal there is not above 13 or 14 Foot at low Tide, and the Sea rises upon the Flood but 6 or 7 Foot at most: In all other respects the Bay is safe, and Ships may turn it up or down in from 8 to 50 Fa. and may anchor every where; only take care, in turning to the eastward towards the *Siete Hermanas*, or *Seven Sisters*, not to come nearer the Shore than two Cables length and half, opposite to a small running Brook, cross'd by a broad reddish Highway: In that Place there is a Shoal, on which there is no more than $2\frac{1}{2}$ Fa.

Another Caution is necessary for this Road, namely, that tho' Ships generally ride in the Nook of it, which is before the Battery of *Castillo Blanco*, and where they lie chiefly for the Convenience of Trade, as also for Security against Pyrates and Rovers, yet 'tis a bad Road in Winter, because the Winter N. Winds blow right in, and make such a Sea that Ships are often forc'd a-shore in spite of all their Moorings Head and Stern. It is true, the S. Winds are no less violent in Summer, but then they come over Land, and so make no Sea; and if they cause a Ship to drive, they have nothing to do but to put afore it, and go out to Sea, and in the Evening the Wind is always down again.

This Bay is certainly the most frequented of any Port of the whole Coast of *Chili*, and that by Ships of good Burden besides Coasters; and for this reason the Fortifications are so much increased, for within these 30 years they have built the great Fortress at the Foot of the Mountain to secure the Road.

The City of *St. Jago*, in *English St. James*, the Capital of the whole Kingdom of *Chili*, lies up the Country, dist. from *Valparaiso* 28 Ls says *Frezier*, and *Herrera* says 14 Ls: the former seems to be right. The River is not navigable up to the City, but all the Business is transacted at *Valparaiso*, which is the Sea-Port to *St. Jago*.

Many Ships come to this Port to lade Hemp, which is brought down the Rivers on strange Floes made of Bladders

Directions for the Coasts of Chili and Peru.

... E. and you and anchor there. From *Papuda* to *Port de la Liga* is 4 Ls, and thence to *Port Governador* 5 Ls, the Course N.W. 'tis a clean Harbour, and good Riding, the Ships being secured by a small Island in the Mouth of the Harbour.

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N. B. *Port Governador* lies in Lat. 32 d. 12 m.
From *Point Governador* to *Limari* is just 20 Ls, being from 32 d. 12 m. to 31 d. 10 m. between them is a wild Coast, all snowy Mountains, and no Harbour, except *Choapa*, dist. 10 Ls, which is a small Harbour of no Importance.
From *Limari* to *Tanguay* is just 10 Ls; this last is in Lat. 30 d. 30 m. S. In the Road of *Tanguay* there is a Headland opposite to a small River, where there is good watering; all over the Bay there is good anchoring, and clean holding Ground.

From this Bay to the Point southward of *Coquimbo* is 7 Ls. This Point is called *Herradura* also, or the *Horshoe*, as several others on this Coast are; and the Port of *Coquimbo* is also called *Serena*. The Course from *Longuey* hither lies due N. and S.

The Bay of *Longuey* is by some called *Tonguey*, and by Monsieur *Frezier Tonguay*; but it is certainly known by a Hill called *Sierra del Guanaquero*, and by a low Point running out called *Lengua de Vacca*, the *Cows* or *Neats Tongue*, which closes the Bay to the westward.

The Coast, tho' indifferently high, and to be seen at 25 to 30 Ls off at Sea, yet makes at first as if it was all drowned; the Mountains of the *Cordilleras*, which appear over it, being always cover'd with Snow.

When you first make the Bay of *Coquimbo* from the southward, 'tis generally at 8 Ls dist. In this Course you must keep up with the Land, to see the Entrance into the Bay, and to get to windward, the S. and S.W. Winds always prevailing on the Coast, except about 2 or 3 Months in the year, which they call Winter, when the Winds hang about the N. and N.W. Points.

Short of the Entrance into this Bay is the *Horshoe Point* mention'd above, being the Mouth of a little Creek about 2 Cables length over, and where Boats go in to take fresh Water.

To the Leeward side appear 3 or 4 Rocks; the outmost, which is the largest, is called *Paxaro*, or *Pajaro Ninno*, and is 2 miles N.W. by N. from the southermost or Starboard Point of the Main, which closes the Port of *Coquimbo*, and is call'd by the Spaniards *Punta de Tortuga*.

To the southward of the Rock is a smaller Island, between which and the Main is a good Channel, having 17 Fa. Water, tho' very narrow. Some Ships have gone thro' this way, but there can be no need of it, the Mouth of the Bay being 2 1/2 Ls wide, clean and without Danger.

The Bay goes in S.E. the southermost Point is called *Punta de Tortuga*, mention'd above, which the Ships keep as close to as they can for the reasons before, viz. that it is to windward, and if they go large off, it is not easy to get into the Road, which is under the Lee of the Cape. The 2 Islands mention'd above of *Paxaro de Ninno* are under this Point to the westward; and therefore 'tis that the Ships venture between

fore d a-shore in spite of all their moolings Head and Stern. It is true, the S. Winds are no less violent in Summer, but then they come over Land, and so make no Sea; and if they cause a Ship to drive, they have nothing to do but to put afore it, and go out to Sea, and in the Evening the Wind is always down again.

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Many Ships come to this Port to lade Hemp, which is brought down the Rivers on strange Flotes made of Bladders and Skins, needless to describe.

N. by E. from *Valparaiso*, and partly within the Bay, is the *Punta de Conception*, which opens another small Bay, into which the River *Aconcagua* empties it self. This River is called also the River *Chili*, as they tell us, it was formerly the N. Boundary of the Kingdom of *Chili*; but is not so now. Within this River lies the Town of *Conception*, where there is a good Road on the Starboard side of the River.

Without this little Bay the Coast stretches to the N.W. to another *Punta de la Herradura*, which Headland makes the S. Point of the Bay of *Quintero*. The Bay of *Quintero* is 2 Ls N. from the River *Chili*; and the Entrance into *Chili* is 2 Ls, which with the Rounding the Entrance into *Conception* makes the whole 5 Ls to *Quintero*.

In this Run you have three plain Strands, in the Midway of which comes in the River of *Murga Murga*, not navigable, but very good to water in. In the River *Conception* there lies a great Shoal, which you will see by the Breach of the Sea upon it. If you would go in there, you must range with the Point, and run in between that and the Shoal. The Town lies on the S. Shore of the River. From the Port of *Conception* to *Port Valparaiso*, is called 10 Ls, but it cannot be so much.

In the Bay of *Quintero* there lie several Shoals near the S. Point. From those Shoals to the Harbour of *Quintero* it is 2 Ls: the Harbour is deep, and there is good riding with a southerly Wind; but the northerly Winds blow right in, and make a great Sea. Most of the Shoals are to be seen, being dry at low Water; they lie near the S. Point, but there is a fair Channel between, having 12 Fa. Water.

From the Shoals of *Quintero* the Coast shoots out due N. to *Papuda*, dist. 5 Ls: The Water is very deep in *Papuda*, but good holding Ground, and the Entrance is very safe. In *Port Liga* near the Point there is a Shoal with but 2 Fa. Water upon it; you must give it a good Birth, and run within into 5 Fa.

mentioned above, being the Mouth of a little Creek about 2 Cables length over, and where Boats go in to take fresh Water.

To the Leeward side appear 3 or 4 Rocks; the outmost, which is the largest, is called *Paxaro*, or *Pajaro Ninno*, and is 2 miles N.W. by N. from the southermost or Starboard Point of the Main, which closes the Port of *Coquimbo*, and is call'd by the *Spaniards* *Punta de Tortuga*.

To the southward of the Rock is a smaller Island, between which and the Main is a good Channel, having 17 Fa. Water, tho' very narrow. Some Ships have gone thro' this way, but there can be no need of it, the Mouth of the Bay being 2 1/2 Ls wide, clean and without Danger.

The Bay goes in S.E. the southermost Point is called *Punta de Tortuga*, mention'd above, which the Ships keep as close to as they can for the reasons before, *viz.* that it is to windward, and if they go large off, it is not easy to get into the Road, which is under the Lee of the Cape. The 2 Islands mention'd above of *Paxaro de Ninno* are under this Point to the westward; and therefore 'tis that the Ships venture between them and the Main, that they may be enough to windward to make into the Road of *Tortugas*.

It is true, the Rocks are clean, and steep too; so that Ships run within a Boats length of them; and they strive to do it, that they may the easier gain the Road, as above, which is called the *Port*. Here the Ships ride in 6 to 10 Fa. the bottom black Sand, near a Rock called also the *Tortugas*, which is about 2 Fa. long, and about 1 Fa. above Water, shap'd like a Tortoise, and from which it takes the Name. Ships are here shelter'd from all Winds, by closing the *Punta de Tortuga* with the distant Point opposite, called the *Point du Noort*; so that the Land is seen on all sides, and the Swell or Rolling of the Sea is check'd and kept off. The Road indeed is not large here, and only 20 to 30 Ships can take the Benefit of its Shelter, tho' the Bay is large enough too, and there is Water enough every where, and the Bottom good; but the Ships do not ride so easy or so safe.

If in coming out of this Bay you should happen to be becalm'd, you must be sure not to come to an Anchor near the said Rock *Paxaro Ninno* in 40 to 45 Fa. because the Bottom is foul and rocky, and will cut your Cables, and you will not be able to weigh your Anchor by your Buoy Ropes.

The *Solide*, a *French* Ship of 50 Guns, lost 2 Anchors there in that manner, *Anno* 1712.

The Port is not only convenient for Ships riding at Anchor near the Shore as still as in a Balon; but in case of need Ships of 200 Tun may be careen'd on the *Tortuga* Rock, there being 2 Fa. close by it at the lowest Ebb.

Yet with all those Conveniencies something is wanting, here being neither Wood nor Water; the Water is brackish, and the Wood only Bushes.

The Town lies opposite to the Road, but there is no Landing nearer than 2 Ls off: the Surge of the Sea going so high at the Town, that no Boats can bear it; the Landing-place is 2

Ls

Sailing Directions for the Coast.

Is from the Town S.S.E. where Boats go in easy, and you must walk to the Town by Land.

N.W. from the Bay of *Coquimbo*, and dist. from the *Punta de Tortugas* 7 to 8 Ls, are a Cluster of small Islands called *Les Pajaros*, or the *Islands of Birds*, the Course N.N.W. and S.S.E. You should be careful to keep off without these Islands, because the Current which always sets to the northward is apt to drive Ships in between those Islands and the Main, that is, from beyond the *Point de Theatins*, which is the northernmost Land of the Bay of *Coquimbo*. These Islands are 6 or 7 in number, and several *Spanish* Ships have perish'd upon them, being hors'd on them by the said Currents: for which reason, when you go from the South, you must be careful to run some Ls W.N.W. and in time too, that you may get to seaward of them, for the *Spanish* Pilots shun them as they would a Shoal in a Calm. They are the more dangerous also, because the Tides upon the Coast are not at all regular, and must be known rather by Experience than by the exactest Observation.

Four Ls N. from these Islands is the Island of *Choros*; and 5 Ls farther, the Course lying N. by W. is the Port of *Guafo*. Between them is the Creek, and an Island before it call'd *Totoral*: It lies midway between a certain high Cape, with a Mountain upon it, call'd *Sierra Prieto*, and a low Point, which is the southernmost Land of the *Salt Bay*.

From the Bay of *Coquimbo* to *Guafo* is 15 Ls, that is, 8 to the *Islands of Birds*, and 7 beyond, to the Bay. Some Accounts make the distance more by 4 Ls; but we have several Charts, which confirm our Account.

The Port of *Guafo* forms a good Harbour, and you have safe anchoring in 18 to 20 Fa. very near the Land. It is not a much frequented Port, but 'tis capable of receiving great Ships; and there is a very good watering place. *Port Guafo* is in Lat. 28 d. The River lying to the N. of the Town 2 Ls.

From *Guafo* due N. lies *Cape Totoral*: The Names are so alike, that some Accounts mistake this, which is a Cape, for *Totoral*, mention'd above, which is a Creek with an Island: but the difference is evident, the one is 12 Ls to the S. of *Guafo*, and the other 15 Ls to the N. of it.

To go into this Port of *Guafo*, you must anchor right against the River, under a small low Island: The Point of the Main is cover'd with 7 or 8 Rocks, which lie out of the Water. On the Top of the Point there is a rough Sand-hill, where you will see two or three more dry Rocks; there you may anchor, bringing that Point to bear N. by W. from you.

The Harbour of *Guafo* is well secured from all Winds between the E. and S.E. but too open to the N. and N.W. The Rocks mention'd above lie at the windward Point, and are a very good Security to the Road. The Hill of *Guafo* is very high and thick, and rises with two Pico's, the northernmost is the highest; they are seen many Ls to Sea, and by them you make the Port, for there are no other Hills like them on the Coast.

From *Cape Totoral* to *Copiapo* is 25 Ls; the Course still lies N. or at most N. by W. *Cape Totoral* is situate in Lat.

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Fa. Water in it; and the *Englishman* run a great Riſque in riding there, for had a N.Wind ſprung up which blows right upon the Shore, he muſt have run out immediately to the weſtward, and ſo have put into *Copiapo* under the Lee of the Iſland, or have been forced on Shore and loſt.

N.E. by E. from this Road lies the Port of *Caldera* diſt. 2 Ls. 'Tis divided from the Bay de *Ingleſes*, by two Points of Land making a little Sound; between which the Channel goes in E. by S. Here is a good Road behind a rocky Point: You muſt coaſt the Starboard or S. Shore within Piſtol-shot, that you may be ſure to keep to windward; the Road lies on the ſame Shore, where you have 10 Fa. good Ground and ſecure. Here Ships often lade and unlade for the Town of *Copiapo*; you ride S.E. by E. from the moſt advanced Point on the S. ſide, the low N. Point bearing N. by E. from you diſt. 3 Ls. Tho' the northerly Winds do not blow in but thwart, and that they are not ſo ſtrong here as in a more ſoutherly Climate, yet when theſe Winds blow, the Sea goes very high in the Road, and that ſo as to make Ships ride very uncaſy.

This Road would be much more frequented, but that both Wood and Water are exceeding ſcarce and difficult to be had.

Tho' this ſeems to be the chief Port for the Town of *Copiapo*, yet it is at leaſt 14 Ls E. into the Country, over the Mountains, and 20 Ls by the ordinary Road, which follows the Courſe of the River: From the Road of *Caldera* to the Mouth of the River of *Copiapo* is 5 Ls by the Coaſt due N. and S. accounting from the Offing of the Road.

From *Copiapo* to *Coquimbo* is 100 Ls within Land, the Country waſte and deſart without Town or Villages; no wonder then that the Coaſt is without Harbour and Shipping. This is that prodigious Ridge of Mountains which part *Chili* from *Peru*, and which lie in Lat. 24 to 25 d.

But the Sea Coaſt is not ſo wild and deſolate as the Country within Land. From *Copiapo* to the Bay call'd *Port General* is 12 Ls: Here is a clean Strand and very good anchoring all the way, the Courſe N. by E. there is a ſmall Iſland in the Mouth of the Bay, which adds to the Security of the Ships which ride there, becauſe it breaks off the force of the N.W. Winds, which blow here very ſtrong: The Road is very good, and the Ground a hard Sand; but you will get no good Water there, which is the Caſe in many other good Harbours on this Coaſt.

It is much the ſame at *Tuncal*, or *Juncal*, which lies farther N. about 3 Ls: The Harbour is only good with the Wind at S.W. but there is no freſh Water to be got, even for Money, any more than at *Port Bettas*, 6 Ls ſtill farther N. The Marks for the Harbour of *Bettas* are a Spot of white Sand, and in the Middle of it a Spot of black Earth: The Entrance into the Harbour lies exactly in Lat. 25 d. S.

The next Port or Place of Conſequence to this is *Baia de Neuſtra Senno*, or *Our Lady's Bay*. From *Copiapo* to this Bay de *Neuſtra Senno* is 30 Ls, the Courſe all the way N. by E. and S. by W. Here is another *Rio Salado*, or *Salt River*; and indeed freſh Water is very rarely to be had in any of theſe Harbours. The Bay it ſelf is but indifferent riding, the N.W. Winds blowing right in; and as the Land is high and mountainous along the Shore, it ſends down ſtrong Gulls and Swarms of Wind, which are very dangerous to Sailors.

for *Tororal*, mention'd above, which is a Creek with an Island: but the difference is evident, the one is 12 Ls to the S. of *Guaſco*, and the other 15 Ls to the N. of it.

To go into this Port of *Guaſco*, you must anchor right against the River, under a small low Island: The Point of the Main is cover'd with 7 or 8 Rocks, which lie out of the Water. On the Top of the Point there is a rough Sand-hill, where you will see two or three more dry Rocks; there you may anchor, bringing that Point to bear N. by W. from you.

The Harbour of *Guaſco* is well secured from all Winds between the E. and S.E. but too open to the N. and N.W. The Rocks mention'd above lie at the windward Point, and are a very good Security to the Road. The Hill of *Guaſco* is very high and thick, and rises with two Pico's, the northermost is the highest; they are seen many Ls to Sea, and by them you make the Port, for there are no other Hills like them on the Coast.

From *Cape Tontoral* to *Copiapo* is 25 Ls; the Course still lies N. or at most N. by W. *Cape Tontoral* is situate in Lat. 27d. 30 m.

Between them lies the *Baia Salada*, or *Salina*, in *English*, the *Salt Bay*, dist. from the Cape 10 Ls. There is a good Road in that Bay, and much frequented by coasting Vessels, as well for loading Salt, as for other Business; the anchoring Ground is to the northward; the Point on the opposite Shore bearing S.W. from you, as you ride. 'Tis tolerable safe lying here with the Winds southerly, but the N. Winds blow right in, so that you must be always in a readiness to sail and put out to Sea, or you will be in danger of going a-shore. Here is good fresh Water to be had, and very convenient near the Road.

From this *Baia Salada* to *Copiapo* is 10 Ls, the Course N. by E. The Coast between is all safe with good anchorage, and several little Bays with good shelter, as well against northerly as southerly Winds; the Mountain of *Copiapo*, which forms a Head-land, and is call'd *Morro de Copiapo*, makes at Sea like a great Island, somewhat like the Point of *St. Helena* in *Peru*. On the S. side, about a L off Shore, there are two small Islands, and under them a very good Road. A little to the N. of the Town lies the River of the same Name, which comes in open with those Islands. Opposite to this River to seaward, there is a dangerous Shoal stretching E. and W. at a good distance; and as it lies due W. from the Mouth of the River, you must stand out from it to the N.W. till you open the Entrance by the Island, under which you must come to an anchor. You run in S.E. by S. and S.E. and anchor under the Lee of the N. Point, well secured as above.

The Point or Head-land call'd *Morro de Copiapo* lies N. from this Island, dist. about 2 Ls. Behind the Head-land is a little Bay, with a Creek at the S. end of it, call'd *Puerto del Ingleses*, or the Port of the *Englishmen*; call'd so, it seems, because an *English* Pirate anchored there formerly, and rode in it some time, watching for Purchase. There is from 30 to 50

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is a Cape, than an Island: to the S. of the Cape, the Road is very good, and the Ground a hard Sand; but you will get no good Water there, which is the Cause in many other good Harbours on this Coast.

It is much the same at *Tuncal*, or *Juncal*, which lies farther N. about 6 Ls: The Harbour is only good with the Wind at S.W. but there is no fresh Water to be got, even for Money, any more than at *Port Bettas*, 6 Ls still farther N. The Marks for the Harbour of *Bettas* are a Spot of white Sand, and in the Middle of it a Spot of black Earth: The Entrance into the Harbour lies exactly in Lat. 25 d. S.

The next Port or Place of Consequence to this is *Baia de Neustra Sennora*, or *Our Lady's Bay*. From *Copiapo* to this Bay *de Neustra Sennora* is 30 Ls, the Course all the way N. by E. and S. by W. Here is another *Rio Salado*, or *Salt River*; and indeed fresh Water is very rarely to be had in any of these Harbours. The Bay it self is but indifferent riding, the N.W. Winds blowing right in; and as the Land is high and mountainous along the Shore, it sends down strong Gulls and Squals of Wind, which are very dangerous to Sailors.

From hence to *Cape de George* is 20 Ls, the Land also mountainous, the Course N.N.E. and S.S.W. the Coast of *Peru* falling off here a little to the E. You may anchor under *Morro de George* in 25 Fa. all secure, no Dangers but what are visible. The Bay is in Lat. 24 d. 30 m. If it be clear Weather, you may see *Cape Morreno* from the Mountains over the Bay of *Our Lady*: You should lie at anchor S. of the Rock, about a Mile from the Shore.

From *Cape George* the Course lies N.E. to *Cape Morrena*; just under the southern Tropick, being it Lat. 23 d. 45 m. S. dist. 15 Ls. Between the Capes there is a great Bay which invites a Stranger in; but if the Wind comes about to the S.E. 'tis hard to get out, and very dangerous, because it blows right on the Shore, and makes a great Sea in the Road.

From the N. Point of the Bay of *Morrenas* to *Messillones*, or *Muscle Bay*, is 8 Ls, the Course N. by E. and S. by W. *Cape Morrena* is high Land. On the N.E. side is a good Road, near the small Island which lies before it. Here is also a very convenient Harbour, tho exceeding narrow, where you may careen a good Ship; however, give the Cape what Birth you can, for here are sometimes terrible Flaws of Wind, which come off from the Mountains within the Land.

From the Bay of *Messillones* to *Atacama* is 5 Ls, the Course between lies N. by E. and S. by W. There is a Hill like a Sugar-loaf on the Point, and on the N. side another somewhat less. The Bay of *Messillones* is deep, the Anchoring-place to the eastward; but the Entrance N. and S. On the S. side it is deep, and you have no Bottom, but at the Entrance or Anchoring-place it is moderate, and you may ride in 15 Fa. Water clean Ground, and well secured from most Winds. It is to be observed, that the Seamen call all the Opening from Cape to Cape the *Baia de Acatama*, or *Atacama*; so that the *Muscle Bay*

Bay is a Bay within a Bay, being a small Harbour at the Bottom of the other: But this makes the latter safer riding, for in the great Bay the W. and N.W. Winds blow right in, and bring in a tumbling Sea, so that you might be in danger of foundering at an Anchor. From the N. Point of the Bay of *Atacama*, as thus extended, to the *Morro Morena* S. is 20 Ls, being just from Lat. 22 d. to Lat. 23 d. S.

N. B. The Town of *Atacama*, from whence this Bay takes its Name. is within the Land many Ls; but the Port, which by mistake we call *Atacama*, is properly call'd *Cobija*, and is known to the *Spaniards* by that Name.

The Harbour and Bay, as above. is known by the *Morro Morena*, which begins 10 Ls to windward, that is, to the southward, and rises gradually till it comes directly over the Entrance into the Creek or Harbour of *Cobija*, and from thence floaps again to the northward; so that the Pike of the Hill is your Mark at Sea to make the Port by, it being the highest Land of all the Coast.

The Harbour of *Cobija* lies about 3 quarters of a L in, very secure: 'Tis frequented by *European* Ships for private Trade, and by *Spanish* Ships, but chiefly for carrying the Treasure which is brought hither from the Mines at *Guaico*, *Lipes*, &c. which lie nearest to it.

From hence to *Paguifa*, or *Paguifa*, is 10 Ls N. that is, to the Islands call'd the *Algodonales* 8 Ls, (where you may get fresh Water, but at *Cobija* it is brackish and unwholesom;) and from the *Algodonales* to *Paguifa* 2 Ls.

Due N. from *Paguifa*, dist. 5 Ls, lies the *Rio de Lora*, or *de Loa*, in Lat. 21 d. 40 m. Here also you may have good fresh Water, tho with some difficulty; it lies behind a Point.

If you would water at *Paguifa*, you should anchor before a Head-land which shoots out N.W. into a Point, and is call'd *Haguey* or *Jaguey*, from whence the Port is call'd by the *Spaniards*, *Haguey de Paguifa*, or the Rills of Water at *Paguifa*. The Point is known by large white Spots on the Precipice, or rising of the Land; there you will see a high large Tree before the *Jaguey*, or *Watering-place*; that Point is the highest Land on that part of the Coast. Over it is a Hill yet higher, which makes at Sea like three or four Hills far asunder, and is over-grown with Shurbs and Bushes looking always green: The Water here is bad, the Coast very rough and steep, so that you must keep off at a good distance: You have also no good Soundings but at 2 Ls from the Shore, and no Bottom.

From *Cobija* in the Bay of *Atacama* to the *Haguey de Paguifa*, or the *Watering-Place* of *Paguifa*, is 15 Ls, all a high Coast, mountainous and rocky; the Land trending N.N.E. and S.S.W. tho soon after going off more to N.E. by N. and then again to due N.

From the *Rio de Lora* the Land trends due N. to *Pica*, passing in the Midway the Island of *Gouano*, the Land high and steep, and the dist. from *Lora* to *Pica* 12 Ls. On the

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These broken Lands begin at *Tarapaca*, from whence to *Pisagua* is 6 Ls N. and S. From *Pisagua* to the next Gap or Opening at *Camarones* is 8 Ls. All the Coast is high Land, and lies N. and S. The broken Gap of *Pisagua* makes at Sea like a Bay, and when bearing E. from you, seems to be closed up with the Gap of *Camarones*.

From *Camarones* the Land continues rocky, and runs away N. or N. by W. to *Victor O Colpa*, dist. 7 L. This is the first of the broken Hills to windward: Those broken Lands lie about 5 Ls in length; they have to the N. side almost to the Shore, red Hillocks and some Ridges, the latter white as Chalk. Between these is the Head-land of *Arequipa*, call'd by our Sailors *Iquique*.

The Course lies N by W. from these Gaps on the Shore to *Port Arica*, which lies in Lat. 19 d. it lies in a kind of a Bay. Bring the Cape of *Arica*, which is high steep Land with white Spots in it, in sight with the Land to windward of *Cape de Sama* and *Gniaca*, you are then directly off of the Bay, or rather a little entred into it. If you would anchor there, observe a small Island, which you shall see under Shore, and bring them on with the Ware-houses which lie also near the Strand; there you shall have 8 to 10 Fa. Water where you please, and may anchor at discretion. You must be sure when you ride here, to moor with one Anchor right a-stern, because the Land-Breezes blow so strong, that you will be else in danger of tailing a-shore.

Coming from the Sea, you will know this Land by the Ridges of Rocks which come from the Mountains, and look like two Volcano's; they appear white: Bring them to bear N.W. from you, then you are to windward of the Port; but if they bear to the S.E. you are then to the Leeward, and will see two other Hills as white as if they were covered with Snow.

Upon the same Coast, and before you come to *Arica*, is the Cape, or Point, or Break, call'd *Camarones*, mention'd already. When you come within about a L. of this Break, you will see the Head-land of *Arica* begin to shew it self; it makes at a distance like an Island, because it is much lower than the windward part of the Coast; but when you are within 3 or 4 Ls of it, you will see another little Island very steep and high, which lies right before it, and looks only like a Rock standing out of the Sea: By this you will infallibly know the Coast, because 'tis all a low Coast beyond it. The Entrance into the Port is in 18 d. 20 m.

This Head-land, on that side next the Sea, is all white with the Dung of Cormorants, which are there in great Numbers, and which Dung is so valuable, that Ships come to that Road to load with it: Hence the Island adjoining is call'd *Camaron*, but its right Name is *Guano*.

Entering the Road of *Arica*, Ships may Coast the Island

yet high, which makes at Sea like three or four Hills far
afunder, and is over-grown with Shurbs and Bushes looking al-
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and steep, so that you must keep off at a good distance: You
have also no good Soundings but at 2 Ls from the Shore, and
no Bottom.

From *Cobija* in the Bay of *Atacama* to the *Hagney de Pa-
guifa*, or the *Watering-Place* of *Paguifa*, is 15 Ls, all a high
Coast, mountainous and rocky; the Land trending N.N.E. and
S.S.W. tho soon after going off more to N.E. by N. and then
again to due N.

From the *Rio de Lora* the Land trends due N. to *Pica*,
passing in the Midway the Island of *Gouano*, the Land high
and steep, and the dist. from *Lora* to *Pica* 12 Ls. On the
Shore there are several Ridges of Rocks; 'tis a bold Coast,
and you may anchor under the white Craggs which appear just
upon the Shore: Where you see these Craggs lower and flatter
than the rest of the Land, there you may observe the Harbour
goes in; and you may know where the Mouth of the River
lies by the same Mark. The best of the Road is about a
quarter of a Mile to windward of the Opening, near a small
Parcel of Rocks which shelter you from the northerly Winds
and the Breach of the Sea, which goes high upon the Shore:
When you come to an anchor, let those Rocks lie right a-head
of you.

In passing from *Cobija* towards the *Rio de Lora*, you will
see a small Island call'd *Pavillion*, because it looks like a Tent,
the upper part black, the lower white. Behind the Island on
the Main is a Creek, where Boats go in for fresh Water, which
is still very scarce on all this Coast.

N. from the Island *Pavillion* is the Head-land of *Tarapaca*,
or, as our Seamen corruptly call it, *Carapoucha*, dist. from *Pica*
5 Ls, the Coast due N. The Cape is very high, but under
the Pitch of it is the Island *Iquique*; this Place goes in like
two Harbours, over which the Land being flat without and
hilly within, it makes at Sea like a *Spaniard's Hat*, which
way soever you come towards it: Under the Shore there lies
a small Island: The Coast is bold, and you may anchor almost
any where in moderate Weather; you may also anchor within
the Island in 7 Fa. well secured from northerly or southerly
Winds.

From the *Morro Tarapaca* to *Arica* the Coast trends N.N.W.
dist. from the River *Hicacos* 25 Ls. The Port of *Arica* being
exactly under Lat. 19 d. and the other in 20 d. 15 m. The
Land is all high and mountainous upon the Coast: As you
approach this Coast, you will see three deep Gaps in the Hills
next the Shore, where the Land appears thro' in black Spots,
and at every one of those Gaps comes in a River.

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This Head-land, on that side next the Sea, is all white with the Dung of Cormorants, which are there in great Numbers, and which Dung is so valuable, that Ships come to that Road to load with it: Hence the Island adjoining is call'd *Camaron*, but its right Name is *Guano*.

Entering the Road of *Arica*, Ships may Coast the Island *Guano*, which is at the Foot of the Head land, or within a Cable's length of it, and may anchor N. by E. from it, the Steeple of *San Juan de Dios* bearing N.W. from them. That Steeple is to be distinguish'd by its height from any Buildings, not in the Town only, but on the whole Coast.

The Road there is very good, and you may ride in 9 Fa. Water, the Bottom a tough Oaze, and out of danger; tho' there are Rocks under Water too, which in several parts of the Road cut the Ships Cables, and hold their Anchors, so as they can never be got up; but those Rocks lie too deep to do a Ship's Bottom any hurt. This Island *Guano* breaks off the Swell of the Sea, (which would otherwise go very high in this Road, when the Winds blow at S. or S.W.) and makes the Road easy and safe.

Ships water here by digging in the Sand on the Tide of Ebb, where, if they dig but half a Fathom, they find very sweet and good Water, which keeps well at Sea; but if they dig deeper, 'tis brackish, and after that quite salt.

The Shore being flat, and full of great Stones broken off from the impending Craggs, the Sea is always rough, beating and breaking upon those Stones, so that no Boats can come near to land any Goods, or to load any thing off, but they are obliged to run into some little Creeks or Guts, of which there are two or three near the Head land: The best is that at the very Foot of the Point, where however they must pass between two high Rocks, and coast along the biggest, which is on the Starboard-side among great Stones, which threaten to flave the Boats to pieces. This Rock is dry at low Water, and at high Water you may discern it, so as to know where it is. When you are pass'd it, you turn short to the Larboard-side, steering directly to the first Houses: And thus you enter the great Creek, which at best is so shoal, that even the Boats are obliged to cover their Keels with Iron to save them from rubbing against the Rocks.

S.W. from the Port was a Village within the Head-land, on which there was formerly a Battery of Guns to defend the Passage to the Town by these Creeks, which were once at-
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tempted by the *English* Buccaneers under *Dampier*, and they were beaten off by the Shot from this Battery; but 'tis now neglected and in Ruins. *N. B.* The Variation of the Compass here, is 8 d. to the eastward.

Tho' the Road here is but inconvenient at best, yet 'tis much frequented, it being the nearest Port to the Mountains of *Potosi* and other rich Mines, and a noted place for the loading of Rock-Salt, which is dug out of the Mountains, and shipp'd off here for all the western Coast.

Ships that ride in this Harbour are often detained by long Calms, and by the strength of the Current, which always sets towards the Inlet of *Quiaca*; which makes it sometimes difficult to get out of the Road, because the Land-Breeze, which holds always from Midnight till near Noon, is succeeded by the Sea-Breeze which blows from the S.W. The latter comes too soon to give them time to double the *Morro de Sama*, or Head-land of *Sama*, which lies W.N.W. from that of *Arica*, and the more, because the Tides of Flood sensibly come from above: It is on account of this Difficulty in turning out, that in some Charts it is call'd the *Devil's Foreland*.

To matter this Difficulty, if you would put to Sea from the Road of *Arica*, you must endeavour to take the Advantage of the Land-Breeze to carry you out as far as you can, that you may not be driven back into the Road by the Current in a Calm.

But if you are driven back, or in danger of it, the only Remedy is to come to an anchor about a L to the southward of *Quiaca*, where you may ride in 5 to 6 Fa. the Bottom a greenish Ooze of an Olive colour, and in some places mix'd with Sand; 'tis a good Road and well secur'd.

This Harbour of *Quiaca* lies 15 Ls N.N.E. from *Arica*, thus: From *Arica* to *Juan de Diaz* 5 Ls, and thence to *Quiaca* 5 Ls, and thence to the *Morro de Sama* 2 Ls; so that from *Arica* to the Head land of *Sama* is 12 Ls, the Course N.W. by W. and S.E. by E. Between them is a great Bay, all low Land, and a fair sandy Strand, as far as *Quiaca*; there the Land rises, and the Shore is steep, which makes the Road good. The anchoring-place is half a L to the windward of the River of *Sama*; here you may wood and water with the greatest Convenience of any Port or Harbour on all this Coast; but there runs a great Surge of the Sea both in the Road and in all the Bay.

From the *Rio de Sama* the Coast trends N.W. to the *Rio de Ylo* or *Hilo*, the Course N.W. by W. and S.E. by S. the dist. is 8 Ls; in the midway is a noted Mountain, known upon all the Coast for a good Sea-Mark, and call'd *Acagnua*. The River of *Ylo* is navigable, the Entrance good, and the Channel deep. The Town of *Hilo* lies a quarter of a L to windward of the River in Lat. 18 d. 4 m. In this River also you may wood and water with all possible Advantage.

When you make this Head-land of *Hilo* from the seaward, and especially bearing to windward, you will see a mountainous Country, which the *Spaniards* call *Loma Quemada*, or the *Burnt Ridge*; at the end it makes like the Mouth of a River, being flat and low, but the high Land begins to rise again towards the S.E.

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which you will see upon the Coast half a L. S. of the Passage, you will then go clear of the Shoal.

Due S. from the Town, and S.E. from the Road, there is a Creek goes in at so narrow an Entrance, that like a Dock 'tis only fit to admit one Boat at a time.

From the Port of *Hilo* to *Xuly* or *Chuly*, is 2 Ls; the Land here trends away much more to the westward than before, the Course therefore is N.W. by N. Between them is the *Rio Tomba* and the *Yerba Buena*: You may anchor against the *Rio Tomba* in 20 Fa. clean Ground; the Coast is all bold, and the Land high, only that there is a Gap of low Land about a L. long, by which the place is to be known off at Sea.

N.W. from *Xuly* in 17 d. 30 m. lies the little Point of *Tlay*, or *Tlay*, dist. from *Xuly* 3 Ls. This Place and *Chuly* were formerly the principal Ports for the City of *Arequipa*, and for all the Coast of *Penasco*, but 'tis since chang'd to the Creek of *Quilca*: You may know the Port, as you come to it from *Xuly*, by this certain Mark, *viz* that you will see the Volcano of *Arequipa* lying from the Port N.E. 6 Ls off in the Country. From this little Port of *Xuly* to the Creek of *Quilca* the Course is N.W. and S.E. dist. 10 Ls. This Harbour is now the principal Port of *Arequipa*; you may anchor in the Bay of *Tlay*, behind the Rocks call'd the *Fenelons de Tlay*; 'tis good riding, only that the Water is too deep, being not less than 40 to 50 Fa. but those Rocks are all bold, and above Water, also they are the Marks to know the Port by.

The next Port to this of *Quilca* is *Ocona*, the Course N.W. a bold Coast, dist. 11 Ls. In the Harbour of *Quilca* you may anchor at about a quarter of a L from the Island, just when you see the Cross: The Island is just in the Entrance into the Port; at the N.E. end of it you will have 12 to 15 Fa. Water. Tho this Harbour is but a Creek, yet good Ships go daily into it; the Water flows there above 2 Fa. If you would go in here, but are kept out by contrary Winds, or by the Tide, you may anchor at the Mouth of the Harbour, and wait there for better Weather, or to go up with the Flood: You lie there in 20 Fa. clean Ground, bringing the Strand of *Camana* open with the Head of your Ship; then the Ground is all fair and clean every way. You will see the Town of *Camana* over the Strand as you sail by, it lies a little within the Land.

From *Ocona* the Land trends away N.W. by W. making a Bay between *Ocona* and *Camana*, running in S.E. Between *Ocona* and *Attico* (two small Head-lands on the Coast) there appears a great broken Gap reaching along the River's Bank close to the Water Edge, and running out to the Sea about 2 Musketshot from the Gap; you may be supply'd with very good Water there. Near the Broken Gap lie two great Rocks, called by the Spaniards *Los Pescadores*, or the *Fishers*.

From this Port of *Ocona* the Course lies N.W. to *Attico*, dist. 14 Ls. If you come from *Cape Arequipa*, you will see to windward a large Strand, being a fair sandy Shore reaching as far as *Puerta Chala*; the Land within is very high and mountainous: *Attico* lies in Lat. 16 d. 30 m.

From *Cape Attico* 'tis also 14 Ls to *Cape Arequipa*; and from *Arequipa* to *Port Lomo* is 8 Ls. Under the Head-land of *Arequipa* lie some sharp black Rocks, which must be avoided. This Harbour is frequented much by trading Barks and Coast-

anchoring-place is half a L to the windward of the River of *Sama*; here you may wood and water with the greatest Convenience of any Port or Harbour on all this Coast; but there runs a great Surge of the Sea both in the Road and in all the Bay.

From the *Rio de Sama* the Coast trends N.W. to the *Rio de Ylo* or *Hilo*, the Course N.W. by W. and S.E. by S. the dist. is 8 Ls; in the midway is a noted Mountain, known upon all the Coast for a good Sea-Mark, and call'd *Acaguna*. The River of *Ylo* is navigable, the Entrance good, and the Channel deep. The Town of *Hilo* lies a quarter of a L to windward of the River in Lat 18 d. 4 m. In this River also you may wood and water with all possible Advantage.

When you make this Head-land of *Hilo* from the seaward, and especially bearing to windward, you will see a mountainous Country, which the *Spaniards* call *Loma Quemada*, or the *Burnt Ridge*; at the end it makes like the Mouth of a River, being flat and low, but the high Land begins to rise again towards the S.E.

In the Way between *Sama* and *Hilo* you see again the Hill mention'd above, call'd *Acaguna*, which will be your Guide on many Occasions. There goes a great Sea upon all this Coast, and also in the River *Hilo* it self, the S.W. Winds blowing right in: Yet there is good landing in the Port or Town it self, as well as in the River, which is particularly occasion'd by the Point of *Ylo* running out so very far into the Sea: This Point however is low, and you must be careful not to come too near it, because of the Indraft; at the Extremity of this Point also there is a little Island, which at a distance makes like four or five Rocks. The off-side of the Island is foul, so that you must on all accounts keep out at Sea till you are clear of the Point.

If you would come to an anchor in the Port of *Ylo*, you must bring the Break in the highest Land, which you will see to landward, to bear E. till you see the Valley within the Hills beyond the Break, appearing thro' it; when the Break opens far before you, then you are in the best of the Road, and may let go your Anchor with safety.

N. B. The Point of *Hilo* is just in Lat. 18 d. large.

The Road is no more here than a strait Coast, and you anchor in the open Sea, so that Ships in the Road are seen at a great distance both up and down; from whence it follows that here must go a great Sea, let the Wind blow which way it will. In the best of the Road you anchor in 12 to 15 Fa. fine sandy Bottom, somewhat oozy, and to the northward of the little Island mention'd before to be under the Point, which is also call'd *Coleo*. The end of this Point is a low Rock, shewing very low at a distance, but rising higher as you come nearer to it, which is a little unusual.

In coasting along the first Rocks it is to be observ'd there is a Shoal under Water, and which lies N.W. from another Shoal which is dry, and to be seen. To avoid this sunk Shoal, keep the Rock that advances furthest out, on a red piece of Land,

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20 Fa. clean Ground, bringing the Strand of *Camana* open with the Head of your Ship; then the Ground is all fair and clean every way. You will see the Town of *Camana* over the Strand as you sail by, it lies a little within the Land.

From *Ocona* the Land trends away N.W. by W. making a Bay between *Ocona* and *Camana*, running in S.E. Between *Ocona* and *Attico* (two small Head-lands on the Coast) there appears a great broken Gap reaching along the River's Bank close to the Water Edge, and running out to the Sea about 2 Musketshot from the Gap; you may be supply'd with very good Water there. Near the Broken Gap lie two great Rocks, called by the *Spaniards Los Pescadores*, or the *Fishers*.

From this Port of *Ocona* the Course lies N.W. to *Attico*, dist. 14 Ls. If you come from *Cape Arequipa*, you will see to windward a large Strand, being a fair sandy Shore reaching as far as *Puerta Chala*; the Land within is very high and mountainous: *Attico* lies in Lat. 16 d. 30 m.

From *Cape Attico* 'tis also 14 Ls to *Cape Arequipa*; and from *Arequipa* to *Port Loma* is 8 Ls. Under the Head-land of *Arequipa* lie some sharp black Rocks, which must be avoided. This Harbour is frequented much by trading Barks and Coasters, but not by Ships of Burden. From *Port Acari*, which some also call *Port de Loma*, 'tis 8 Ls to *Port St. Juan*, the Course N.W. as before.

N. B. All the Coast on this side, from *Arica* quite up to *Loma* and beyond it, lies N.W. and S.E. or N.W. by W. and S.E. by E. The Land between *Port de Loma* and *St. John* is low and flat, but within Land the Mountains rise above it. This Port is a very good Retreat for Shipping, which are bound farther either to the N. or S. and the Ships going and coming between *Arica* and *Arequipa* to the southward, and from the Port of *Callao* to the northward, often put in here, for it is an excellent Harbour; but it is not frequented on its own Account, the Country producing nothing to load Ships with.

From the *Morro de Acari*, which is to the N. of *Port Acari*, the Coast goes on N.W. to *Port St. John*, dist. 8 Ls. and in Lat. 15 d. 20 m. S. In the Run you have neither Port nor Creek, nor any Place to get Wood or Water. N. from *St. John* is *Port St. Nicholas*. About a L from the Head-land of *St. Nicholas* to windward, you will see a deep Gap in the Hills on Shore, thro' which comes the River *Mafca*: Look then to windward farther within the Country, you will see 2 broken Hillocks; that most to windward is the least: also coming in from the Sea, the Land beyond those Hillocks will appear in high Ridges of Mountains; on the N.W. side they appear steep, on the S.W. side lower, and slope away towards the Sea; at the Point they make in the Shape of a Galley. By these Marks you will know this Port.

Here also there is neither Wood nor Water, but 'tis a much safer Harbour than that of *St. John*. If you would go in, give the windward Point a Birth, for there runs off a great Shoal from it, which shoots far into the Channel, and into the Sea.

Between

Between *St. Nicholas* and *St. John* for 2 Ls together the Land is flat and low, and over it are some reddish Hills, by which that small Part of the Coast is to be known at Sea.

From *Port St. Nicholas* to *Port Cavalla*, or the *Horse Harbour*, the Course is N.N.W. and S.E. dist. 6 Ls; 'tis high Land almost all the way; it makes in Ridges, which run back eastward, joyning to the Mountains of the *Andes*. Midway in the Course is a large Bay, in which among the Ridges you will see a plain Mountain, which they call *Mella*, or *Mensa de Nuestra Señora Santa Maria*, or *Our Lady's Table*. There the Land lies a little low, till you come to the River *Ica*.

This Bay is accounted very dangerous, because subject to Calms in deep Water, and because there comes in a tumbling Sea upon every ordinary Gale of Wind from without. If you would harbour in the *Port de Cavalla*, you must be sure to go to windward, your Boat out at your Stern, your Yards and Topmasts struck, and particularly your Anchor a Pick ready to let go: Then run in under a Spritail and a Mizzen.

Forget not also to observe, that just off of the Head going in, there are some dangerous Rocks under Water; and to shew you where they lie, there is also one stands out above Water, called the *Fraily*, or the *Fryar*. When you are past these Difficulties, and are got fairly in, you have an excellent Harbour, where you ride perfectly secure in 8 to 9 Fa. Water.

N.W. by N. from *Porto Cavalla* lies *Morro Quemada*, or the *Burnt Head-land*; the Course is N.N.W. and N.W. dist. about 12 Ls, viz. to *Point Olleros* N.N.W. 6 Ls, and from *Point Olleros* to *Morro Quemada* 6 Ls N.W. To keep clear of the dangerous Bay above-named, you must take care while you are off at Sea to make the Land far enough to windward: Observe also that the Port of *Barca* lies at the end of all the Rocks southward, where the Strand begins; if you would ride there, you must moor with two Anchors a head, and your Kedge Anchor astern.

From *Point Olleros* to *Morro Quemada* is 6 Ls, the Land high and level on the top, and the Course full N.W. Near *Point Olleros*, there are some Rocks to Leeward of the Head-land, and almost close to the Main, which look like little Islands, you may go in to Leeward of them, and anchor in a little Bay under the Hills; 'tis a good Harbour in case of Squalls from the Mountains, or of strong Currents setting downwards from the Sea, but it is not much frequented, because here is no Business.

Morro Quemada lies in Lat. 14d. 30m. 'tis a high Head-land, but slopes down behind, and within the Country 'tis all flat and low: The Cape is so very high, that 'tis generally cover'd with Clouds. There is good anchoring far within the Cape, but 'tis sometimes difficult getting in, because of the Flaws and Gulfs of Wind which come off the Cape, and from the Mountains about it.

If you are resolv'd to go in, you must range the Rocks which you will see under the Cape; and keeping very near them, for they are bold and steep too, use the utmost Caution as you go on: first haul all your Sails, only keep your fore

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However, a Ship may go thro' the Passage within the Isle of *Lobos*, and escape, tho' it be dangerous, for there is Water enough : the Hazard is of touching upon the Rocks, for in coming out to the northward there is a Ledge of them, as is said above, which reaches more than a third part over towards the Main ; and to the northward of that Ledge of Rocks there is a smooth Bank of Sand, which forms as it were a Creek between it and the Island, where the Sea is so still, being kept off by that Sand, that it makes a good Road, and a Ship may anchor in 7 to 8 Fa. Water, and if there were occasion, might venture to careen in it, but you must sound it well before you go in.

From this Island *de Lobos* to *Morro de Vejas*, or the old Head-land, is but half a L. On the N.N.E. side of this *Morro de Vejas*, there is a good Road, where Ships anchor in 12 to 15 Fa. but if you would go in there, you should sound it with your Boat before you venture by the Point ; the S.E. side of the Head makes like a Galley, but as you run by it, the Land joins again, except a Gut of about 8 Fa. broad, and then another Island shoots with it, so that it all appears as if it were one main Land. From the *Morro Quemada* to the *Morro de Vejas* the Land falls in to the eastward, making a large Bay, which reaches all the way between them.

N.N.W. from the Isle of *Lobos* lies *Cape Cangallan*, or *Gal-*
lan, fam'd for being a blustering stormy Cape, which makes some Spaniards call it *Cabo des los Diabolos*, the *Cape of Devils*. Between this and the *Morro de Vejas* lies the Island of *Carette*, dist. 2 Ls, the Course due N. and S. The *Morro de Vejas* makes at Sea like a high Island, but to the southward it is so low 'tis seen but a little way. On the top of the high part there is a Chif or Opening in the Land, which looks when you come open with it, to be very large and deep as if some River came into the Sea there, but there is no such thing.

The *Cape Cangallan* be so stormy, by reason of the Gulfs and Squalls which come down from the Mountains, yet on the S. side there is a very good Harbour, and well frequented by the coasting Ships from *Panama* and *Lima*.

If you would go in here, coming out of the Sea, or from the N. westward, you must furl all your Sails before you come to that narrow Passage, which is just before the Entrance of the Harbour ; then run in with your Fore sail very low set. When you are past the *Narrow*, the Opening appears wide enough, and you may go boldly in, and anchor at Discretion. In the Passage you have always hard Gales and Gulfs ; but when it opens, the Weather also sensibly abates, the *Narrow* of the Mountains apparently drawing the Winds like a Torrent from the higher Ground beyond them.

When the Breeze is over, and it proves calm, as is usual every day at the proper hours, Ships ride easy enough ; but otherwise the Flaws and Gulfs are sometimes so violent even in the Harbour, that Ships are often blown quite out, and forc'd to run as far as the Bay of *Paraca* for Shelter ; then when the Weather is settled, they come back again to *Cangallan* to take in their Loading.

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If you are resolv'd to go in, you must range the Rocks which you will see under the Cape; and keeping very near them, for they are bold and steep too, use the utmost Caution as you go on: first hand all your Sails, only keep your Fore Top-sail half Mast up; then be sure to have all your Anchors ready to let go: observe also, whenever you let fall an Anchor, as soon as it touches Ground, give the Ship a Sheer, and let go another for Security, else the Flaws taking your Ship, the first Anchor will come home, and you may be upon the Rocks before your second Anchor can bring you up.

Having taken these Precautions, watch the Winds slackening, and go farther in: when you are quite in, 'tis a fine easy Road, and you may anchor against the Strand in what Water you please, but you must moor with an Elbow for the better Riding in the properest Posture and Place to come out. It would be much easier going in to this Harbour, if you would contrive it so as to be before the Place early before the Sea-breeze sets in.

N. B. When you come out, you may run between the Island and the Main without any Danger at all.

N. B. You can get neither Wood nor Water in this Road.

N.W. From the *Morro Quemada*, and dist. $1\frac{1}{2}$ L lies the Island of *Lobos*, or of *Wolves*; 'tis a small Island about $\frac{1}{2}$ of a L long, stretching *N.W.* and *S.E.* the Land indifferent high. There are several flat low Rocks between the Island and the Main, which stretch out towards the Head-land half over the Channel. leaving the Passage between very narrow and dangerous, tho many Ships have past it by Mistake, thinking it had been the Channel between the Island of *St. Gallan* and the Head-land of *Paraca*: But it must be a very great Neglect, for they are easy to be known alunder. The Island of *Lobos* is foul and Rocks lie all round it, with one which is called the Breaker, and stands up like a Sugar-Loaf above Water; whereas the Isle *St. Gallan* is clean and bold, no Rocks about it, and the Channel between much broader: Besides, the Land on the Main differs extremely, for that of *Paraca* is of an equal height, whereas that of *Morro Quemada* comes down sloping from the *N.* side, from a vast high Mountain to the Sea side, where you anchor on the Starboard side of the Entrance.

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Within the Harbour of *Cangallan* you have all deep Water; the Point it self is an Island, the Land as above exceeding high, broken and uneven; and on the N. side it is all foul and rocky.

N. B. The Island of *Cangallan* or *St. Gallan* is all one, the *Spaniards* calling it *Sangallan*, that is *St. Gallan*: Our Sailors put it together, and corruptly call it *Cangallan*.

Opposite to this Island on the Main is the head-land of *Morro Paraca*, which is very high, and seen far out at Sea. Within the Island on the E. side is all deep Water, but on the N. side the Shore is cover'd with Rocks great and small: on the S. side there are also some Rocks, but smaller. Between the Island and the Main there's a good deep Channel, thro' which the *Chili* Ships pass to go into the Harbour of *Pisco*, and also into that of *Cangallan*; the Passage is fair and clean except on the S.W. side: There is some Danger of the Rocks, but as the Channel is good and above 2 miles broad, Strangers need only keep in the *Fair Way*. From the Island *Carretta* to *Cangallan* is 3 Ls, the Course N.W. and S.E. *Carretta* is a small low Island, round in form, a good Coast, but no Harbour, and lies about $\frac{1}{4}$ of a L dist. from the Main, and from *Morro de Vejas* about 2 Ls N. and S. The Island of *St. Gallan* is dist. from *Morro Quemada* 9 Ls.

N.E. from *St. Gallan* is the famous Harbour of *Pisco*, and the Bay of *Paraca*. You may anchor all the way upon this Coast with great safety, 'tis clean Ground from the Island of *Chinca* to *Pisco*, and even from *Morro Quemada*, except as above. In passing thro' the Channel of *St. Gallan*, between that and the Main of *Paraca*, you must go rather on the side of the Main than of the Island, *viz.* within $\frac{1}{4}$ of a L from the Headland of *Paraca*, there being a Shoal which lies S.S.E. from the Island half a L dist.

As you sail thro' this Passage on the side of the Main, you go within 2 Cables length of a small Creek, and a Road in the Mouth of it, called *Ensenado del Vejo*, or *Old Man's Bay*:
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here is good anchoring in 12 Fa. well shelter'd from northerly and easterly Winds, and the Island which lies off to the westward breaks off the Sea; yet 'tis but an indifferent Harbour with a S.W. wind. Within a Cable's length of the N. Point of that Bay, you have 15 Fa. the bottom good, hard Sand and Shells.

From this Passage, after you have stood due N. to get thro', and be clear of the Island as well as of the Head-land of *Paraca*, you stand N.E. to the Road of *Pisco*; but if you come out of the Sea, you stand in E. by N. between the Islands of *Chinca* and those of *Ballesta* or *Ballata*.

The Islands of *Chinca* lie due W. from the Anchoring-place before the Town, dist. about 3 Ls. In order to anchor in the best of the Road here, bring the Islands of *Chinca* to bear N.W. from you, the Island *La Ballesta* S.W. and *St. Gallan* to bear allo S.W. over it.

All along this Bay, which lies between *Chinca* and *Pisco*, you may ply to windward which way you please. From the Port of *Chinca* to the Town of *Pisco* is 6 Ls, the Town standing up the Country within the Land a good way. The chief Mark for anchoring in this Harbour is as above to bring the Islands of *Chinca* to bear N.W. The Coast is all clear of Shoals, and the Ground clean over the whole Harbour, except about a L and half just before the Town, where the Channel has thrown up some Shoals, when the Winter Freshes come strong down from the Mountains.

Yet the Road of *Pisco* is large enough to receive a whole Navy Royal, and is perfectly safe: The northerly Winds, which farther southward were reckon'd dangerous, seldom blow in this Latitude, and when they do are generally moderate, and the Road is expos'd to no other; the Islands which lie off, breaking off the Sea from all other Points, are a Shelter in case of S.W. or S.E. Winds. If the Ships want to wood and water, they go half a L to the northward of the Town: If they want to fit and trim, wash and tallow, or even to careen, they go to the southward into the Bay of *Paraca*, at the Bottom of which is a clean Strand, a sandy Oaz, and no rough Sea.

Ships may anchor over all the Bay in 12 to 15 Fa. well shelter'd, in smooth Water, and a good sandy Bottom. N.W. from *La Bodoga* in the Bay of *Paraca*, there is a very good Road: There are some Houses on the Shore, built on purpose for the Conveniency of loading and unloading Ships, and many Ships chuse to anchor there, tho' it be 2 Ls from the Town, rather than go up to the Road, because the Sea runs so high at the Landing-place before the Town, that it is almost impossible to land there, especially in the day time; sometimes in the Morning it may be done with the help of a good Hawser, or small Cable and Anchor, but it is always with Trouble, and not without Danger, at least of staving the Boats.

Ships wood and water here with great Conveniency, and are easily victuall'd on occasion for the longest Voyages on that side of the World; so that the Road is always full of Ships

From *Port Paraca*, or *Pisco*, to *Chinca*, not the Island, but the Port of *Chinca* which lies on the Coast, the Course is

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Canette lies in Lat. 13 d. 20 m. From thence to the Isle of *Asia* is 7 Ls, from the *Mala* is 3 Ls, from *Mela* to *Chilca* 4 Ls.

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Midway between *Asia* and *Chilca* is a Bay on the Land, within which there are 3 or 4 Mountains, by which you will know that Place at a distance. The Island of *Asia* appears white at a distance, and there are some white Rocks within it. All the Coast from *Canette* to *Chilca* is a bold Shore, the Land next the Sea low and pleasant; but the Mountains of the *Cordilleras* or *Andes* shew themselves over all behind; so that when you make the Shore, you scarce see the low Land between those Mountains and the Sea.

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You may know this Port, by observing a great Cleft in the Mountains, being an Opening thro' which the River *Circa* makes its way to the Sea: Also from the Coast there slopes down another Hill towards the S.E. which runs to the Headland or Point, and joins as it were just over the Town of *Canette*. The Head-land is not very high, but it shoals out a great way into the Sea.

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This Harbour of *Chilca* is in proportion to its bigness, the best in all the *South-Sea*, except that the Entrance is too narrow, yet even this causes the Harbour when one is in, to be as still as a Millpond. It is indeed so small, that it will receive but 7 or 8 Ships at a time. To go in is very easy; you must first drop an Anchor in the Mouth of the Entrance, and then carry out a Warp, and warp in behind the small Island which makes the Passage, then moor where you please, 'tis every where good.

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From *Chilca* to the Headland of *Callao* is 8 Ls, the Course N. by W. and S. by E. thus; From *Chilca* to the *Farellons*, or the Rocks of *Pachacama*, 3 Ls, from these Rocks to *Morro Solar* 2 Ls, from the Island of *Callao* to the *Morro Solar* 3 Ls.

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To the Port of *Callao* before *Lima* from the Bay of *Paracas*, S. of *Pisco*, the Course is N.W. and N.W. by N. dist. 40 Ls.

N. B. The Port of *Callao* and the Island of *Callao* are different Places, and the dist. one from the other 5 Ls N.E. and S.W.

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From the Harbour of *Chilca* to the Port of *Callao* the Course is N.N.W. viz. to the 2 great Rocks, called as above the Rocks of *Pachacama*; these are several small Islands or Rocks rather. On the S. side of them is a low Saddle Point, by which the Place is known. From hence the Coast stretches N. by W. 2 Ls more to *Cape Solar*, or *Morro Solar*, which is the same Place. To the northward of this Cape lies a long Island, stretching N.W. and S.E. called *L' Isle de St. Lawrence*; at the S.E. end of which, separated by a narrow Channel not; a mile broad, lies the little Island *Callao*, bearing due N. and S. from the Head-land or Point called *Punta de Callao*. There is also another very low round Island, lying half a L. out at Sea, from the N.W. end of the Island *St. Lawrence*: N. B. Within about 2 Cables length of this Island of *St. Lawrence*, there is 60 Fa. Water, Bottom soft Ooze.

The Road of *Callao* is certainly the greatest, the finest and the fairest in all the *South-Sea*; it is safe Riding, clean Ground, deep Water, and gradual Shoalings over the whole Road, as well above the Town towards *les Piscoadores*, as below it to

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In the Midway between *Pisco* and *Chinca* is a Place called *Larinchinet*, where there is a tolerable good Road. It is not a Town only, but a Road for Ships; there is a fair Strand on the Shore, but there runs a great Sea upon it; you may anchor in 6 Fa before a Houle which you will see on the Shore near a white Church, which Houle they call *El Molino*, or the *Mill*.

From *Chinca* to *Cañetto* is 4 Ls, the Course N.W. If you would come to an Anchor in the Port of *Chinca*, observe a Palm-Tree up within the Country, thro' a large *Guaca* or *Indian Pagode*, or Place of Heathen Worship; bring both the *Tree* and the *Pagode* into one, bearing due E. from you, then you are in the best of the Road, and may anchor in 7 to 8 Fa. Here Trading Ships ride as above, but the King's Ships ride farther out in 9 Fa.

Before this Port there are six Islands, always looking white like Chalk by the Dung of Fowls which breed there, and they are known at a distance by their Colour, which is very particular; they bear from the Anchoring-place N.E. and S.W. dist. 3 Ls, being low; and, except by being discolour'd with the Dung, they look a little reddish.

From *Canette* the Shore continues to trend away N.W. to *Chilea*, dist. 14 Ls. Between them you first meet with an Island under Shore, called the Isle of *Asia*; 'tis a small white Island about half a L in Circumference; it makes from the northward with a Break or Cliff in the middle, that part which is to the southward being much higher and bigger than the other.

From the Harbour of *Chilca* to the Port of *Callao* the Course is N.N.W. viz. to the 2 great Rocks, called as above the Rocks of *Pachacama*; these are several small Islands or Rocks rather. On the S. side of them is a low Saddle Point, by which the Place is known. From hence the Coast stretches N. by W. 2 Ls more to *Cape Solar*, or *Morro Solar*, which is the same Place. To the northward of this Cape lies a long Island, stretching N.W. and S.E. called *L' Isle de St. Lawrence*; at the S.E. end of which, separated by a narrow Channel not $\frac{1}{2}$ a mile broad, lies the little Island *Callao*, bearing due N. and S. from the Head-land or Point called *Punta de Callao*. There is also another very low round Island, lying half a L. out at Sea, from the N.W. end of the Island *St. Lawrence*: N. B. Within about 2 Cables length of this Island of *St. Lawrence*, there is 60 Fa. Water, Bottom soft Ooze.

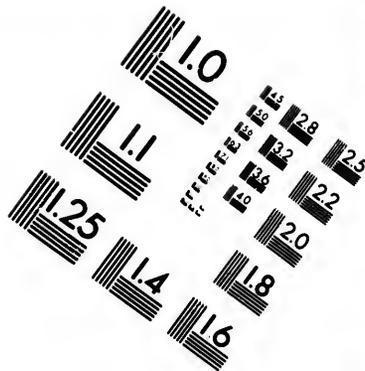
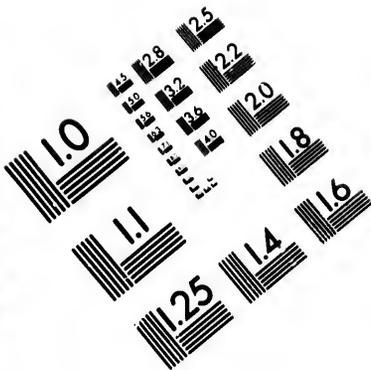
The Road of *Callao* is certainly the greatest, the finest and the fairest in all the *South-Sea*; it is safe Riding, clean Ground, deep Water, and gradual Shoalings over the whole Road, as well above the Town towards *les Piscadores*, as below it to *St. Lawrence Island*. You may turn in or out as you find Occasion, and as Wind and Weather permit, 'tis all clean and clear from Rocks or Shoals.

If you are bound in from the Sea, give the *Punta de Callao* or Head-land a good Birth, a L at least, because of the Winds off shore, which if you come nearer, you will find come off in strong Flaws and Gusts: Also take care of a small Ledge of Rocks which lie off from the windwardmost Point, all the rest is perfectly clear.

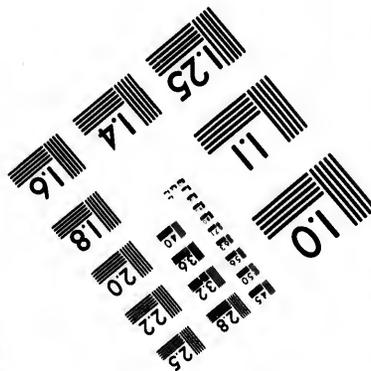
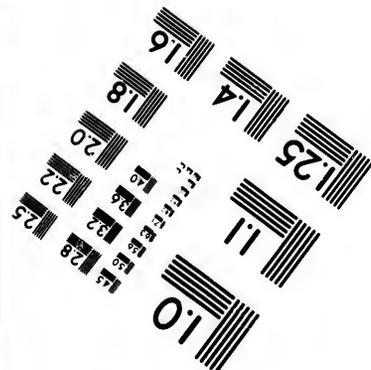
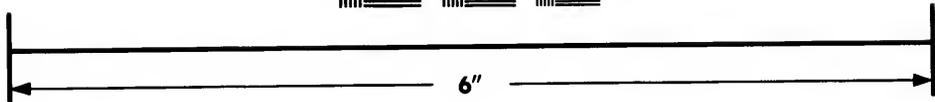
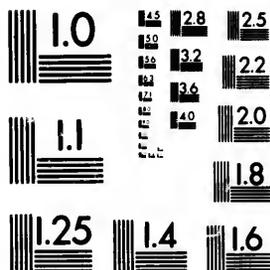
Ships coming from the windward to the Port of *Callao*, pass thro' the *Bouqueron*, that is, the Channel or Gut which is between the *Punta de Callao* and the Island of *Callao*, because the Wind always serves them thro' that Passage; and especially if they are small Ships they go in right afore it, and there is at least $\frac{1}{4}$ Fa. in the shoalest part of the Channel. The best way is to stand in from a little to the windward of the Island of *Callao*, and so run on, till that part of the Island that is to landward of the *Morro Solar* be shut in, and hid by the *Pena Horodada* or pierced Rock. There are Crosses upon each of those Points; bring those two Crosses into one, and you may run boldly in without fearing any thing: Those Marks well observed will secure you effectually from all dangers.

At the End of the said Channel call'd the *Bouqueron*, which is the Passage between the two biggest Islands, and where the N. side of the greater Island begins, there also begins the shallowest part of the Channel: The *Fair Way* lies thro' N.W. and S.E. and you must always keep the *Pena Horodada* right a-stern; and when you find a great Rock, which lies between the two great Islands, hidden by the S. part of the greatest Island, then keep closer to the Island, for then you may be sure you are clear of the Shoal. The side of the Island has more Water than the Point of *Callao*, where the Bank lies, and where you will see the Sea break upon it.





**IMAGE EVALUATION
TEST TARGET (MT-3)**



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23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

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In this Course also observe a Break or Cleft in the high Lands of the Island, with a white Spot on the Top of it; then you may incline a little towards the *Port de Callao*, still giving a Birth to the Shoal, which then is to the eastward of you, or N.E. Nor when you steer in, must you come very near the Point; but provided you keep the N. Head-land of the Island to the westward, you may safely run in, and come to an anchor in the Port.

You may anchor in the Road also in what depth you please, the Ground an Olive colour Ooze: There are no Rocks or Shoals, except one about three Cables length from the Shore near a Point of the Island of *St. Lawrence*, opposite to *la Galera*. The Sea is always so still there, that the Ships careen at all Seasons, without fear of being surpriz'd by sudden Gusts and Flaws, as is the Case farther S.

This Road indeed is open to the N. and to the N.N.W. but those Winds hardly ever blow here, and if they do 'tis but a very gentle easy Gale, which never makes the Sea swell to do any damage: The Island of *St. Lawrence* breaks the Sea off from the S.W. to the S.E.

N. B. The Place call'd above *la Galera* is not an Island, but the westernmost Point of the Island of *St. Lawrence*, which is call'd by the Name of the *Galley*, because Slaves condemned to the Gallies were banished hither to dig Stone in the Quarries, the *Spaniards* having no Gallies in those Seas.

In this Port of *Callao* are to be found all Conveniences for Life; watering is most easy in a little River which comes down from *Lima*, and bears the Name of the City, and which falls into the Sea under the very Walls of *Callao*.

N. B. The Port of *Callao* lies in Lat. 12 d. 10 m. 'Tis 2 Ls by Land from *Callao* to *Lima*, of which this is the Port.

From *Porto Callao* the Coast trends N.N.W. to the *Ferralones de los Pescadores*, or the *Fishermen's Rocks*, dist. 5 Ls, and from the Head of the Island of *Callao* 'tis 5 more; the Land between is low from *Callao* to the Rock call'd *de Dona Francisca* exclusive, and high from *Dona Francisca* inclusive to the *Pescadores*.

The *Ferralones de Pescadores* are a Cluster of Rocks, six in number, all looking white, but of differing Dimensions; that to the N.W. is the biggest. They bear from one another E.N.E. and W.S.W. the great one, and the Rock call'd *Hormigas* bear from one another E. by N. and W. by S. and from the Island of *Callao* N.N.E. and W.S.W. dist. as above 10 Ls.

N.W. from the great Rock of the *Pescadores*, which lies also N.W. from the rest, lies the Port of *Chaucaí*, dist. from the said great Rock 3 Ls. The Land is high next the Sea, and makes with a Break or Cleft in the Middle: This high Land is call'd *Sierra de la Arena*, that is, the Hill of fine Sand. E. and W. with the aforelaid largest of the *Pescadores Rocks* is a Harbour, which some call *Puerto del Ancon de Rhodas*, others only *el Ancon*; it is a good Port, and safe riding; and distance

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mention'd above, then the *Hormigas* or *Ormigas* ; these lie E. by N. and W. by S. from one another, dist. 9 Ls. The *Hormigas* and the *Maltesi* bear from one another due N. and S. 7 Ls.

The Island or Rock call'd *Hormigas* is but small, it makes white when you see it from the Sea ; it has a little break upon it in the Middle on the S. side : There is good anchoring under it on the same side, the Bottom clean, and good hard Sand. On the N. and N.W. sides there are several Rocks, which make a Flat or Shoal stretching out to seaward near a L., and at the End of those Flats several other Rocks above Water. By day you may see the Breach of the Sea upon them, and in the night you may hear it as far as you can see it by day.

You must look well out when you pass by these Rocks or Islands of *Hormigas*, for they have been fatal to many a good Ship : Nor is it possible to shun them sometimes, as the Winds may lie. If you are in that Latitude, and would make the Head or Point of the great Rock properly call'd *Hormiga*, supposing it to be in the night, or that you cannot see it in the day by reason of thick hazy Weather, do not make too long a Stretch, tho the Wind should be large, but ply off and on till day, or till the Weather clears up ; for sometimes it may happen to be calm, and then you cannot hear the breaking of the Sea upon the Rock, and may be a-ground before you are aware, as has happen'd several times to Ships which have stood too far in upon a Tack.

From *Maltesi* to the *Morro Salina*, or the Head land of *Salina*, the Course is N E. and S.W. dist. 4 Ls. From *Maltesi* to another great dry Rock call'd *Marsocque* is 1 $\frac{1}{2}$ L. and from *Marsocque* to the Main is 2 Ls. These are the Rocks of *Guara*, call'd so from the *Cabo Guara* which they lie off from, and after which they take their Name ; they are seven or eight in number great and small, bearing from one another E.N.E. and W.S.W. They are clean all about them, and steep too, with deep Water as well within as without, particularly between *Maltesi* and *Marsocque* : The Channel is good and safe, and has not less than 40 Fa. Water in it ; but if you are bound thro', keep a little to the windward, and stand by your Anchors, having them ready to let go on the first Occasion.

This Rock of *Maltesi* and the Island *Don Martin* bear with one another N.E. by N. and S.W. by S. *Maltesi* and the Island of *Callao* bear to one another N.W. by N. and S.W. by S. dist. 15 Ls ; and all the Coast from below, that is, from *Sunta* to these (above Sea) Rocks, has deep Water and a clean Course.

N. B. The Rock *Maltesi* is in Lat. 11 d. 40 m. 2 $\frac{1}{2}$ Ls from the Main ; *Marsocque* is larger, and lies a L. from *Maltesi* towards the Shore.

When you come in for the Main, and make these Rocks, take heed you do not, to shun them, run into the Bay of *Chancai*, for there are commonly dead Calms and a great Sea, as is said above ; but stand away for the *Hormigas*.

From this Rock *Maltesi*, which is the outmost of that call'd *Partridge Strand*, the Course lies N. and S. to *Guaco*, dist.

Francisca relative, and high from *Dona Francisca* inclusive to *los Pescadores*.

The *Ferralones de Pescadores* are a Cluster of Rocks, six in number, all looking white, but of differing Dimensions; that to the N.W. is the biggest. They bear from one another E.N.E. and W.S.W. the great one, and the Rock call'd *Hormigas* bear from one another E. by N. and W. by S. and from the Island of *Callao* N.N.E. and W.S.W. dist. as above 10 Ls.

N.W. from the great Rock of the *Pescadores*, which lies also N.W. from the rest, lies the Port of *Chaucaí*, dist. from the said great Rock 3 Ls. The Land is high next the Sea, and makes with a Break or Cleft in the Middle: This high Land is call'd *Sierra de la Arena*, that is, the Hill of fine Sand. E. and W. with the aforesaid largest of the *Pescadores* Rocks is a Harbour, which some call *Puerto del Ancon de Rhodas*, others only *el Ancon*; it is a good Port, and safe riding; and distance from the *Pescadore* Rock only 1 L. The Passage in, is to the N.W. of the great Rock, 'tis all clean and deep Water; but no fresh Water, Wood, or any other Refreshment is to be had.

The Port of *Chaucaí* is very inconvenient for Calms, for tho there are stark dead Calms, yet there is a great Sea, which pulhes you upon the Coast, so that it is almost impossible to avoid going on Shore: If therefore you are bound in here, and taken with one of these Calms, you had better go on by the Island *Hormigas*.

Yet *Chaucaí* is a very good Port, land-lock'd against the southerly Winds, which are here the most boisterous. There is indeed sometimes a great Sea in the Harbour, occasion'd by the Sea-Breezes which blow right in, and hold it a long while together, so that there is no Shelter against them: Yet the Swell is not so great, but Ships may ride it out if their Ground-Tackle be good, for the Anchor-hold is good in a hard Sand.

To go in here, your best way is to run close under the Head-land, for the Port is to the Leeward of it; you may anchor at Discretion, the whole Port is all clean Ground: Here you have fresh Water and good Provisions, especially Flour, Oil, Wine and Brandy. In your going into this Harbour, take care not to come too near a little Bay, which you will see at the Entrance, for it is all foul, and has many sharp little Rocks lying under Water, which are very dangerous.

N. from *Chaucaí* lies the little Town *Chaucaillo*, the Courfe N. by W. dist. only 2 Ls: The Shore here is all ridgy and full of Hillocks, they look blue as you make them from the Sea, but they are only grown with thick Bushes, which causes them to seem dark. On the contrary, when you come near the Town, they and the Town also appear white. The Town lies half a L from the Shore, but you see the Church of *St. Francisco* very plain. The Harbour is the same as above, belonging to both the Towns, but not much frequented.

You have here abundance of Rocks and rocky Islands upon the Coast, from the *Pescadores* to the *Salinas*, and reaching as far N. as Port *Guara*; these are the *Farrelones de Pescadores*

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N. B. The Rock *Maltesi* is in Lat. 11 d. 40 m. 2 ÷ Ls from
the Main; *Marfocque* is larger, and lies a L. from *Maltesi*
towards the Shore.

When you come in for the Main, and make these Rocks,
take heed you do not, to shun them, run into the Bay of
Chancai, for there are commonly dead Calms and a great Sea,
as is said above; but stand away for the *Hormigas*.

From this Rock *Maltesi*, which is the outmost of that call'd
Partridge Strand, the Course lies N. and S. to *Guaco*, dist.
7 Ls; between them lie the *Salinas* or Salt Ponds. The
Land in this Course lies low and flat next the Sea, the Moun-
tains appearing beyond it like Clouds. There is a very good
Harbour at the *Salinas*, and you may ride easy, tho the Breeze
generally blows hard in, and brings in a tumbling Sea.

If you are obliged to put in there for Shelter, you must, but
you will get nothing else; and if you want Wood, Water, or
other Provisions, you must fetch them at *Guara*. If you
would ride here, you must anchor before you come up to the
Rocks, which you will see under the Shore: Come no nearer
than 7 to 8 Fa.

N. B. Here is another small Port call'd *Puerto de la Barca*,
but 'tis of little or no use, there being nothing to be had
but Anchorage, which is to be had in many Places just by it.

Likewise on this Coast, from the *Salinas* to windward near
Cabo de Remate, and over-against *los Farrelones de Guara*, or
the Rocks of *Guara*, there is a small round Bay in which is
good riding; 'tis shaped like a Horse-shoe, and is therefore
called *la Herradura*. It is a very useful Place; for if you are
coming from the Sea, and cannot weather the Rocks of *Guara*,
you may put in here, and be safe, it being an excellent Har-
bour; you ride between the Point and the Main with great
safety: The Point is call'd the *Remate*, or *Cabo de Remate*.

There is a small Rock in the Bay, which they call *Tambi-*
lio; you may run on either side of it, between it and the Shore
or without, 'tis not dangerous because you see it, and 'tis clean
and deep all round it. From this Point to the *Playa de los*
Perdices, or the *Partridge Strand*, is 3 Ls; the Land be-
tween is call'd the *Tambo*, or the Coast of *Tambo*. Upon this
Strand you have good clean anchoring-ground, under a Row
of high ridgy sandy Hills, one of which lying to the north-
ward is higher than the rest. When you come from the seaward
towards this Land, those Hills resemble a Covey of Partridges
just rising, and from thence the Coast or Strand has its Name.

You are supposed now going to the northward, and that
you are the height of the Rocks of *Guara*: From thence

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Sailing Directions for the Coasts of Ch

N. by E. lies *Guaco*, dist. 1 L. And whence to the Island of *Don Martin* 'tis also 1 L. They lie in Lat. 11 d. 30 m. Going to windward of the Island, you will see another little Island, call'd *Ilha de Lobos*, or *Sea-Wolves Island*, near which there is a Shoal; you must take great care to keep without it, and at a good distance from it, for it is very dangerous, and but little Water within it. To anchor in the Port of *Guara*, bring *Ilha Lobos* a-stern, and bring two old Walls which make like two Pillars, and stand upon the Point or Head-land, into one; then let go your Anchor, but take care to found the place well, for the Ground is foul, and there are several sunk Rocks, which tho' too deep to hurt your Ship, will cut your Cables, and you may lose your Anchors.

You must moor here with an Elbow, for you have a rude Sea, but the Harbour is much esteem'd: You have good fresh Water, and may get all necessary Provisions from the Town, which is a L from the Harbour.

N. B. The Isle of *Don Martin* is high and rocky, it makes white at a distance; 'tis but a small Island, about half a L. in compass, and a quarter of a L from the Shore.

From the Island of *Don Martin* to the Strand of *Soupa* the Course is due N. dist. 3 Ls: The Land on the Coast between is low, but behind that low Land the Country is exceeding mountainous, and the Hills rise up in small Pico's like Volcano's. This *Playa de Soupa* makes a large Bay; the Shore is all a loose Sand; the Bay has always a great Swell, and if it blows hard there is a very rude Sea: This is the reason that few Ships use the Place, except Coasters from *Lima* and *Panama* to load Corn.

From the Bay of *Soupe* to the *Rio Barranca*, or the *River of Hillocks*, the Course is N. the dist. 2 L. To Leeward of the Strand the Coast is full of red Hills, which make a small low Point; and to Leeward of the Point is the Port of *Barranca*, in Lat. 11 d. large; there you may anchor in 6 to 7 Fa. and moor with an Elbow, to guide your Ship between both Points for the Land-Breeze.

About a L before you come to the *Rio Barranca* lies *Panamonguilla*, a Head of Land which makes at a distance like a Ship under Sail, and as you come nearer shews like a high white Rock: About a L to Leeward of it there is a low black Point, that looks as if it was cut off right down from the Main; and to Leeward of that there is a large Strand. Here you may anchor, in case the Current forces you in, in 6 to 7 Fa.

From the *Rio de Barranca*, or of the *Hillocks*, the Course is N.N.W. to *Jaquey* or *Haguey de la Costa*, dist. 9 Ls: The Land appears in Heaps and Hummocks, but low next the Coast; and in the Middle there is one Hill higher than the rest, call'd the *Sierra de Gramadal*, on the Top of which are two Cliffs, which make it look like three Hills, the middlemost is the highest, the southermost the lowest, and the northermost the least and round. If the Weather be thick, and you have an Ossing, they make like three Islands.

From *Haguey de la Costa* the Shore trends away N. half W. to *Puerto de Guarmey*, dist. 4 L. This Port of *Guarmey* has a low flat Point on the S. side of it, and the inland is hilly

Tho' the Island is especially for this, the distance from the Shore: Fa. Water in it, you go but 10 or 12 deep in the Sand.

You may know the Hill with a Cleft in the Sea-side, and as steep as a Precipice, a mistake.

N. from *Monguilla*. And here the Course of the Coast; for it runs out far westward, and the Current is strong. There is a great Mountain higher, and seen from the Coast; if you go to the Top like a Hill with some broke the broken Land is very dangerous.

Cazma is a very blowing Weather, especially to Sun-set, yet you may see the N. Shore, you may see above Water; on the Coast of about 2 or 3 S. you may discern where it is, which it does tho' you are past between the cretion in 14 to 15 fathoms come to an anchor in the Head-land which is a Hawser or Streamer about the very Coast of the Shore.

From this *Porto* the Course is N. dist. 11 Ls; between the Points are also several small Islands when you make the Coast, because the Points are so near to approach. If you do not forget that to windward of a small Rock under the Head-land you will see a Hill right in, and come to the Coast, you may go farther to the West, you will see great Spikes of the Hawser a-shore, and the Hills.

Opposite to the Head-land or *Holy Island*, a distance to the S. of

Tho the Island is small, it has a good Harbour, and especially for this, that there is good fresh Water at a small distance from the Shore: You will see a little Well with about half a Fa. Water in it, which is tolerably good; and so wherever you go but 10 or 12 Paces from the Sea, and dig but a Yard deep in the Sand, you will find fresh Water.

You may know this Harbour off at Sea by a great thick high Hill with a Cleft in it, which runs down to the southward to the Sea-side, and on the N. side 'tis almost perpendicular, as steep as a Precipice: This Mark is so particular, you cannot mistake.

N. from *Mongon* the Coast stretches on to *Casma*, dist. 4 Ls: And here the Course of the Sea alters, as well as the Sight of of the Coast; for from Port *Casma*, or *Cazma*, the Land trends out far westward, and the Coast lies N.W. by N. and S.E. by S. and the Current of the Sea for the most part runs to Leeward. There is a great Mountain just over *Mongon*, which is much higher, and seen farther than any of the Hills on this part of the Coast; if you see it at Sea S.W. from you, it makes level at the Top like a Table; if E.N.E. from you, it looks round with some broken Land on it; and when you have it N.E. the broken Land begins to open, and shew smooth and contiguous.

Cazma is a very good Harbour; and tho you have always blowing Weather and hard Gales here from about 12 at Noon to Sun-set, yet you have no great Sea: In the Bay and nearest the N. Shore, you will see a small round white Rock a little above Water; on the other (South) Shore there is a small Shoal of about 2 or 3 Ship's length, which you cannot see, but may discern where it is at low Water, by the Sea breaking upon it, which it does tho there is at least $1\frac{1}{2}$ Fa. Water upon it. When you are past between these, you may range the Shore at Discretion in 14 to 15 Fa. close to the Strand: If you would come to an anchor, steer against *Cape Blanco*, being a white Head-land which you will see on the Shore; there carry your Hawser or Stream-Cable on Shore, and make fast to the Rocks about the very Cape, you are sure of having the Wind off Shore.

From this *Port Cazma* the Coast goes away N.W. to *Ferol*, dist. 11 Ls; between them is a Harbour call'd *Guambacho*: there are also several small Islands and Bays upon the Coast, which when you make the Coast at a distance, you cannot discern, because the Points overlap one another, but they open as you approach. If you would anchor at *Guambacho*, you must not forget that to windward of the Hill call'd *el Morro* there is a small Rock under Water, and when you are within the Head-land you will see broken Land on your Starboard-side; steer right in, and come to an anchor over-against a Hill; or you may go farther up on the same side, and anchor where you will see great Spots on the Land. Here also you must carry a Hawser a-shore, because there are strong Flaws of Wind from the Hills.

Opposite to this Port of *Ferol* lies the Island *del Santa*, or *Holy Island*, a little northerly, and dist. but 1 L. And from thence to *del Acarma* is 10 Ls. the Course N.W. by N. and

About a L before you come to the *Rio Barranca* lies *Paramonguilla*, a Head of Land which makes at a distance like a Ship under Sail, and as you come nearer shews like a high white Rock : About a L to Leeward of it there is a low black Point, that looks as if it was cut off right down from the Main ; and to Leeward of that there is a large Strand. Here you may anchor, in case the Current forces you in, in 6 to 7 Fa.

From the *Rio de Barranca*, or of the *Hillocks*, the Course is N.N.W. to *Jagney* or *Hagney de la Costa*, dist. 9 Ls : The Land appears in Heaps and Hummocks, but low next the Coast ; and in the Middle there is one Hill higher than the rest, call'd the *Sierra de Gramadal*, on the Top of which are two Cliffs, which make it look like three Hills, the middlemost is the highest, the southermost the lowest, and the northermost the least and round. If the Weather be thick, and you have an Offing, they make like three Islands.

From *Hagney de la Costa* the Shore trends away N. half W. to *Puerto de Guarmey*, dist. 4 L. This Port of *Guarmey* has a low flat Point on the S. side of it, and the inland is hilly and mountainous, with Ridges and Hillocks numberless just over the Port ; but within the Land are two round Hills thicker and higher than the rest, the northermost is the highest by far : The Road is to the Leeward under the low Point, where you may anchor in 7 Fa. keeping a Rock above Water, which you will see there right a-stern.

You may go far in if you find the Winds violent, and that your Anchors begin to come home, as often happens here ; but in such case 'tis all safe and bold. If you go farther up, you have 6 Fa. Water for some Ls ; you may water with great Convenience, and have all needful Provisions also.

Between this Port and *Puerto Bermejo* is the Hill call'd *las Tetas de Bermejo*, because it makes like a Woman's Breasts : *Puerto Bermejo* is an Island.

The Port of *Guarmey* is in Lat. 10 d. 30 m. dist. from *Porto Venais* 3 Ls N. and S. If you would go in there, you will see those Hillocks mention'd above run as far as the Point *Cabeza-Gatto*, or *Cats-Head* : Sail by the Head till you open a small Bay, and there come to an anchor in 12 Fa. about Musket-shot to Leeward of the Road is the Creek, where the coasting Barks load ; go not either into the Creek or Bay with a Ship of Burden, for off of the Point there is a large Shoal which will bring you up. On the S. side of this *Cabeza del Gatto* there is a very good Harbour, the Town is within about half a L from the Strand.

From the Harbour of *Guarmey* to *Mongon* the Course lies N. and S. dist. 10 Ls ; between them lies the Island *Puerto Vermejo* or *Bermejo*, 4 Ls dist. from *Mongon* ; 'tis a small white Island, and in the Middle lies a Bay, which makes with two Points, call'd *Sajietta dela Calebra*, or the *Snakes Dart* : The Land between *Mongon* and this Island is high and in Hillocks, with large Spots of white Sand ; it is call'd an Island, but there is no Passage between it and the Shore, the Shoals are so many, that sometimes 'tis almost all dry Land.

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From this *Port Cazma* the Coast goes away N.W. to *Ferol*, dist. 11 Ls; between them is a Harbour call'd *Guambacho*: there are also several small Islands and Bays upon the Coast, which when you make the Coast at a distance, you cannot discern, because the Points overlap one another, but they open as you approach. If you would anchor at *Guambacho*, you must not forget that to windward of the Hill call'd *el Morro* there is a small Rock under Water, and when you are within the Headland you will see broken Land on your Starboard-side; steer right in, and come to an anchor over-against a Hill; or you may go farther up on the same side, and anchor where you will see great Spots on the Land. Here also you must carry a Hawser a-shore, because there are strong Flaws of Wind from the Hills.

Opposite to this Port of *Ferol* lies the Island *del Santa*, or *Holy Island*, a little northerly, and dist. but 1 L. And from thence to *del Acarma* is 10 Ls, the Course N.W. by N. and S.E. by S. the Land between all very high. *Porto Ferol* is a good Harbour, very safe, and yet large: You go in S.E. till you come among some small Islands which lie in the Middle of the Harbour; but the Road is all clean and good. There are several Mountains over the Entrance, lying up in the Country, whereof one to the southward is round and large, and has several Spots upon it, by which the Place is very easy to be known. Over-against this Mountain there is a Shoal, but you have no Occasion to come near it.

From the Island *del Santa* to the Port and City of *Santa* on the Main is 1 Leag. N.E. and S.W. The Port of *Santa* is in the Mouth of a River of the same Name, E.N.E. from the Island, and N.N.E. from the Point of *Ferol*: And from this *Porto de Santa* to *Cape de Chao*, or *de Chau*, the Course is N.W. the Land lying N.W. and S.E. dist. 6 Ls.

N. B. *Cape de Chao* is in Lat. 8 d. 35 m.

Before you come to *Port de Chao*, there lie several Rocks along the Shore, call'd the *Corcobados*, or the *Humpbacks*; you must not attempt going between them and the Shore, because there are several Ledges and Shoals, which will infallibly bring you up: And just before the Harbour of *Porto Santa* lies an Island stretching about a L in length N. and S. You may go into the Harbour on either side of it, and anchor in 7 to 8 Fathoms clean Ground. As you go in you will see some Trees about half a L up, on your Starboard-side; behind those Trees lies the Town.

N.W. from *Cabo de Chao* lies *Porto Guanchapo*, or *Guanchaco*, the Course N.N.W. dist. 16 Ls; in the way lies the Island of *Guanape*: The Land opposite to the Island is call'd the Cape of *Guanape*, it lies N.W. and S.E. from *Chao* dist. 7 Ls. The Cape of *Chao* is a high Precipice, with several small white Rocks just before it, which look like Islands; to the windward of it there is a little blackish Island, by which you will know the Entrance.

N. B.

N. B. If you come upon this Coast, you must make in for the Harbours where you can find them, and according as the Course you are steering guides you; but you must not depend upon the Shoalings of the Shore, for there is no Road or Anchoring-place upon all the Coast for near 20 Ls. The Head-land of *Guanape* is about half a L round, encompass'd by the Sea: Tho' it be call'd a Cape only, it is really an Island, and Ships bound to *Truxillo* frequently pass between the round Hill call'd *Morro de Guanape* and the Main: The Channel indeed is not large, but safe and without danger, for all that can hurt you appears above Water: The Course from hence to *Truxillo* is N.W. by N. From *Porto Santa* to this Island of *Guanape* is 9 Ls S.E. And from *Guanape* to *Porto Guanchaco* is 9 Ls N.N.W.

In the Midway between *Guanape* and *Guanchaco* is a large Bay; and on the Main in that Bay stands a Hill called *Morro de Caretas*, 'tis about the middle of the Bay E. by S. before you as you go in. The Coast within the Bay is bold, and the Water deep, the Bottom clean, so that you may stand in as near as you please with your Lead; the Land is flat and low to the Sea side; yet you will not chuse to anchor in this Bay, unless oblig'd to it, for there goes a very rude Sea.

A little to the southward of this Bay, and without the Cape of *Guanape*, you will see a great Rock call'd *Farrellon de Guanape*, within which there is a small Island towards the Land, which also may be call'd a Rock. Between these two there is a good Channel; it is not very broad, but 'tis all clean and safe, and 10 to 15 Fa. Water. You may steer thro' it with your Lead, going with all imaginable Safety either one way or other, as the Wind presents.

From *Guanchaco* the Coast trends N.W. by N. to *Puerto Malabrigo*, dist. 14 Ls. *Guanchaco* is the Sea-Port to *Truxillo*, a considerable City, which lies some Ls up the River, and which makes the Harbour of *Guanchaco*: They are exactly in Lat. 8d. S. If you would go in here, keep the great Church of *Truxillo* open right a-head, and the Bell of *Truxillo* bearing N.E. by N. and when you find 10 Fa. by your Lead, which you must keep going, then you are in the *Fair Way*. If you would go farther up, bring *la Sierra de Campana*, a high Hill which you will see also within the Land, to bear N.E. by N. and then you are in the best of the Harbour, and may anchor in 7 to 10 Fa.

N. B. You must not neglect to under-run your Cables, and now and then to trip your Anchor; for the great Surge of the Sea which comes in here, brings such Quantities of Weeds as will choke and bury your Anchor and Cables also.

About midway between *Guanchaco* and *Malabrigo*, there comes in a large River call'd *Rio Chicana*, but it is not navigable any length into the Country, nor does it make a good Harbour, the Mouth of it being so wide, that the Sands bar up the Entrance, and make it too shoal.

From *Puerta de Malabrigo* to *Cheripe* the Coast lies still N.W. and S.E. dist. 11 Ls. nothing of any great moment be-

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The Head-land or high Hill of *Malebrigo* is also a very good Mark at Sea; 'tis seen 12 to 15 Ls off, and is very high: bring it to bear E.S.E. at the dist. of 3 to 4 Ls; you may then stand in with it for the Port. There is generally a great Sea in the Harbour of *Malabrigo*, the westerly and S.W. Winds blowing right in; and as they blow hard all the after part of the Day, the Sea hardly returns to any degree of Calmness Night or Day. If you come from the seaward, and are bound in at *Malabrigo*, the Mountain mention'd above is your Mark: you see it all the way from the Leeward of *Cberipe* to the Windward of *Malabrigo*.

Between this Port of *Malabrigo* and *Cberipe* lies the Coast of *Pacasmayo*, or *Parasmayo*: it is not a Harbour, but a great Strand stretching from the Bay 2 Ls to windward of *Malabrigo*, to within 2 Ls of *Cberipe*, being all the way a low sandy Shore, here and there interspersed with Craggs and little Hillocks; and within Land there are some larger Hills called *St. Peter de Illoque*, and another called the Sugarloaf of *Guadalupe*, which you will know at Sea by a little Break on the top. In the middle of the Strand of *Pacasmayo* there is one Rock higher than all the rest, close to the Shore; to the Leeward of it you may anchor in 12 Fa. Water, and pretty good Ground, compared to the rest of this Coast, for it is all at best foul and dangerous, and few Ships care to anchor upon it, because the Sea goes so high, and the Ground is so bad.

For about 3 Ls beyond *Malabrigo* there lies a Bay; it begins at the very Point of this Harbour: To come to an Anchor in this Bay, you must sound all the way, keeping in 5 to 6 Fa. Water as close up to the Head-land as you can, only no nearer than 4 $\frac{1}{2}$ Fa. and then bringing the great Break in the Head-land to bear S. from you, there come to an Anchor.

This Hill spreads far up the Country, and has many Breaks and Hollows in it, which is the reason that it sends down constant Flaws and Gusts of Wind towards the Sea, which make the Road more dangerous, for it causes a great Sea in the Offing. The Land to the northward of the Road is broken and ragged, but in the middle of it you will see a round Hill, which is the true Mark for your Entrance into the Harbour.

The Harbour of *Cberipe* is a better Shelter to the Sailors than any of those Bays or Ports to Leeward of it: When you come from *Callao*, if you would go in here, keep to Leeward of a low Point, which makes at dist. like an Island, and looks black. If the Weather be clear, you will make the Town of *Cberipe*, as you open the Harbour, or the Church at least, tho you are off at Sea 3 Ls.

Observe also, that from the windward Point of the Harbour there runs off a Shoal, which stretches out more than half a L to Sea, with a Ledge of Rocks also at the end of it; so that you must keep in 8 Fa. by your Lead to go clear of it. When you are past that dangerous Shoal, bring the Church to bear S.S.E. and run in right with it, then you will see a great Cross, bring the Cross due S. and there you may anchor in 7 to 8 Fa. a very good Road and clean Ground.

N. B. *Puerto de Cberipe* is in Lat. 7 d. 5 m. dist. from *Pa-*

of *Truxillo* open right a Lead, and the Bell of *Truxillo* bearing N.E. by N. and when you find 10 Fa. by your Lead, which you must keep going, then you are in the *Fair Way*. If you would go farther up, bring *la Sierra de Campana*, a high Hill which you will see also within the Land, to bear N.E. by N. and then you are in the best of the Harbour, and may anchor in - to 10 Fa.

N. B. You must not neglect to under-run your Cables, and now and then to trip your Anchor; for the great Surge of the Sea which comes in here, brings such Quantities of Weeds as will choke and bury your Anchor and Cables also.

About midway between *Guauchaco* and *Malabrigo*, there comes in a large River call'd *Rio Chicama*, but it is not navigable any length into the Country, nor does it make a good Harbour, the Mouth of it being so wide, that the Sands bar up the Entrance, and make it too shoal.

From *Puerta de Malabrigo* to *Cheripe* the Coast lies still N.W. and S.E. dist. 11 Ls. nothing of any great moment between, but the Marks for the Coast, which are indeed very particular all along from the *Cabo de Chao* to *Malabrigo*, so that you cannot mistake the Coast.

The high Rock of *Guanapo*, and the *Morro Malabrigo* which is also very high, may be distinguish'd at Sea by their Bearings; they lie with one another N.N.W. and S.S.E. no other Hills, tho' there are many upon the Coast, having the same Situation. There is good anchoring under the Lee of the Rock of *Guanapo*, in a little sandy Creek having 7 Fa. Water, about two Musketshot from the Shore.

N. B. If your Boat goes up the Creek for fresh Water, it must be with the Flood, for the Freshes of the River have cast up a Shoal like a Bar thwart the Entrance, so that even a small Boat will be aground upon the Ebb.

Coming in for this Coast, the next Mark you make out at Sea is the *Bell of Truxillo*: First in the Offing you see a great Mountain, or rather a Ledge of Mountains, lying to the Leeward of *Guauchaco*, and stretching on almost as far as *Porto Santa*; the highest Picoes of them at the windward Point are your Direction for the Harbour of *Truxillo*, for they stand as it were directly over the Town; and when it bears E.N.E. from you, then you are to windward of *Truxillo*. Next to these Mountains you have the great *Bell of Truxillo*, a thick high Mountain which makes at Sea in the Shape of a Bell, and is therefore called so.

When this *Bell of Truxillo* bears N.E. dist. 4 to 5 Ls from the Shore, it shews high and ragged on the top; if it bears S.E. 'tis shap'd like a Sugar-Loaf, and bearing N.N.W. At a greater dist. it makes like a Beehive. This is so sure a Mark to know the Coast by, that you cannot easily mistake.

If you would anchor any where on this Coast, it must be with the utmost Caution, and with Lead and Line in hand; and when you are at an Anchor, ride there as little as you can, for the Sea goes always very high, and the Shore is very foul and rocky.

ragged, but in the middle of it you will see a round Hill, which is the true Mark for your Entrance into the Harbour.

The Harbour of *Cheripe* is a better Shelter to the Sailors than any of those Bays or Ports to Leeward of it: When you come from *Callao*, if you would go in here, keep to Leeward of a low Point, which makes at dist. like an Island, and looks black. If the Weather be clear, you will make the Town of *Cheripe*, as you open the Harbour, or the Church at least, tho you are off at Sea 3 Ls.

Observe also, that from the windward Point of the Harbour there runs off a Shoal, which stretches out more than half a L to Sea, with a Ledge of Rocks also at the end of it; so that you must keep in 8 Fa. by your Lead to go clear of it. When you are past that dangerous Shoal, bring the Church to bear S.S.E. and run in right with it, then you will see a great Cross, bring the Cross due S. and there you may anchor in 7 to 8 Fa. a very good Road and clean Ground.

N. B. *Puerto de Cheripe* is in Lat. 7 d. 5 m. dist. from *Pacasmayo* 6 Ls, the Course N.W. and S.E.

From the Port of *Cheripe* for 2 Ls northward, the Shore lies all in broken Sand-Hills, to a Place called *Mozupe* or *Mozupe*, being all rough, the Land higher towards the Coast than farther inward, and a Mountain particularly higher and longer than the rest, standing about half a L up the Country, and making in different Shapes according to the differing Position you see it in. From these broken Grounds the Course lies W.N.W. &c. 4 Ls to the Hill, which the *Spaniards* call *Morro Etin*, to the northward of the Hills of *Mozupe*: and before you come the length of *Morro Etin*, there are several Lagnas or Lakes of fresh Water, you may find them by the high broken sandy Banks a L to windward of them; but except Necessity drive you, it is not worth while to fetch Water here; for besides the length of the way to the Lakes, the Bay is a very ill Place to ride in, and there always goes a great Sea in it.

From the Mountain of *Cheripe*, as describ'd already, the Course lies N. by W. but the Coast trending N.W. to the Lat. of 6 d. thrusts out to Sea due W. for 2 Ls and more to *Cape Aguja*; so that the Cape, and the Land 2 Ls within it, lies in the same Latit.

From *Cheripe* then to *Punta de Aguja* is 28 Ls, thus: from *Cheripe* to the Hills of *Mozupe* 2 Ls, from thence to the *Morro de Etin* 7 Ls, and thence to *Punta de Aguja* 19 Ls. In your Course toward *Aguja* you have before you the Hill *Requene*, which is high, ragged, and broken on the top, having on the S. side a Spire or Pico like a Sugar-Loaf. If you come from the seaward to make *Cheripe*, and the Current or Calm, or both, should drive you into the Bay, you will there discover another thick high Head-land directly over the *Morro Etin*, which may be seen 10 to 12 Ls off at Sea. If you are much to Leeward, you will have the Hill *Requene* as above to the southward, making a Peak; then the northernmost Hill will show

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Sailing Directions for the Coast

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From hence for 19 Ls the Coast is all low and flat, particularly from *Morro de Etin* to *Cape Aguja*, 'tis all a low Shore, no Highland to be seen from the Headland to the Point it self. Off at Sea in this Bay you will find two Islands of the same Name, that is, they are both called the *Ilhas des Lobos*, or the *Islands of Sea-Wolves*: they are distinguish'd in the Spanish Tongue by their Situation, *Lobos de Barlevento*, and *Lobos de Sotovento*; that is, the *Windward* and the *Leeward Islands of Sea-Wolves* or *Seals*.

N. B. The *Lobos de Sotovento* is to Leeward, about 2 Ls in Circuit, low, with some high Rocks about it, and dist. from *Cape Aguja* 5 Ls. *Lobos de Barlevento* is about 7 Ls from the other; they need no Description as to the Navigation, only to keep off from them, according as you are bound in to Leeward or to Windward.

The *Cape Aguja* is a double Point also; one is called *Aguja Sotovento*, that is, the Leeward, and the other *Aguja Barlevento*, or the Windward; and they lie 4 Ls dist. from one another N. and S. being high Land tapering away to Windward down to the very Sea side. Ships should be very careful not to come near this Windward Point, for it is very dangerous, and has generally a tumbling Sea upon it.

From this *Cape Aguja* lies another Island *de Lobos*, or of *Seals*, which is called *Lobos de Payta*: From this *Lobos de Payta* to *Port Payta* is 11 Ls, the Course due N. forming a large Bay called the *Bay of Cebusa*, from the Town of *Cebusa* which lies due E. from the Island, upon the opposite Shore: also from the said *Puerta de Payta* to *Cebusa* is 10 $\frac{1}{2}$ Ls S. E. and from the Town of *Cebusa* out to Sea to the *Isle of Lobos* is 11 Ls due W. so that the 3 Points of *Payta Lobos* and *Cebusa*, make a Triangle almost equilateral.

All the Bay is flat, but deep Water and clean Ground; and if there be occasion either on account of Squals or a rolling Sea, Ships may take Shelter down in the Bay, especially to the Leeward of *Cape Aguja*, where there is a place or two so quiet, that they may wash and tallow with all possible Safety.

The *Lobos de Payta* is a small round Island, the Coast not high, but very clean Ground round it, and close to it; the Bight within it is called *La Eucanada de Cebusa*, being the same mention'd above.

Due N. from *Lobos de Payta* lies *Pena Orodada*, dist. 2 Ls; and from thence to *Payta* 2 Ls more N. by E. Here comes into the Sea, at a large Opening, the River *Coquimao*, or *Chuquima*; the Entrance into which makes the Harbour of *Payta*: The River is large, but not navigable for great Ships far in; also the River *Cottona* empties it self at the same Mouth into the Sea.

From the Harbour of *Payta* to *Cape Blanca* the Course is N.W. part of the way, viz. to *Punta Parina*, and then due N. and S. to the Cape: the Land from *Payta* to *Punta Parina* is a large Bay, low Land, with some white Hills all the way; but take care of coming into it, for besides its being subject to dead Calms, there are also many Shoals thrown up by the Freshes of the River nam'd above. From that River to the

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May to November there blow very hard Gales, generally from the same Point, that is, from between the S. and S.W. and when it blows thus against so strong a Current, it must necessarily raise a violent Motion in the Sea : But you may come as near the Shore as you will, for 'tis all steep; and here are several Points and Bays, which run one within another, and break off the Violence of the Waves.

From *Cape Blanco* to *Santa Clara* the Coast trends away N.E. but as *Santa Clara* is an Island in the Mouth of the Entrance into *Guyaquil*, and so lies off some Ls from the Coast. the Course from *Tombez*, which is Midway from *Cape Blanco*, lies N. by E. and N.N.E.

The Mountains of *Tombez* begin about 2 Ls to the southward of *Punta del Mero*, dist. from *Cape Blanco* 10 Ls, and to *Tombez* 2 Ls more: the Course to the first is N.E. and then due N. and S. Along great part of the Coast you have double Land, and about Midway very high Mountains: these Mountains lie from the Coast high up the Country, and are called *La Sierra de Mancora*. Under that part of them which lies next the Sea, there is a small Bay with a white sandy Coast: to the southward of that Bay lies a high Point, and a little to the Leeward of that Point another very fine curious Bay, where is safe anchoring in very good Ground, and what Depth of Water you please.

At the other part of that high Shore comes in the River of *Tombez*; the Mountains of *Tombez* run along the Coast till you come to a low Point called *Punta del Mero*: then the Land next the Sea is low and flat, tho the Country within is high and mountainous. The Channel is known by a Tree higher than any other in all the Country, and which stands just at the Entrance of the River.

If you would go in here, be careful not to come too near the lowest Point of the Entrance, for there is a Shoal which shoots out from that Point, and runs above a L into the Sea.

From the River of *Tombez* to the Island of *Santa Clara* is 6 Ls. some say 'tis but 4 Ls; the Course N.N.E. in which Course you necessarily cross the River of *Guyaquil*. The Island is easy to be known; it appears like a dead Corps extended at full length, therefore the Spaniards call it *Morto*: it is about 2 miles in length, dist. from *Guyaquil* 27 Ls. The Mountains of *Tombez* are seen far out at Sea, 10 Ls beyond the Island of *Santa Clara*.

The Course from the Island of *Santa Clara* to the City of *Guyaquil* lies E.N.E. especially from *Point Arena* in the Island of *Puna*, which is within the Mouth of the River. Great Ships can not pass between *Santa Clara* and the Island of *Puna*, because there are several Shoals cast up by the Freshes which come down from the Mountains by the Channel of the River. It is true, there are some Channels large enough, which have a sufficient Depth of Water in them; but none ought to venture among them, who are not thorowly well acquainted.

There is a Shoal of Sand about half way within the River up to *Puna*; it reaches near Mid-Channel over on the side of the Island, and is difficult to avoid, unless you have a commanding Gale to keep in that Channel, which is nearest the

Sea, Ships may take Shelter down in the Bay, especially to the Leeward of *Cape Aguja*, where there is a place or two so quiet, that they may wash and tallow with all possible Safety.

The *Lobos de Payta* is a small round Island, the Coast not high, but very clean Ground round it, and close to it; the Bight within it is called *La Eucanada de Cebusa*, being the same mention'd above.

Due N. from *Lobos de Payta* lies *Pena Orodada*, dist. 2 Ls; and from thence to *Payta* 2 Ls more N. by E. Here comes into the Sea, at a large Opening, the River *Coquimao*, or *Chuquima*; the Entrance into which makes the Harbour of *Payta*: The River is large, but not navigable for great Ships far in; also the River *Cottona* empties it self at the same Mouth into the Sea.

From the Harbour of *Payta* to *Cape Blanca* the Course is N.W. part of the way, viz. to *Punta Parina*, and then due N. and S. to the Cape: the Land from *Payta* to *Punta Parina* is a large Bay, low Land, with some white Hills all the way; but take care of coming into it, for besides its being subject to dead Calms, there are also many Shoals thrown up by the Freshes of the River nam'd above. From that River to the Town of *Payta* it is 3 Ls; the Land looks white, with small Hills, and in some places is double: The Marks for this Port are several ragged Mountains just over it; but the Land to the Harbour side is low. Beware of Flaws from those Mountains, as you enter in; when you are in, you have 8 to 10 Fa. just against the Houses of the Town; and good Ground to anchor in.

The Land is much the same beyond *Point Parina*; there's a Shoal facing that Point on the windward side, and the Land is low there; it makes like 2 Islands: you may anchor under the Lee of the Point in 12 Fa. the Country within is very high and mountainous. In the Midway from the Point to *Cape Blanco* there are several Coves and Bays, as *Malaca* and *Talara* or *Favala*; this last is a good Harbour, and goes in under a bluff Point, with a white craggy Rock, which stands over it like a Precipice: Tho the Harbour is good, yet no Ships frequent it, only Barks to load Salt; you may indeed take Shelter there upon occasion, if the Winds and Currents force you down; but then you must ride as it were upon Life and Death, with 3 Anchors out at a time, one to the southward, another to the S.W. because of the many hard Squalls from the Shore, which come down every day after 12 a-Clock, and last till Sun-set; and another Anchor to the N.E. on account of the Land-Breezes. You ride here in about 12 Fa. Water, but take care to allow for a Shoal close under the Point on the Leeward side.

Cape Blanca is a high Cliff, known by a great white Spot on the Rock close to the Water's Edge. Just under the Cape on the Leeward side, there is a small Bay, where there is good anchoring in 14 Fa. clean Ground, and (which is rare for this Coast) a quiet Sea: also here is good Fishing, which makes great numbers of Barks and Shallops frequent the Place. The Cape lies in Lat. 4 d. exactly.

On all this Coast the Current runs to windward, and therefore it must make a great Sea, because almost all the Season from

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The Course from the Island of *Santa Clara* to the City of *Guyaquil* lies E.N.E. especially from *Point Arena* in the Island of *Puna*, which is within the Mouth of the River. Great Ships can not pass between *Santa Clara* and the Island of *Puna*, because there are several Shoals cast up by the Freshes which come down from the Mountains by the Channel of the River. It is true, there are some Channels large enough, which have a sufficient Depth of Water in them; but none ought to venture among them, who are not thorowly well acquainted.

There is a Shoal of Sand about half way within the River up to *Puna*; it reaches near Mid-Channel over on the side of the Island, and is difficult to avoid, unless you have a commanding Gale to keep in that Channel, which is nearest the Main. This is on the Starboard side as you go up: and there are gradual Shoalings on both sides, either to the Shoal on the Larboard side, or to the Main on the Starboard, keeping in from 4 to 7 Fa. The Course clear of all is N.E. up the Channel, bearing about 2 large Ls off of *Point Arena*, where it is bold, and so quite athwart, till you get 2 Ls higher than the Point.

When you come against, or a little above a chalky Cliff, near the upper end of the Island of *Puna*, you must haul over for the Island, and come to anchor before the Houses. That high Point is easy to be known, because all the other Land on the Island is even with the Water, and elsewhere is all overgrown with Trees: the only Channel for Ships is under the Starboard Shore. 'Tis 8 Ls from the *Point Arena* to the Town of *Puna*, which lies on the upper end of the Island.

'Tis certain great Ships may go quite up to the Town of *Guyaquil*, because they build Ships of 400 and 500 Ton at the very Town.

From this Island of *Santa Clara* in the Offing of the River of *Guyaquil*, to the Point of *Santa Helena*, the Course is N.W. crossing the Mouth of the River *Guyaquil*: *Punta de Santa Helena* lies in Lat. 2 d. 15 m. S. There is a little Town just upon the very Point, and you may come to an Anchor right against it, in sight of the Houses, in 4 Fa. but then you ride there without any Shelter: but about a L and $\frac{1}{2}$ from that Point there is a Harbour, where you have good Anchoring, and the Land low and flat to the Shore.

Between the Mouth of the River *Guyaquil* and *Point St. Helena* there is a large Bay called the Bay of *Chanduy*, dist. from the Island of *Santa Clara* 12 Ls, and from the Point of *St. Helena* 8 Ls. The Course from the River of *Guyaquil* is W.N.W. Over *Chanduy* you will see some high Hills, and Breaks upon them, and a little to windward of those Hills you will see, if you are within the Bay, the Island *Puna*, and the Mouth of the River *Guyaquil* on that side of the Island.

Three Ls to windward alſo of the Point of *St. Helena* is the Point *del Carnero*, with ſome Rocks like little Iſlands lying cloſe under it.

At this Point of *St. Helena* you may have all neceſſary Re-ſreſhments even for a long Voyage. The Point it ſelf is high, but as you come nearer to it, you will ſee a lower Point run out ſharpning towards the Sea.

Three Ls to Leeward of Port *St. Helena* is a little Iſland, with a Rock upon it, called *Colanche*. The Courſe from the Point of *St. Helena* is N.E. There is oppoſite to it on the Shore a River of the ſame Name, where there is freſh Water, which is frequently taken up by Boats from *St. Helena*, for the uſe of Ships as they ride there under the Point. Ships may paſs between the little Iſland and the River, or on any ſide of it, the Ground is all clean, and deep Water 10 to 15 Fa.

From this River of *Colanche* the Coaſt trends more to the N. and the next Place of note is the Iſland of *Solango*: The Courſe is N. by W. and the diſt. about 7 Ls. The Land is mid- dling next the Shore, but very high within the Land, being thoſe Hills which they call the Mountains of *Picoſa*, or *Piſa- na*, which hold on S. to the very Bank of the River *Colanche*. You will know the Coaſt by theſe Hills, which you will ſee a great way off at Sea; where you will perceive them narrow- ing away to a Ridge 2 Ls ſhort of *Colanche*, and where alſo you will ſee little high Rocks or Iſlands called *Los Aborcados*, or the *Hang'd Men*.

Due N. from this Iſland *de Solango* the Coaſt trends away to *Port Callo*, the diſt. 4 Ls. Between them are two Harbours about a L diſt. from each other; they are known by ſome white Cliffs which ſtand juſt between them: the Leeward Port is the deepeſt Water; there are Proviſions to be had at either of them, and Shelter from ſoutherly Winds. From this *Port Callo* to the Iſland of *Plata* is about 4 Ls N.W. by W. ſo that from *Point St. Helena* to the Iſland *la Plata* is 18 Ls N. by W. but if you go in by the way to the Bay and Roads of *Colanche*, *Callo*, &c. you make it 20 to 21 Ls, and vary the Courſe alſo.

From *Port Callo* the Coaſt ſtretches on N.W. to *Cape St. Lorenzo*, or *St. Lawrence's*, diſt. 6 Ls, the Iſle *la Plata* lying from it S.S.W. about 4 Ls. The Iſland *la Plata* has on the S. ſeveral ſmall Rocks; when it makes at a diſt. in the Of- ſing, it ſeems round and high, and as you approach makes like two Iſlands, but when you are near, proves to be but one. When you have *Cape St. Lawrence* S. from you diſt. 4 Ls, the two Rocks without it bearing S.W. you will ſee *Ilha de Plata* fair before you, Lat. 1 d. 10 m. All the Leeward part of it is very clean Ground, and no manner of Danger any where about it, 'tis about 4 Ls S.S.W. from the Cape.

From *Cape Lorenzo* to the Bay of *Caracas* the Courſe is N.E. and E.N.E. diſt. 17 Ls. In the Midway lies the Harbour of *Manta*, diſt. from *Cape St. Lawrence* 8 Ls, the Courſe E.N.E. From *Lorenzo* to this Harbour the Land begins high, but falls gradually to within a L of the very Harbour. Upon this Coaſt

Directions for the Coasts of Chili and Peru.

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Shore; but keep to windward, and so run up close on board the white Hillocks of *Choropeta*, and then along the Coast into the Bay, carrying an easy Sail, and not running into less than 4; to 4 Fa. by your Lead.

When you are in the Bay, you have all dead Water, neither Wind nor Sea can give you the least Disturbance: When you come out, you may keep to Leeward, running along close to the Land which lies out towards *Cape Passado*, where you have Water enough close to the Shore. You have Wood and Water also in this Bay, and plenty of Cattle and Shell-Fish.

N. B. You should be careful to keep your Lead going, as well at your coming out of this Port, as at your going in.

Cape Passado is high double Land, full of low Greens on the top; 'tis seen far at Sea: Just at the very end of the Cape it forms a little upright Hollow, with Crags, which at a small distance looks like a Saddle. At about 6 Ls from the Point there is a small white Cliff called *Cabo Balnea*, or *Whale Cape*. Near the Point there is a small Bay with several Hillocks, to Leeward of which lies a little Harbour; the going in is known by those Hillocks: if you are to windward of the Cape, and would come to an anchor, you must keep about 4 Musket-shot from the Shore, and drop your Anchor just before a Cross, which you will see set upon the Land: There you will have 8 to 10 Fa. and you should come no nearer. *Cape Passado* lies in Lat. 8 m. S.

On the Shore you will find 2 Watering-places; one runs into the Sea among the Rocks, and the other is a *Laguna* or great Pond, about 3 or 4 Musket-Shot from the Shore.

From *Cape Passado* the Land makes a deep Bay, bearing in first N.E. by E. and N.E. and then suddenly trending off again N.W. to *Cape Francis*, or *Cape Porfette*; the Equator passing over the very bottom of the Bight, in the Midway, by the *Barranca Vermillias*, or the *Red Hills*, which however are mixt with white, so that at Sea they make like Hills of Salt. If you would water here, you may run in with those Hills; leave 9 of them to Leeward, and come to an Anchor about Musket-Shot from the Shore, there you will find good clean Ground and 14 Fa. Water. On the broken Grounds are several *Lagunas*, which furnish Water all the year, tho' exactly under the Equator. From *Cape Passado* to these Hills is 10 Ls all N.E.

From *Cape Passado* to *Cape St. Francis* the Course is N. by E. dist. 22 Ls in a direct Run. The deep Bay mention'd above reaches from Cape to Cape; it is a very difficult and dangerous Bay, full of Shoals. Five Ls short of the Cape is *Portete*, or as some call it *Port Petit*, or *Little Port*; the Course between lies N.W. and S.E. the Anchoring is in 5 Fa. near the Headland, but you must sound all the way in, because of some Sand Banks in the way, called also the *Portetes*: near the Head-land you may have fresh Water sufficient.

The Wind at the Cape generally blows hard from Noon to Night, and then grows calm, especially from *May* to *December*. The Land at *Port Petit* is high, and then falls away to the

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From *Port Callo* the Coast stretches on N.W. to *Cape St. Lorenzo*, or *St. Lawrence's*, dist. 6 Ls, the Isle *la Plata* lying from it S.S.W. about 4 Ls. The Island *la Plata* has on the S. several small Rocks; when it makes at a dist. in the Offing, it seems round and high, and as you approach makes like two Islands, but when you are near, proves to be but one. When you have *Cape St. Lawrence* S. from you dist. 4 Ls, the two Rocks without it bearing S.W. you will see *Isla de Plata* fair before you, Lat. 1 d. 10 m. All the Leeward part of it is very clean Ground, and no manner of Danger any where about it, 'tis about 4 Ls S.S.W. from the Cape.

From *Cape Lorenzo* to the Bay of *Carracas* the Course is N.E. and E.N.E. dist. 17 Ls. In the Midway lies the Harbour of *Manta*, dist. from *Cape St. Lawrence* 8 Ls, the Course E.N.E. From *Lorenzo* to this Harbour the Land begins high, but falls gradually to within a L of the very Harbour. Upon this Coast Midway between *St. Lorenzo* and *Manta*, there shoots out a Point, off of which lies a Rock, and some Shoals without the Rock, which must be avoided. A little to Leeward of the Cape there is a Bay, in which there is also a Shoal which runs out a L from the Shore; between that and the Cape are two Rocks called the *Frailys*, or the *Fryars*, one bigger than the other, and both steep; but you may go close to them, there is no Danger near them. The Cape is also high and steep, but a clean Strand under it, and no Danger.

If you would go into the Harbour of *Manta*, you must be very cautious, and keep your Lead and line in Lhand, because of a Shoal which lies just at the Entrance: to avoid it, observe a little Mount called *La Sierrillo de Cruze*, or the *Little Hill of the Cross*, which you will see just before you: bring this Mountain to bear over the end of the Town, and you go in clear of this Shoal. Then you may anchor where you please in 7 Fa. keeping the Church S.W. from you.

On the S.W. side of the Harbour of *Manta* the Land falls low. Two Ls to the northward of *Manta* is a low Point, called *El Punta de Carnes*: if you would go about it, you must stand off, and give it a large Birth, for there is a great Shoal before it, which is very dangerous; you may know it off at Sea by the Mountain called *Monte Christo*, which almost every body knows by that Name, which lies a little to the southward, a very high and broken Land, and render'd remarkable by Sailors for its Name and Shape. Also in the Country, directly over *Point de Carnes*, there is another very high Piece of broken Land.

All the way between these Ports or Harbours and the Bay of *Carracas*, the Coast is full of high Land, with broken Cliffs and white Hillocks, as far as the *Rio de Choropota*. From this Bay of the *Carracas* to *Cape Passado* the Course is N.W. with white Hillocks, the dist. 4 Ls. You must not go into the Bay of *Carracas* to Leeward, because there are Shoals in the middle of the Entrance, which reach over almost to that

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The Wind at the Cape generally blows hard from Noon to Night, and then grows calm, especially from *May* to *December*. The Land at *Port Petit* is high, and then falls away to the southward, and continues so as far as the Mountains of *St. Juan de Quaque*: From those Mountains there run in three small Rivers, called the *Coximes*, or the *Cojimes*, from whence there are 3 Flats or Shoals, which run far out into the Sea: at the end of those Shoals are several small Islands, but come not near any of them, for they are all foul and dangerous; 'tis likewise ill venturing to come near any part of the Coast in the Bight, for if a Calm comes on with the Tide of Flood, as frequently happens, you will be driven into some of those Rivers.

We are now cross the Line to the northward. From *Cape St. Francis* the Coast goes on due N. to the *Punta Galera*, dist. 7 Ls; and being in Lat. 1 d. N. you are but just clear of the great Bight mentioned above, when doubling the Cape the Coast trends again N.E. to the Bay of *Tacames*, dist. from the Point 3 Ls. At *Tacames* is good watering, and you may anchor at the Entrance under a small Rock, where there is a good Road, and well shelter'd.

From *Punta de Galera* to the Bay of *St. Mattheo* the Coast stretches in N.E. by E. dist. 6 Ls. The Point of *Galera* runs far out, sharpening from *Tacames*, running cross to it from *St. Mattheo*. The Point looks like a Galley turn'd Keel up, the Point shaping the Beak of the Galley. You may anchor half a L to the Leeward of the Point, keeping a little off because of some Shoals, which lie on that side under Water. There is Water in a little Brook within a Wood, at a dist. from the Road, but it does not run down into the Sea, except in the rainy Winter Seasons.

From *St. Mattheo's Bay* the Coast lies N.N.E. to *St. Iago*, dist. 5 to 7 Ls: the Land is high, with hollow red Crags. Here are several Points on the Coast running out, which form good Retreats for Ships driven in by hard Squalls and Flaws from the Hills, and by the Sea running high, as often happens: in such case you may anchor all the way between the Bay of *St. Mattheo* and the River of *St. Iago*, only go not into less than 6 Fa. Water.

Sailing Directions for the Coast.

If you are bound into the Bay of *St. Mattheo*, keep close to the windward Crags, that the Ebb may not drive you out, or horse you upon the Shoal which is at the Mouth of it. If you come to an Anchor there, do not ride in less than 7 Fa. If you do not find it in the Bay, send your Boat into the Mouth of the River, there you will have as much more as you want.

From the *Rio de St. Jago* there runs in a large Bay called the *Auco de Surdinias*, or the *Sea of Pilchards*, and reaching almost to the *Point de Manglares*, or of *Mangroves*. The Courte of this Bay in a Line is N.E. and S.W. and the distance from Point to Point is 15 Ls. There is 5 Fa. in the Channel of the River *de St. Jago*: it is situated in Lat. 1 d. 20 m. N. the Coast peopled by *Indians* unconquer'd, who are yet very ready to assist *European* Ships, and sell them Provisions.

N. B. Ships come hither from the building Ports southward to load Cedar for the Shipwrights: also Ships in distress may be furnish'd here with Topmasts and Spare Yards.

The *Rio de St. Jago* is a large navigable River, the Channel deep, and able to carry Ships of Burden several Ls up: about 7 Ls from the Sea it divides it self, and forms a large Island 3 Ls broad: The largest Branch of the River, and best Channel, is that on the S. side of the Island: Both Channels are very deep, but the Mouth of both sides is so choakt up with Sand and Shoals, that nothing can pass above the Island, hardly a Canoe.

The Mouth of the River is a L wide; the Stream runs strait and swift, and the Tide flows in about 3 Ls: The Stream is different in the different Seasons; and as the whole Country is subject to great Rains, so in the rainy Seasons the Freshes are so great, that there can be no Navigation at all. There are several great Shoals lie off the Mouth of the River, but they are discover'd by sounding. One of those Shoals runs near 2 Ls out, on which the most famous *Spanish* Pilot *Philippi de Corca* was stranded, and lost his Ship *Ann.* 1594.

From Point *Manglares*, being N.E. from *St. Jago*, and cross the Bay of *Pilchards* in a direct Line, you may be said now to open with the Bay of *Panama*, which lies from this Point N. by E. but as the Coast trends away first N.E. to *Bona-venture Bay* and *Cape Corientes*, we must follow the Land as it lies.

From *Punta de Manglares*, or *Mangrove Point*, to the *Ile of Gorgona*, is 35 Ls, the Course fair N.W. 'Tis a wild undiscover'd Coast, inhabited by Savages, who make War, not Trade their Business, and Ships have little occasion to come among them: We shall therefore take notice rather of the Islands than the Continent. The Islands in the Course between *Manglares* and *Gorgona* are, 1. *Gorgonilla*, a small Island with a Creek, called by some *Spaniards* *Tumaco*, where you may have fresh Water, and may anchor while you fetch it in clean Ground and well shelter'd; it lies N.E. from Point *Manglares* about 3 Ls. 2. *Gallo*, a larger Island, lying in the same Course N.E. from the Point *Manglares*, and dist. 9 Ls.

From the Island *Gallo* to *Gorgona* is 24 Ls, the Course E. by N. The Coast on your Starboard side is all low Land, full of Rivers from the Land, and those Rivers occasioning several

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If you would anchor here, chuſe the S.E. of the Iſland, but then keep off of a little Iſland which ſhews it ſelf there, and a Parcel of Rocks above Water, which you will ſee by it on the ſide next the Main. There is freſh Water at a ſandy Shore, on the E. ſide, but 'tis bad Riding to ſtay for it, being in 50 Fa. near the Shore, and a very dangerous Anchoring-place, with the Wind ſoutherly, eſpecially at S.E. which blows right in. The Iſland lies off from the Main due N. diſt. 4 Ls, oppoſite to a River of the ſame Name, *Gorgona*.

From the Offing, when the Iſland bears from S.E. to N.E. it ſhews with 2 Breakers; next the N.E. Point it is lower; to the S.W. it makes a thick bluff Head-land, and in the middle forms a round Peck, riſing higher than all the reſt of the Iſland, as is ſaid before.

From this Iſland *Gorgona* to the Bay of *Bonaventura* is 20 Ls, the Courſe N.E. and S.W. This Bay is very large, it lies in Lat. 3d. 45 m. There are many conſiderable Rivers that empty themſelves into it, particularly thoſe of *Los Piles*, of *St. Juan*, and others: and there are many Shoals lie off in the Sea within the Bay, ſome running out 2 Ls; ſo that it is a very dangerous Coaſt, eſpecially to ſuch as are unacquainted with it.

The Bay of *Bueno Ventura* ought to be deſcrib'd as fully as can be.

When you enter the Bay from the ſeaward, if the Weather be clear, you will ſee within the Land a high Ridge of Mountains, with a kind of Peak on the Middle; then to the ſouthward of that Hill another thicker Hill, very high, call'd *de las Minas*, or of the *Mines*; and ſtill to the ſouthward another round and ſteep, like a Sugar-loaf. Theſe are your Marks for the Entrance into the Bay.

When you go forward towards the Bottom of the Bay, you will ſee the Opening of a River; this is the *Rio de Bueno Ventura*: There is not Water for great Ships; but Boats and Shalops uſually go in for Trade. When you enter the River, you will know it by this very ſingular Mark, *viz.* That there is a great Tree which grows in the Middle of the Sea; you leave this Tree on your Starboard-ſide, and ſail directly up. Then you'll ſee a Creek on your Larboard-ſide, go not in there, for you will find no way out; you come then to four Openings or Mouths, leave the firſt which is on the right Hand, for there is no Paſſage out neither, beſides you will be a-ground in the Channel; but make up the ſecond, which is ſafe and deep, and tho it ſeems narrow before you go in it, is not ſo afterwards. Going up this Channel, you will ſee a Creek on the Starboard-ſide, call'd *de Pero Lopez*; run not in there, becauſe that leads out into the Sea: Alſo leave another on the ſame ſide, call'd *de los Piles*, and keep always to the Larboard-ſide, till you come to *Puerto Viejo*, which is 2 Ls ſhort of the Fort; then run ſtrait on, and come to an anchor juſt againſt the Fort. The principal Mark to know the Bay by as you come from the Sea, is, That you have all low drown'd Lands next the Sea, and high coping Hills within the Country.

cross the Bay of *Pilehards* in a direct Line, you may be said now to open with the Bay of *Panama*, which lies from this Point N. by E. but as the Coast trends away first N.E. to *Bona-venture Bay* and *Cape Corientes*, we must follow the Land as it lies.

From *Punta de Manglares*, or *Mangrove Point*, to the *Iste of Gorgona*, is 35 Ls, the Course fair N.W. 'Tis a wild undiscover'd Coast, inhabited by Savages, who make War, not Trade their Business, and Ships have little occasion to come among them: We shall therefore take notice rather of the Islands than the Continent. The Islands in the Course between *Manglares* and *Gorgona* are, 1. *Gorgonilla*, a small Island with a Creek, called by some Spaniards *Tumaco*, where you may have fresh Water, and may anchor while you fetch it in clean Ground and well shelter'd; it lies N.E. from Point *Manglares* about 5 Ls. 2. *Gallo*, a larger Island, lying in the same Course N.E. from the Point *Manglares*, and dist. 9 Ls.

From the Island *Gallo* to *Gorgona* is 24 Ls, the Course E. by N. The Coast on your Starboard side is all low Land, full of Rivers from the Land, and those Rivers occasioning several dangerous Shoals in the Sea, by the violent Freshes in the rainy Seasons. These Rivers are, 1. *Rio de Cedras*. 2. *Rio de los Barbacos*, which comes into the Sea under a low flat Point. 3. *Rio St. Juan*, or *St. John*. 4. *Rio Tellembie*, and several others. On the E. side of the latter River is a great Mountain called *Barbacos*. S.E. by E. from this River are also other high Mountains, but their Names unknown: Here you may see the Island of *Gallo* from the Shore; it makes at that dist. as 2 Islands, one bigger than the other, but they are really one.

N. B. The Island of *Gallo* lies in 2 d. 15 m. N.

From hence, the Coast lying still E. by N. lies *Punta del Morro de los Barbacos*, or *Point Barbacos*, in Lat. 2 d. 45 m. being 10 Ls from the *Rio Tellembie*. If you want Topmasts, or Yards, all which the Island *Gallo* supplies, you may come to an Anchor on the N.E. side of the Island; and tho there is not full 5 Fa. Water, you may go in with safety, it is clean all the way with a sandy Shore, and you may even lay a Ship on Shore if you find occasion: also you may wood and water at pleasure.

The Island *Del Gallo* is not so high as the Head-land of *Barbacos*, it is not above a L from the Main. If you come from the northward towards this Coast, you will find no high Land near the Sea all the way, except the *Morro de Barbacos* and the Island of *Gallo*; all the rest of the Coast is low and flat, and much of it over-flow'd with the Freshes in the rainy Seasons. If you happen to ply upon a Wind to make this Coast, come not within 3 Ls of the Shore: and tho the Wind be large, yet if you are closer in, haul out, and for the Depth come not within 15 Fa. Water; if you do, you will run great Risques of being aground, when you least think of it.

The Island of *Gorgona* is all high Land, about 2 Ls in compass, and lying in length N.E. and S.W. When first you make the Island from the seaward, it looks like a high Bell, being c-

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Shalops usually go in for Trade. When you enter the River, you will know it by this very singular Mark, *viz.* That there is a great Tree which grows in the Middle of the Sea; you leave this Tree on your Starboard-side, and sail directly up. Then you'll see a Creek on your Larboard-side, go not in there, for you will find no way out; you come then to four Openings or Mouths, leave the first which is on the right Hand, for there is no Passage out neither, besides you will be a-ground in the Channel; but make up the second, which is safe and deep, and tho it seems narrow before you go in it, is not so afterwards. Going up this Channel, you will see a Creek on the Starboard-side, call'd *de Pero Lopez*; run not in there, because that leads out into the Sea: Also leave another on the same side, call'd *de los Piles*, and keep always to the Larboard-side, till you come to *Puerto Viejo*, which is 2 Ls short of the Fort; then run strait on, and come to an anchor just against the Fort. The principal Mark to know the Bay by as you come from the Sea, is, That you have all low down'd Lands next the Sea, and high coping Hills within the Country.

Out in the Bay you may anchor under a Head of Mangroves on the Starboard-side, near an Island call'd *Realejo*; the Island is made by the River *Ostiones*: You are so to anchor, that a small Creek may lie just before you, so that when moor'd, it will be right a-head of you.

From the River of *Bueno Ventura* the Coast returns, and the Land trends away N.W. again, so that the Bight which lies farthest into the Bay, is distant from the Mouth of the Bay considerably.

N. B. From the great Tree which stands in the Water up to the Fort is 5 Ls: At the Fort you have 5 Fa. but in the Passage at several Places but two: Yet Barks and Sloops from 40 to 50 Ton go up as high as to a Village a L beyond the Fort.

N. B. When you have the Rock *St. Pedro* and *Ile Palmas* and the *Rio del Agua* in a parallel E. and W, you have a good Road to anchor in, and 7 to 9 Fa. Water.

From the River of *Bona Ventura* the Land trends N.W. The next Place of note is the *Rio Neominas*, or *Naominas*; it is a large River, and comes into the Sea at two Mouths, with a great Current, especially in the rainy Seasons: The Shore is low, but there is no landing on it, for there are none but Savages, whom you know not how to trust, or whether they are at Peace or War with you: And they go off in Canoes and Periaguas, robbing all the Boats they can; so that you must be well armed if you venture among them: And this is the reason, why, tho the Place is so near the Center of all the most populous *Spanish* Colonies, yet this Coast is unfrequented and wild, and not so much as the Shores survey'd or perfectly describ'd.

N. B. The distance from *Bona Ventura* to *Neominas* some of our Pilots make but 10 Ls, but the *Spaniards* make it 14 Ls.

Opposite to the *Rio Neominas* lies an Island call'd *Palmas*, 'tis low Land, and there are several Shoals about it, especially on the S.W. side: The Island makes out in a sharp Point. Hereabout it was that the famous Buccaneer Sir *Henry Morgan* was stranded, and lost his Ship.

From this *Rio Neominas*, or rather from the Island of *Palmas* to *Cape Corrientes*, is 20 Ls: The Coast lies N. by W. and S. by E. but the Course to the Cape is full N.W. in a direct run. *Cape Corrientes* is a high round Mountain, with two Hummocks near the Top almost together. When the Cape is S.E. from you, one of the Hummocks looks like an Island or great Rock, separated from the Mountain it self; but when you come nearer, they are the same: They are seen out at Sea 12 or 15 Ls.

From *Cape Corrientes* to *Port Quemada*, or the *Burnt Harbour*, the Shore lies N.N.W. and S.S.E. a bold Coast, but no Harbour, nor is there any good anchoring upon it. The Water is very deep, and the Ground rocky and foul; the dist. is 29 Ls, a wild and almost desolate Coast, no Rivers, Ports, or Towns in all the length, but low Islands drown'd by the Freshes, and some Rocks under Water also: So that we have nothing to say of this Coast, respecting the Sailors, but that they should keep off of it as well as they can.

From *Port Quemada* the Coast lies more northerly towards *Port Pinas*, the Course N. by W. dist. 12 Ls. *Port Pinas* is a high double Land, broken and uneven in Clefts and Ridges, as indeed is almost all the Coast, which you will see when you are to the S.W. of it out at Sea.

A little within the Harbour of *Pinas* you will see 2 Rocks near one another; you may go into the Port on either side of them, but the best Channel in, is in the Middle between them. On the S. side of the Harbour are four or five small Islands; give them a good Birth also as you go in, and at the Entrance you will see a great Bay; there you may come to an anchor in clean Ground: From thence towards the S.E. you will see a plain Strand, where the Town of *Pinas* lies on your Starboard-side, and a River call'd *Rio Salada* on your Larboard: Up the River you may have both Wood and Water; you may fetch it with your own Boats. In the Cove near the River you may

Sailing Directions for the West Coast of New Mexico Acapulco; and from thence to Maxantalla in the Coast of America.



HE City of *Panama* is situated on a small navigable Creek at the Bottom of a large deep Bay, or Gulph of the same Name, opening due N. and S. to the great *Southern Ocean*, call'd antiently the *Pacific*, but by our Navigators the *South-Seas*, from its position with respect to the Bay of *Mexico* and the Gulph of the *Honduras*, which lie due N. from it: Tho it is otherwise more properly the *Western Ocean*, as it lies parallel with the West Coast of *America*, and opposit

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Palmas, especially Careen, but you must go well arm'd, especially if you go far up within the River, and be cautious of the Natives, who are cruel, treacherous and thievish.

The Harbour is call'd Port *Pinas*, from a great Number of large Pine-Trees, which grow upon the Coast, as well here as all the way southward to *Cape Corrientes*.

From Port *Pinas* the Land stretches out more westerly again to *Cape Garachina*, dist. 7 Ls. The Coast between makes some Openings, and a little Variation to the northward, but in general lies N.N.W. and S.S.E. In the Midway between there is a small Cove or Bay, call'd *Caracolus*, with a small Island before it, but of no Importance: This *Cape Garachina* and the opposite *Cape Mala* lie in a strait Run due E. and W. and make together the Mouth of the Gulph of *Panama*; all the Islands of the said Gulph lying within them, and which are described in their place.

N. B. *Cape Garachina* is in Lat. 7 d. 20 m.

From this Point of *Garachina* goes in the great Gulph of *St. Miguel*, or *Michael*: The opposite Point is that of *Cape Lorenzo*. *Cape Lorenzo* and *Cape Garachina* lie with one another N. by E. and S. by W. dist. almost 20 Ls. Between them goes in the said Bay or Gulph of *St. Michael*: It goes in due E. but when in, bears a little northerly about half a Point. Into this Gulph comes the River of *St. Mary's*, which being opposite to the great Gulph of *Darien* on the N. Coast of *America*, makes the Passage by Land between the two Gulphs which is call'd the Isthmus of *America*, exceeding narrow. The Entrance into the Gulph of *St. Michael* is in Lat. 7 d. 30 m.

From this Bay of *St. Michael* the Land rounds away first N. by E. then N. then goes on gradually rounding to the N.W. and at length lies due E. and W. to *Panama* it self, without any considerable Place on the Coast between; for the Navigation of the great Bay of *Panama* seems to be chiefly concern'd with the Islands of the Bay; and the Channels by which Ships pass in or out, lying thro' between those Islands, the Coast of the Main, especially on the E. side, is much unfrequented, as it is out of the way, and also as it is a foul dangerous part of the Main, without Harbour and without Shelter.

of New Mexico, from the Bay of Panama exclusive, to Xantalla in the Gulph of California, ending the West

Taboga is a high Land very woody, not above a L in Circuit, lying N. by E. and S. by W. with Port *Perico*: There is a good Road on the S.S.E. side of it; and tho the Island is so small, there is a Creek of good fresh Water, and convenient to come at with Boats; the Ground is good to anchor in, and in the Road is 12 to 18 Fa. Water.

Near it is little *Taboga*, a smaller Island, which the Spaniards call *Taboguilla*; the Channel between is very narrow

side, and a River call'd *Rio Salada* on your Larboard: Up the River you may have both Wood and Water; you may fetch it with your own Boats. In the Cove near the River you may

Sailing Directions for the West Coast of New Mexico Acapulco; and from thence to Maxantalla in the Coast of America.



THE City of *Panama* is situated on a small navigable Creek at the Bottom of a large deep Bay, or Gulph of the same Name, opening due N. and S. to the great *Southern Ocean*, call'd anciently the *Pacific*, but by our Navigators the *South-Seas*, from its position with respect to the Bay of *Mexico* and the Gulph of the *Honduras*, which lie due N. from it: Tho it is otherwise more properly the *Western Ocean*, as it lies parallel with the West Coast of *America*, and opposite to the great *Atlantic Ocean*, which is due E. from it.

This Gulph of *Panama* has a vast resort of Shipping to every part of it, the Port of *Panama* being the best in all the *South-Seas* for Trade, as it receives most of the Goods which come from and to those Seas, and deals with them over land to and from *Europe*.

S.W. from the City, in the Offing as it were of the Port, lies *Porto Perico*, in an Island, and at the dist. of 2 Ls from the Shore: The Harbour is form'd by three Islands lying N. by W. and S. by E. from one another. and where most of the Ships bound in or out of *Panama* come to an anchor, and ride for a Wind.

Between this Port and *Panama*, almost Midway, lies a very dangerous Shoal of Rocks, where many good Ships have been lost notwithstanding it is so well known, and many more that have struck have been gotten off again, but not without great Difficulty and Damage. This Shoal and Port *Perico* lie with one another N.E. and S.W. Bring the Hill of *Patilla* to bear from you due N. and the Shoal is directly before you, and you will run right upon it: But bring that Hill N.N.W. and that Port of *Panama* due N. and you go clear of the Shoal, leaving it to the W.

In the Mouth of the Bay of *Panama* lie several larger Islands, besides some smaller; they are call'd all together the *Pearl Islands*, but have particular Names also, as the *Isla Chuche* and *Isla del Rey*. The *Isla Chuche* lies with *Panama* due N. and S. It is the largest of the *Pearl Islands*, and the most westerly: It is distant from *Panama* 15 Ls, from the Island of *Pacheco* 9 Ls N.N.E. and S.S.W. 5 Ls from *Otoque* N.W. and S.E. and 12 Ls from *Taboga* N.N.W. and S.S.E.

N.B. *Otoque* and *Taboga* lie in the *Fair Way* from *Panama* to the *Punta de Chame*, or Point *Nata*, which is the W. Point of the Mouth of the Bay, and which all those Ships make that are bound to the N.W. Coast of *America*, and to *Acapulco*. They are distant from one another 4 Ls N.N.E. and S.S.W.

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Taboga is a high Land very woody, not above a L in Circuit, lying N. by E. and S. by W. with Port *Perico*: There is a good Road on the S.S.E. side of it; and tho the Island is so small, there is a Creek of good fresh Water, and convenient to come at with Boats; the Ground is good to anchor in, and in the Road is 12 to 18 Fa. Water.

Near it is little *Taboga*, a smaller Island, which the *Spaniards* call *Taboguilla*; the Channel between is very narrow but good, and the Ships pass that way to the *Punta de Chauma*. In passing thro' here, observe to keep nearest the great Island, to avoid a rocky Shoal on the side of the *Taboguilla*; you will know it tho it be under Water, by the Sea breaking upon it: nor must you go too near the Head-land of *Taboga*, in passing this narrow Channel.

When you are the length of *Otoque*, if you are bound about to the northward, coast along in sight of the W. Shore, but at a good distance, steering S.S.W. towards *Morre de Porcos*, or the *Hogs Strand*: Then you will have a sight, if it be clear Weather, of the *Punta de Chauma*, and open the Bay of *Nata*, just under the Head-land of the Cape. If to the southward, take a Pilot to the Island of *Gorgona*.

The Bay of *Nata* is a spacious deep Bay; but you must not venture in, unless forced by necessity, because the Winds blowing long at E. upon this Shore, you may be embay'd, and be long getting out. The Bay reaches to the Island *Iguanas*, under the Lec of which Island is good anchoring, well shelter'd from S.W. Winds; and to the windward of it also there is a good Road, in a Creek between the Island and the Main. From *Otoque* to this Island *Iguanas* is 2 Ls.

From the Island *Iguanas* to *Punta Mala* is 2 Ls S.W. To the Leeward of the Point is a Cove, where there is a good Road, secured also from S.W. Winds. If you would go into this Road, you must keep close along under the Head-land, and then ride where you please: At this Point the Land call'd *Nata* trending N. and S. ends; and then rounding the Point, the Coast goes away N.W. to Point *Higuera*, or as in some Charts *Haquera*: The dist. from the Road under Cape *Chauma* is 7 Ls.

This Point of *Haquera* is a Ridge of high Rocks, which run tapering out into the Sea till they come to a Point; and under the Lec of that Point is good anchoring, and well secured from S.W. Winds: It is all a clear Strand, good holding-ground, and a clean Bottom, and which is something rare on all

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all that Coast till you come thus far : here you have excellent wooding and watering.

Two Ls short of Point *Higuera* lie two small Islands, call'd the *Frayles*, or by some the *Padres* or *Fryars*, about half a L dist. from one another, and the nearest of them 1 L dist. from the Shore. On the out or off-side of the outmost of those Islands lies a Shoal of Rocks under Water, which the Sea usually breaks much upon with a S.W. Wind.

Likewise between the said Point *Higuera* and *Morro de Porcas* lies a Shoal of Sand under Water, which the Sea breaks upon also with a great Noise upon a S.W. Wind; it reaches out a L from the Shore, and tails quite round the Point; but as soon as you are clear of that Sand, you have 15 Fa. Water. The *Morro de Porcas* also makes a Bay to Leeward, in which there is good anchoring in case of a S.W. Wind.

N. B. A S.W. Wind makes a Lee-Shore upon all this Coast.

It is from this Head-land call'd *Morro de Porcas*, that Ships stand off to Sea, or take their Departure (as we call it) for their Course S. to the Coast of *Peru*, steering first S.S.E. to the Island of *Malpelo*, and from *Malpelo* S. to the said Coast of *Peru*. *Malpelo* is a small Island, it is high Land, and makes at Sea in many little Breaks, when it bears E. but when it bears S.W. it makes with one Break in the Middle; and when making N. or from the N.E. it appears round with no Break at all.

N. B. In this Run cross the Bay of *Panama* to the Coast of *Peru*, take the following Observations :

If you are in the Season of the S.W. Winds, and obliged to turn it thwart the Bay, make the most of your westward Trip, shortening upon all your Trips to the S.E. because as you are bound to a Coast which lies N.E. and S.W. the more you gain upon the S.W. Tack, the more you will fetch to the windward of *Malpelo*.

Also observe, that if the Currents which are very strong there, should hurry you the length of the Island *Gorgona*, you may know the Island by the two Breaks it makes with a Peck in the Middle, being all high Land, and the windward Head larger than that to Leeward, having no other Land near it.

From *Morro de Porcas* to Point *Mariato* the Coast lies E. and W. dist. 12 Ls. All the way between you see the Mountains of *Guanico*, ranging along to the westward, till they go off in the Point; and they are known all the way by the high Heads and Hummocks which appear upon them in a Line as they lie: And on the highest part of them is a large round Hill, with a Break on the W. side.

The Point *Mariato* also is high and mountainous, and has a little Rock to the westward close by it: The Coast is steep and rocky. To coast from this Point of *Mariato* to *Nicaragua*, you take the following Course: From Point *Mariato* to the Island *Sebuco* is 3 Ls, and the Island itself 5 Ls more N. and S. At the N. Point of the Island is a Shoal; on the W. side is the Island *Governador*; and on the W. side of the *Governador*, and close to it, lies a Channel thro', leading into the Bay of the *Philippinas*.

Going into this Bay keep your Lead in your Hand, and go founding all the way, for there are many Banks of Sand all the way in. Come not into less than 6 Fa. lest you are left a-

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River, having 10 to 12 Fa. Water the Island and the River bearing with one another N.E. and S.W. There is a low Point just within, call'd, as above, *Rbenchiera*, where they usually build Ships; and about Musket-shot farther up is the Anchoring-place. From thence to the *Spaniards* Town call'd *Rbenchiera* it is 3 Ls up the Stream, but you may see the Town from the Road.

N. B. There is no Channel between the Island of *Puebla Nueva* and the Main, the Place being full of Shoals, and the Sea breaking continually upon them.

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You should observe, that as all this Course is round the Bight of the Bay, so the Course cross the Bay is also well known by Ships which have no business into the Bay. This Course lies from *Morro de Porcas* to Point *Burica* N.W. and N.W. by W. the dist. 38 Ls.

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But to Coast the Bay, in which are abundance of Islands observe that from *Puebla Nueva* S.W. lie the *Isles de Contre-ras*, dist. 4 Ls, and to the W. of them other Islands call'd *de Secas*, or the *Dry Islands*; from thence to *Chiriqui* is 4 Ls, the whole dist. 11 Ls: At this Point of *Chiriqui* ends this long Coast and Bay, which lies with the Islands *Canales* E. and W. but with the Main N.W. and S.E.

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The Mouth of the River here is full of Islands close to the Land: if you would go up to the Town, you must have a *Spanish* Pilot, or found the way for your self as you go. At the Islands off of the River *Chiriqui* begin another Bay, which runs away W.N.W. to the Point *Burica*, and then the Coast trends northward again. This Bay from the Islands to the Point is 6 Ls over.

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On the N. side of the Point, and within the Bay, is a small Road, where is good anchoring in 6 to 8 Fa. and a small River or Creek, where you may have plenty of fresh Water. As you go from this Anchoring-place to seaward N.W. you will see some Ridges of Rocks near Point *Burica*. A little to the northward of the first Ridge is Port *Limonas*; it goes in at a small River but deep, and Ships may go into it with safety, the Entrance lies just under the Point to the N.W.

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This *Gulfo Dulce* is an excellent Road, for you have good anchoring any where and well secured: Here is plenty of Wood and Water almost in any part of the Bay, and no Danger but what is in sight. But if a *European* Ship comes in to wood or water, they must be on good Terms with the *Spaniards*, or be very careful how they trust them.

From this *Island del Cano* to another *Indian* Island in the Bay not inhabited by *Spaniards*, is about 4 Ls; and from that *Indian* Island to the *River de la Estrella*, or the *Star River*,

with a Peak in the Middle, being all high Land, and the windward Head larger than that to Leeward, having no other Land near it.

From *Morro de Porcas* to Point *Mariato* the Coast lies E. and W. dist. 12 Ls. All the way between you see the Mountains of *Guanico*, ranging along to the westward, till they go off in the Point; and they are known all the way by the high Heads and Hummocks which appear upon them in a Line as they lie: And on the highest part of them is a large round Hill, with a Break on the W. side.

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Going into this Bay keep your Lead in your Hand, and grounding all the way, for there are many Banks of Sand all the way in. Come not into less than 6 Fa. lest you are left a ground upon the Ebb. If you would go to the Town of *Philippinas*, which lies up a River that opens in the Bottom of the Bay, you must anchor to Leeward of the *Ilba di Leones* or the *Ile of Lions*, that is, on the N. side of it; the Channel is close under the Main: Anchor at the End of the Island a little to the westward, but come not near the Island it self because 'tis shoal all about it.

The River of *Philippinas* goes up 2 Ls, navigable by large Vessels. First let your Course be N. to the Mouth of the River; you will know the Opening of it by a high Wood of Mangroves. The Town lies 3 Ls up the River. The Bay has many more Islands in it, and consequently several Channels among them: The best Channel out, is that to the S.E. end of the *Governador*, for there are no Dangers but what are in sight. On the out side of the Island you may ride well secur'd and have good anchoring-ground in 15 to 20 Fa.

E. from the Island *Sebaco* the Land trends E. and W. as far as the Island *Canales*, and lies low to within 4 Ls of *Canales*. From *Sebaco* to *Quicara* the Course is S.W. dist. 15 Ls. To the southward of the Island *Canales* is the Island *Corbado* 18 Ls in length, and near it another smaller, call'd Island *de Rhenchira*.

N. from the Island of *Canales* is a Bay call'd *Baia Honda* or the *Deep Bay*, a very good Harbour, Land-lock'd from all Winds, and having 15 to 20 Fa. in the *Watering-place*. The distance from the said Island is 2 Ls N. from whence the Coast runs on to *Chiriqui*. Midway between them is the Town of *Puebla Nueva*, or *New Town*. From *Baia Honda* to the *Puebla Nueva* the dist. is 7 Ls, the Course N. by W. Right before the Mouth of the River, which goes up to the Town lies an Island call'd by the same Name, about 1 L from the Main. The Channel runs on the E. side of this Island directly up to

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From this *Island del Cano* to another *Indian Island* in the
Bay not inhabited by *Spaniards*, is about 4 Ls; and from that
Indian Island to the *River de la Estrella*, or the *Star River*,
is 5 Ls, the Course the same still, viz. N.W.

From the *Island del Cano* thwart the Bay, and not in the
Bight, to the Cape *Herradura* or the *Horse-shoe Point*, is 16
Ls; and from the *River de Estrella* in the Bight or Bay to the
Herradura is 11 Ls. This Coast was antiently call'd *Coasta
Rica*, or the rich Coast, inhabited by the *Buriaco Indians* and
the *Creolian Spaniards*.

In this Bay the Sea runs so very high, that it is sometimes
dangerous Riding in it, tho the Wind does not blow hard; the
Mouth of the Bay lying directly open to the vast *Southern
Ocean* S.W. by W. and S.S.W. The *River de Estrella* is about
a Mile and half wide at the Entrance, and small Ships may
go in for about 2 Ls.

From the *Herradura* lies the Island of *Chira*, the Course
N.N.W. and S.S.E. the dist. 15 Ls. In the Midway lies a
Town on the Coast call'd *Landecho*, inhabited by *Spaniards*.
This is a good Country to get Provisions, nor are the *Indians*
backward to supply you for Money, if the *Spaniards* will per-
mit them, and even without the *Spaniards* Consent too, if
they can do it privately.

Two Ls beyond *Chira* lies the River *Cipanso*, where Ships
ride to take in Goods from *Nicoya*, a Town up within the
Land; the River is navigable by large *Periaguas*, which
bring down the Goods to the Ships. The Island of *Chira* af-
fords fresh Water and Provisions in great plenty.

Cloſe by the Isle of *Chira* is another smaller Island inhabited
also by *Indians*, which is full of Cattle, as *Chira* is, especially
Sheep and Hogs. On the N.E. side of the Island lies a Bank,
which is sometimes dry, but at other times the Sea washes over
it. To go into the Road of *Chira*, keep cloſe to this Island,
leaving all the other Islands W. of you, the Main being on your
Starboard-Bow, except the small Island where the Bank lies:

The Channel lies between it and the other Islands up to the Town; there you may anchor in 10 Fa. and be supply'd with Water and other Necessaries.

N.N.E. from *Chira* lies the Island of *St. Luke*, dist. 8 Ls. In the way are three Islands, call'd *Ilhas de en Medio*, or the *Middle Islands*, probably because they lie midway from *Chira* to *St. Luke*. From *Chira* to these *Middle Islands* 'tis all shoal, not above 6 to 7 Fa. Water any where. Ships sailing this way, whether to the northward or southward, should always borrow of the Islands, keeping nearer to them than to the Main.

Not far from these *Middle Islands*, and nearest to the utmost of them, lies the Island *Guayavas*, where there is also plenty of Provisions and Fruit, and you may be supplied at all these Islands, of which there are very many in this Course; and the nearer Cape *Blanco*, the more small Islands you will find, and most of them close by the Main.

From the *Herradura*, mentioned before, to *Cape Blanco*, or the *White Cape*, is 20 Ls; the Course lies due N.W. and S.E. the Shore of the Main stretching away westerly to *Cape Blanco*.

N. B. *Cape Blanco* and the Island *Canoe* bear with one another N.W. by W. and S.E. by E. and *Cape Blanco* and *St. Luke* N.E. by N. and S.W. by S. dist. from them both about 9 Ls.

N. B. On the Shore opposite to *St. Luke* they usually lade Mules with Provisions, and also with Merchandize, to go over-land to *Panama*.

Cape Blanco is high Land on that side next the Sea, but slopes away on the Land-side, and makes a Table up towards the Mountain: From off Sea, at a distance, it makes like an Island. It lies in 10 d. N. Lat. you may know it by a little Island without any Name lying close by it, on the Top of which is a large black Spot, being some Trees always verdant, but so thick, that they look black at a distance.

N.W. from *Cape Blanco* lies *Point Guiones*, dist. 10 Ls; and in the Midway between are two Shoals, which run out a full L directly into the Sea, being equally distant from the Cape one way, and from the Point the other way. *Point Guiones*, which way so ever you come towards it from the Sea, makes like a Helmet or a Steel Cap: Close to it is a small Island well worth notice, because there are Shoals and foul Ground all about it, every way; therefore you must take care to give it a good Birth: Also in the Bay between the said Point and *Cape Blanco* are some white Rocks under Water, and some above; 'tis best therefore to keep out without them.

N.N.W. from *Point Guiones* lies *Morro Hermosa*, that is, the *Beautiful Head-land* or *Point*: It is a clean fair Coast all the way, and the dist. 8 Ls. The *Head-land* is high and almost perpendicular, as a Wall; you will see the Sea beat upon it some Ls before you come to it, for it is steep too.

Seven Ls dist. from *Morro Hermosa* lies *Port Velas*, or *Porto Velasco*; the Coast lies N.W. by N. and S.E. by S. The Port lies up within the Land, and has fresh Water; but the Land between the Town and the Sea is low, and not to be seen at Sea, till you are almost upon it: You will know it by the following Marks, viz. (1.) Three Ls before you come up to the Harbour, you'll see three or four Rocks in the Sea

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Mark to know it by is a Table of about 2 Ls long, on a Hill near the Port ; this they call *St. John's Table*. From Point *St. Catherine* to this *Port of St. John* is 15 Ls, the Courle N.W.

You must be careful of this *Bay del Papagayo*, if you happen to be here any time between *November* and *April*: For as the N. Winds reign, as the Seamen call it, in those Months on all this Coast, they make a Sea so high, that a Ship can hardly live in it ; be sure therefore to keep close under the Lee of the Mountains, and under Shore ; for the high Lands breaking off the Wind, especially on the most northerly Coast of the Bay, you have it tolerably smooth under Shore, only a great Swell.

In the Middle of this Bay comes in a fresh River, but the Sea goes always so high you cannot come near to get any Water. In the Entrance of *Port St. John* you are shelter'd from those northerly and N.W. Winds ; but then a S.E. blows right in, and makes a terrible high Sea upon the Beach, and there is no going on Shore neither, the Land is so high and steep ; so that at best 'tis but an indifferent Port.

N.W. from this *Port St. John*, dist. 15 Ls, lies the City of *Realejo*, upon the Coast of *Granada*. From this *Port of St. John*, begins the great Range of burning Mountains, which are seen a long way to Sea, and are Marks for the Coast all the way to *Teguantepaque*, which is near 200 Ls from the S.E. to the N.W. Not that they are all on Fire, nor are those which are really on Fire often seen to break out, but sometimes they do make Eruptions, and the *Spaniards* say they are all on Fire within ; however, they are call'd so, and are known to the Sailors by the Name of the *Burning Mountains*. They are seen 12 to 15 Ls off at Sea, and when any of them break out, they are seen much farther, besides that they stand some Ls within the Land.

The first of these Mountains to the northward of *St. John's Port* is the *Volcano de Leon*, which is seen near 20 Ls at Sea, and ordinarily throws out Clouds of Smoke when it does not flame, so that it is known by it at a distance. Near this *Port St. John*, and in the height of the Hill *de Leon*, a fresh River, call'd *la Tosta*, comes into the Sea, and the Water is to be come at with ease, being not block'd up with Mangroves, nor is the Swell of the Sea great here, as before.

From this River to *Realejo* is 8 Ls, the Course N.W. or N.W. by W. Here begins a high Ridge of Land, running along with the Sea for 3 Ls in length, plain on the Top, and smooth like a Carpet, but a little rounding in the Middle ; it is call'd the *Level of Tosta*, or the *Ridge of Tosta*. Over this Ridge you see the Volcano of *Telica*, bearing with the Ridge N.N.E. and S.S.W. From the northermost End of this Ledge it is 4 Ls to *Realejo* N.W. and S.E. the Shore flat and low, but the Water deep and the Ground clean from Rocks or Shoals : Also there are in some Places good gradual Soundings at 15 to 20 Fa. 2 Ls out at Sea, and good clean Sand : And thus it is quite up as far as *Teguantepaque*.

From the burning Mountain *Telica*, to the Volcano *del Veja*, or the *Old Man's burning Mountain*, the dist. is 6 Ls ; and there are two other Volcanoes between them, but not so great,

which way so ever you come towards it from the Sea, makes like a Helmet or a Steel Cap: Close to it is a small Island well worth notice, because there are Shoals and foul Ground all about it, every way; therefore you must take care to give it a good Birth: Also in the Bay between the said Point and Cape *Blanco* are some white Rocks under Water, and some above; 'tis best therefore to keep out without them.

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Seven Ls dist. from *Morro Hermosa* lies *Port Velas*, or *Porto Velasco*; the Coast lies N.W. by N. and S.E. by S. The Port lies up within the Land, and has fresh Water; but the Land between the Town and the Sea is low, and not to be seen at Sea, till you are almost upon it: You will know it by the following Marks, *viz.* (1.) Three Ls before you come up to the Harbour, you'll see three or four Rocks in the Sea above Water, and a little Island close by them. (2.) Farther on between the Island and the Port you will see three or four other Rocks, which at a distance make like Ships under sail; and from these Rocks the Port is said to be named *de Velas*, or the *City of Sails*. (3.) Another Mark, and the most to be taken notice of, is, that near the Mouth of the Port there is a great Ledge of Rocks lying along the Coast a L in length, and running also another way a L out into the Sea; which you must be very careful of.

From *Port Velas* the Coast, which is very full of Points and Bays, and therefore of different Bearings almost for every L, bears W.N.W. and E.S.E. to Point *St. Catherines*, dist. 8 Ls. This Point of *St. Catherines* bears with Point *Guiones* N.W. and S.E. and is in a direct Course 22 Ls dist. from it; but if you go into the Bays and Bights by *Port Velas* and other Places on the Coast, 'tis near 30 Ls.

Off of this Point *St. Catherine*, 2 Ls at least into the Sea, stands a high Rock, and between these Rocks and the Main without the Point are two little Islands; and again, within the Point on the side of the Bay are two other little Islands, bearing S.E. from the first two, and dist. from them about a L. By all these Islands and Rocks the Point is known, and the Course directed.

At this Point begins *Papagayo Bay*, or the Bay of *Parrots*, stretching out N.W. almost 16 Ls; in the Middle of which over the Land, tho making at a distance as if it stood in the Sea, you will see a Volcano or burning Mountain, which is near the City of *Granada* on the side of the Lake of *Nicaragua*, and may be also seen, as some report, into the *North-Sea*, or at least far into the Lake towards the Sea. It is cleft down almost from the Top to the Bottom like a broken Saw; 'tis call'd *Bombachio*, and by our Sailors, the *Devil's Mouth*.

N.W. from this frightful Hill, dist. 5 Ls from that part of the Land over which it appears, lies *Port St. John*. The

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From the burning Mountain *Telica*, to the Volcano *del Veja*, or the *Old Man's burning Mountain*, the dist. is 6 Ls ; and there are two other Volcanoes between them, but not so great, nor do they oiten smoke. Between them is a long Range of hilly Ground, which may be said to join the Volcanoes one to another.

N.B. When we say the distance is such and such from any Port on the Coast to any of these burning Volcanoes, it is to be understood of the Distance to the Shore opposite to those Volcanoes, which are generally 6 to 9 Ls up within the Country.

The *Volcano Veja*, or the *Old Man's Mountain*, lies 7 Ls up the Country, and bears with the Bar of *Realejo* N.E. and S.W. This Port of *Realejo* is the most in use for Shipping of any in all these Seas, especially between *Acapulco* and *Panama*, Ships coming to it from all parts of the *South-Seas*. If you are bound in, and stand for the Bar from out of the Sea, you must come up close with the Land to discover the Harbour ; for the Coast being all a low flat Country, and much overgrown with Trees, unless you come so near as to see the sandy Straud which lies all along under the Shore for 6 to 7 Ls ; there is no discovering the Port.

You must therefore be first sure you are in the Latitude of the Bar, and when you are a-breast of the Port, stand right in, for which take this sure Mark : Bring the *Volcano del Veja* to bear N.E. from you, and then stand boldly with it for the Harbour ; in that Course you will soon see a low Island about half a L in Compass, which is flat on the Top, and cannot be seen till you are within a L of it. That Island lies in the very Mouth of the Harbour.

That Island indeed shelters the Port, and makes it a Harbour, for it breaks off the Sea, which would otherwise come rolling into the Harbour Mountains high. Lying thus in the very Entrance into the Harbour, it makes two Mouths or Channels into it, one to the S.E. and the other to the N.W. the first is by far the largest, but the other the fairest and best Channel,

Sailing Directions for the West Coast

Channel, clearest of Rocks, and the deepest Water; so that no Ships go in on the S.E. side but small Craft, Sloops, Barks and Periaguas, &c.

In the N.W. Channel you have 5 to 6 Fa. Water, and 4 at the lowest Ebb. If you would go in, keep your Starboard-side close up to the very Rocks on the side of the Island; for there the Channel lies, which is very good but narrow, and not above half a Cable over. If the Wind happens to blow at S.W. as you are going into the Port, or over the Bar, you need not come to an Anchor tho it should blow hard; for if there be but Day-light enough, you may lead it up at pleasure; for tho it should be an Ebb, and that of a Spring-Tide, yet there will be Water enough.

If you are got in with your Broad side to the Island close up to the Rocks, and are at a loss, and cannot get a Pilot, for they are not always at hand, then let go your Anchor right with a Parcel of Ground in Spots, over-grown with Thistles and loose Shrubbage; and riding there till low Water, you will then see the Flats in the Channel lie bare, and will know the better how to avoid them upon the Flood; and so may go up with safety.

Having thus mark'd out the Channel, weigh at about an Hour Flood, and strike over to the sandy Point which lies towards the Main on the Larboard-side, for the Channel runs that way; and keep on so, founding all the way in 6 to 7 Fa. till you come up to that sandy Point: Then run along the same Shore next the Point, and let go your Anchor in the midway over, for that is the best of the Road.

The Town is 3 Ls up the River: If you would go up with your Boat, there is another Course than that directed for your Ship, *viz.* First keep up to the N.W. or Larboard-side of the River, as before, till you come to a Creek; pass that, and hold on to another farther up; pass that also, till you come to a third, which seems to be smaller than the other two. Go in there, and follow the Course of the Creek about $1\frac{1}{2}$ L, it will bring you up to the Town, close to the very Houses.

From the Bar of *Realejo* to *Consibina* is 12 Ls, the Coast lying W.N.W. and E.S.E. When you depart *Realejo*, shape your Course S.W. till past the Island *de los Aferradores*, or of *Sawyers*, which is 4 Ls from the Bar of *Realejo*. That Island is small and plain, and must be left to the N.E. Close to it, on the S.E. side are two Rocks, and near them is the Mouth of a Creek, called also *de los Aferradores*, or of the *Sawyers*; up which, Boats can pass at high Water. From thence the Shoals run out a L to Sea, one L beyond the Island *de los Aferradores*, towards the N.W. and 2 Ls due N. up in the Inland Country there is a round Hill, the top looks as if it were cut off; 'tis called *Messa de Roland*, that is, *Orlando's Table*.

From *Messa de Roland* to *la Consibina* is 7 Ls, the Coast low and wooded, and about a L up the Country is a Hill, which bears the Name also of *la Consibina*; it was formerly a Volcano or burning Mountain, and burst open, since when the upper Point has remain'd hanging as if it would fall over.

Consibina and *Volcan del Viejo*, or the *Old Man's burning Mountain*, bear from one another E. and W. At the Port of *Consibina* there are Docks for building of Ships, and they

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small Ships may go up it. N.E. and S.W. within it there is a great burning Mountain, called also of *St. Michael*, lying up the Inland 5 or 6 Ls in an open Plain, which has no other Eminence about it: This Mountain casts out Smoke, which may be seen out at Sea 20 Ls.

From the River of *St. Michael*, to that of *Guibaltique*, is 3 Ls W. the Coast is all low Land, full of tall Mangrove Trees, next the Sea, with several Creeks. Many Shoals run out about a L to Sea from this River of *Guibaltique*, and the Extremity of it bears with that of *St. Michael* N.E. and S.W. and with *Constabina* N. by W. and S. by E. dist. 18 Ls, all the Coast low and shoal, and the Sand-banks lie E. and W. Along this Coast 2 Ls out at Sea, you may anchor in 15 or 20 Fa. and will see the Country up within the Land is mountainous, and full of Hillocks far in.

From the River of *Guibaltique* to that of *Limpa*, is all a sandy Shore, with a high Sea going continually on the Coast, the Land low, and the Water shoal; so that you may anchor, as has been said, in 20 Fa. 2 Ls off the Land.

From the River of *Limpa* to *Lacatecolula* is 4 Ls: This is an Indian Town, but there are some Spaniards among them with whom you may trade: The Country about produces abundance of Cocoa. Near the Town is a great burning Mountain, of the same Name with it; it is 6 Ls up the River *Limpa*.

Two Ls up within the Land, and bearing with this burning Mountain N.E. and S.W. is a Hill like a Sugar-Loaf; and at this Hill begins the Coast of *Taneta*, or of *San Salvador*, that is *St. Saviour*: it is high Land next the Sea. The burning Mountain of *St. Saviour* is 10 Ls from that of *Sacatecolula*, appearing over the Coast of *Taneta*, which is an indifferent even Ridge of Land.

Four Ls to the westward of the burning Mountain of *San Salvador*, is a Hill near the Coast, called *Bernal*; and this and the said burning Mountain bear from one another E.N.E. and W.S.W.

At this Hill of *Bernal* commences the Coast called *de Las Italias*, and the high Land of *Taneta* terminates: and from hence the low Lands on the Coast run as far as Point *Remedios*, being 10 Ls, and is called the Coast *Del Balsamo*, or of *Balsam*, being a low Ridge level at the top, stretching along the Sea-Coast, and terminating before it comes to Point *Remedios*. Opposite to the end of this Ridge, bearing N. and S. with it, is an upright Hill lying 3 or 4 Ls up the Inland; it is flat at the top, and is called the Island of *Italias*; it is 7 Ls from the burning Mountain of *San Salvador* towards the N.W.

From the Hill of *Italias* to the burning Mountain of *Sansonate* is 3 Ls; and this burning Mountain bears with Point *Remedios*, which is the Port of *Sansonate*, or *Sansouette*, N. and S.

Point *Remedios* is low next the Sea, and has a Rock standing up by it, about which there are many Sands, some of which run out above half a L into the Sea under Water: If you would go up to anchor in the Port of *Sansonate*, be lure to give those Sands a sufficient Birth. Point *Remedios* gives Shelter against the S.E. Wind. N. B. All this Bay, which makes the Port of *Sansonate*, is shoal, and therefore you must sound as you come in, till the burning Mountain bears N. by

W.N.W. and E.S.E. When you depart *Realejo*, shape your Course S.W. till past the Island *de los Aferradores*, or of *Sawyers*, which is 4 Ls from the Bar of *Realejo*. That Island is small and plain, and must be left to the N.E. Close to it, on the S.E. side are two Rocks, and near them is the Mouth of a Creek, called also *de los Aferradores*, or of the *Sawyers*; up which, Boats can pass at high Water. From thence the Shoals run out a L to Sea, one L beyond the Island *de los Aferradores*, towards the N.W. and 2 Ls due N. up in the Inland Country there is a round Hill, the top looks as if it were cut off; 'tis called *Messa de Roland*, that is, *Orlando's Table*.

From *Messa de Roland* to *la Consibina* is 7 Ls, the Coast low and wooded, and about a L up the Country is a Hill, which bears the Name also of *la Consibina*; it was formerly a Volcano or burning Mountain, and burst open, since when the upper Point has remain'd hanging as if it would fall over.

Consibina and *Volcan del Viejo*, or the *Old Man's burning Mountain*, bear from one another E. and W. At the Port of *Consibina* there are Docks for building of Ships, and they go thence by Land to *Realejo*.

From the Point and Extremity of *Consibina* to *Port Martin Lopes*, otherwise called *El Condadillo*, or the little Earldom, is 8 Ls; and between them is form'd the Bay of *Fonseca*, running up far into the Continent; and there also is the Ferry which they cross over, who go by Land from *Mapala* to *Volcan del Viejo*: This Bay is 10 Ls over from *Mapala* to *El Viejo*. Some Ships put into it to load with Tar, or to careen, and there is every where 10 to 12 Fa. Water: You may go in boldly any where, as you have occasion: As soon as you are in, you'll see 3 Islands stretching out E. and W. 2 of them large, and the middlemost smaller; one of them is called *La Canchagua*, and other *Miangola*: you must make for *Canchagua*, which lies farthest W. of the three near the Continent, founding all the way as you go up, and come to an Anchor near it, where you think fit: if you are unacquainted, and apprehend any Danger, you may go up in your Boat to find out the Anchoring-place at *Mapala*, which lies on the N.W. side of the Island in the Nook of the Bay; but you'll readily find it; take heed your Cables be good, for the Tides run very strong. These Islands are inhabited by *Indians*, by whom you may be furnished with fresh Water, with spare Masts, and all other Necessaries. Opposite to the Island is the River, the Mouth whereof you'll soon see, and on it abundance of Mangrove Trees, fit for any Ship's use. This River of *Canchagua* and the Point of *Consibina*, bear from one another N.W. and S.E. dist. 8 Ls. On the W. side of this Bay of *Fonseca* is a high and sharp Hill, called the Hill of *Amapala*, or *Mapala*: and at the Foot of this Hill of *Amapala*, is the Port of *Martin Lopes*, otherwise called *El Condadillo*, or the little Earldom; they lie in 23 deg. Lat. N.

From *Port Martin Lopes* to the River of *St. Miguel*, or *St. Michael*, is 18 Ls, the Coast lying E. and W. high Land next the Sea, and without any Mangroves all the way to the River, in which there is 3 Fa. Water at the Flood, so that

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Italias, and the high Land of *Tonela* terminates : and from hence the low Lands on the Coast run as far as Point *Remedios*, being 10 Ls, and is called the Coast *Del Balsamo*, or of *Balsam*, being a low Ridge level at the top, stretching along the Sea-Coast, and terminating before it comes to Point *Remedios*. Opposite to the end of this Ridge, bearing N. and S. with it, is an upright Hill lying 3 or 4 Ls up the Inland ; it is flat at the top, and is called the Island of *Italias* ; it is 7 Ls from the burning Mountain of *San Salvador* towards the N.W.

From the Hill of *Italias* to the burning Mountain of *Sansonate* is 3 Ls ; and this burning Mountain bears with Point *Remedios*, which is the Port of *Sansonate*, or *Sansonette*, N. and S.

Point *Remedios* is low next the Sea, and has a Rock standing up by it, about which there are many Sands, some of which run out above half a L into the Sea under Water : If you would go up to anchor in the Port of *Sansonate*, be lure to give those Sands a sufficient Birth. Point *Remedios* gives Shelter against the S.E. Wind. N. B. All this Bay, which makes the Port of *Sansonate*, is shoal, and therefore you must found as you come in, till the burning Mountain bears N. by E. giving a Birth to the Point and Sands as above till you come into 12 Fa. and when you are in this Depth, and right before the Store-houses, you are in the best Anchoring-ground : you'll see the Store-houses upon a Crag, and then you'll be half a L from the Land ; go no nearer the Shore than 11 Fa. for there are Water-Rats that gnaw the Cables, which you must be sure to take care of. If you would ride safe here, keep the burning Mountains N. by E. and the Mouth of the River N.E. but take heed how you go ashore, for there is generally a great Surf : you must land near a parcel of Stones which are before a Cross in the Nook, or you will be in danger of staying your Boat.

From the Port to the Town of the *Trinity* is 3 Ls : If you would put into this Port of *Sansonate*, you must first, while you are but at Sea, make the burning Mountain that has the top broken off, and looks whitish by reason of the great Quantity of Ashes about it. Farther on towards the N.W. is another little burning Mountain, call'd *de le Paneca*, dist. about 3 Ls from that of *Sansonate*. Near this last are 3 or 4 little Sugar-Loaf Hills, bring them one in another, and then you go fair with the Port.

To ride safe in this Harbour, you must keep the Ridge of *Panaca* N. by E. and S. by W. in 7 Fa. Water, and the Mouth of the River N. and S. dist. a quarter of a L.

Between the Port of *Sansonate*, which others call the *Strand of Catalta*, and the *Strand of Estapa*, the Coast lies W. by N. and E. by S. the dist. 26 Ls. This is the Port to the City of *Guatimala*. All the Coast is low Land, sandy and full of Mangroves next the Sea ; but there is clean Anchoring-ground all the way.

From *Catalta* or *Sansonate* to the River *Maticoloc* is 7 Ls. This River is much exposed to the northerly Winds : Opposite to it there are some small but high Hills, by which it is known ; and at the Mouth there are no Mangroves, which is very particular, for they grow very thick and high all along the Coast, except only at this Place.

Four Ls to the westward of *Moticalo* is another great River, which has 2 Fa. Water upon the Bar. From this River to the Bar of *Ejlapa* is 15 Ls. This River of *Ejlapa* and the burning Mountains of *Guatemala*, bear from one another N.E. and S.W. N. B. That the Land-marks to know this River of *Ejlapa* by, are the tallest Mangroves of the whole Coast growing about it; and in the middle of these mighty Trees, is the Bar or Entrance into the River.

The Bar of *Ejlapa* and that called *Tecuan-tepeque* bear from each other N.W. and S.E. all low Land, and full of Mangroves next the Sea; but high, and with many burning Mountains up the Country. From the Bar of *Ejlapa* to *Tecuan-tepeque*, which others call *Sequetopeque*, is 65 Ls, as particularly mention'd below.

About 15 Ls from *Ejlapa* towards the N.W. is another burning Mountain: It is upon a Ridge of very high Land, in the highest part of all which the burning Mountain shoots out; it is call'd the *Volcan of Sopotitlan*.

From *Sopotitlan* to *Malpas* is 12 Ls. These are two other burning Mountains; all these are within Land, but are high Marks to know the Coast by, and to direct the Sailors, being seen far at Sea.

From these burning Mountains of *Malpas* to that of *Soco-nusco* is 12 Ls also: This is a low burning Mountain, lying near the Sea-Coast, which is also low there.

From the burning Mountain of *Soco-nusco* to the *Encomienda*, or the *Hill of the Cross*, is 7 Ls. This *Hill of the Cross* is but low; it is dist. from the Sea about half a L, and on it is a Cross form'd by the Greens growing on the Flat, which is to be seen the Year about; and therefore it is called *La Encomienda*, or *the natural Cross*. There is good anchoring all along this Coast; and at this *Hill of the Cross* Ships take shelter when the N. Winds are boisterous, or else at *Tecuan-tepeque*, if they cannot reach to *Bernal*, or *Port Mosquitos*.

From *La Encomienda* to *Bernal*, which is the Entrance into the Bay of *Tecuan-tepeque*, is 5 Ls. The Mountains appear running out from the Inland. Towards *Bernal* and the Sea, till within half a L of it, as you come coasting from *Soco-nusco*, this Point seems to run out into the Sea, and the high Land to terminate there; but it does not, but returns up the Inland towards the N.E.

This Hill of *Bernal* and the River of *Samilitam* bear from one another E. and W. dist. 41 Ls, as follows, viz. From *Bernal* to *Port Mosquitos* 9 Ls, low Land, wooded with Mangroves. In this *Port Mosquitos* Ships anchor when the N. Wind rages; and from it runs a River, which puts out many Banks of Sand towards the N.W. and there is a great Surf on them, tho the Sea does not run very high on the rest of the Coast, all this Country about being liable to Inundations. Three Ls up the Inland are some higher Grounds which look like Islands, the Water often flowing about them when the Freshes or Floods from the Country are high.

From *Port Mosquitos*, to the Bar or Port of *Tecuan-tepeque* is 8 Ls: near the Bar is a parcel of lofty Hillocks, being Islands in the River, by which it is known where the Bar lies.

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other Spots of white Sand all along the Coast, except 2 or 3 at *Salinas*. On the top of all the Head-land is a Peak like a little burning Mountain, which is seen 10 to 12 Ls out at Sea; and near the Head-land in the Water is a dangerous Bank of Sand.

From these Head-lands of *Macatan* to that of *Bada* is 4 Ls; and close by it is a dangerous Shoal a L out at Sea, and they bear from one another N. and S. It is all high Land and Rocks, and next the Sea sandy Strands at certain distances.

From the Head-land of *Banda* to the Island of *Itata* is 3 Ls: This Island of *Itata* is close up by the Land, within a quarter of a L, between them, in that Space, is good Anchoring, sheltered from all Winds; the Island is small and white, and is cleft in the middle. Half a L from the Head-land is a fresh Water River, and an *Indian Town*: The Coast is bold, and tho the N. Wind blows you may land very safely.

From the Island of *Itata* to Point *Artea* is 7 Ls, most of it sandy Strands; and between the Island and the Point is the Town of *Guama* a L up within Land. Short of Point *Artea* is a Farm of black Cattle, where is also Water and other Necessaries: if you have occasion, you may safely land at this Point of *Artea*, unless the S.E. Winds blows, for that makes a great Surf. This Point is low, and at a dist. looks like a little Island; it affords Shelter against the N.W. and W. and S.W. Winds; all this Coast lies W. by S.

From Point *Artea* to the River of *Samilitam* is 4 Ls, where is an *Indian Town* also, with fresh Water, and what else you may stand in need of. Going along the Shore where the Strand ends, is the River, where you may water, for there is no great Sea goes there; and there is a Creek within the Point, where your Boats lie quiet.

From the River of *Samilitam* to the River of *Copalita* is 2 Ls; this is a great and deep River, and along by it runs the Road from *Guabaca* to the Sea; there is Anchoring-ground all along this Coast, the Land clean and level, and the Shore clear from Rocks.

To the westward of this River of *Copalita* is the Harbour of *Guatulco*, the Port to the great Cities of *Mexico* and *Guaxaca*, a safe Place and shelter'd against all Winds except the S.E. The Mark to know this Port by off at Sea, for it is close hid up, is a L before you come to it, a little round mountainous Island, called *Tangolatango*. At the Mouth of the Harbour is another little Island without any Trees: A little farther to the westward is *El Pufadero*, that is, the *Roaring Place*; and when the Wind blows you will hear it roar a great way off. If you come in from the seaward, you'll see a high Mountain just before you: then make for the Harbour, keeping the highest part of that Mountain right a-head. When you are in the Harbour of *Guatulco*, keep to the E. side, and anchor under some Hills which lie near the Shore, for there is most Water and best Shelter.

There is a fine Strand runs from the Port of *Guatulco* to *Cal-luta*, whither the Boats go for Water: you'll see a little Island to the westward, where you may anchor while you fetch Water. About a L to the westward of this Watering Island is another Island, and to the Landward of it is good Anchoring-ground, safe from all Winds: it is called *Sacubicas*, or the *Ile of Sacubicas*.

running out from the Inland. Towards *Bernal* and the Sea, till within half a L of it, as you come coasting from *Soconusco*, this Point seems to run out into the Sea, and the high Land to terminate there; but it does not, but returns up the Inland towards the N.E.

This Hill of *Bernal* and the River of *Samilitam* bear from one another E. and W. dist. 41 Ls, as follows, *viz.* From *Bernal* to Port *Mosquitos* 9 Ls, low Land, wooded with Mangroves. In this Port *Mosquitos* Ships anchor when the N. Wind rages; and from it runs a River, which puts out many Banks of Sand towards the N.W. and there is a great Surf on them, tho the Sea does not run very high on the rest of the Coast, all this Country about being liable to Inundations. Three Ls up the Inland are some higher Grounds which look like Islands, the Water often flowing about them when the Freshes or Floods from the Country are high.

From Port *Mosquitos*, to the Bar or Port of *Tecuntepeque* is 8 Ls: near the Bar is a parcel of lofty Hills, being Islands in the River, by which it is known where the Bar lies. To the N.W. from this River is a round Hill or Head-land, called *Morro del Carbon*, or the *Head-land of Coals*, tho we do not find there are any Coals there about.

From the Bar of *Tecuntepeque* to *Le Ventosa* is 4 Ls; this is called *Cape Ventosa*, that is, the windy or stormy Cape, because it lies open to the Westerly Winds, which are there very boisterous. Here Ships take in the Cannon and other Stores which are brought down by the River of *Guasacalco* from the N. Sea, (there being but 9 Ls of Land Carriage between) for the use of Ships bound to the *Philippines*: The Ships that are to cross this Bay of *Tecuntepeque* usually come to an Anchor, as has been said, at *Bernal*, Port *Mosquitos*, or any other Place about the Bay. When you are to cross this Bay of *Tecuntepeque*, be sure to keep as close under the Land as you can, for the farther you are out at Sea, the worse it is; and contend not with the N. Wind, for Ships are frequently lost by so doing, or at least obliged to throw over-board part of their Lading. When you are half over the Bay towards the N.W. the Winds come larger, and you may steer due W. You ought to be but 2 Ls from the Land of *Bernal*, when you cross this Bay, and always keep up towards the Land, as above.

From the Bar of *Tecuntepeque* to *Las Salinas*, or the *Salt Pits*, is 6 Ls, the Coast lying E.S.E. and W.N.W. At these *Salt Pits* the low Land terminates, and before them are two high Rocks, to the Landward of which is a Harbour for Ships. Hence they carry Salt to *Tecuntepeque* for all the Inland Country.

From *Salinas* to *Puerto de los Angeles*, or *Port of Angles*, is 3 Ls, the Coast lying W. by N. and E. by S. from *Salinas* to *Quatulco* 25 Ls, all clean Anchoring-ground, and a safe pleasant Coast.

From *Salinas* to the Head-land of *Macatan* is 2 Ls. At this Head-land a fresh Water River falls into the Sea; the Head-land it self next the Sea looks black, and is very rocky; but the Top is white, having a Spot of Sand, and there are no

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nd the Sea, *Soconusco*, a safe Place and Shelter'd against all Winds except the S.E. The Mark to know this Port by off at Sea, for it is close hid up, is a L before you come to it, a little round mountainous Island, called *Tangolatango*. At the Mouth of the Harbour is another little Island without any Trees: A little farther to the westward is *El Pufadero*, that is, the *Roaring Place*; and when the Wind blows you will hear it roar a great way off. If you come in from the seaward, you'll see a high Mountain just before you: then make for the Harbour, keeping the highest part of that Mountain right a-head. When you are in the Harbour of *Guatulco*, keep to the E. side, and anchor under some Hills which lie near the Shore, for there is most Water and best Shelter.

There is a fine Strand runs from the Port of *Guatulco* to *Calcuta*, whither the Boats go for Water: you'll see a little Island to the westward, where you may anchor while you fetch Water. About a L to the westward of this Watering Island is another Island, and to the Landward of it is good Anchoring-ground, safe from all Winds; it is called *Sacrificios*, or the *Ile of Sacrifices*; and there also you may water, with great Conveniency.

From this Island of *Sacrificios* to the River of *Coiula* is 3 Ls, a deep Coast, and bad Landing, because of the Surge of a high Sea on Shore.

From this River *Coiula* to the River of *Julian Carrasco* is 4 Ls. This River runs out at the Strand, where there is a good Landing-place; but before you come to it there is a high Bank of Sand, which appears above the Water like a *Tortoise*, about a quarter of a L from the Mouth, and half a L from the River bearing from one another N.W. and S.E.

Between the River of *Julian Carrasco* and *Puerto de Angeles*, or *Port Angels*, is a Creek which affords very good Shelter for small Vessels: To the S.E. from this Creek there runs out into the Sea a Row of little high Rocks, about half a L; there is no fresh Water in that Creek, or near it. In the way from it, short of *Port Angels*, is a dangerous Bank of Sand under Water; and near it is a little high Rock, which bears with the Port N.W. and S.E. *Port Angels* is a very good Harbour; and within it on one side is a Creek. The S.E. side of this Harbour affords better Shelter than the other; it is a high Land on both sides; but towards the S.E. at the Mouth of it is a high Rock, and up some way in the Creek a Brook runs down to the Shore, which is so sandy that the Stream is lost in the deep Sands; a little higher you may see the Brook run down, and a Ground of Reeds in it. In this Port there is some Wood to be had, but not much.

From *Port Angels* to the River that runs by *le Galera* is 3 Ls; and here terminates the Coast, bearing E.S.E. and W.N.W. From this River *de la Galera* runs a large sandy Shore, and above that Shore are abundance of Mangroves, so large that they may serve to make Masts for Ships; and they extend about 2 Ls: The Coast is upright, with good Anchoring-Grounds all the way; and within the Land divers Hills and Dales, with greater and lesser Strands stretching on towards *Le Galera*.

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Sailing Directions for the West Co

From the River *de le Galera* to that of *Massia* the Course is N.N.E. dist. 18 Ls. This is a fresh Water River of a pretty long Current; it swells much in the rainy Seasons, and those Swellings are of long Continuance. There is a Town upon the Bank of the River called also *Massia*: half a L without the River there is a small Island and a parcel of little Rocks; you must keep at a distance without those Rocks.

From the River *Massia* to a Point which lies 2 Ls to the westward, is a little Rock which is very dangerous; and behind the said Point a little Rivulet runs into the Sea. When the Wind blows at N.W. you may go ashore there for Water, which is to be had to the S.E. of the Point, where the Sea is still, and makes very little Surf upon the Shore.

From this Point and River to *Puerto Escondido*, or the *Hidden Harbour*, the dist. is 8 Ls. *Puerto Escondido* is a small Bay, having a Point which runs out into the Sea half a L beyond the Shore: and a little way within that Point is a small Island, which closes, and makes the Harbour. There is good Anchoring to the Landward of that little Island, tho the W. and S.W. Winds should drive in; and you may safely go ashore in your Boat.

From *Puerto Escondido* to *Pesquerio de Don Garcia*, or *Don Garcia's Fishery*, is 30 Ls, the Land all Vales and open Strands, without any Harbour. Ten Ls to the westward of *Puerto Escondido*, before a parcel of Craggs, which you will see above Water, there are many dangerous Shoals, which run out 2 Ls into the Sea, and shew themselves at the Bottom; for there is but a Fa. or a Fa. and a half Water upon them at the lowest Ebb: Take heed of them, for they lie above 2 Ls in length. The Craggs and they, bear one from another N. by E. and S. by W. dist. 2 Ls.

From these Craggs and Shoals to the Port of *Acapulco* is 2 Ls, the Coast lying W.N.W. and E.S.E. Three Ls to the westward of the Shoals is a little white Island, where there is good Anchoring-ground, and it is called the Island of *Alcatrazes*, being half a L from the Continent. To the westward of the said Island is a River, which runs out as far as the Island, and there Ships may water; the Coast is mountainous, and the Shore upright: Between this Place and *Acapulco* are abundance of Craggs, and broken Rocks on the Shore.

From this River to *Don Garcia's Fisheries*, is 15 Ls, a spacious Shore, stretching out as far as Port *Marquis*, which others call *Puerta Chico*, or the *Little Port*. Near these Fisheries are 2 little Rocks, and a fresh Water River, the Place generally very still; but when the Sea swells with an easterly Wind, it is very boisterous.

Between these Rocks and the Port of *Acapulco* the Coast bears N.W. by W. and S.E. by E. to Port *Marquis* 5 Ls; and from Port *Marquis* to *Acapulco* 1 L. If you come in from the Seaward you'll see 4 Mountains, the first next the Sea somewhat low, but the others rise higher gradually behind one another; on the highest is a burning Mountain towards the S.E. At the Foot of all these Mountains is the Harbour of *Acapulco*, spacious and very safe: and a little without the Mouth of it is an Island; on the N.W. side of this Island is a narrow Channel, at which Ships may safely go in, for there is Water enough.

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Continent in 10 Fa. Water; the same is all along the Coast, the bottom clean, and a holding Sand or a stiff oazy Sand all the way.

From Point *Tequepa* to the Head-land of *Petaplan* is 10 Ls N.W. This Head-land looks like a little Island; and a quarter of a L to the seaward of it are three very white Rocks, which at a distance look as if they were all but one: You may pass between them and the Head-land, and come to an anchor close to them, next the Continent, in a convenient depth of Water: Under these Rocks, there is Shelter sufficient against the S. and S.W. Winds as also on the N.E. side of the Head-land, because the Coast stretches out E. 2 Ls: It is all clean, and you may land upon the Strand behind the Head-land. At the End of the Bay, about half a L up, there are Settlements of *Spaniards*, and an *Indian Town* or two.

About 4 Ls N.W. from *Petaplan* is a little Rock about half a L from the Continent, the Coast lying N. and S. About the length of these Rocks is a good Harbour, call'd *Siguatanero*. *Note*, Tho' this Port cannot be seen from the Offing, as soon as the Rock comes to bear N. you'll see it, and you may pass by either side of the Rock. A L farther towards the N.W. there are 5 or 6 Islands great and small, where is a Village, but inconsiderable, towards the S.E.

Two Ls still N.W. from these Rocks, is a Spot of high hilly Land, call'd the Land of *Tacomatan*; and before this Land, close to the Sea, is a Town call'd *Istapa*; and on the Brink of the Sea is a small Spot of Land, which looks like an Island, shelter'd against all Winds from E. to S.E. This Spot of Land may be seen for 10 Ls every way, because it is high, and the rest of the Land low.

To the N.W. of *Istapa* is a flat level Shore, without any Harbour for about 12 Ls, in some places full of Trees, and at the End of it a Spot of thick and green Mangroves. There is the Mouth of a large River call'd *Sacatulca*: Half a L up the River is a *Spanish Town* call'd the Town of *Sacatulca*. *Note*, That you must keep within 2 or 3 Ls of the Land, to be able to make these Land-Marks: Over the River of *Sacatulca* next the Sea are some Hills, the least of them opens without Trees.

From this River of *Sacatulca* the Land trends away N.W. rugged next the Sea, with several Hills of moderate height, call'd *Los Mattinas*: This high rugged Land holds for 25 Ls. In the highest part of the Land, about half a L beyond *Sacatulca*, you'll see two Hills as it were little Dugs, very close together; and when you are near the Land, bearing N. and S. with them, you'll discover an indifferent high Rock, with a Spot of Strand like a Creek: When you bear N. and S. with it, you may discern the white Church of a great Town call'd *Tutapan*. You may anchor to the southward, between the River and the Strand, in 4 Fa. Water, clean Ground: And if you would go a Shore, make up to the End of the Strand towards the N.W. near the Stones, and you'll see the way to the Town, which is inhabited by *Indians*.

Four Ls to the N.W. of *Tutapan* is a Point, indifferent high with a Parcel of Rocks by it, on the S.E. side, which you will not see unless near the Land. Between these Rocks and the Land to the S.E. is a piece of a Strand like a Creek, and a very green Valley: Here is good Anchoring and Shelter from the W. and

being half a L from the Continent. To the westward of the said Island is a River, which runs out as far as the Island, and there Ships may water; the Coast is mountainous, and the Shore upright: Between this Place and *Acapulco* are abundance of Crags, and broken Rocks on the Shore.

From this River to *Don Garcia's Fisheries*, is 15 Ls, a spacious Shore, stretching out as far as *Port Marquis*, which others call *Puerta Chico*, or the *Little Port*. Near these Fisheries are 2 little Rocks, and a fresh Water River, the Place generally very still; but when the Sea swells with an easterly Wind, it is very boisterous.

Between these Rocks and the Port of *Acapulco* the Coast bears N.W. by W. and S.E. by E. to *Port Marquis* 5 Ls; and from *Port Marquis* to *Acapulco* 1 L. If you come in from the Seaward you'll see 4 Mountains, the first next the Sea somewhat low, but the others rise higher gradually behind one another; on the highest is a burning Mountain towards the S.E. At the Foot of all these Mountains is the Harbour of *Acapulco*, spacious and very safe: and a little without the Mouth of it is an Island; on the N.W. side of this Island is a narrow Channel, at which Ships may safely go in, for there is Water enough. When you sail in on the S.E. side, which is a wide Channel, you'll see a Bank of Sand above Water, called *Del Grifo*; leave it on your Larboard side: but you must keep close to it to sail in, and run very hard up with a little Point which lies there just by it; and you'll soon see the Town within. To the westward on the Shore you'll see 2 little Rocks, which you must avoid. *Port Marquis* stretches out N.W. and S.E. the Mouth of it lies E.S.E. and W.S.W. it is a safe Harbour and very deep, having 20 Fa. Water within the Bay. The Marks to know it by are the high rocky Land beyond it; and next the Sea is a round Hill. Somewhat higher, opposite to the Harbour, on the said Hills, you'll see some red and white Stones, which appear as it were thro' a Mist. Observe the Land-marks well, for the Harbour lies up very close: Take special heed you miss not the Island. On both sides of *Port Marquis*, as far as *Acapulco*, the Shore is rocky for about 2 Ls, and on both sides of these Rocks low Lands and sandy Shores; and in the midst of these Rocks is the Port of *Acapulco*.

From the Port of *Acapulco* to that of *Natividade* or the *Nativity* is 70 Ls: the two Ports bear from one another N.W. and S.E. Coming out of the Port of *Acapulco* to the westward, you'll see a spacious Strand, extending above 24 Ls in length, all of it low Land next the Sea, and with many Palm-Trees in several Places; it is called the Strand of *Sitata*, or of *Apusagula*. At 18 Ls dist. from *Acapulco* you'll see a Spot of Mangroves higher than all the other Trees, about a L up the Inland, and stretching out half a L along the Coast, which is here called *Tequepa*. Five Ls farther N.W. is an upright Point next the Sea, not very lofty; the highest part of it at a distance looks like Islands: Here is Shelter against the W. S.W. and S. Winds, which are the most boisterous on this Coast in Winter. When you are here you will see a white Rock standing out a quarter of a L from the Land; there is good Anchoring-ground between it and the

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From this River of *Sacatulca* the Land trends away N.W. rugged next the Sea, with several Hills of moderate height, call'd *Los Mattinas*: This high rugged Land holds for 25 Ls. In the highest part of the Land, about half a L beyond *Sacatulca*, you'll see two Hills as it were little Dugs, very close together; and when you are near the Land, bearing N. and S. with them, you'll discover an indifferent high Rock, with a Spot of Strand like a Creek: When you bear N. and S. with it, you may discern the white Church of a great Town call'd *Tutapan*. You may anchor to the southward, between the River and the Strand, in 4 Fa. Water, clean Ground: And if you would go a Shore, make up to the End of the Strand towards the N.W. near the Stones, and you'll see the way to the Town, which is inhabited by *Indians*.

Four Ls to the N.W. of *Tutapan* is a Point, indifferent high with a Parcel of Rocks by it, on the S.E. side, which you will not see unless near the Land. Between these Rocks and the Land to the S.E. is a piece of a Strand like a Creek, and a very green Valley: Here is good Anchoring and Shelter from the W. and N.W. Winds in 12 Fa. Water: The Place is call'd *Muibata*. If you have Occasion to go a Shore, you'll find *Indians*, who generally reside there, and follow Tillage: There you'll see the River, which runs only in Winter, and the way which leads up the same River to the Town, standing on the Top of a Hill call'd *Pomaro*.

Six Ls from this Town of *Pomaro* is a high Point reaching up perpendicular next the Sea, looking like an Island or small Head-land, call'd *Tachifi*: And here ends the Land above-mention'd call'd *Motina*. Tho' this be rugged Land, like all the rest of the Coast, yet there are Strands and Anchoring-Places, and Shelter from the N.W. Winds, which are the most boisterous along the Coast during the Summer Season. To the N.W. of this Point is plain Land, full of Mangroves: Keeping an Offing of about 3 Ls, from this Point you'll see a Parcel of Ridges, or high Land, all Campain Country, it is call'd *Colima*. Among these Ridges is a smooth Break running N.E. up the Country; and if it be clear Weather, you may discern thro' the farther part of the Break a burning Mountain continually smoaking, and call'd the *Burning Mountain of Colima*; it is all cover'd with Cattle, and Orchards of *Cocao*.

Eight Ls from the Valley of *Colima*, is a very rough Head-land call'd *San Tiago*; and on the S.E. side of it are two Hills like Dugs: Between those Dugs and the Head-land of *San Tiago* is the Port of *Salagua*. In order to know this Port of *Salagua*, you are to observe, that there is a very white Rock clinging close to the Head-land of *San Tiago*, which may be seen at 8 Ls distance, whatsoever way you come towards it. Between this Rock and the opposite Point being about 3 Ls distance, is a Bay with a Strand: Farther up, it is all wooded. If you would put into this Port of *Salagua*, stand strait in for the Strand, for at the Ends of it there are two very good Har-

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bours, where many Ships ride; they are call'd *Las Calletas*, that is, the Creeks: That which is to the N.W. of the said Strand is also very safe, land-lock'd against all Winds, tho' smaller than the other. In this Port of *Salagua* is a fresh Water River, and there are Plantains and Woods. As soon as landed, you'll see the Road that leads to *Salagua*, which is a L and half from the Sea. *Note*, That between *Salagua* and the *White Rock* is the Port of *Sant Tago*.

Six Ls N.W. from the *White Rock* is a little Head-land, which afar off looks like an Island; 'tis all craggy next the Sea, with a little Rock close by it, which looks like a Sugar-Loaf. On the N.W. side of this Rock is a Strand about a L in length, call'd the *Port of Natividad*, or *the Nativity*.

At the End of the Coast, which forms that Port, towards the N.W. is another Port, by the Natives call'd *Melaque*, and land-lock'd against the N.W. the W. and S.W. Winds.

Bare 3 Ls from Port *Melaque* is a Row of four or five Rocks above Water, or small naked Islands, running from the Continent, and stretching out N.W. and S.E. and if the Weather be fair, you'll see the *Burning Mountain of Calima* to the eastward up the Country, smoaking between these Rocks and the Port of *Acapulco*. The Coast lies E.S.E. and W.N.W.

Four Ls N.W. from these Rocks or Islands, about half a L from the Shore, and at a distance, are other great Rocks, which look like Ships under sail, call'd the Rocks of *Aquiapapulco*; you may safely anchor near them, close under the Shore, for Shelter against the Sea and Winds off.

Between 2 and 3 Ls to the N.W. from these Rocks is a low Point, with high Craggs, and a little Rock, or bare Island, close to it, on the N.W. side whereof is good anchoring under shelter from the S.E. to the S.W. At this Point runs in a Bay trending towards the N.E. about 8 Ls, where you'll see two or three small low Islands call'd the Islands of *Chametla*; between which and the Continent is very good anchoring: The way in, is from the S.E. There is a Fishery belonging to the Town of the *Purification*, which lies 14 Ls up the Country.

From these Islands of *Chametla* the Coast runs to the N.W. a strait Shore as far as *Cape Corrientes*, or *Currents*. When near the Cape, if you happen to meet with any Squalls of Wind at N.W. there is a Parcel of upright Craggs next the Sea; make directly for them, because to the S.E. close up there is very good anchoring, shelter'd from the N.W. the W. and the S.W. Winds: The Place is call'd *Los Salinas del Piloto*, or the *Pilot Salt-Pits*, by reason Salt is made very near this Place.

Sailing Directions for the great Run over the Sea of California to the Island



WE are now at an end of all Survey, if not of all Discovery: None of the Pilot-Books or Charts, whether printed or Manuscript, in our own Language or any other, at least that we can meet with, carry us any

Directions for the Southern Ocean.

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The aforesaid *Cape Corrientes* being in 20 d. of N. Lat. is in-
different high Land, rising by Degrees, barren, and bearing
few Trees; but up the Country there appears above it a high
Ridge of Mountains from many Heads, call'd *Los Coronados*.

From *Cape Corrientes* there runs in a Bay E. by S. 10 or 12
Ls. All the Land to the N.E. and N.N.E. is low, and looks
very pleasant to the Eye: This Bay is 6 or 7 Ls in breadth;
and all the low Land, which is full of *Guayaves*, belongs to
the Liberty of the City of *Compostella*.

From *Cape Corrientes* to the Point at the other End of the
aforesaid Valley is about 10 Ls N. by E. and S. by W. The
Point forms a round Head-land of an indifferent Size, which
looks like an Island without any Trees on it, and is call'd
Point *Ponteque*. In the Offing to the westward of it, are two
small Islands call'd the Isles of *Ponteque*, almost a L from the
Continent: Ships may safely pass between them and the Shore.
On the W. of these Islands are some small Rocks, and then a
Bank of Sand on which the Sea breaks, at the End whereof
are two other little Rocks, the whole extending 2 Ls.

Three Ls to seaward of these Rocks is another small one,
cleft in the Middle, which at a distance looks like a Ship with-
out Masts: You may safely pass between this and the Rock of
Ponteque.

About 14 Ls N.W. by W. from the said Rock are three large
Islands and a small one; the three great are call'd *Los Tres*
Marias, or the *Three Marys*, the lesser *la Isla Baxa*, or the
Low Island, lying towards the N.E. and by it a white round
Rock: All these Islands lie N.W. and S.E.

From the Rocks of *Ponteque* the Coast trends on N.E. about
20 Ls to the Port of *Matanchel*; and if the Weather be clear,
you'll see a very high Hill over the Port, with a Break on the
Top, which is call'd the Hill of *Xalisco*, and may be very well
made 8 or 9 Ls before you come to the Port of *Matanchel*. In
a Bay with a sandy Shore joining to some high Land, at half a L
distance from the Shore, you'll see a small round mountainous
Island call'd *Maxantalla*; and on the Shore opposite to it, are
Orchards of Cocoa, and grazing Lands. About 2 Ls to the
N.W. of this Island is a Piece of Land full of small red Crags,
where this Course ends.

Thus far the *Spanish* Charts direct, and no farther being to
the Lat. of 26 d. Some Navigators may have gone farther; but
as we have little Account of them, and there is no Traffick be-
yond it, that we know of, here must end our Survey of the
West Coast of America.

Run over the Southern Ocean, from Cape Lucas on the Coast of America to the Islands of Ladrones, inclusive.

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sent is, that *Drake*, tho a bold and skilful Sailor, yet being the
first that ever sailed that Course, kept a more unsteady steerage,
sometimes more to the northward, and then again nearer the
Line than is now or has been usual.

From these Islands of *Chamela* the Coast runs to the N.W. a Strait Shore as far as *Cape Corrientes*, or *Currents*. When near the Cape, if you happen to meet with any Squalls of Wind at N.W. there is a Parcel of upright Crags next the Sea; make directly for them, because to the S.E. close up there is very good anchoring, shelter'd from the N.W. the W. and the S.W. Winds: The Place is call'd *Los Salinas del Piloto*, or the *Pilot Salt-Pits*, by reason Salt is made very near this Place.

Sailing Directions for the great Run over the Sea of California to the Islands



We are now at an end of all Survey, if not of all Discovery: None of the Pilot-Books or Charts, whether printed or Manuscript, in our own Language or any other, at least that we can meet with, carry us any farther on the side of the main Land: nor do the *Spanish* Manuscripts give any Account that may be depended upon farther N. or N.W.

'Tis said indeed that Sir *Francis Drake* sailed up between the Land we call *California* and the Main, as high as the Lat. of 43 d. N. in hopes of finding a Passage that way into the great *Chinese* Ocean, and so to have made home by the *East Indies*: but he found it impracticable; and tho' tis like he went not so far to the bottom of this Sea as to make Land at the extremest part, and ascertain the great doubt, whether it was an open Vore or Passage of Water, or a meer Gulph, a Bay in which there was no other Outlet but by the way he went in; yet he brought it to this Certainty, that if there was any such Passage out, the extremity of the Cold, and the violence of the Winds, which blew Trade from the N. was such, that Nature was not able to support it; and he was forc'd to come back the same way, only keeping to the side of *California*: He by that means kept to the westward, so far as to reach *Cape Lucas*, which is the southermost Point of Land on that side; from whence rounding the Point, and following the Coast which goes away W. and N.W. he kept the Land aboard, tracing the Shore, till he found it carry'd him too far to the northward; when at length he left it, and stood away to the Latit. of 13 to 15 d. N. in which Course he held on W. till after 11 Weeks Sail, without seeing Land, he made the *Ladrones*, being much the same Course which all the Navigators, who have thus circled the Globe after him, have pursued.

It is true, Sir *Francis* left no exact Journal of his Voyage, with the Lat. and Dist. of Places, the Course he held, and what way he made every day, as others have done; and so we cannot judge what occasion'd his being so much longer in the Run from *California* to the *Ladrones* than others usually are now: otherwise we might perhaps account for the Difference, and know how Captain *Rogers* made the same Course in 8 Weeks, which *Drake* made 11 Weeks of: What we can suggest at pre-

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... near this Place.

Orchards of Cocoa, and grazing Lands. About 2 Ls to the N.W. of this Island is a Piece of Land full of small red Crags, where this Course ends.

Thus far the *Spanish* Charts direct, and no farther being to the Lat. of 26 d. Some Navigators may have gone farther; but as we have little Account of them, and there is no Traffick beyond it, that we know of, here must end our Survey of the *West Coast of America*.

Run over the Southern Ocean, from Cape Lucas on the Coast of America to the Islands of Ladrones, inclusive.

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sent is, that *Drake*, tho a bold and skilful Sailor, yet being the first that ever sailed that Course, kept a more unsteady steerage, sometimes more to the northward, and then again nearer the Line than is now ordinarily done; which Variation of his Course must take him up the more time, besides that the more to the northward he went, the more variable would the Winds be; whereas *Rogers* and *Cook* keeping generally within the same Latit. viz. of 13 d. N. of the Line, had almost all the way the same Winds, that is, from the E. by N. to E.N.E. with no Variation worth naming thro' the whole Course: The Sum of their Voyage being to be drawn up thus.

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1. *Cape Lucas* in *California*, from whence they took their Departure the 12th of *January*, lies in Lat. 23 d. 30 m. N. Their Course was S.S.W. and S.W. for 12 days, during which time they had the Wind something variable between N.W. and N.E.

2. In these 12 days Sail they made their Southings 518 miles, which brought them into Lat. 14 d. 30 m.

3. They kept on the 13th day W. half S. into Lat. 13 d. 36 m. and in this Lat. or within 20 m. of it over or under, they held the whole Course, and had the Wind steady at E.N.E. 36 whole days, and within a Point of it all the rest of the time.

By this keeping in a direct Run they certainly perform'd the Voyage in the shortest time of any that went before them, (tho not of some that have gone after, as we shall see in its place) having had a fresh Gale all the way, and going away large before it, they run generally speaking above 100 miles a day, one with another, during the whole Voyage; for they were 59 days under Sail, and they sailed 6193 miles, which is 100 miles a day, and 293 miles over.

The constant Trade-Winds that thus reign (as the Sailors call it) between the Tropick, have also this effect, that now the Voyage is, generally speaking, perform'd in the same time, or near it, viz. in about 60 days; so that those who attempt this Run for the future, have nothing to do but to keep the same Lat. and they'll find the same Winds: and this may serve for *Sailing Directions* in general.

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But as we have some Account of others, who have steered a different Course, and yet have had Success, it may not be improper to mention it, were it only to intimate, that if any new Adven-

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Sailing Directions for the

Adventurers attempt farther Discoveries in these Seas, they can not fail (common Accidents excepted) of performing it with Success, tho' it be perhaps the greatest Ocean in the World.

In particular it is not to be doubted, but that if the Voyage from *America* to *India* were attempted in a more northerly or more southerly Course, it might be perform'd, where the Winds are variable as well as here, where they blow Trade and are constant to a Point; with this Addition, perhaps, equally to the Advantage of the Sailors, That tho' the Run could not be made in so short a time, yet they would be sure to meet with inhabited Coasts and Countries, (whether Islands or the Continent, is not material) where they would be certain to find the ordinary Refreshments so much wanted, *viz.* fresh Water, Wood, Provisions or Fruits of some kind or other.

The famous *Le Maire* and his Company, of whom mention has been made in the Account of the Strait called after his Name, is an Example of this past all Contradiction; and his Journal has been publish'd in *Holland* many years ago.

After he had sailed round the *Terra del Fuogo*, and come fairly open into the *South Seas*, he did not (as is usual with our Ships) stand to the N.E. to make the Coast of *Chili* and *Peru*, where the *Spaniards*, who were Enemies, would be sure to injure rather than relieve them; but keeping a Course due N. (in order to get Provisions and fresh Water, which they greatly wanted, and refresh their Men, who were fallen ill by the Length and Harshness of their Voyage) they made for the Island of *Juan Fernandes* in Lat. 33 d 48 m. S.

Here they were disappointed of much of that Relief which they should have had, by coming to an Anchor on the wrong side of the Island, *viz.* on the S. side; and the Winds blowing constantly and very fresh easterly and N.E. they could not recover the Watering-place, which is on the E. side, nor supply themselves with Fruits and Provisions, as they might otherwise have done, and especially could not venture to put their sick Men on Shore for their Relief, lest they should be blown off, and not be able to fetch it up again to bring them away; whereas had they gone about on the W. side behind the Island, they had been under the Land in still Water, the Land being high and becalms the Road: But coming on that side which was open to the Wind, they could never come to anchor near the Shore with their Ship, the Sea going so high on that side.

Besides this, having spent 3 days in striving to recover the Watering-place, they found that instead of that they drove 4 Ls to Leeward beyond the Island, notwithstanding all the Pains they took to get up again to it; so that at last seeing it impossible to be done, they gave it over.

They had sent their Boat ashore indeed to sound the Depth on the other side, had found 40 Fa. then 30, but with good Shoalings to 3 Fa. but being out of the Wind's way, and being unable to come to an Anchor because they found no bottom, they contented themselves with getting a Supply of fresh Water, and some Fish, and pursued their Voyage.

In this Distress, and with a Scarcity of almost every thing, they began their Voyage for the *East Indies*, taking their De-

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have search'd farther into the Inland part, and seen what the Country yielded, and till the People by time and good usage might have been brought to be familiar with them, they might no doubt have gotten both Water and Provisions; for they saw the Tracks of Cattle both large and small, and it was not to be supposed the People lived without fresh Water: But they were impatient to look farther, and having gotten a tolerable Store of Rain Water, they weigh'd and steer'd away W. by N. to other Islands, of which they found almost a continued Range, almost all the way to the *Moluccas*.

But not to enter into the Particulars of that long Voyage, 'tis to be observ'd.

1. That they met with this Island in a Run of about 900 Ls W. from *Juan Fernandes*; whereas on the N. side, Captain *Rogers* and others found none under full 2000 Ls, that is, till they came to *Guam* one of the *Ladrones*.

2. That after they had sail'd from this Island, they met with other Islands in the same Lat. or near it, almost at every day or two's sailing, and that even all the way to the *Moluccas*, for they came not near the *Ladrones*.

3. That from hence it is very probable, had they stood away N.W. from the first time of their entering into the *South-Seas*, and not have gone so far N. as the Island of *Juan Fernandes* in Lat. 33. they would have met with other Land, either Island or Continent, within a much less Run, so that they might have had frequent Supplies as well of Provisions as Water.

The *Dutch Journal* is full of the Description of the People, their Proes or Boats, manner of Sailing, Habits, Customs, &c. which takes up a great part of the Work, but is not to our purpose; and therefore we shall omit all that, and only observe what is material, to the Sailing Part.

1. It is certain that by finding so many Islands in their way, they spent more time upon the Voyage, and instead of performing the Run, as the *Duke* and *Dutchess* did, in two Months, they were full four Months: But then on the other hand, they were not expos'd to the Dangers and Extremities which the others suffer'd, and were like to have suffer'd for want of Water and Provisions, and by Leaks and other Disasters; which, had they met with Islands and Harbours, as the *Dutch* did, would have been prevented, or the Want soon supplied: Which could not be done in the Ocean, where the Wind tho' fair yet generally blowing hard, the Sea went high, and they were forced to pump night and day for the whole Run.

2. As to the length of the time which they spent, it may be supposed to be much longer, because of their being so entirely unacquainted with the Course they were to steer, and with the People they were to converse with, not to mention other Circumstances, which after one Voyage or two would have been all so plain, that they could never have taken a Step in vain: The length of time therefore spent in the Voyage, is no Objection against attempting the like for the future.

3. It is to be consider'd, that *le Maire* was upon an Undertaking for Discovery rather than Commerce, and therefore

as had they gone about on the W. side behind the Island, they had been under the Land in still Water, the Land being high and becalms the Road: But coming on that side which was open to the Wind, they could never come to anchor near the Shore with their Ship, the Sea going so high on that side.

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In this Distress, and with a Scarcity of almost every thing, they began their Voyage for the *East Indies*, taking their Departure from *Juan Fernandes*, and standing away W. and N.W. and sometimes W. by N. This had been a piece of Desperation, not to be accounted for by Men of common Sense, had they not depended upon meeting with variable Winds and inhabited Countries in their Voyage; for if they had been to make a Run of 2000 Ls, which was the least of the Voyage, in the Condition they were then in, the Men must have all perished for want of Water, as well as Food.

Nor is it easy for those Ships, which perform the Voyage in the other Latitudes within the Tropicks, to carry fresh Water, and furnish other Provisions in those hot Climates, sufficient for a Run of 3 Months, as was at first the Case: and the *Duke* and *Dutchess* found themselves almost at the last Gasps, when they first made Land at the Islands of the *Ladrones*, having neither Water nor Bread for 10 days more, altho they unexpectedly found near 3000 Weight of Bread more than they knew of in one of their Ships.

But to return to *Le Maire* and his Company: they weigh'd from *Juan Fernandes*, and having but a slender Store of Provisions and less of Water, set sail for the *East Indies*, standing N.W. till they past the southward Tropick, and came into the Lat. of 19 d.

In this Lat. or between 15 and 20 d. they sailed from the 5th of *March* to the 10th of *April*, when early in the Morning they made Land, lying N.W. and N.W. by N. from them, dist. about 3 Ls, which they soon understood to be an Island.

About Noon they got to this Island, and casting their Lead with intent to come to an Anchor, they found no Ground at first, till rowing with their Boat about the Island, they had Ground at 25 Fa. about a small Musket-shot from the Shore, where they came to an Anchor and went ashore, but to their great Discomfort found no Water or any thing else for their Relief, the People flying from them frighted and amazed. However, they were happily relieved by a heavy Rain, of which they saved several Buts; and had they stay'd till they might

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3. It is to be consider'd, that *le Maire* was upon an Undertaking for Discovery rather than Commerce, and therefore was not so much engaged to make the best of his way, as is the Case in Voyages of Trade: And this occasion'd his ranging from one Island to another, and from the Lat. of 18 d. S. to that of 4 or 5 d. N. Whereas *Rogers* and *Cook* kept the whole Voyage in almost a direct Run, in the same Lat. one Degree over or under.

We have also a more modern Globe-Girdler, who has performed this Voyage in less time than any that ever went before him, at least that we have an Account of, namely, Captain *Shelcock*: He has lately publish'd his Voyage round the World, and, if it may be depended on, performed it between the 18th of *August* and the beginning of *October*, which at most is but six Weeks.

This was certainly such a Run as was never heard of before, being above 6000 Miles in 42 Days, that is, 150 Miles in 24 Hours, one Day with another.

Both *Rogers* and *Shelcock*, following the Steps of Sir *Fra. Drake* as to the Land they pointed to, made the *Ladrones* as the first Land, after their Departure from Cape *St. Lucas* in *California*, tho' they did not keep in the same Latitude; whereas *le Maire* made the lower Islands on the Coast of *New Guinea*, steering to *Gilolo* and the *Moluccas*, and came not near the *Ladrones* at all.

We have been told (and with good Authority) that the famous *Magellan*, of whom we have spoken so often, making his Voyage from the *Streights* called by his Name, first made those Islands, and was the first Discoverer of them, and that he gave them their Name, *viz.* the *Ladrones*, or the *Islands of Thieves*; and that he sail'd from thence to the *Manillas*, as they are now called, or the *Philippines*. That he did so is certain, and that there he lost his Life; but whether he was the first that discovered them is not so certain: However, this seems out of question, *viz.* That he was the first that sail'd this Voyage, and came to them this way, and mark'd out the way for those which came after him.

It might be for the Instruction of those who may hereafter attempt this Run, if we examined the Course more exactly than has yet been done, by which the *Manilla* Ships, commonly call'd *Acapulco* Ships, make their Return from the Port of *Manillas* to *Acapulco*.

We are assur'd that those Ships do not make the *Ladrones* in their Return, but that the *Manillas* being situated in a higher Latitude than the *Ladrones*, or at least than *Guam*, viz. in that of 15 to 19 d. the *Manilla* Ships usually keep to the northward, and passing either in that Lat. or to the northward of the Tropick, by that means meet with a like continued Range of Islands, as the *Dutchmen* under *le Maire* did to the southward of the other Tropick.

In this Course, tho they meet with variable Winds, and are therefore longer in their Voyage, yet they are thereby supplied with Water and Refreshments; and being very full of People, for the great *Acapulco* Ships have often 250 to 300 on board, they have the more need of frequent Refreshments.

By this Course they make the Land of *California* higher up to the northward, perhaps in the Lat. of 36 to 40 d. coasting from thence to the southward usually in sight of Land. This is the Reason why the *Duke* and *Dutchess*, in their design'd Attempt upon them, cruized wholly in sight of the Land of *California*, in Lat. 22 to 23 d. N. knowing they were sure to find them there, if they came at all that Year.

This Course in the Return of the *Acapulco* Ships is farther confirmed by the following Circumstances, which indeed put it past all doubt, viz. That when the *Duke* and *Dutchess*, ha-

Sailing Directions for the Islands of the *Ladrones*, and of the *Philippines* inclusive, and thence on to the *Macao* in *China*.



HE Island of *Guam*, tho the most southerly Island of the *Ladrones*, is generally the first Land which our Ships make in the great Run from the Coast of *America* to the *East-Indies*, especially such Ships as keep a northern Course, that is, go to the northward of the Equinoxial Line.

It is situate in Lat. 13 d. 21 m. N. some say in 13 d. 30 m. stretching from N. to S. about 10 to 12 Ls in length, and about 6 Ls in breadth. Our Navigators contend much about the Longitude of it from the Coast of *America*: The Pilots of the *Duke* and *Dutchess* adjusted it at 105 d. 20 m. Capt. *Shelcock*, who made the Run in the very same Lat. of 13 d. N. or within a few Minutes of it, corrects that Account, and says it is something less than 100 d. Longit. from *Cape Lucas*, on the S.E. Point of *California*, to the Island of *Guam*, besides their Southings from the said *Cape* in Lat. 23 d. 50 m. to Lat.

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ving taken one of the *Acapulco* Ships, examined their Prifö- ners about the other Ship, they signified that they parted with her in Lat. 35 d. N. So that 'tis probable the Courte they held from the *Manillas* was generally between Lat. 35 to 40 d. N. The next is from the same Account, where it is affirmed that the *Manilla* Ships generally make the Coast of *California* first in Lat. 40 d. N.

Besides, the Nature of the thing tells us it must be so. For as the Winds between the Tropicks blow always one way, that is, N.E. and E.N.E. without which it would be impossible for the Ships to make the Voyage westward as they do; so the Ships homeward bound from the *Manillas* to *Acapulco* are obliged to keep to the northward, by the mere Necessity of the Winds, it being absolutely impracticable to make a Run of 6000 Miles all the way in the Wind's Eye, as it may be call'd; but keeping to the N. and without the Tropicks, as they found a Frequency of Land, that is, of Islands, for Relief and Refreshments, so they also found variable Winds, which carried them from Place to Place, tho not with such Steadiness and in so little time, yet with Certainty sufficient to enable them to make the Voyage in a reasonable time, which otherwise with the easterly Trade-Winds would be utterly impossible.

Having thus accounted for the Length of the Run from *America* over the vast *Southern Ocean* westward, we have only to add what is proper for Directions to the Sailing at and among the *Spaniards* Islands of *Asia*, whose Description was left to this place in our former Accounts.

the Ladrones, and from thence northward to the Islands thence on to the Island of Formosa, and to the City of

ly Island ad which Coast of uch Ships he north- d. 30 m. and about about the ots of the apt. *Sbel-* d. N. or and says *Lucas*, on n, besides a. to Lat.

You ride here in 15 to 20 Fa. under the Lee of some Rocks, which lie on the N. side of the Road, and make it the more easy, and secure in case of a N.E. Wind. The chief Port of the Place is called *Umatta*, or *Utatta*, having a high round Hill just before it, which makes a little safe Harbour within it for small Vessels: but the Ground is so good in the Road, and you are so well shelter'd, that there is no need of a better Harbour.

The Road at *Umatta* lies about a mile off Shore, the Ground a good holding Sand, and the Wind always blowing off Shore: there are no Fortifications, only a strong Houle like a Castle for the *Spanish* Governor, to secure him from any Insurrection of the Natives.

The Produce of the Island is not our business here; it is enough to tell the *English* Sailor for his Encouragement, that here is plenty of Provisions, which after so long a Run he would be very glad of, such as Rice, *Indian* Corn, Cattle,



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A. B. Others say *Cape Lucas* is in 23 d. 30 m.

The S.W. part of *Guam* is high and mountainous; but the N.E. which was the side our *European* Sailors may be supposed to make first, tho it was farthest from them, is low. When the *Duke* and *Dutchess* first made the Island, they tell us it bore from them W.N.W. dist. 12 Ls; which could not well be the low part of the Island: And the next Morning they observ'd that the S. part of the Island bore from them W. by S. By which we may take it for granted, that the low part, which was the N.E. Point, was not to be seen at such a distance.

When therefore you first make Land here, you ought to look well out; for if it be the farthest part of the Island you see first, you may be a-ground upon the nearest part before you see it, especially if it should be in the night. It is fruitful, and well furnish'd to supply a Ship or two with all Necessaries after so long a Run; but if there should be many Ships together, the Place might be exhausted.

There is another Island, which lying more easterly is generally made first in this Run, and is call'd *Sarpana*; it lies about 8 Ls to the eastward of *Guam*, but has neither a Harbour fit for great Ships to ride in, nor is able to furnish the Supplies usually wanted, as *Guam* is; for which reason our Ships rarely take any notice of it, except to guide them to *Guam*.

The Road is on the W. side of the Island, in a large Bay made by the Land bending out westward both at the N. and S. Ends of it, and render'd secure riding by a long Ridge of Shoals lying out into the Sea from the S.W. Point of the Island to the W.S.W.

These Shoals break off the Sea from the S.E. and keep off a S.E. Wind also, as the Island it self does an E. Wind; and a little Island, call'd the *Caper Island*, because it is overgrown with *Capers*, does the Wind from the N. and N.E. In a word, this Bay or Harbour is only open to the W. and N.W. Wind, which hardly blows here a Week in seven Years.

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From this Island the Course of the *Europeans* seems always to lie one of the three ways following.

1. Some make their Course from hence S.W. and S.W. by S. taking their way among the innumerable Islands of those Seas towards *Batavia*, or at least towards the great Island of *Borneo*, that so they may the more readily pass the *Straits of Sunda*, and open with the great *Indian* Ocean, and so forward for the *Cape of Good Hope*. This was the way the *Duke* and *Dutchess* steered, and this way the famous *Sir Francis Drake* went before them, as most of those *Europeans* who make this grand Tour round the Globe do still.

N. B. From this Island to the *Moluccas*, or *Dutch Spice Islands*, is about 400 Ls.

2. Others having made this Island first, go away N.W. or W. by N. steering for the *Philippines*, that is, for *Luconia*, the northermost of them, in which is the City and Port of *Manilla*. This likewise is between 3 and 400 Ls; and this is the Course which the *Spaniards* take when they come from *Acapulco* (for they are all bound to the *Manillas*, and no where else) back again to *New Spain*.

3. The third kind are such Ships as coming from the E. that is from *America*, and being bound for *Europe*, chuse to avoid the Islands above-mention'd, which are indeed very perplexing and hazardous, (and where *Sir Francis Drake* and others have been in danger of being lost) and steering away due N. from the *Ladrones* to the height of 24 or 25 d. N. Lat. stand then to the W. for the Island of *Formosa*, and from thence to the Coast of *China*, so to fall in with the *English* Ships, which trading on the Coast are generally to be met with at *Amoy*, or at *Canton*; and so come forward in Company with them into *Europe*. This is the Course which Captain *Shelvoek* took after his long Run over the great *South Seas* to the Island of *Guam*; instead of going S.W. to *Batavia*, he staid very little at *Guam*, but steering northward made no more Land, or at least stopt at none, till he came to *Formosa*; from whence he steer'd S.W. to *Ma-*

Sailing Directions for the Isla

cao, and the City of Canton in China, of which Ports we have given sufficient Descriptions in their place.

It was needful however to mention this Run, as a Direction to those who may have this Course in their View hereafter. I return to the second, which is the Course of the Spaniards, and leads us to the *Philippine Islands*, which, with the other Islands on the West of *America*, are the only parts of the World left to speak of.

The principal Port is the City and Harbour of *Manilla*; the Passage to it from these Seas is thro' a Strait or Varc, called the *Streight of Manilla*, lying between the Island of *Luconia* to the N. and the Island *Philippina* to the S. The Passage lies E. and W. or rather S.E. and N.W. and needs no Pilotage, the Strait being, for the most part, 3 to 4 Ls broad, and 30 to 50 Fa. deep.

The River which makes the Port of *Manilla* is very large, compared to the bigness of the Island; it issues out of a Lake

Sailing Directions for the Islands on the Coast



Having thus given the general Description of the Coast, and Directions for the Navigation from the *Straits of Magellan* in Lat. 52 d. S. to the Bottom of the Gulph of *California* in Lat. 40 d. N. being the longest contiguous Coast in the known World, and all under the Dominion of one Prince, to wit, the King of *Spain*; it remains to inquire, 1. What considerable navigable Rivers are to be found on all this long Coast, in which the Sailors might stand in need of Directions, either to make the Entrance or to sail up, as is usual in the great Rivers in other Parts of the World? And, 2. What Islands of Note are to be met with in this great *Southern Ocean*, whose Coasts should be described for the Benefit of our Sailors?

It will be something surprizing to those who have not enquired into the Case, when I shall observe to them, on the first of these Heads, that altho this Coast of *America* is of so vast a length, being one continued Continent of near 2000 Ls, yet that there is not one navigable River worth naming upon the whole Coast; in short, not one River equal for Navigation to the little half River, for 'tis no more, by which we sail up from *Harwich* to *Ipswich*, which carries Ships about 12 mile: nor indeed do I know one that has so fair a Channel for great Ships as that to *Ipswich* has: so that in all this vastly extended Country of *America*, which on the other side of it, (*viz.* in the *Atlantic Ocean*) has the greatest Rivers in the World, which open with Mouths of 30 to 40 Ls broad, and carry such a Flux of Water with them as to make the very Ocean fresh for several Ls, such as the *Rio Plata*, *Rio Amazonas*, *Rio Oroonoko*, *Mississippi*, *Canada*, *Chesapeake*, &c. yet on this side it is so entirely void of great Rivers, that we do not meet with one worth the Name of a navigable River, or that can carry a Ship of Burden 6 Ls within the Land: those of *Baldivia* and *Guyaquil* are most considerable, and they are scarce worth naming. This being the Case, we have no Account of

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called *Babi*, which falls into the Sea at *Cavito*, a small but well fortify'd Town, which is the Port for great Ships to *Manilla*, and where the Vessels of Burden lie.

There are Pilots to be had here for the Port it self, for the Streight also, and for all the rest of the Islands. Besides there is a very good Haven, able to receive 500 Sail of stout Ships.

There are no Harbours of Consequence in any of the rest of the *Philippine Islands*: the Island of *Mindanao*, which is the largest, has no considerable Port: The Trade-Winds blow here after the manner of the Monsoons; westerly winds blow from *May* to *September*, and in *July* and *August* bring great Rains and Floods; from *October* to *April* the easterly Winds blow and bring in good Weather. Here end the *Spanish* Dominions in the *East Indies*, which concludes our Sailing Directions for *New Spain* also.

Directions on the Coast of America, on the side of the South-Seas.

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I must omit in my Account of Islands, those small Islands which lie as it were under Shore, or within the Bays and Gulphs near the Main, and which it was necessary to speak of in directing your sailing along shore; like as I have done in the Description of other Coasts, and which I have accounted for more than once in other Parts of this Work: Nor was it practicable for me to direct the Sailor in his course along the Shore of *Chili*, *Peru*, *Panama*, *Mexico*, &c. and not mention those Islands which he must of necessity touch at, and see under his Bow as he went on, such as *Chiloe*, *Mocha*, *Puna*, *Callao*, *Gorgona*, the *Pearl Islands*, and others.

But for Islands lying off at a distance in the Ocean, and Islands of Consideration, we see none but *Juan Fernaudes*, and the *Gallegos* or *Gallepagos*, between the *Terra del Fuogo*, and *Cape Lucas* on the S. End of *California*.

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As to the *Terra del Fuogo*, that is an Island no question; and we have given Accounts of several Voyages made round it: Nay, it may be accounted two Islands, if we allow the Account of the Streight of *St. Barb*, or *Barbara*, discover'd by the *French* in the Tartan of *Marseilles*. 'Tis true, we find no distinct Name given to that part of the Island, which the Streight, or Passage, parts off to the W. of the other: But we may for the present call it the lesser Land of *Terra del Fuogo*, as the eastmost part is by much the larger every way, and especially S. for *Cape Horn*, which is in the large part, lies in Lat. 57 d. 20 m. or thereabouts; whereas *Cape Noire*, which is the most southerly of the western part, or lesser Island, lies in Lat: 54 d. I must again add here, for the Direction of all who may have Occasion hereafter to sail into the *South-Seas*, That it seems of the utmost Importance to such a Voyage, to make a full Discovery of this Passage, which, if it be as the *French* have describ'd it, is made much safer and shorter than was ever known before, and no Ships for the future need be above 12 Days in going thro' from Sea to Sea,

of these Heads, that along this Coast of America is of so vast a length, being one continued Continent of near 2000 Ls, yet that there is not one navigable River worth naming upon the whole Coast; in short, not one River equal for Navigation to the little half River, for 'tis no more, by which we sail up from *Harwich* to *Ipswich*, which carries Ships about 12 mile: nor indeed do I know one that has so fair a Channel for great Ships as that to *Ipswich* has: so that in all this vastly extended Country of *America*, which on the other side of it, (*viz.* in the *Atlantic Ocean*) has the greatest Rivers in the World, which open with Mouths of 30 to 40 Ls broad, and carry such a Flux of Water with them as to make the very Ocean fresh for several Ls, such as the *Rio Plata*, *Rio Amazonas*, *Rio Oroonoko*, *Mississippi*, *Canada*, *Chesapeake*, &c. yet on this side it is so entirely void of great Rivers, that we do not meet with one worth the Name of a navigable River, or that can carry a Ship of Burden 6 Ls within the Land: those of *Baldivia* and *Guyaquil* are most considerable, and they are scarce worth naming. This being the Case, we have no Account of River-Navigation to trouble our Readers with.

I must take notice indeed, that some of our *French* and *Spanish* Discoverers have given us the Names of several great Rivers, which they tell us they found in the N.W. Part of *America*, even beyond their *Louisiana*, and the Sources of the *Mississippi*, whole Streams ran westward, and consequently must fall into some part of what we call the *South Seas*, or rather so far N. as to empty themselves into the *Chinese* or *Japanese* Ocean. We can not indeed say positively, that no such Rivers are, or have been found; but this may be said on good Grounds, that no such Sea has been found out, nor any such Coast discover'd where the Mouths or Openings of any such Rivers are to be seen: and therefore we may venture to say, that the World as yet knows nothing of it, and consequently no Account can be expected of it.

Some modern Geographers say, tho without Authority, that the *Spaniards* after many unsuccessful Attempts did at last find a Passage thro' the Sea of *California*; and in their Maps they call this the *Northern Streight of California*, which they block up with an Island, leaving a Channel on either side, all alike imaginary: for we can not hear of any that have been able to find that Opening, or to pass that way after them.

I come in the next Place therefore to speak of the Islands of *America*, on this side. And here I must observe, that if it is wonderful that there are so few Rivers of any length, and that are navigable for Ships of Burden, on so long a Coast as almost for 2000 Ls; so 'tis no less wonderful, that in all this Eastern Part of the great *Southern Ocean*, there are hardly any Islands of note, even for above 1500 Ls square; that is to say, take the *Southern Ocean* at a Medium, and fix the Center of your Measurement at 700 Ls from the Main, and in the Lat. of 34 d. S. and you have not any Island worth naming for 2000 Miles every way, E. W. N. or S. and perhaps take it E. and W. for 300 Ls more.

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This I speak concerning this lesser Island, because I think 'tis of the last importance to Navigators on this difficult Voyage, and as it really belongs to the present Part: As this latter part of the *Terra del Fuogo* is an Island by it self, which it was never taken to be before. We have no Survey of the outer Coast of it, nor can we yet tell what Ports or Harbours may be in it; no Ships that I have heard of, having put in, or been driven in there: Our Charts describe it full of Harbours, Islands, Creeks, and Coves; but with what Authority we yet know not: All we can say is, That from the Opening of this Passage by *Cape Noire* the Coast of the Island trends N.W. and

N.W. by W. on a Strait Line to *Cape Desseada*, at the W. Entrance of the great Streight of *Magellan*.

From this Point of the *Magellanic Streight* there are no Islands of note in all the Run to the northward, till we come to *Juan Fernandes* in Lat. 33 d. 45 m.

At the S.E. End of this Island is a large spacious Bay, where you may anchor in very good Ground, and in 11 to 12 Fa. Water: it is very good Riding here in the Season, when the Winds hang northerly and between the N. and N.E. but this Bay lies open to the S. and S.W. Winds, which blow at the Seasons of those Winds very hard.

These Islands are two, I mean the largest of them, for there are other Rocks which some call Islands also: The biggest of the two is that which we properly call *Juan Fernandes*, about 37 Ls in length, stretching nearest N.W. and S.E. *Dampier* says it is 12 Ls in circuit, and that both the Bays are at the E. end, which according to all others cannot be true: He also places the Island in Lat. 34 d. 15 m. S. whereas others place it in 33 d. 45 m. as above; the Difference we must leave to Experiment.

In the Bay mentioned above, which is at the S.E. end of the Island, there goes so great a Sea with a southerly Wind, that the Boats dare not venture to land: The best of the Road is about a Furlong from the Shore; but if the southerly Winds blow hard, as well Ships as Boats must put out to Sea, for the Sea comes tumbling in so high, that no Ship can ride it.

In good Weather with the Winds off Shore 'tis a very good Road, but you must fight your way thro' before you can land; for the Seals lie so thick upon the Shore, that you must kill some hundreds of them before you can so much as set your Foot on Shore.

On the N.E. side of the Island is another Bay, where you may ride under Shelter from the southerly Winds, as you do in the other Bay from the N. and N.W. In this Bay you have 14 Fa. Water about a quarter of a Mile from the Shore, and good riding: Also here you may cut Wood with great Convenience. Some People are loth to go into either of these Bays, and chuse to ride a L. off the Shore; but they are oblig'd to lie with two Cables an end in 25 to 30 Fa. and are often forced to slip their Cables and put out to Sea, and sometimes are carried so far to the Leeward of the Islands, that they cannot fetch it up again, as was the Case of *Cornelius Schouten* and *le Maire*, who made the Island, but fell a little to Leeward: And tho they were in great distress for fresh Provisions, and particularly for fresh Water, and had a vast Run to make, even no less than cross the whole *Southern Ocean*, and that many of their Men were sick; yet they could not fetch it up, but were obliged to leave it, and seek their Fortune to the westward, as is describ'd in its place.

Here are no Inhabitants except Goats and Seals; but they are so numerous, that Mr. *Dampier* tells us a single small Boat's Crew kill'd 600 Goats in one Day's Hunting. This plenty of Flesh and fresh Water causes almost all the *European Ships* to anchor

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the W. The next Island or Islands N. or N.N.W. from *Juan Fernandes* is the *Gallepagoes*, nor is there any Island in all the Run between *Juan Fernandes* and these, tho it is no less than 670 Ls. These Islands of *Gallepagoes* are a Cluster of small Islands and Rocks; their Number seems not to be adjusted by any Writers: The best and most exact Account of them is, That they are a Number of large Islands lying directly under and close on both sides the Line: they are like those of the *Fernandes* uninhabited; and the nearest of them to the Eastward is 110 Ls dist. from the Shore of *America*, as they are placed in most of the Charts I have met with. They lie in Longitude from 176 d. to 181 W. tho according to *Dampier* they are not placed far enough W. those of the westernmost Situation are the largest Islands, and some of them are 9 or 10 Ls long, and 6 or 7 broad; the rest are smaller. *Dampier* tells us he reckon'd up 14 or 15 of them, which were generally from 7 to 10 Ls long, and 3 to 8 Ls broad.

The chief things for which they are frequented by *European* Ships are three, *viz.* Wood, fresh Water, and Tortoise or Turtle: The 2 former are to be had good, but the latter is in such plenty, that their Number is innumerable, as their Size is prodigious; for here they find them of 150 to 200 Pound weight, and sometimes near a Bushel of Eggs in one of them, which are a very great Relief to Seamen, after having subsisted a long time wholly upon salt Provisions.

It is proper to observe here, That you should never come to these Islands of the *Gallepagoes* in the three Winter-Months of *November*, *December* and *January*; for that being the rainy Season, they have also almost continual Tempests of Wind, Rain, Lightning and Thunder: Most of the rest of the Year they have moderate Weather and a smooth Sea.

Dampier tells us he anchored on the E. side of one of the easternmost of these Islands, and found 16 Fa. Water, clear white hard Sand, and well sheltered: And *Davis*, another *European* Commander, came to an Anchor on the W. side of the *Gallepagoes*, where he also found good Riding in 22 Fa. and again, *Dampier* anchored at the N. end of the second Island, in Lat. 0 deg. 28 m. N. from the Line.

These Islands of the *Gallepagoes* lie very convenient for any Ships to sail by, who keep off in the main Sea, not caring to be discovered from the Coast, as is generally the Case of our *European* Cruizers when they come into these Seas: And as there is good Harbour, Wood and Water, besides the Refreshment of Tortoise, and a vast Multitude of Fowls, they often lie here to careen and repair their Ships; but as the Situation is under the Line, the Heats are excessive great.

Also for those Ships that would cruise upon the *Spaniards* of *Panama*, or of *Lima*, these Islands are of great use, as well to retreat to with any Prizes after they have taken them, as to rendezvous at, after any casual Separation.

There are several convenient Places to ride in upon the Coast of these Islands, but no Bays or Inlets where a Ship may run in, nor any Rivers except small Brooks; yet the Water is very

Days, and chul'd to ride a L. off the Shore; but they are oblig'd to lie with two Cables an end in 25 to 30 Fa. and are often forced to slip their Cables and put out to Sea, and sometimes are carried so far to the Leeward of the Islands, that they cannot fetch it up again, as was the Case of *Cornelius Schouten* and *le Maire*, who made the Island, but fell a little to Leeward: And tho they were in great distress for fresh Provisions, and particularly for fresh Water, and had a vast Run to make, even no less than cross the whole *Southern Ocean*, and that many of their Men were sick; yet they could not fetch it up, but were obliged to leave it, and seek their Fortune to the westward, as is describ'd in its place.

Here are no Inhabitants except Goats and Seals; but they are so numerous, that Mr. *Dampier* tells us a single small Boat's Crew kill'd 600 Goats in one Day's Hunting. This plenty of Flesh and fresh Water causes almost all the *European* Ships to anchor here, especially because there is no other Place where they can come freely on Shore, all they can get on the Main being by Force or Stealth.

There is also a great Quantity of Seals and Fish, among which, according to *Rogers* and *Cook* they have Craw-fish as large as Lobsters. Our *European* Ships apply themselves to take Fish here as well as Flesh, which they salt and keep as long as they can, to eek out the Stores of Flesh.

This is the Island where *Rogers* and *Cook* found a *Scotch* Man named *Alexander Selkirk*, who had lived four Years alone, and maintained himself by Fishing and killing of Goats.

N. B. This Island lies due W. from the Main of *America*, dist. 95 Ls; *Dampier* says 120 Ls.

Sailing Directions for the Country of California, from the Island, to Lat. 40 d. North, on the West side



ON the E. side of *California* is a very deep Gulph or Sea, call it which you will, for it is not yet perfectly discovered, nor is it exactly survey'd even so far as it is discovered. We read of no *European* that ever made any Attempt this way: Sir *Fra. Drake* indeed sail'd up the W. side; and it seems as if he did that ignorantly, expecting to have pass'd round the Land of *California* towards the Sea of *China*, not having the least View of making Experiments or Discoveries for After-ages: Had this been his Business, he would at least have search'd the Shores, and got some Knowledge by the Inhabitants how far the Sea continued to go; nor would he have been discouraged by any Cold which could be possible in the Lat. of 43 d. and no more, for that it seems was the farthest he went N.

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Sailing Directions for the Coast

would afford, came away to the southward, coasting the same side of *California*, or *New Albion*, to *Cape St. Lucas*.

Between that Bay where *Sir Fra. Drake* winter'd, and *Cape St. Lucas*, the Shore is full of Bays, and good Roads or Anchoring-places, but no Towns or Cities, as there are on the E. side of the Gulph; the Inhabitants being Savages, and for the most part living far within the Land, and not having so much as a Canoe to go off to Sea in, tho they fish very diligently for the Supply of their Food.

Cape Lucas lies N.W. from *Cape Corientes*, this latter being on the Coast of *New Mexico* in Lat. 20 d. 28 m. The *Manilla* Ships in their Return from the *Philippines* having coasted the W. Shore of *California* to *Cape St. Lucas*, stretch over from hence S.E. by E. till they make *Cape Corientes*, and then go away S. and S. by E. to *Acapulco*: the Mouth of the Gulph or Entrance of the Sea of *California* must be here near 80 Ls over; but as there are some Islands lie off of the Shore on both sides, when you are farther N. so the Gulph narrows to about 40 Ls. Those of the Islands on the *Spanish* side are called the Islands of *Chametly*, being 6 in number, and lying just opposite to *Cape Lucas*, due E. from the said Cape, being in the same Lat. viz. 23 d. 11 m. almost under the Tropick: also the Islands *de tres Marias* lie in the Offing, about the middle between both Shores.

Captain *Dampier* calls this Gulph the Lake of *California*, tho I think improperly: He says indeed, that it is properly a Channel or part of the Sea between the Island, that is, between *California*, and the Continent. He adds, that it either is not much known by the *Spaniard*, or is conceal'd by them, for fear the *European* Cruizers should find out the way to the Mines of *Mexico*. But I think the first is the real truth, viz. that the *Spaniards* know little or nothing of the Gulph, especially on the *Californian* side: and as for the Privateers and Mines of *Mexico*, 'tis evident our Cruizers have often failed up that side of the Main in order to attack them; but as they lie far within the Land, and that the *Spaniards* have generally a good Number of Troops to defend them, most of the said Cruizers have given over the Search, and those that have attempted it have miscarry'd.

From the Place where *Sir Francis Drake* careen'd, which lies in Lat. 38, on the W. side as above, the Shore of *California* lies N.E. by E. if *Sir Francis Drake's* Account is to be depended upon: he measur'd from *Guatulco* to the northward 800 Ls; but, as that is from Lat. 15 d. 30 m. to 43 d. only, it is not so far by 240 Ls. So that it must be suppos'd they might make out the rest by frequent coasting the Bays and Bights, in search of some Outlet, which however they could not find, but found the Land on the said W. side all low and plain, without any Rivers or Harbours, till they came to the Lat. of 38.

It is our unhappines, that *Sir Francis Drake's* Account of this Coast is rather fill'd with a Relation of the People, the Reception he met with among them, the long Story of their King, and of his taking his Surrender of the Country to Queen *Elizabeth*, and doing homage to her, than with any Descrip-

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' Here we discerned from the Top-head, that there run a
 ' Channel or Gut of Water a-croſs the flat Country on our
 ' Larboard ſide, which extended W. and W. by N. as far as
 ' we could diſcern any thing; which Streight or Channel might
 ' part the Island of *California* from the Continent: but it did
 ' not ſeem to be navigable, neither could we find any Open-
 ' ing to go into it, otherwiſe we ſhould probably have gone
 ' in with our Boat.

' The Streight which we enter'd was fair, and clean from
 ' Rocks, but very deep Water. We paſt between the two
 ' Islands, where we founded, but found no Bottom. We
 ' were no ſooner thro' this Streight, but we came into an open
 ' Sea; and ſailed ſtill northward, ſuppoſing we were got into
 ' the great northern Ocean. But having ſailed about 15 Ls.
 ' we deſcried at a great diſt. N. a high mountainous Land, run-
 ' ning croſs the whole breadth of the Sea, and joining, as we
 ' thought, both the Shores; ſo that to our great Diſap-
 ' pointment we found we were embay'd, and enclor'd with
 ' Land on all ſides, except the Streight between the 2 Islands,
 ' where we came in.

' But while we narrowly obſerv'd the Coaſt which lay thus
 ' before us, we perceiv'd as we thought an Opening to the
 ' N.W. being on the ſame Shore of *Santa Cruze*, or the Land
 ' of *California*; and being deſirous to ſearch it to the utmoſt,
 ' we alter'd our Courſe to the W. and W.N.W. and ſtood in
 ' near the Shore, running along by the Land N.W. in 60 Fa.
 ' Water, within a L of the Land; holding this Courſe for 15
 ' Ls, till we came to a large Opening which run into the Land
 ' Weſt; into which we enter'd for the length of 6 Ls, but
 ' found it to be only a Bay, tho very wide: ſo that we
 ' were oblig'd to ſteer N.E. at leaſt 12 or 15 Ls, to come clear
 ' of the Land, after which we held on our Courſe northerly
 ' and N.W. We afterwards ſearch'd diligently all the Coaſt,
 ' and went into every Bay or Sound, of which there were
 ' many, in hopes of finding ſome way out towards the N.W.
 ' but in vain; tho here we ſaw no Land right before us, as we
 ' had done before.

' But having ſailed thus N.W. many Ls, at length to our
 ' Surprize we found ſhallow Water; and from 60 Fa. the Sound-
 ' ings ſhoald as we went on to 11 Fa. then to 10, and
 ' the Water thick, black, and muddy: at length we had but
 ' 5 Fa. Upon which we thought fit to come to an An-
 ' chor, and Sounding farther with our Boat, we came to 3
 ' Fa. ſoft black oaze, or rather Mud.

' Seeing then we could ſail no farther this way, we deter-
 ' min'd to paſs over to the Land which we had ſeen before,
 ' and which lay now to the eaſtward of us: ſo we ſteer'd N.N.E.
 ' And here alſo, upon our coming within 5 Ls of the Land,
 ' we found as little Depth as before; ſo we came to anchor a-
 ' gain, and rode all Night in 5 Fa. and here from our Topmaſt
 ' Head we could perceive a high mountainous Country on the
 ' N.W. running croſs eaſtward, as thoſe had done to the weſt-
 ' ward, and leaving the Mountains on the ſide of the Main.

a good Number of Troops to defend them, most of the said Cruizers have given over the Search, and those that have attempted it have miscarried.

From the Place where Sir *Francis Drake* careen'd, which lies in Lat. 38, on the W. side as above, the Shore of *California* lies N.E. by E. if Sir *Francis Drake's* Account is to be depended upon: he measur'd from *Guatulco* to the northward 800 Ls; but, as that is from Lat. 15 d. 30 m. to 43 d. only, it is not so far by 240 Ls. So that it must be suppos'd they might make out the rest by frequent coasting the Bays and Bights, in search of some Outlet, which however they could not find, but found the Land on the said W. side all low and plain, without any Rivers or Harbours, till they came to the Lat. of 38.

It is our unhappiness, that Sir *Francis Drake's* Account of this Coast is rather fill'd with a Relation of the People, the Reception he met with among them, the long Story of their King, and of his taking his Surrender of the Country to Queen *Elizabeth*, and doing homage to her, than with any Description of the Coast, the Bays, Rivers and Harbours, or the Soundings, Depths and Dangers on or near the Shore: so that we gather little from him, but that he was in such a Latitude, found such a Harbour in a deep Bay, and stay'd there to careen and grave his Ship.

What other Accounts of this Island we have, is from a *Spanish* Journal of two Ships, which crossing over from *St. Iago* made the Bay of *Santa Cruze* on the E. Shore of *California*, and anchor'd there in 25 Fa. Water: 'Tis suppos'd they called this Place the Harbour of *Santa Cruze*; for we meet with no *European* Account of Names given to any Places before that time.

From thence they coasted to the N. keeping off in the Gulph, so as having sometimes Land in sight on both sides, the breadth of the Gulph could not be above 20 to 25 Ls broad, till they came the height of *Cabo de Los Playas* in Lat. 38.

N. B. This must be suppos'd to be opposite to the Bay on the W. Shore, where Sir *Francis Drake* careen'd his Ship.

In this part of the Gulph the *Spanish* Account tells us they met with abundance of Islands, some of a large Extent, stretching usually with the Gulph N.W. and S.E. beyond these they found the Gulph grow narrower, till at last they found the Land closing upon them.

This Account I shall give in their own words, taken from the *Spanish*, translated into *Dutch*, as follows,

• The Day following we had a fair Wind, which held till Night; and in that Space we run N. and N.N.W. 20 Ls. All the Coast of *California* during that Space is low Land, with scattering little Hills all over it, but neither Grasse nor Trees growing on it; but it seem'd to be a dry whitish Sand. At Night we came to an Anchor in 20 Fa. Water, about 2 Ls from the Shore.

• Early the next Day we weigh'd, and continuing our Course northward, came into a kind of Streight or Sound about 12

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many, in hopes of finding some way out towards the N.W. but in vain; tho here we saw no Land right before us, as we had done before.

But having failed thus N.W. many Ls, at length to our Surprize we found shallow Water; and from 60 Fa. the Soundings shoal'd as we went on to 11 Fa. then to 10, and the Water thick, black, and muddy: at length we had but 5 Fa. Upon which we thought fit to come to an Anchor, and Sounding farther with our Boat, we came to 3 Fa. soft black oaze, or rather Mud.

Seeing then we could sail no farther this way, we determin'd to pass over to the Land which we had seen before, and which lay now to the eastward of us: so we steer'd N.N.E. And here also, upon our coming within 5 Ls of the Land, we found as little Depth as before; so we came to anchor again, and rode all Night in 5 Fa. and here from our Topmast Head we could perceive a high mountainous Country on the N.W. running cross eastward, as those had done to the westward, and joyning the Mountains on the side of the Main.

Having thus search'd both Shores, and finding it all shoal Water beyond us, we concluded to steer our Course back to the Streight which we had pass'd; and accordingly tack'd about, and for 3 days sail'd S.W. anchoring at Night in 11 Fa. Water.

By this Account there was found an Opening, and a Streight with a Passage thro'; but it seem'd only a Passage out of one Gulph into another, and that the outer Part, tho large too, was small compar'd to the other; so that they soon found themselves embay'd, and surrounded with the *Terra Firma* of *America*. So that unless there was some Channel which they could not perceive, the Land of *California* must join to the Continent on that side.

It is alledg'd indeed that they did see a Channel on the W. side, which, from the Topmast-head of their Ship, and with the help of the Sun-shining on the Water, they could perceive crossing a flat Country to the N.W. but not such as to be navigable: in which Case *California* might be an Island, and yet no way or Passage practicable for Ships to be found into any other Sea.

To come then to the Western Shore, there the Sea no doubt goes on N.W. and N.E. much farther than has yet been discover'd, because no Ships have been known to sail that way higher than Sir *Fra. Drake* who was in Lat. 43 d. and to *Cape Blanco* in Lat. 40 d. which is the first Land of *California*, which the *Acapulco* Ships make in their Return from the *Philippines*.

From this Cape there are several very good Harbours and Ports on the W. or rather S.W. side of the Island, which the *Spaniards* have given Names to, and on occasion have sometimes landed in, and gone ashore among the Natives: but as there is no Commerce there, and but little Refreshment, they are seldom visited. The chief of them are *St. Sebastian*, *Puerto de los Reyes*, in Lat. 40, *La Conception* in Lat. 35, *Porto de St.*

St. Diego, Bahía de todos los Santos, Rio de St. Christoval, Bay de St. Martin, in Lat. 25. and *Port de Seguro* in 23 d. Ship and Cap

The most southerly of these, and which is the Port formerly made use of by Sir *Thomas Cavendish*, when he took a great *Manilla Ship*, Anno 1587, and of late by the Captains of the *Duke and Dutchess* when they did the like, is called *Porto Seguro*, or the *Safe Harbour*: here is a good Harbour indeed for Ships of any Burthen, well secured from most Winds, but especially from the N. and N.W. or N.E. Winds, which chiefly blow on this Coast: and here you may ride very easy in what Depth of Water you please. and Lat at a 700 no nor nor tou Ma

From hence the *European Ships*, which design to return by the *East-Indies*, take their Departure, steering S.W. to get into a more southern Latitude: and this Land likewise the *Manilla*

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 s called *Porto* and remote Places in the great Ocean, and particularly in the
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 W. to get into *Maire*, we think 'tis altogether needless to speak more of them.

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— *For Montserrat, Guar*

Barbadoes, Tobago, &c

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— *From Jamaica to*

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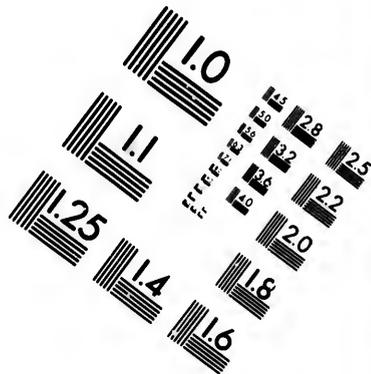
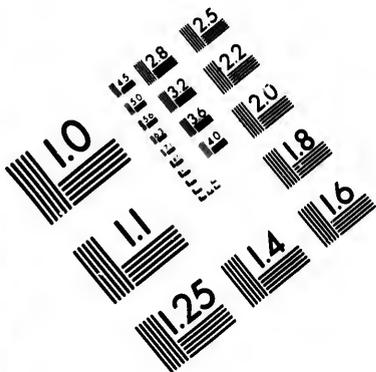
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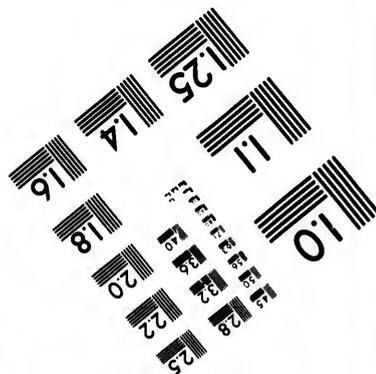
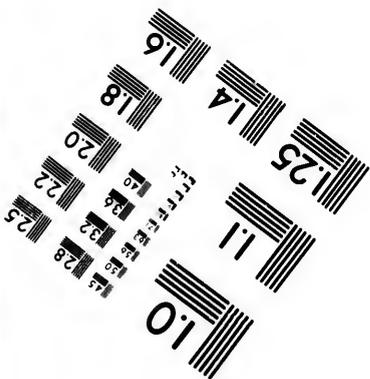
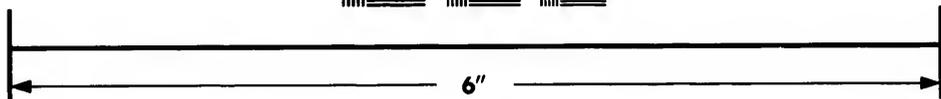
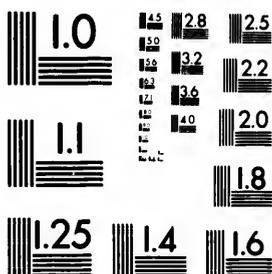
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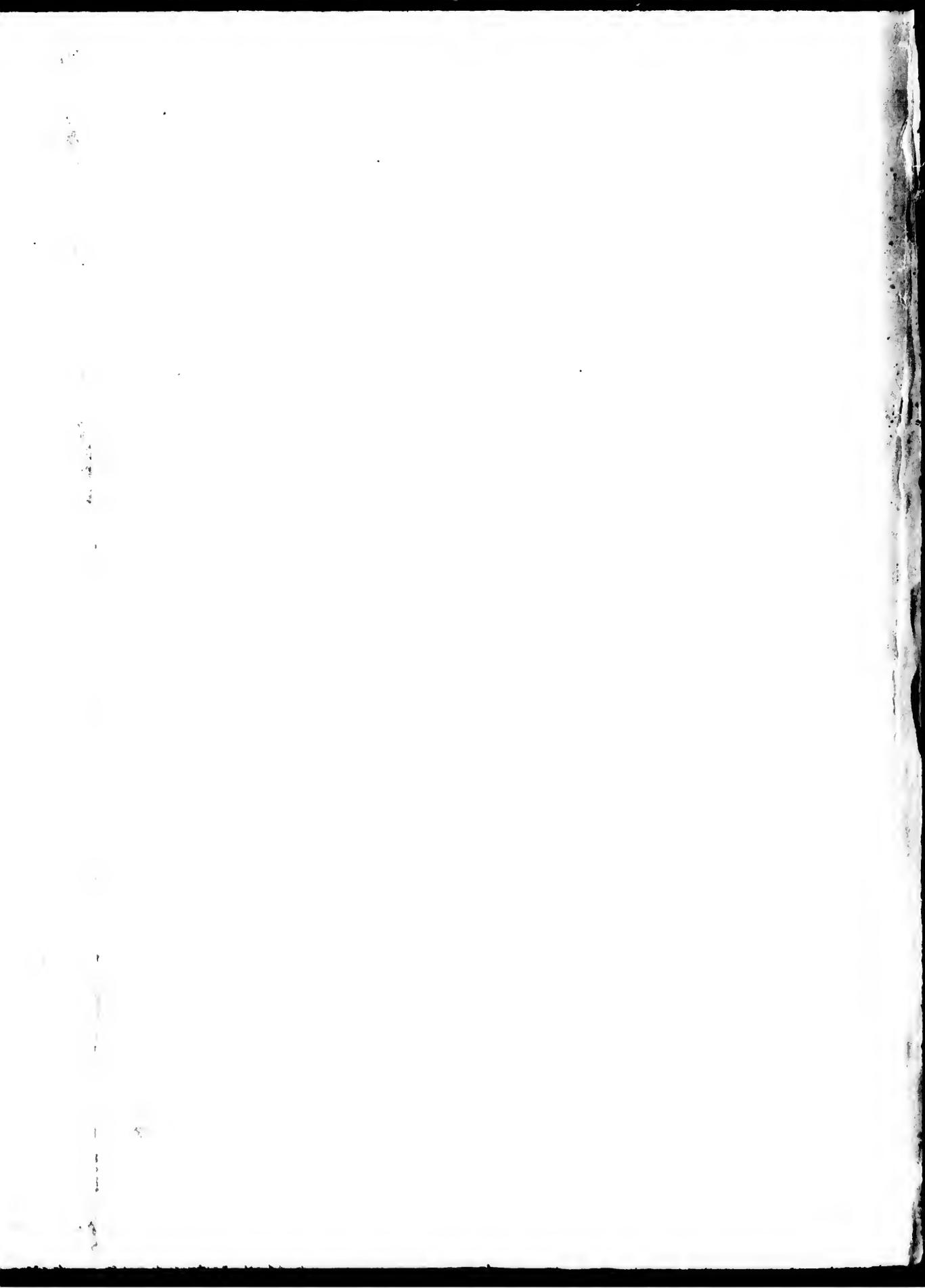


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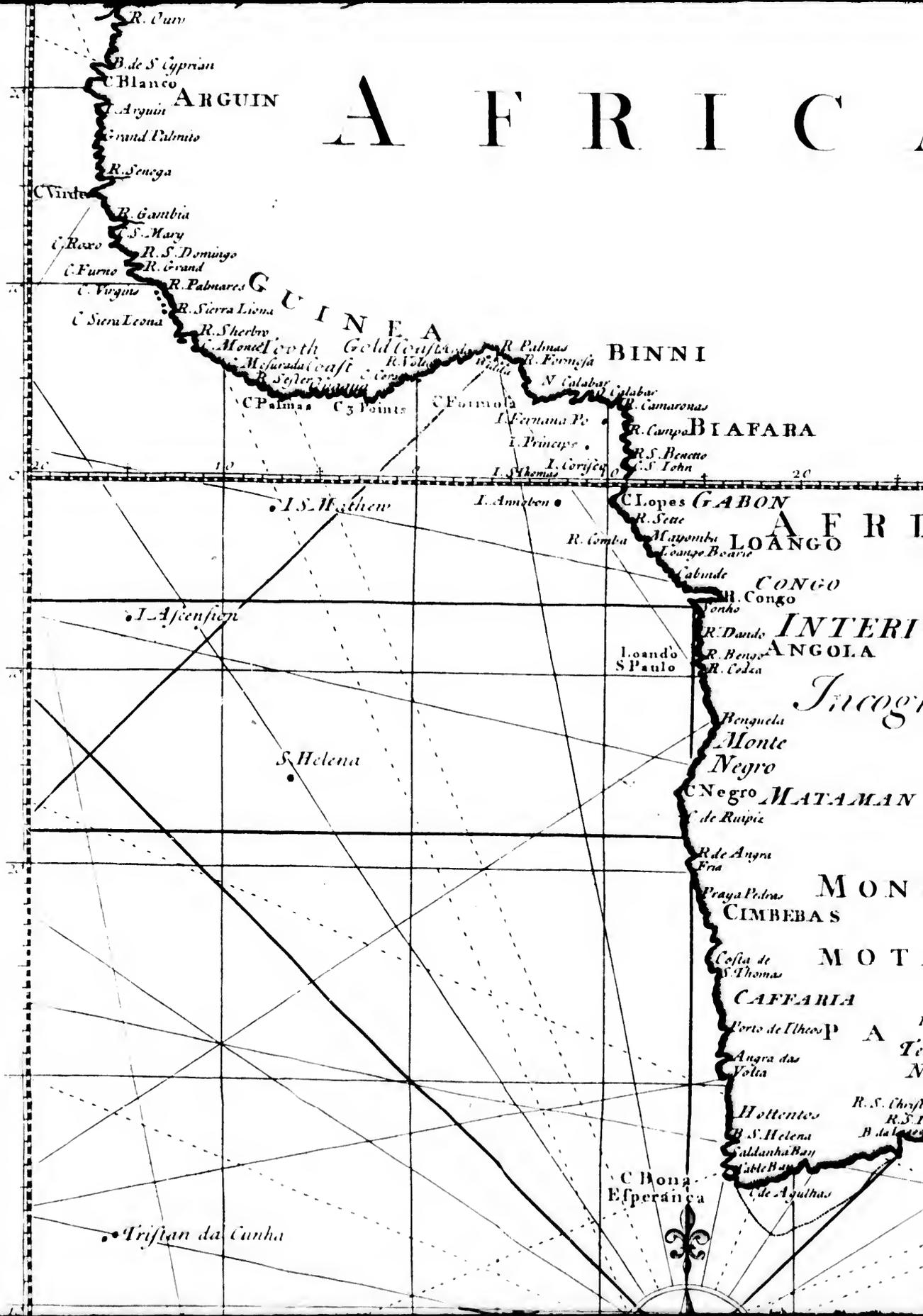
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AFRICA

The Coast and Seas between Japan, Corea,
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 and it is not known whether Yeddo
 be a part of the Continent or not.



A F R I C A





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Luzon

LABRON
ISLES

MINDANAO
MOLUCCAISLES

GILOLO

IRIAN ISLANDS
SERRA DE PAPOS NOVA GUINEA

OLLANDIA
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Van-Diemens Land

C. de Engano
I. Strait of Manila
I. F. S.
I. Sp. Santo
I. Tandaya

I. John
I. des Roches
I. St Johns

I. Moratay
I. Amboina
Banda
Floris End
Solor I. Ombo

Aruhemis Land
Macassar R.
Mactjuckees River
R. Caron

P. Nuyts Land
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I. Saavedra
I. S. Martires

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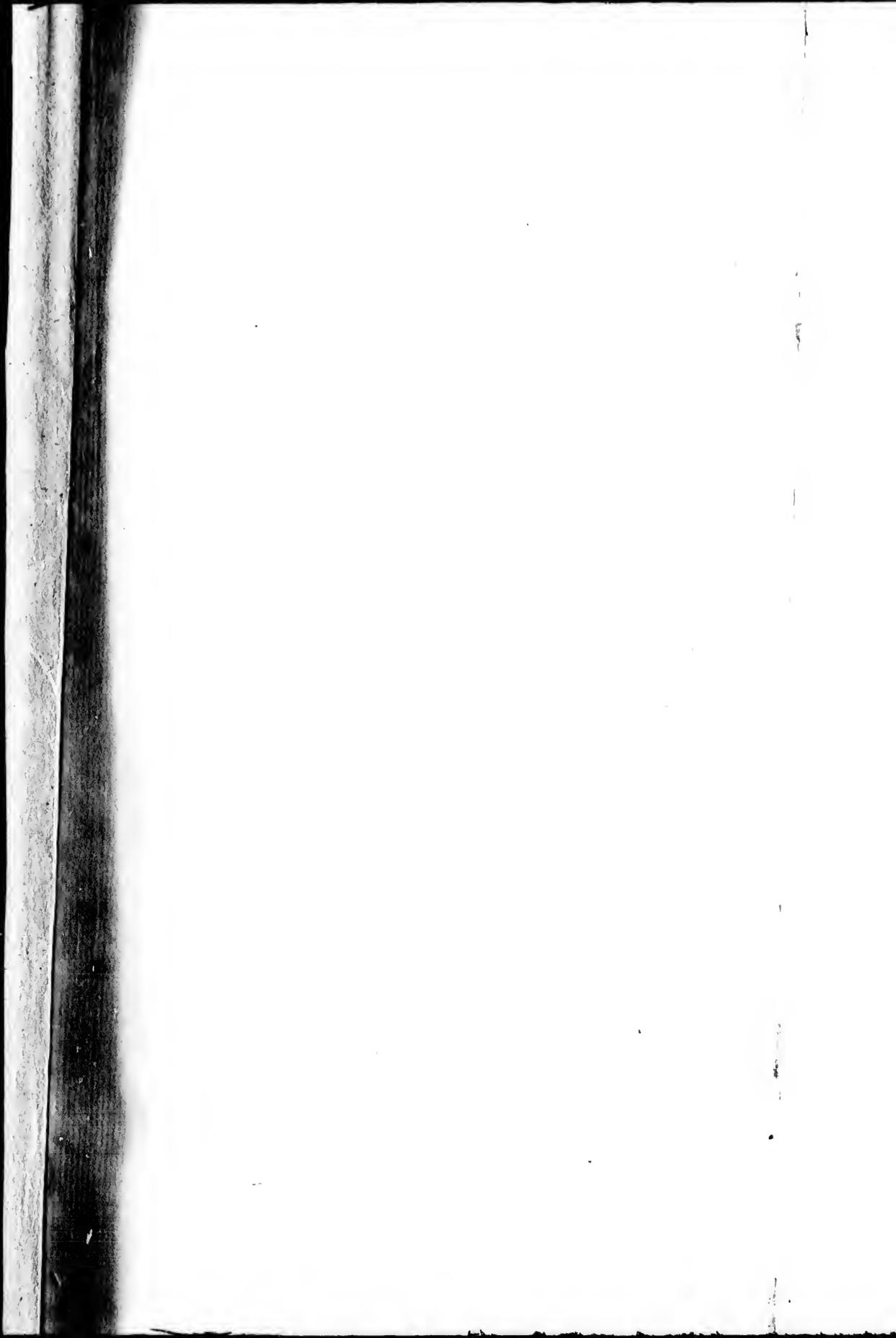
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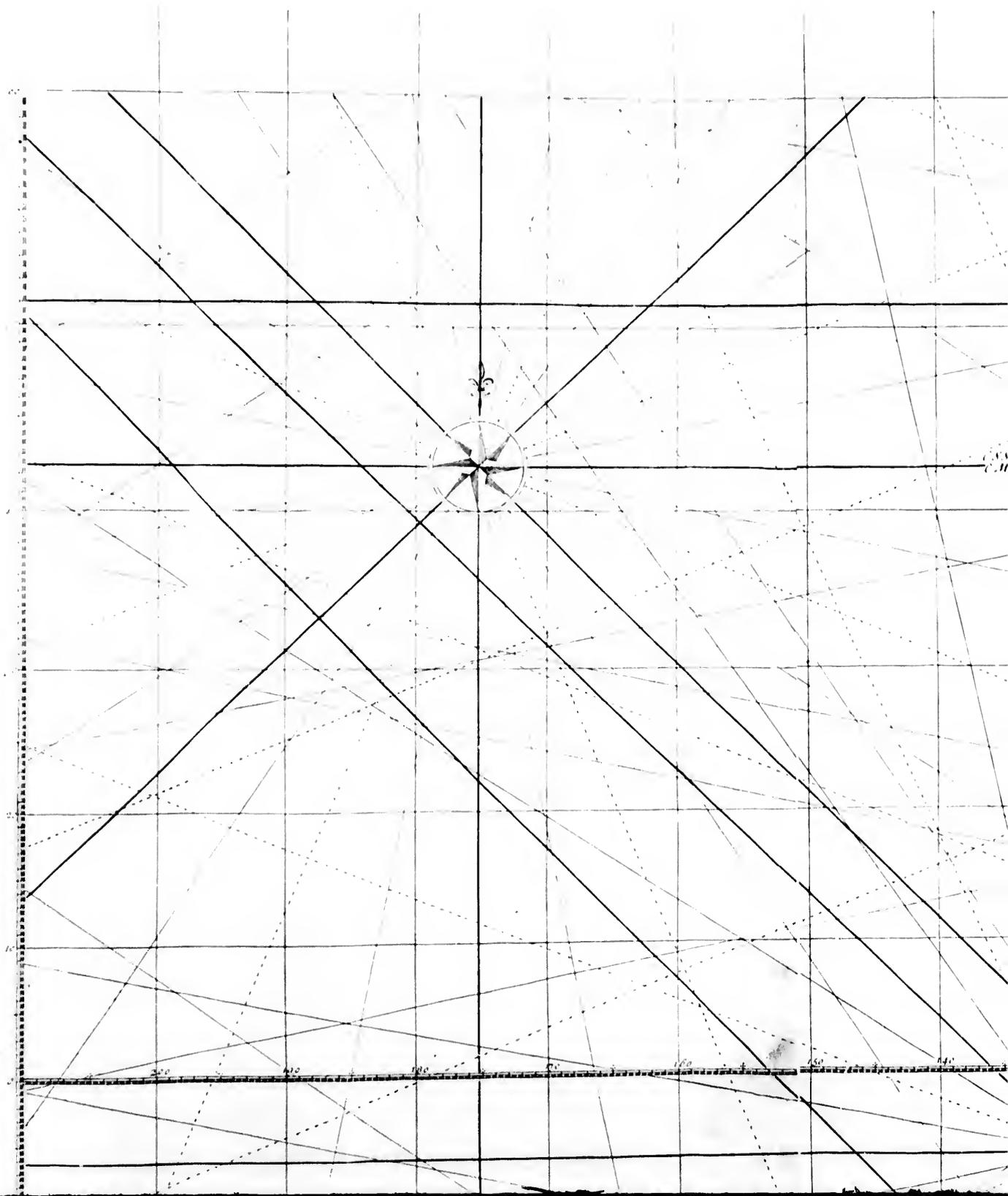
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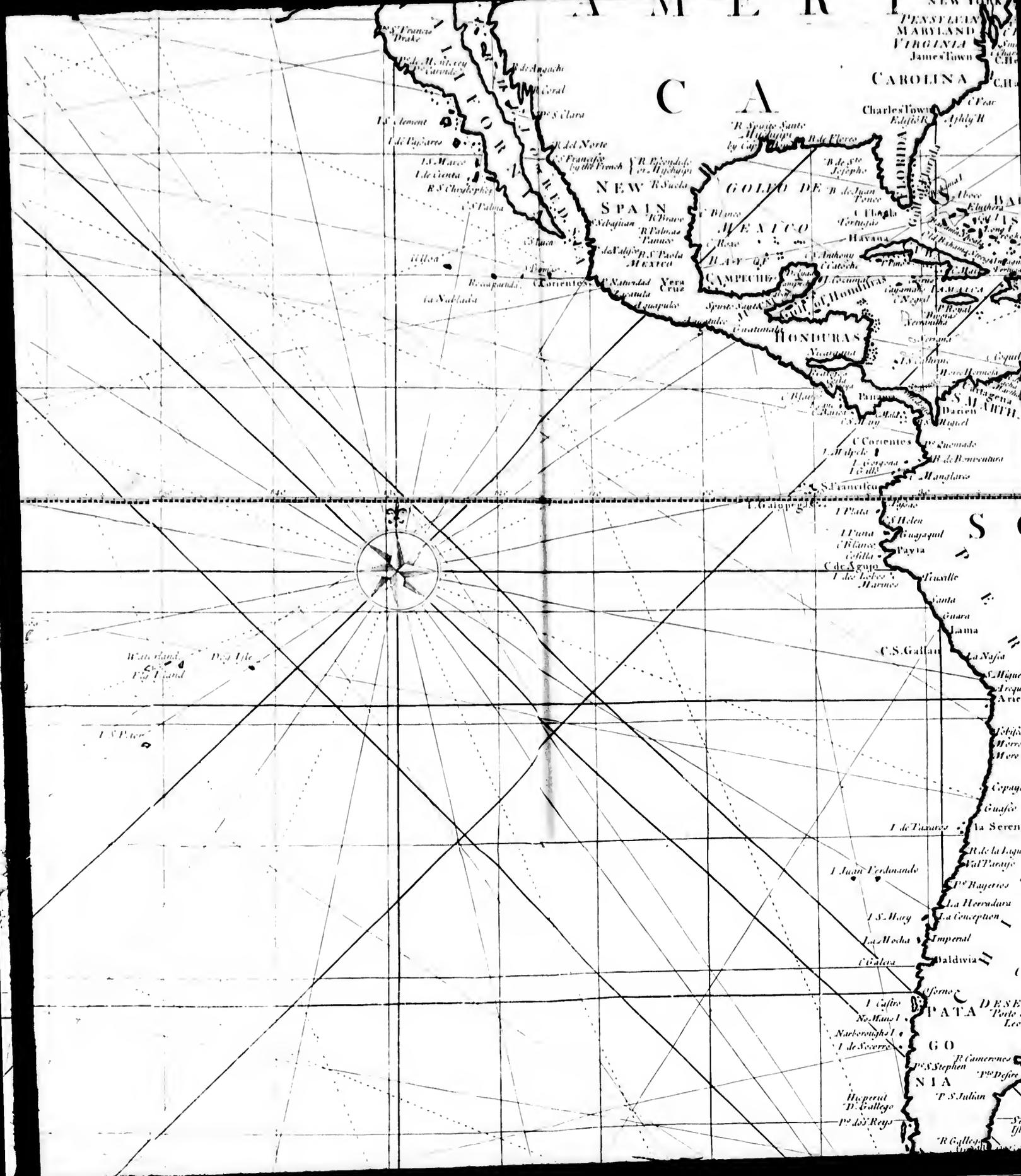
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NEW YORK
PENNSYLVANIA
MARYLAND
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James Town
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Charles Town
FLORIDA
HAWAII



Windsand
Dog Isle
Fog Island

I. S. Peter

C. S. Gallan
La Nafia
S. Miguel
Arquip
Arica
Cobija
Hercules
Coyahu
Guafio
I. de Tazares
La Serena
R. de la Laguna
Val Paraiso
I. Juan Fernandez
I. S. Mary
La Hermandad
La Concepcion
Imperial
C. Galera
I. Formosa
I. Galfo
No. Mano I.
Nabroough I.
I. de Socorro
Imperial
D. Gallego
I. de los Reyes
P. S. Julian
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R. Gallego

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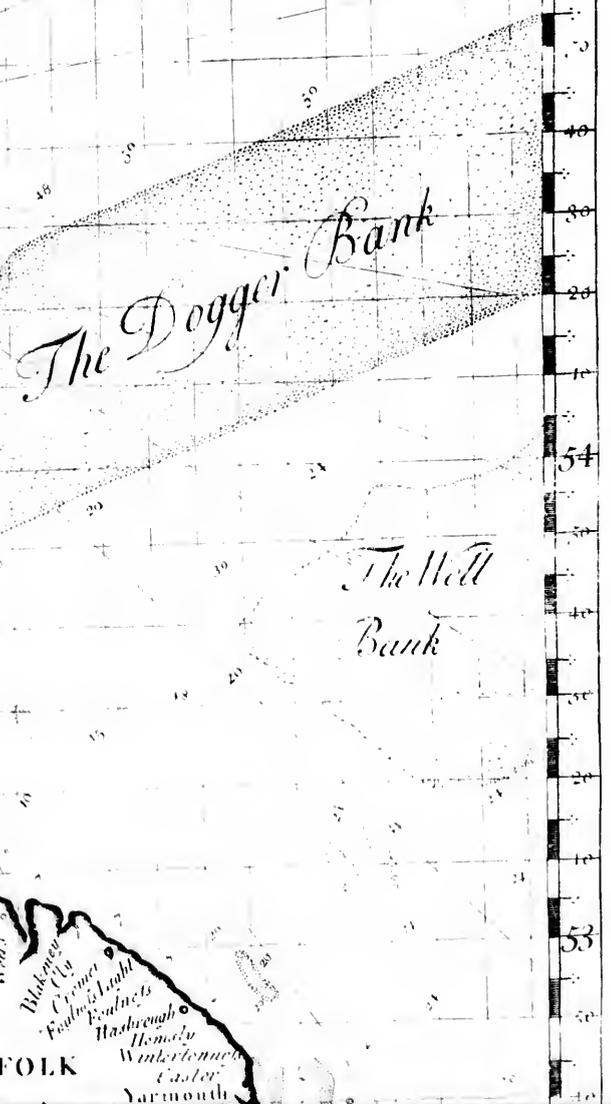
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PATAGONIA
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P. S. Desire
P. S. Julian
R. Gallego

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A Chart Describing
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GREAT-BRITAIN,
From the South Foreland to Berwick.

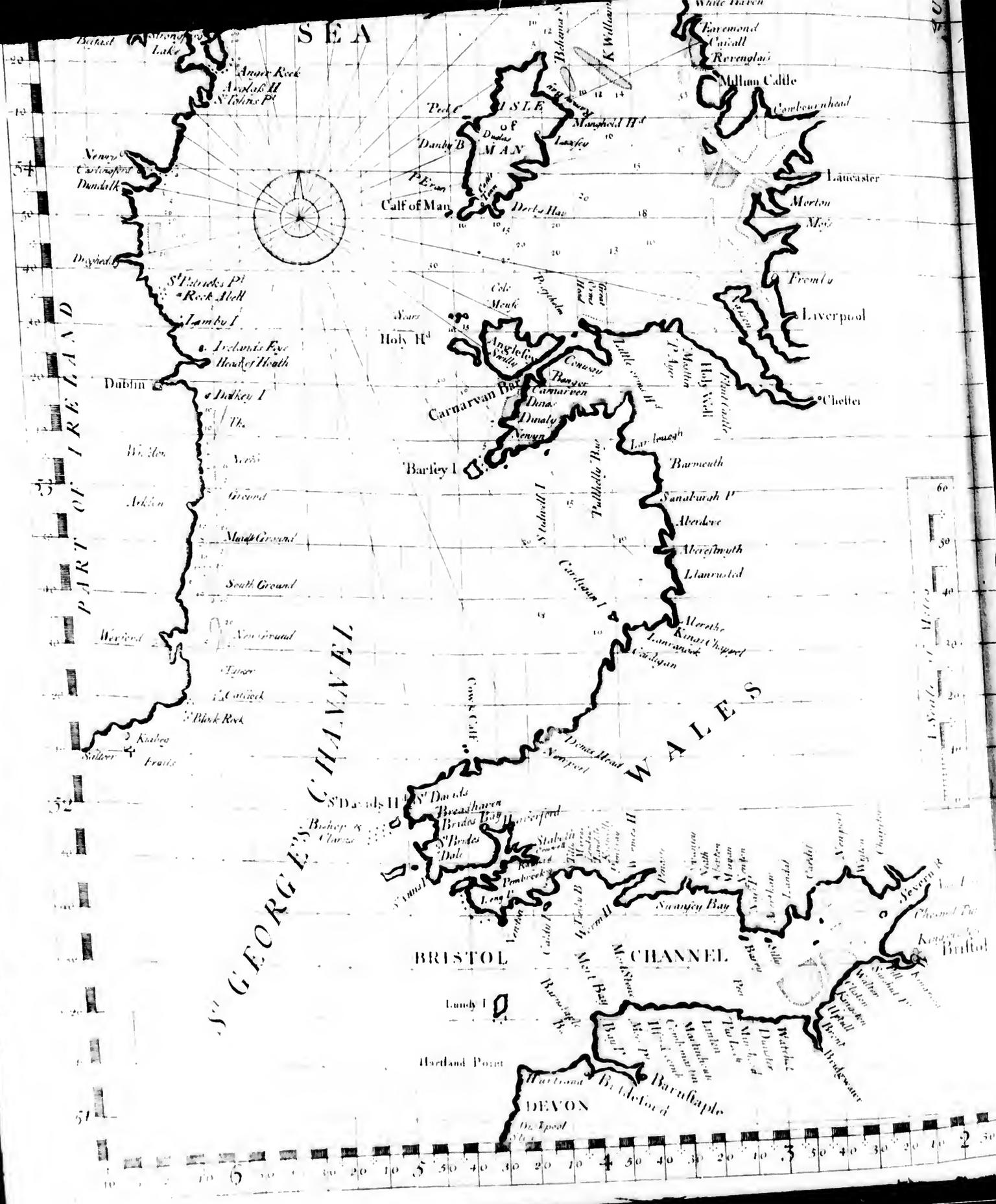


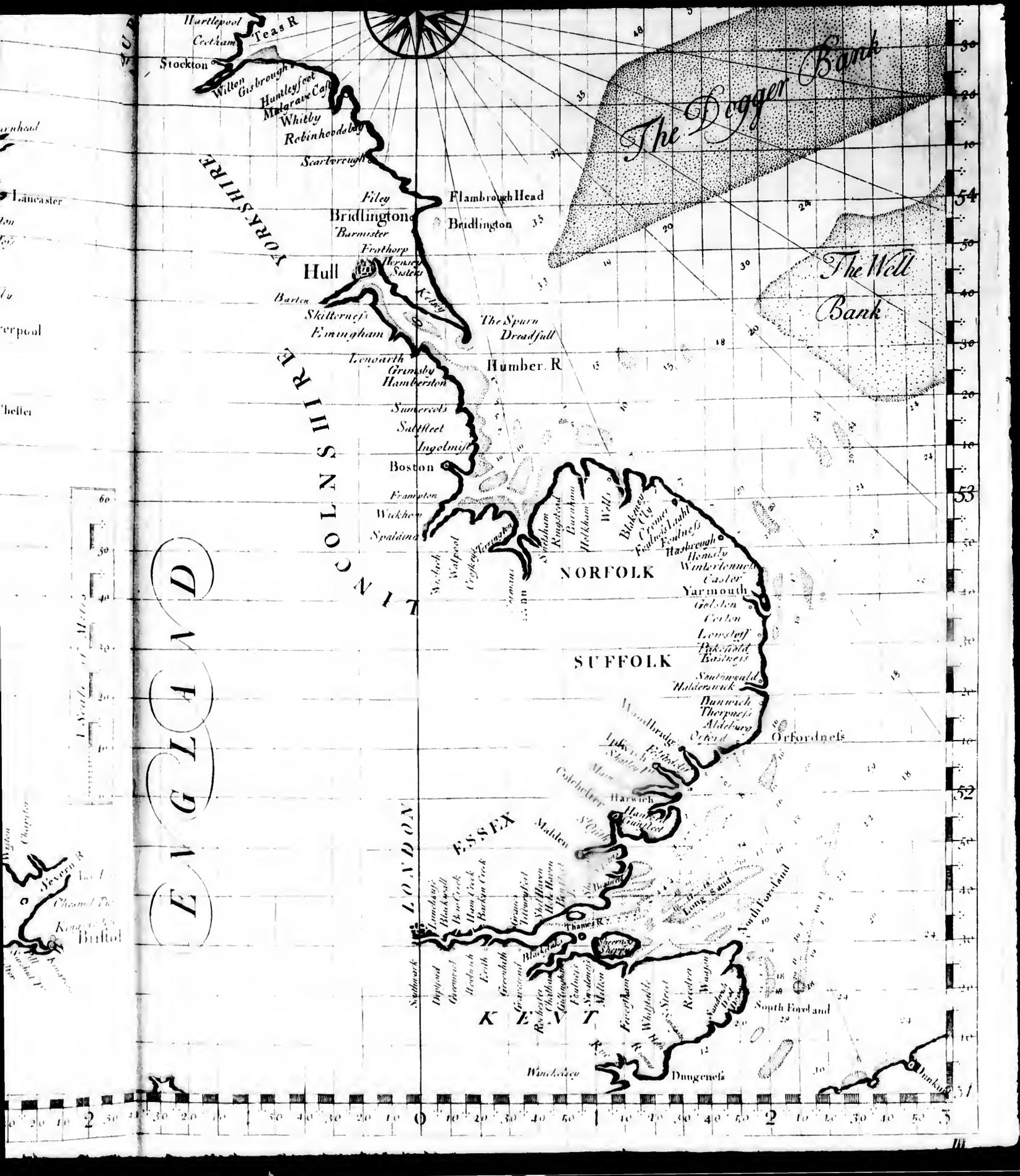
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Scarborough
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Toscaith
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Flamborough Head
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The Spurn
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ENGLAND

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KENT

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Wilton
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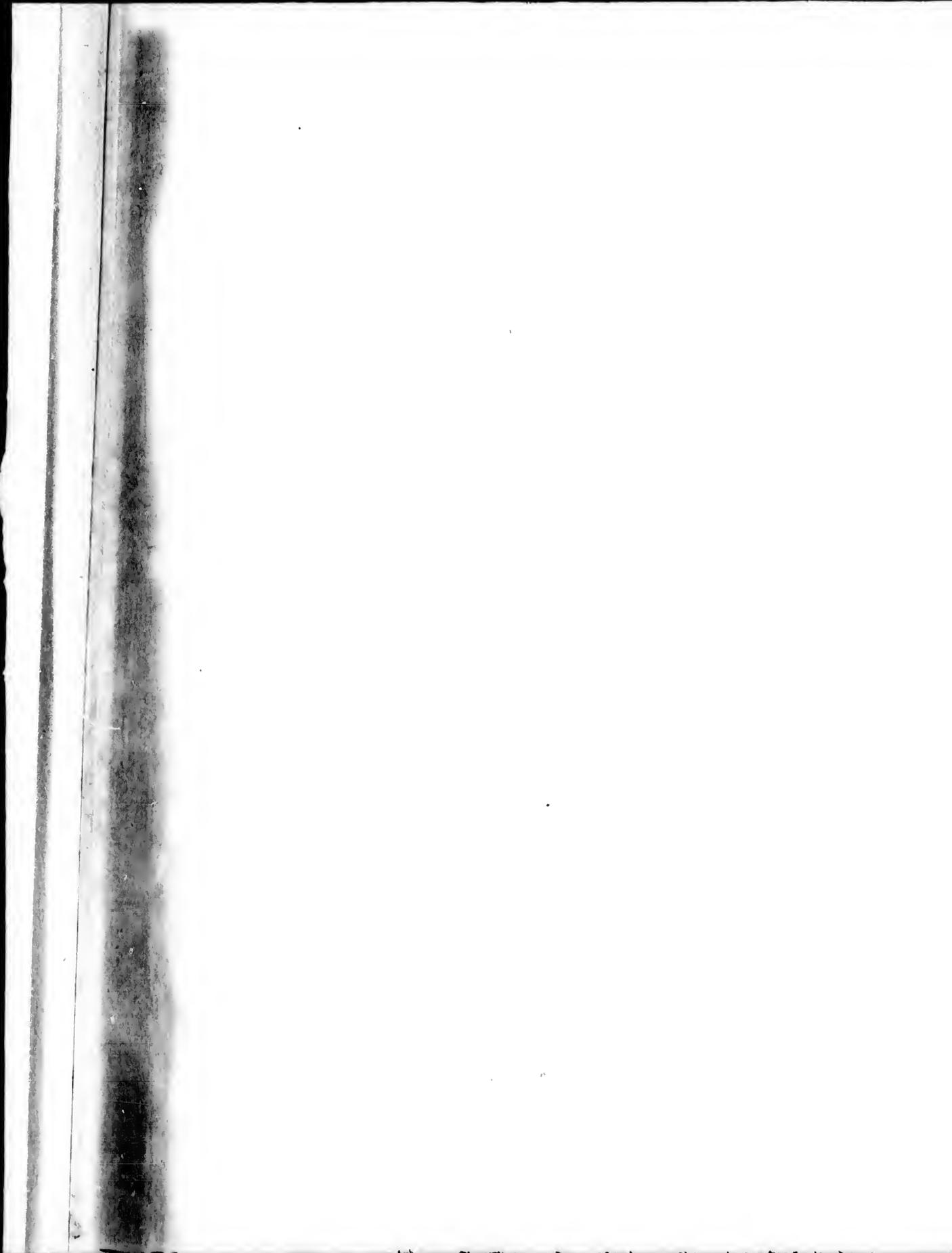
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Frankton
Wickham
Spalding
Walsbych
Walpole
Crychpep
Kersey
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Kingston
Earsham
Maldham
Wells
Blakeney
Cromer
Folke's Lough
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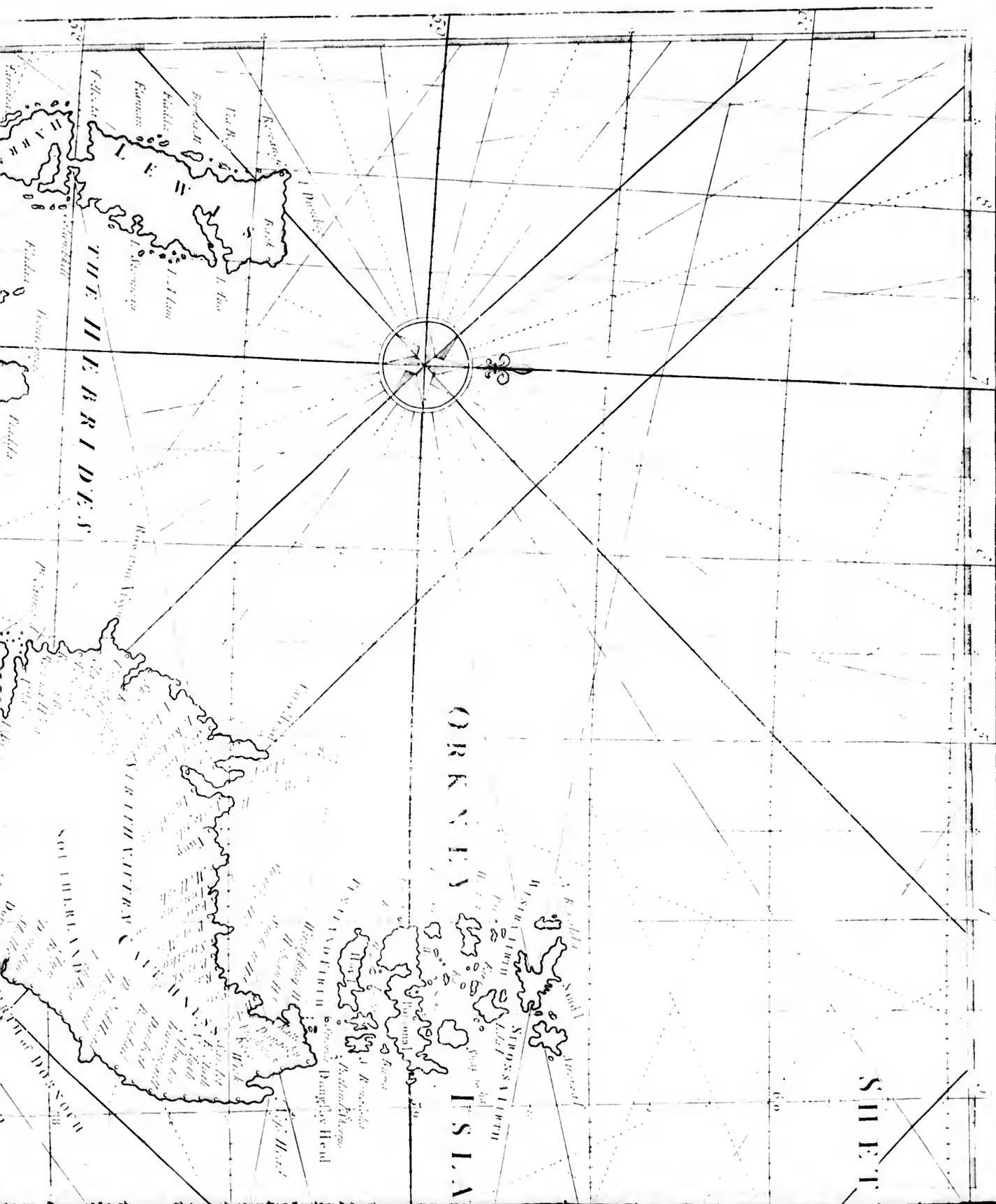
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Malden
St. Clith

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Thyngton
Oswestry
Haverock
Horn Creek
Bucken Creek
Greenhith
Gravesend
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The Dogger Bank
The Well Bank







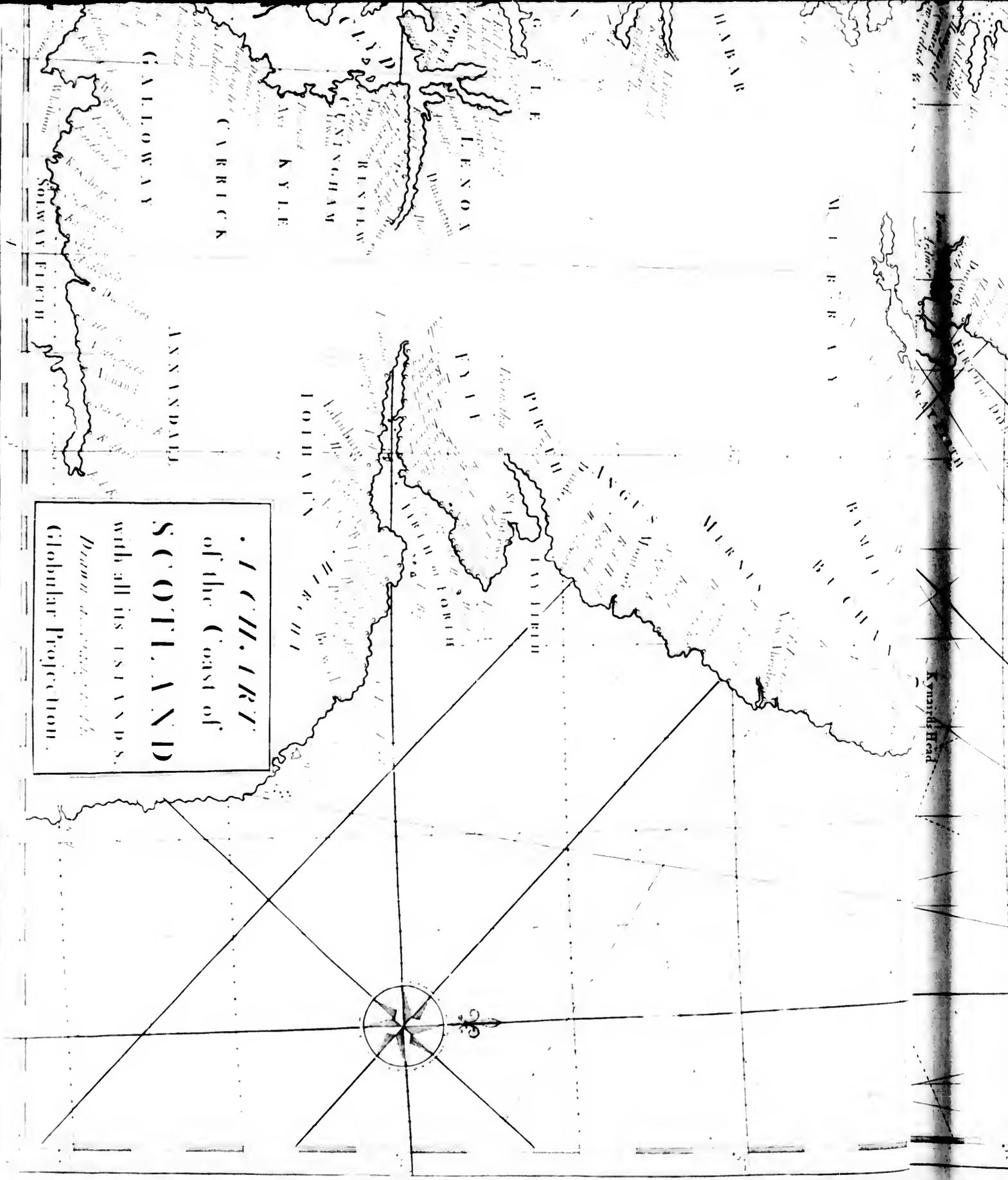
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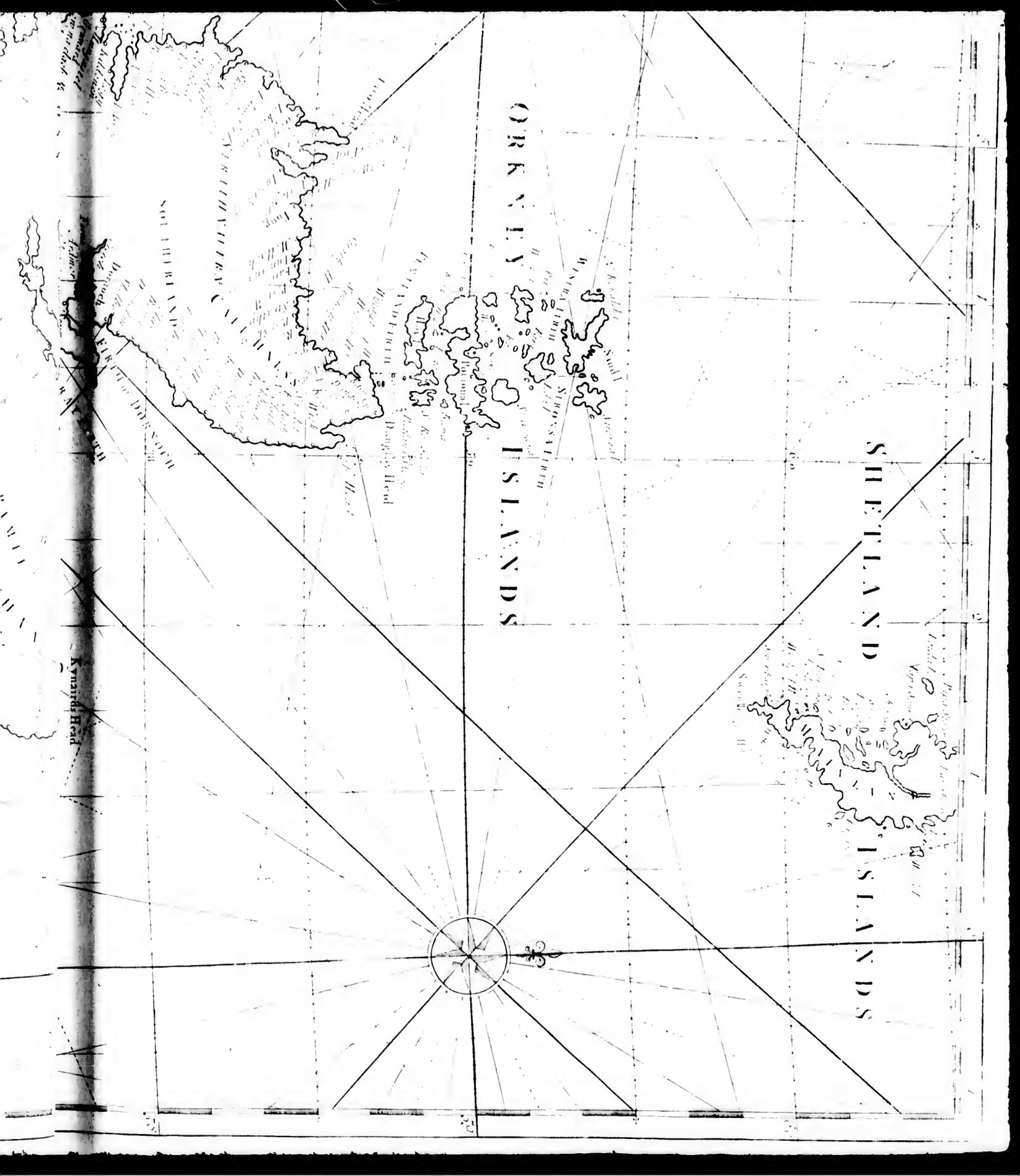
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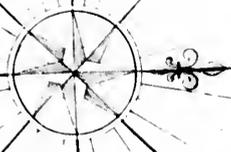
J. H. ART
 of the Coast of
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 with all its ISLANDS.
Drawn according to the
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ORKNEY ISLANDS

SHETLAND ISLANDS

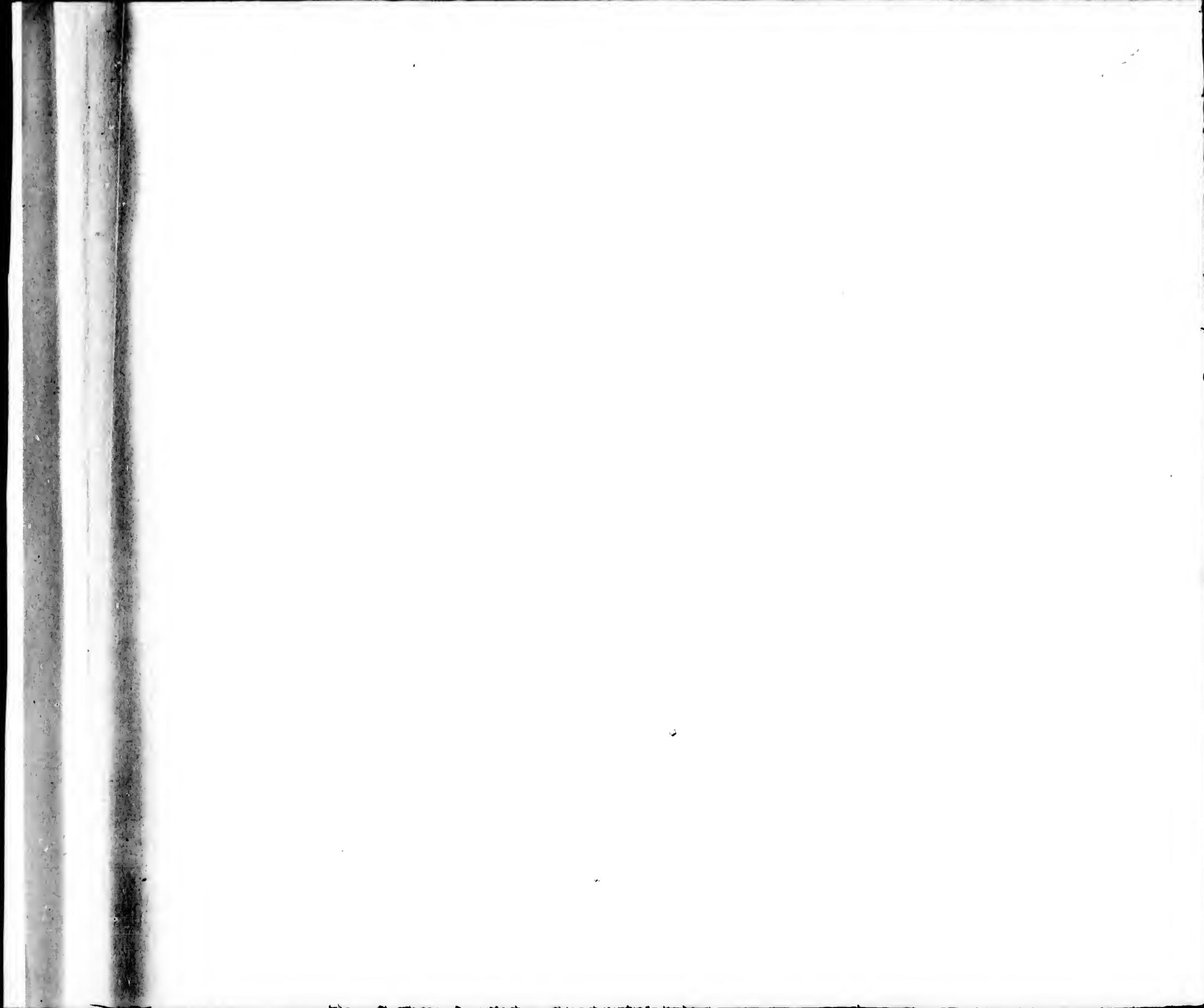


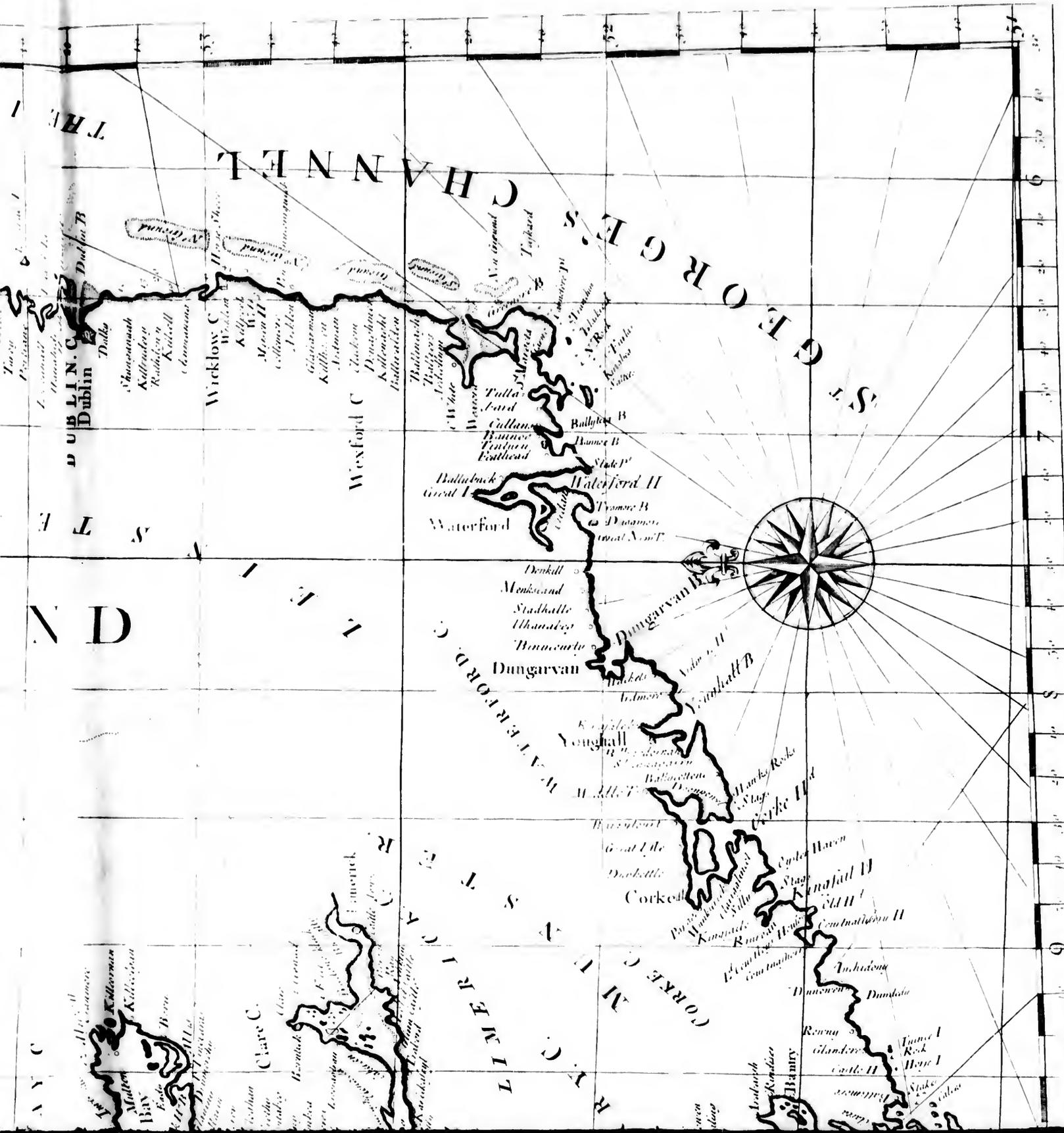
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THE IRELAND CHANNELS

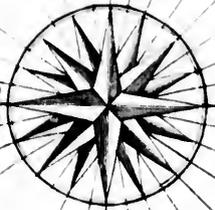
DUBLIN CHANNEL
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WATERFORD CHANNEL
Waterford

ATLANTIC OCEAN
Atlantic



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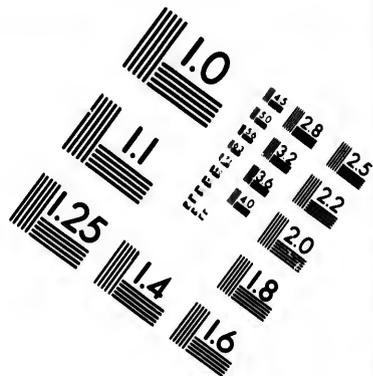
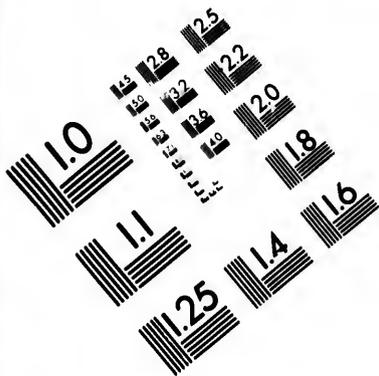
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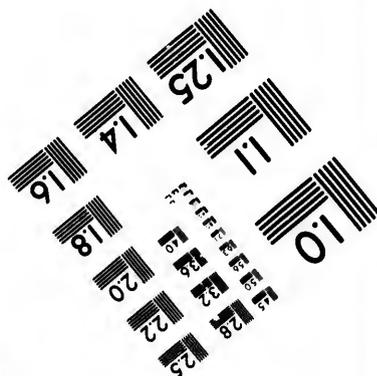
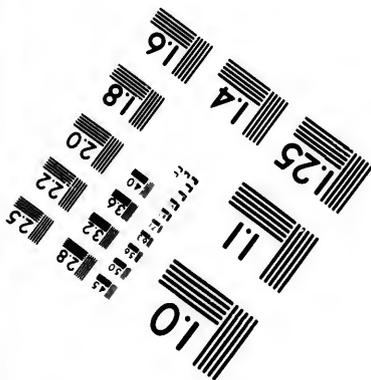
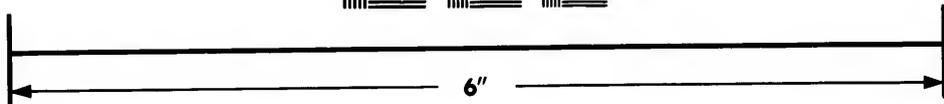
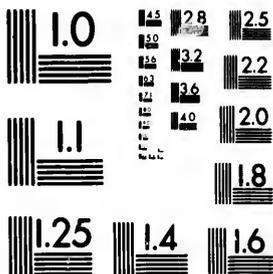
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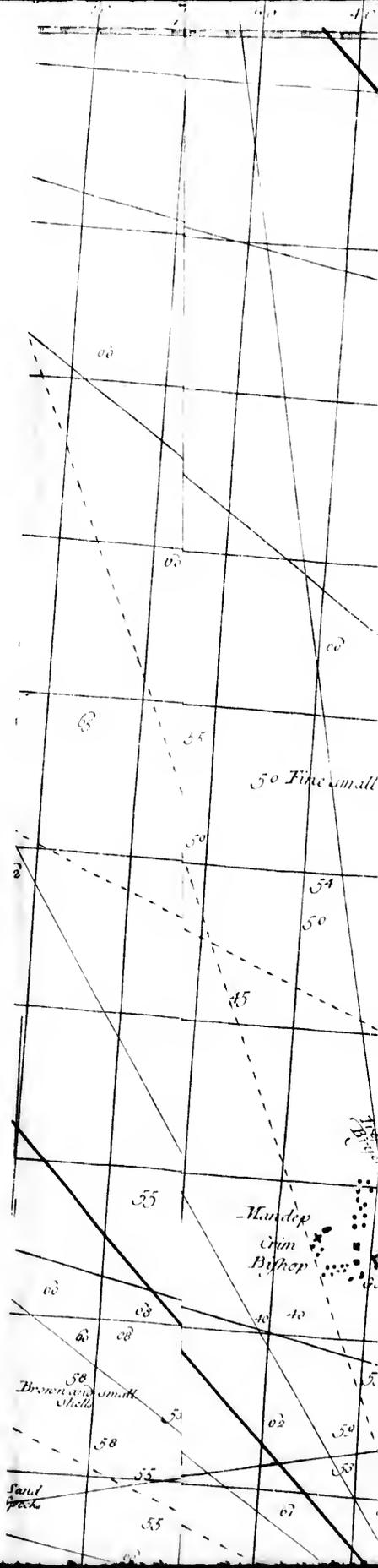


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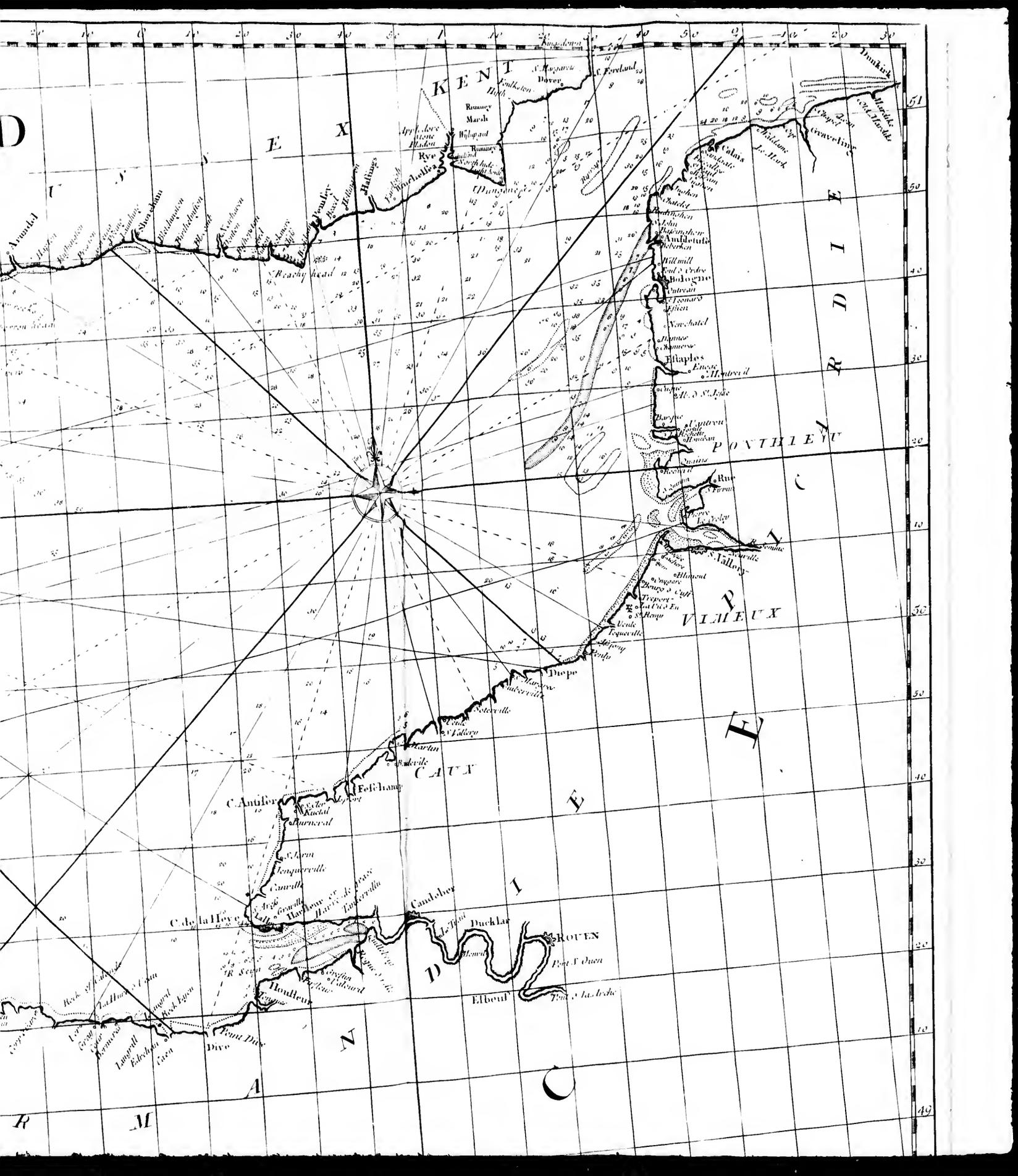
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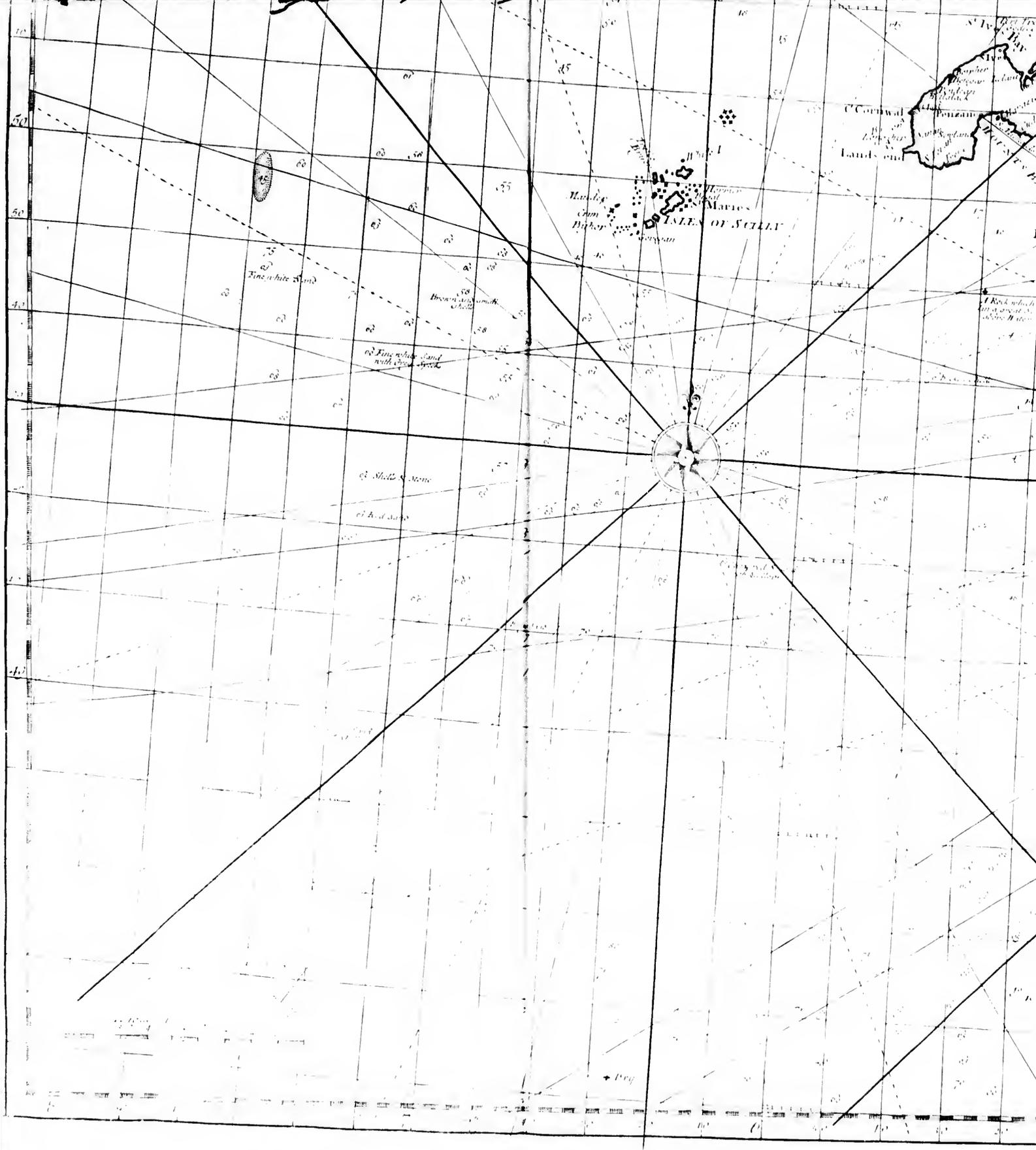
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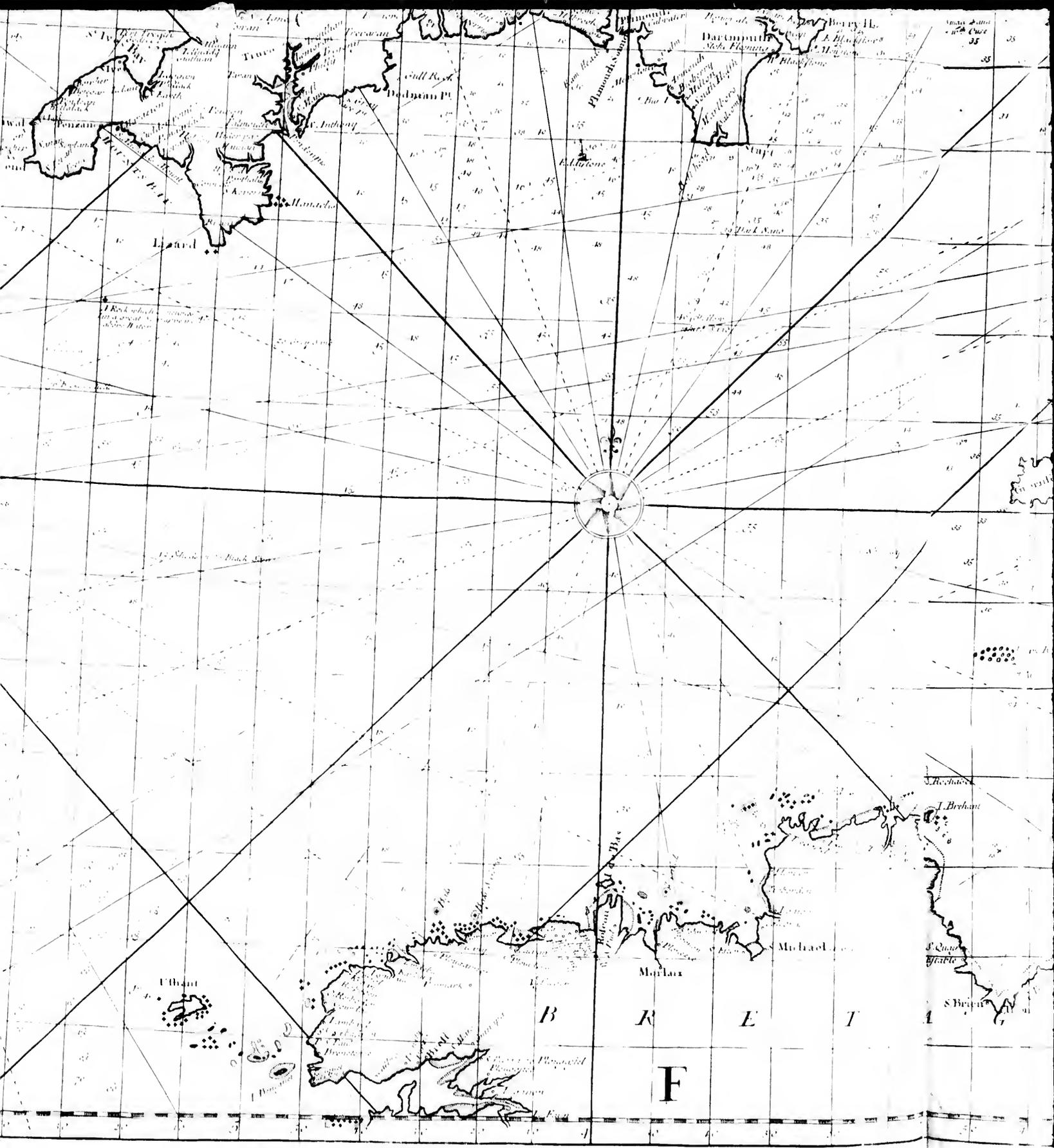
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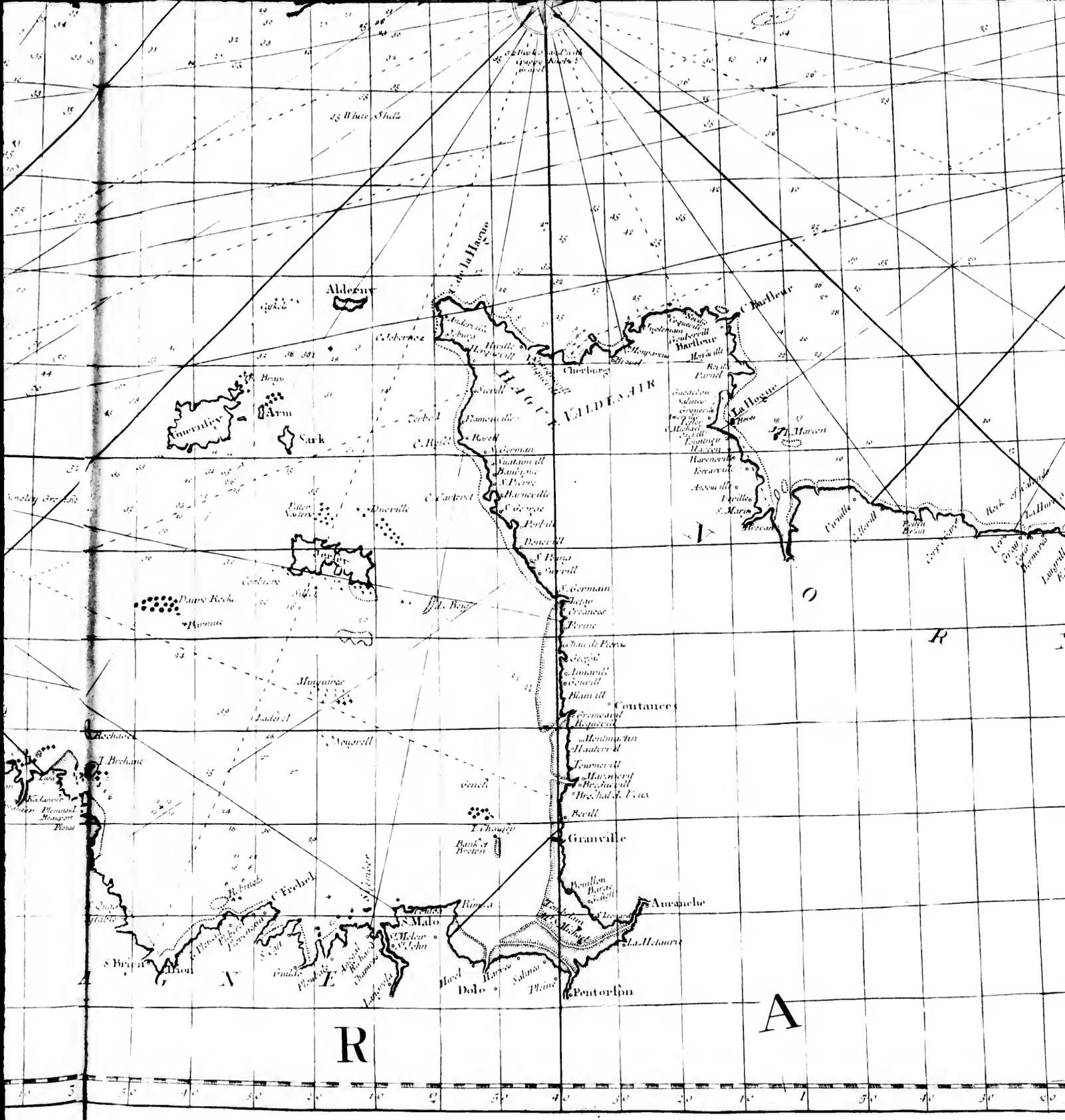
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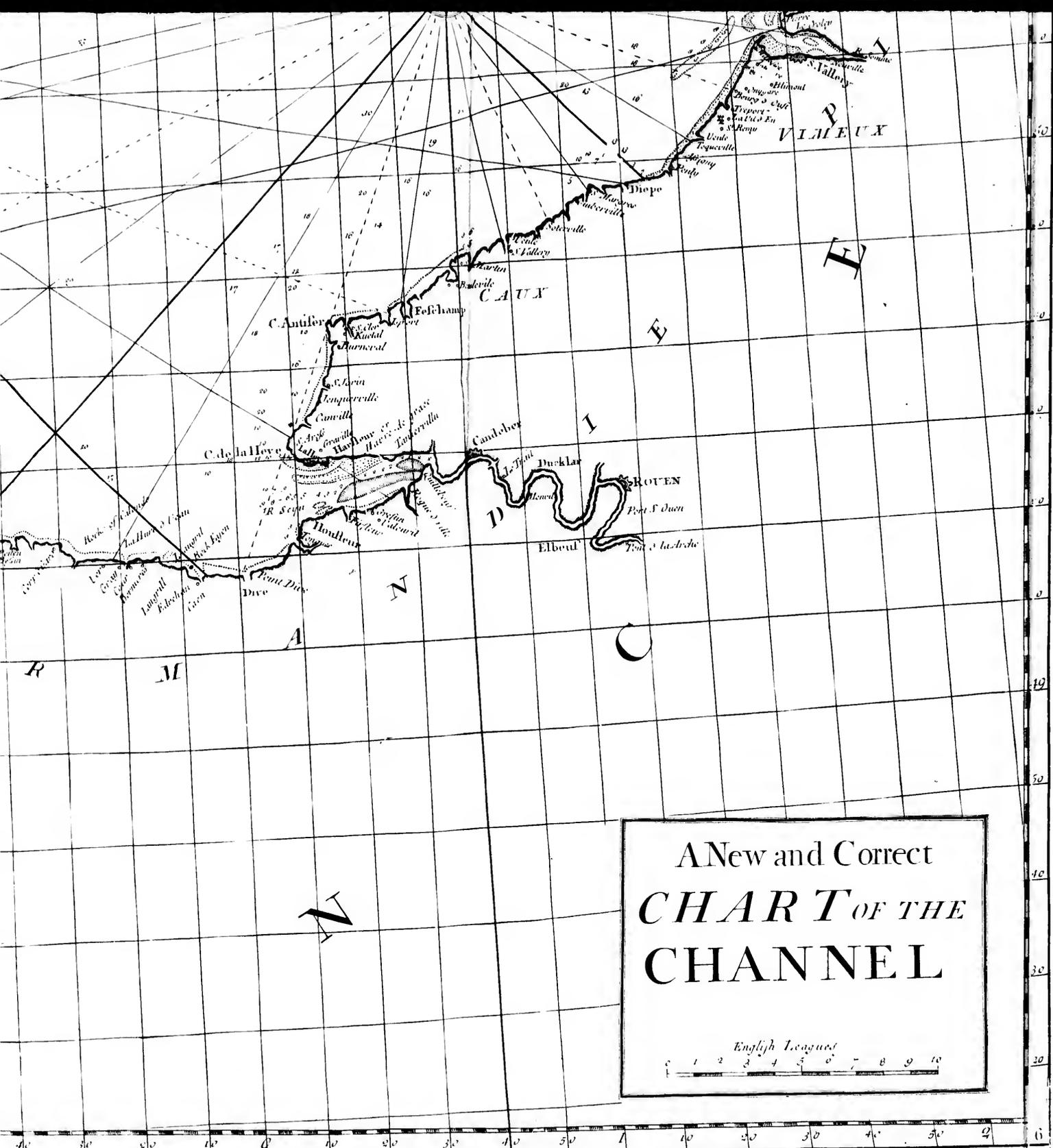






R

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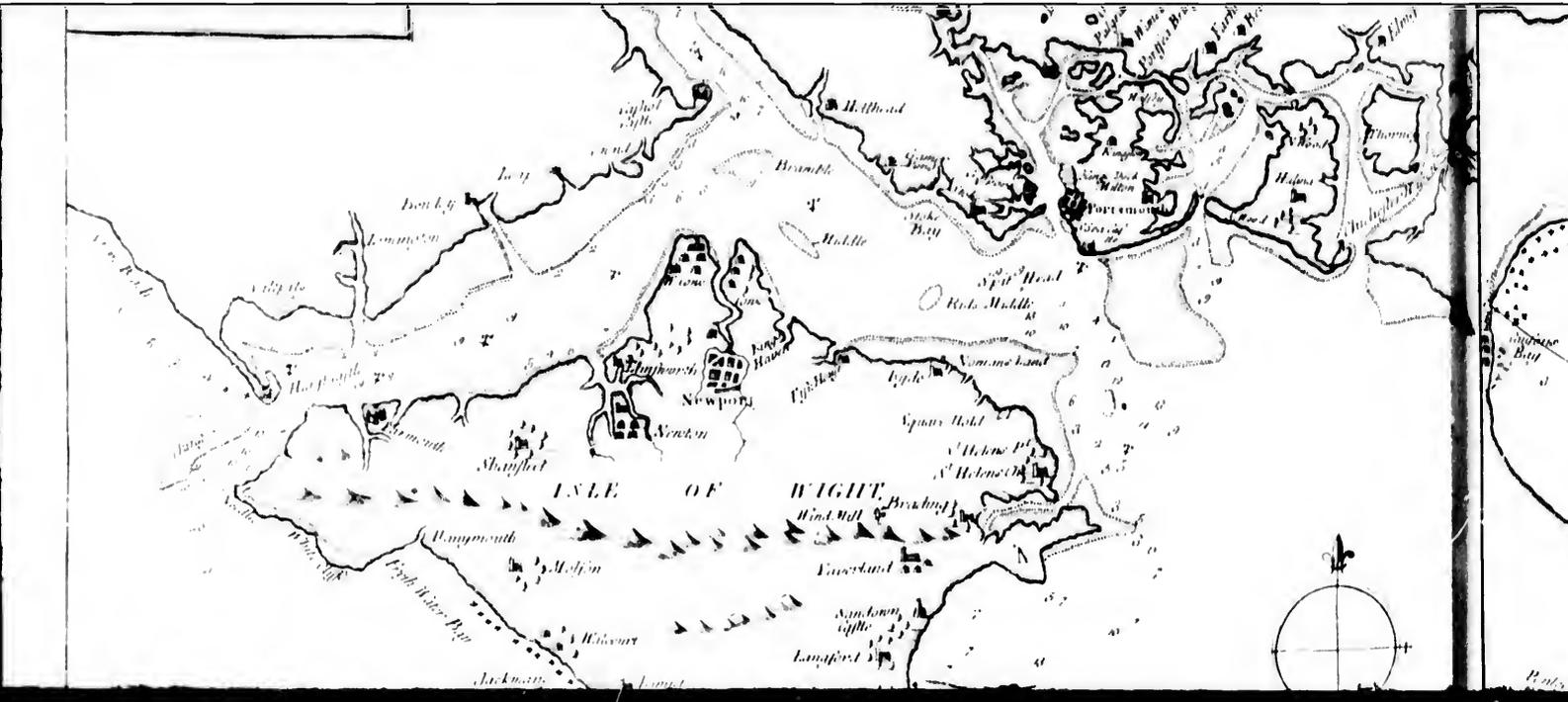
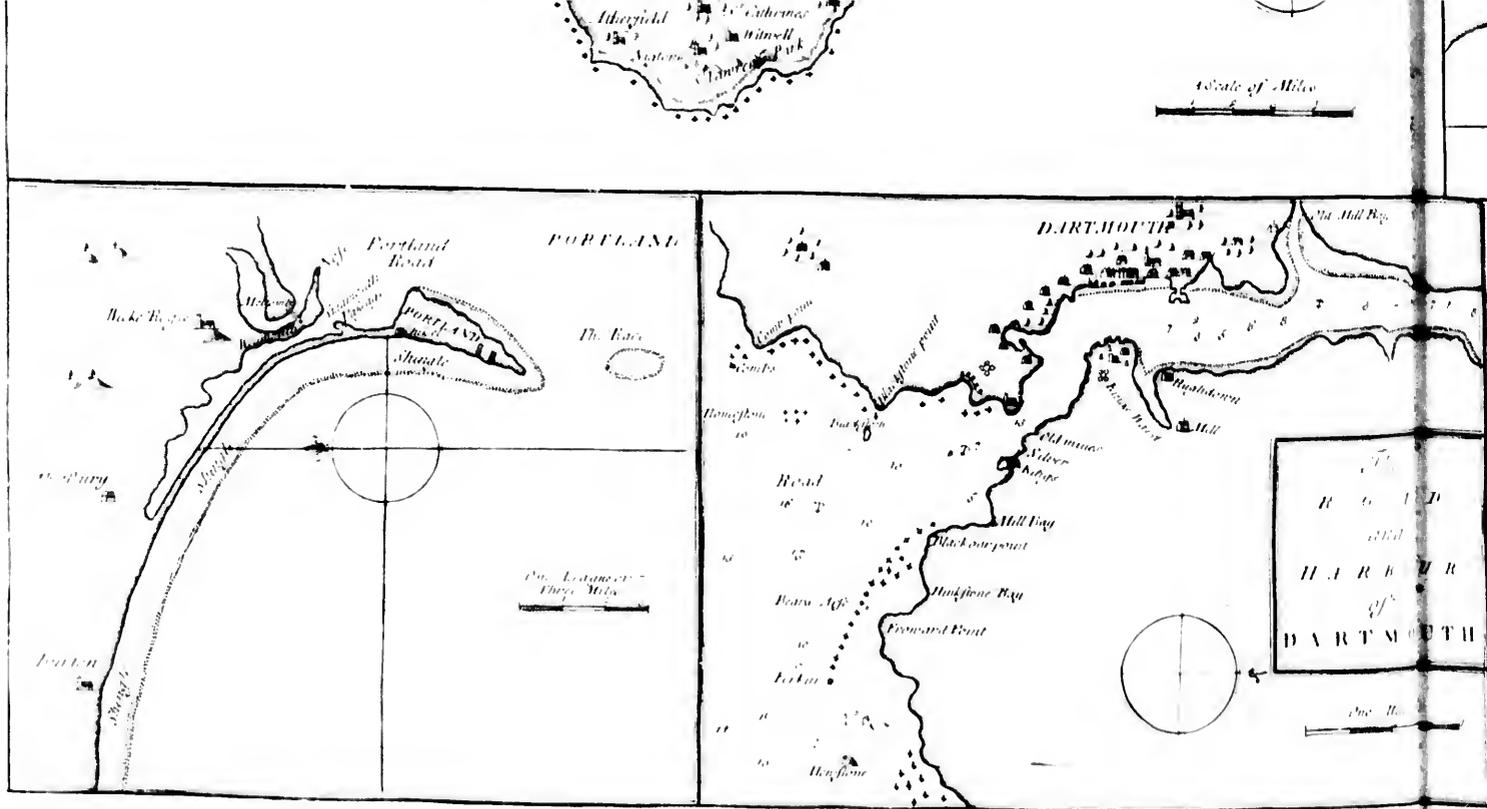


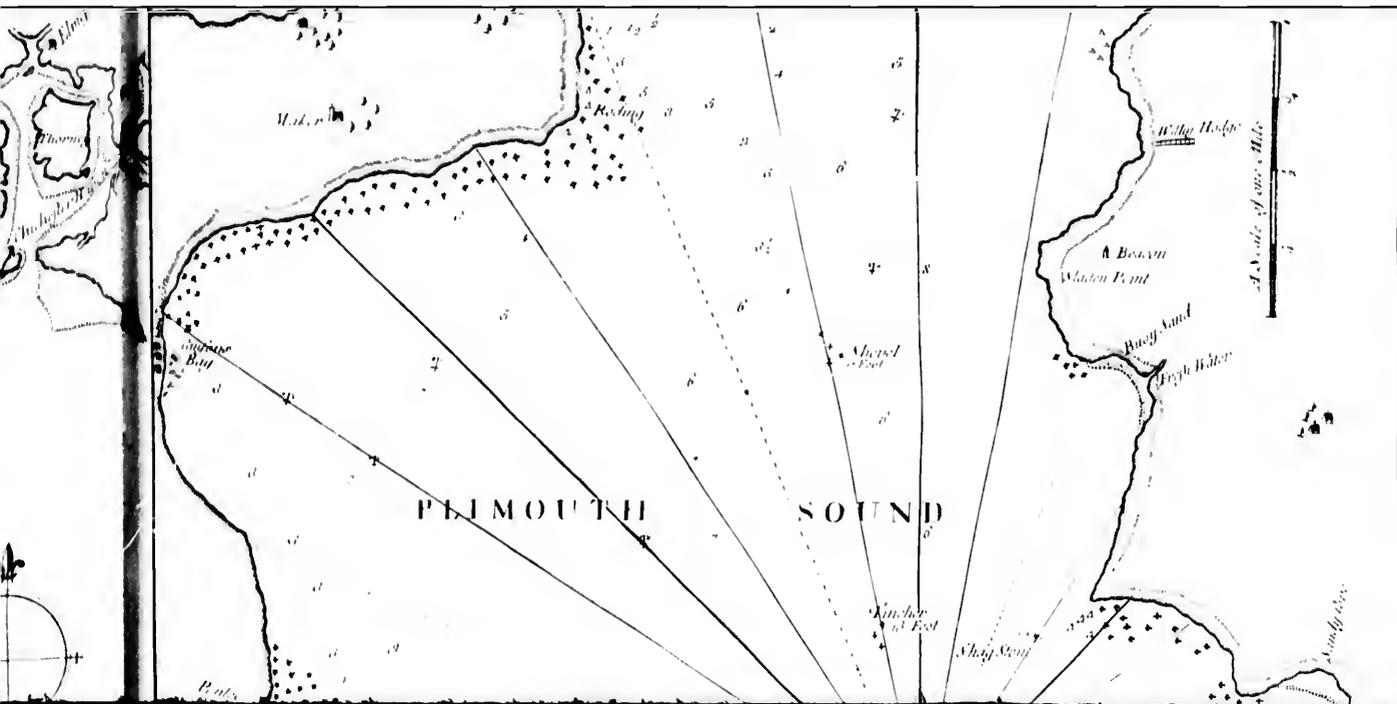
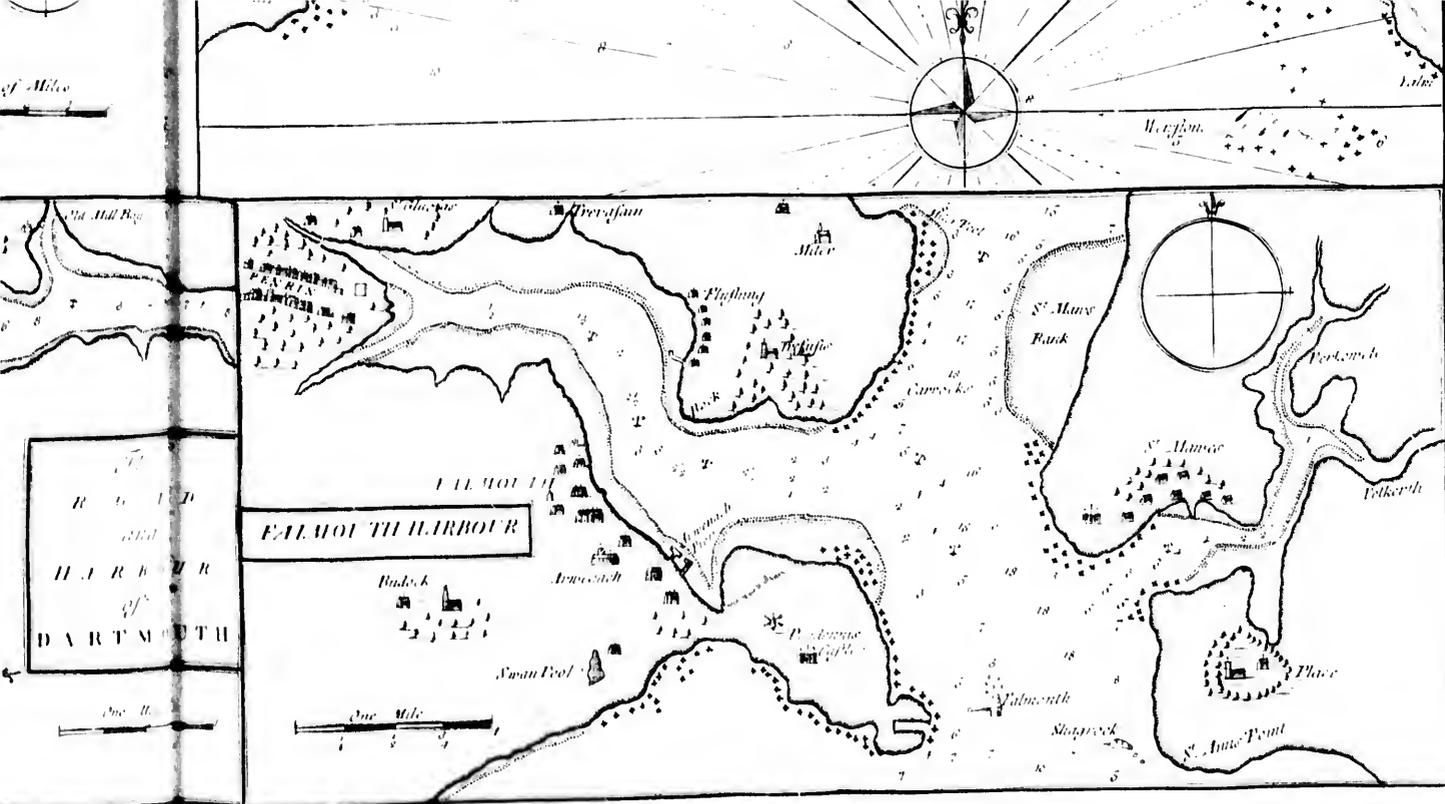
A New and Correct
CHART OF THE
CHANNEL

English Leagues
 1 2 3 4 5 6 7 8 9 10





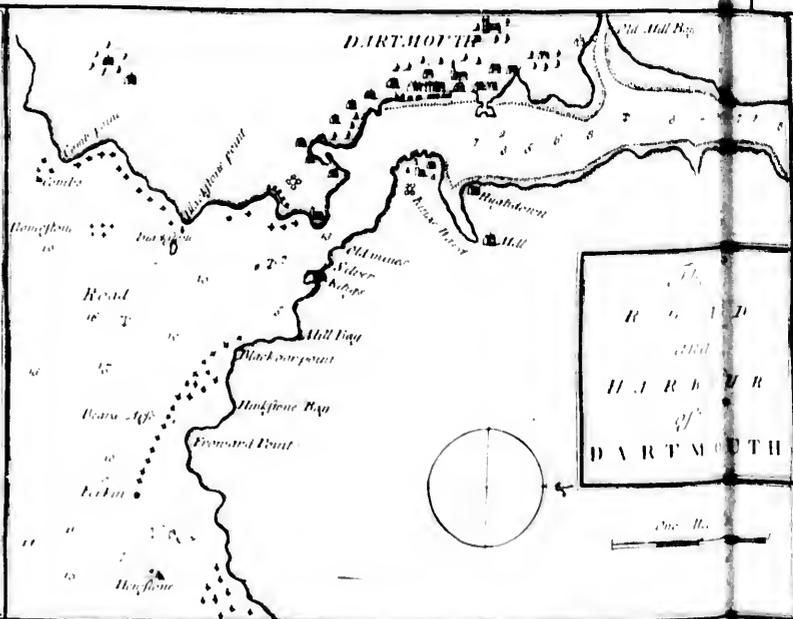
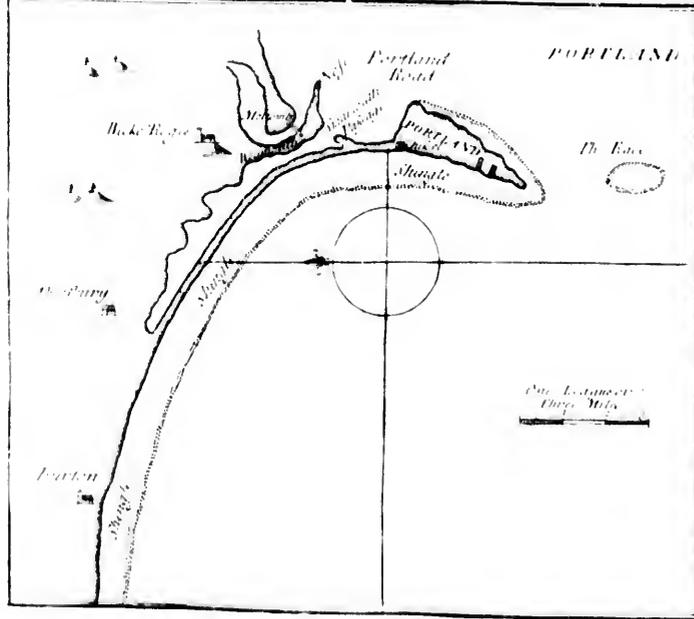
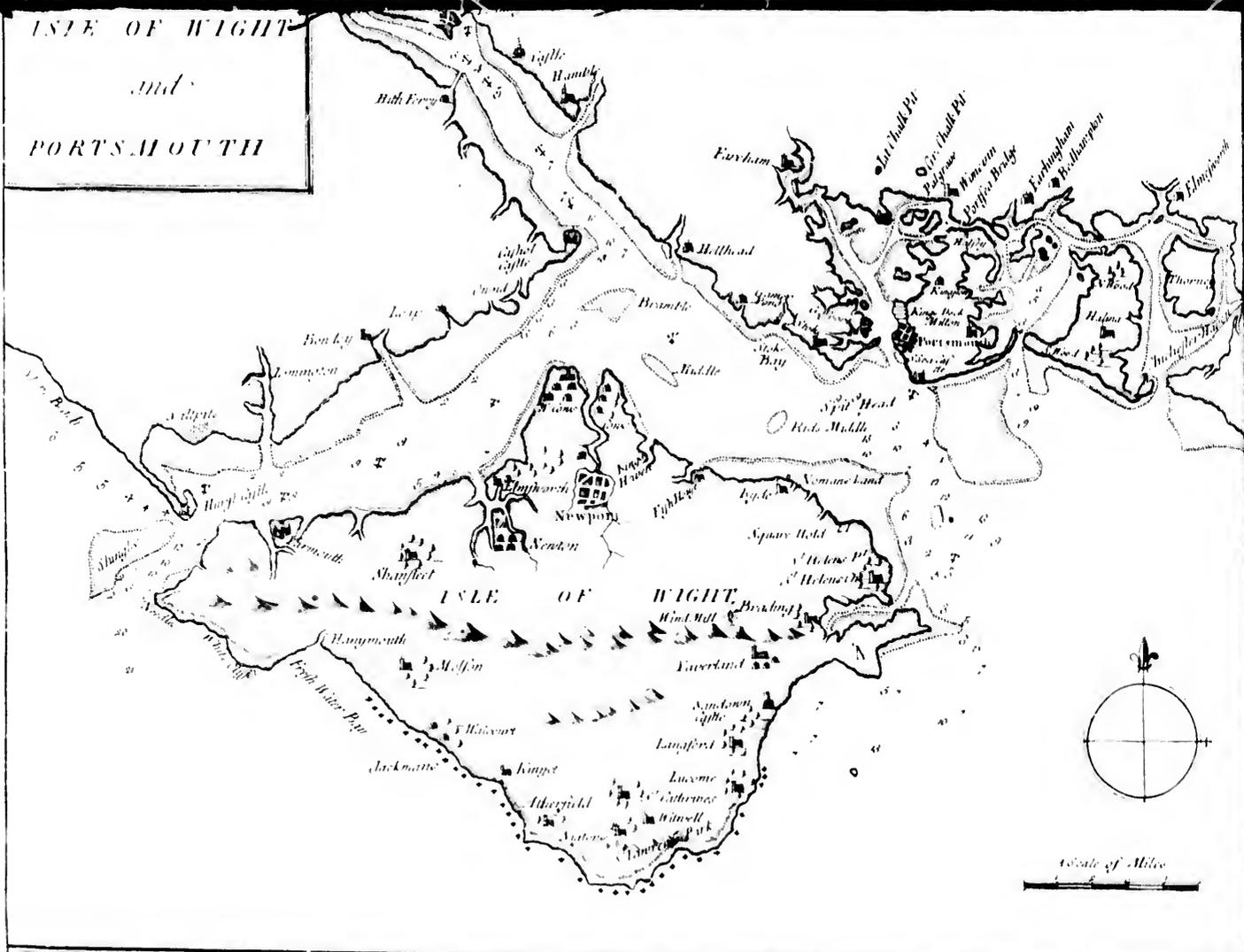


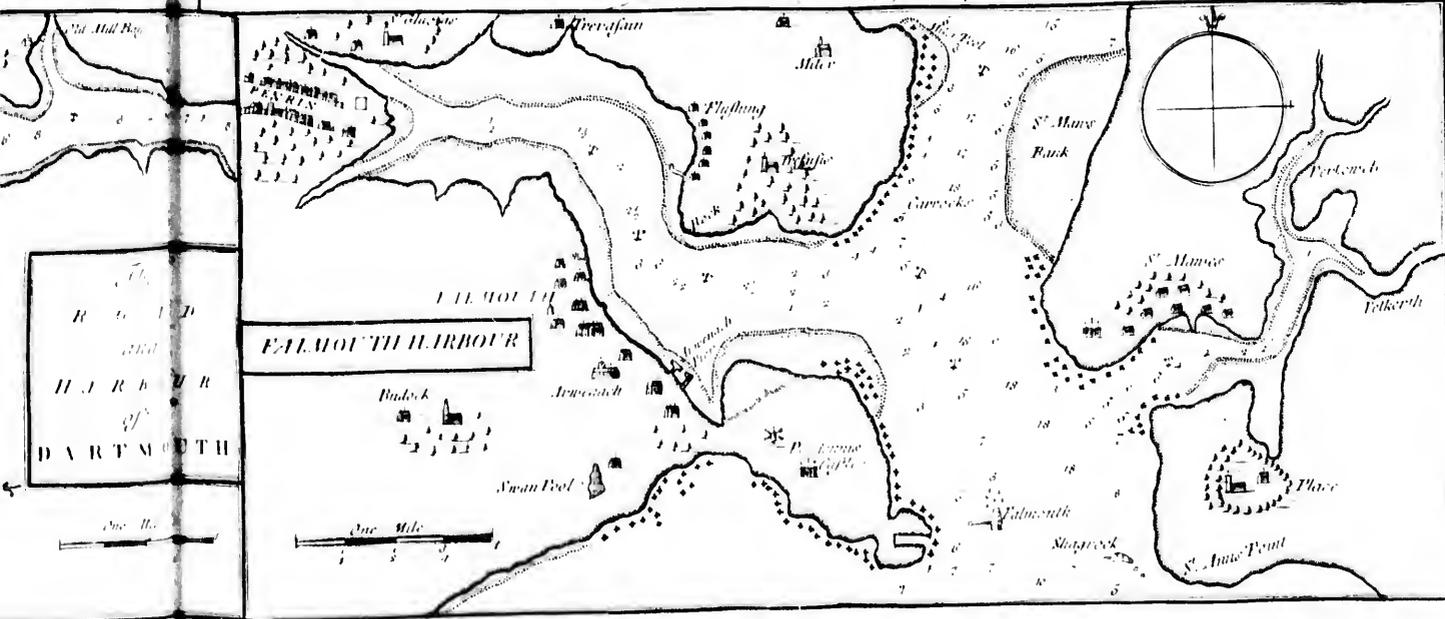
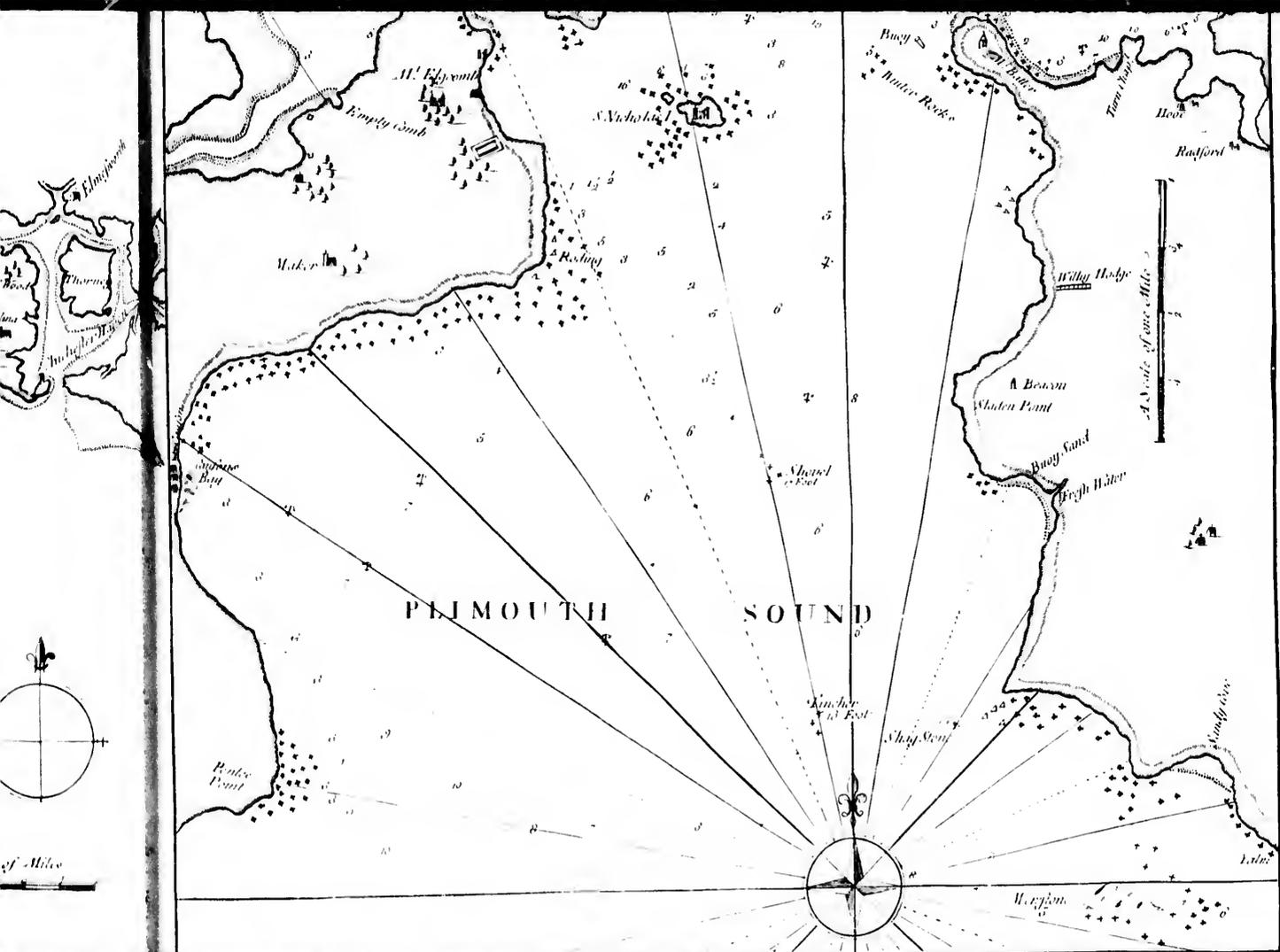


ISLE OF WIGHT

and

PORTSMOUTH





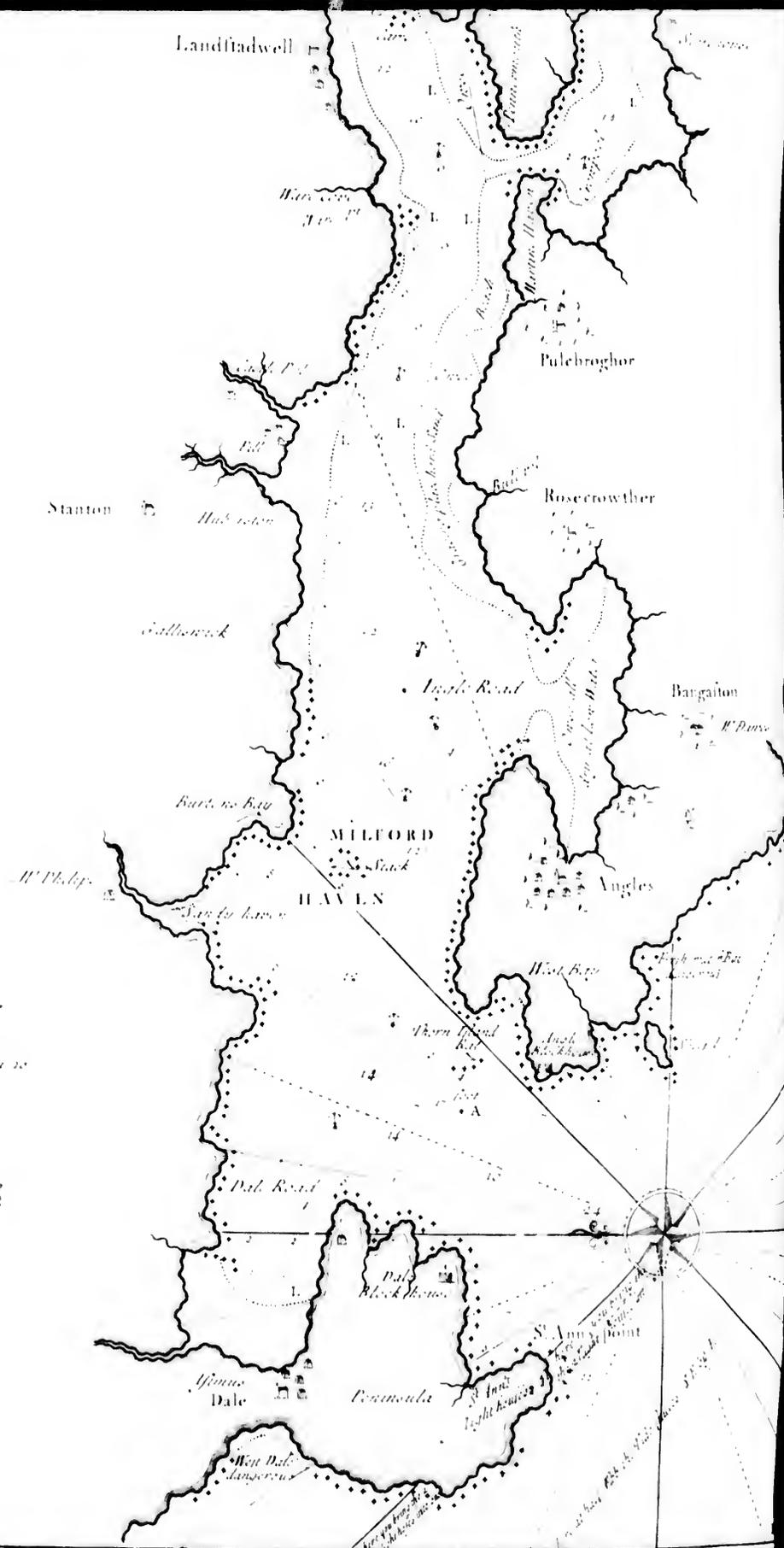


MILFORD

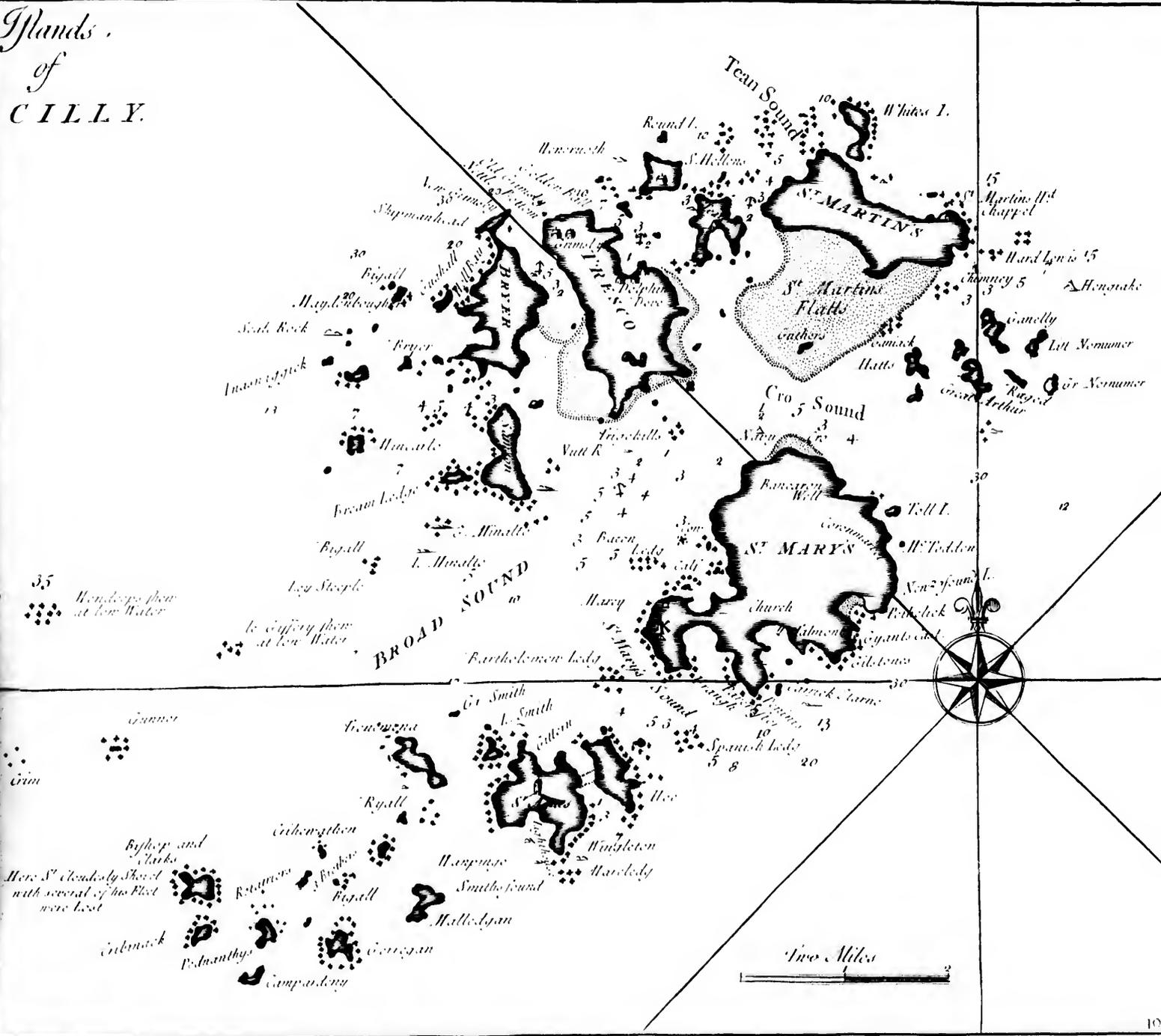
H. A. V. V.
Accurately SURVEYED

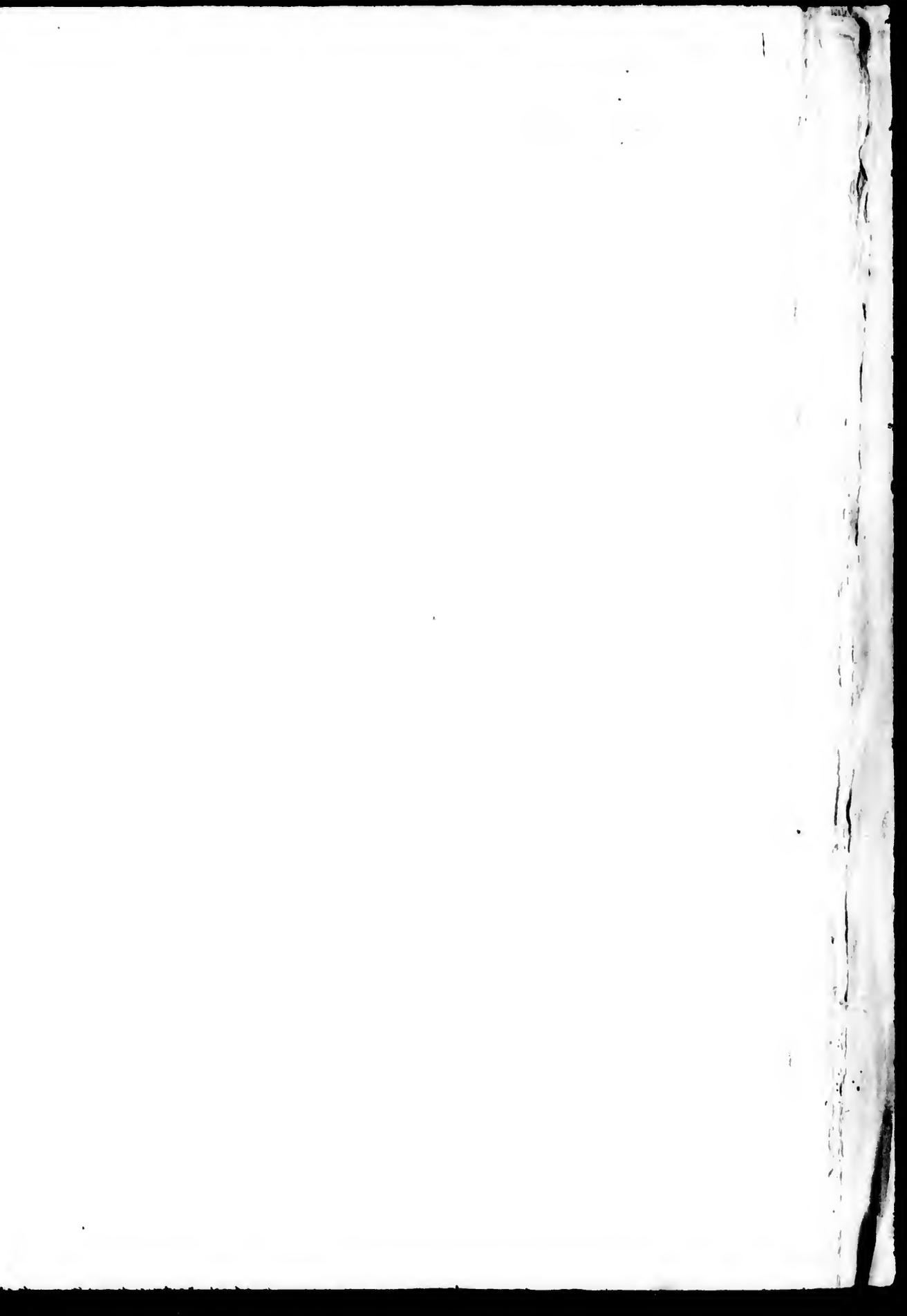
- 1. Low Water Mark
- A. Sand Bank 17 feet at low water on a spring
- Litter Rocks show at half tide
- B. Good place to haul fishnet
- Note that the spring tides rise 20 feet 8 inches


Scale of Two English Miles.



Islands of
S C I L L Y.

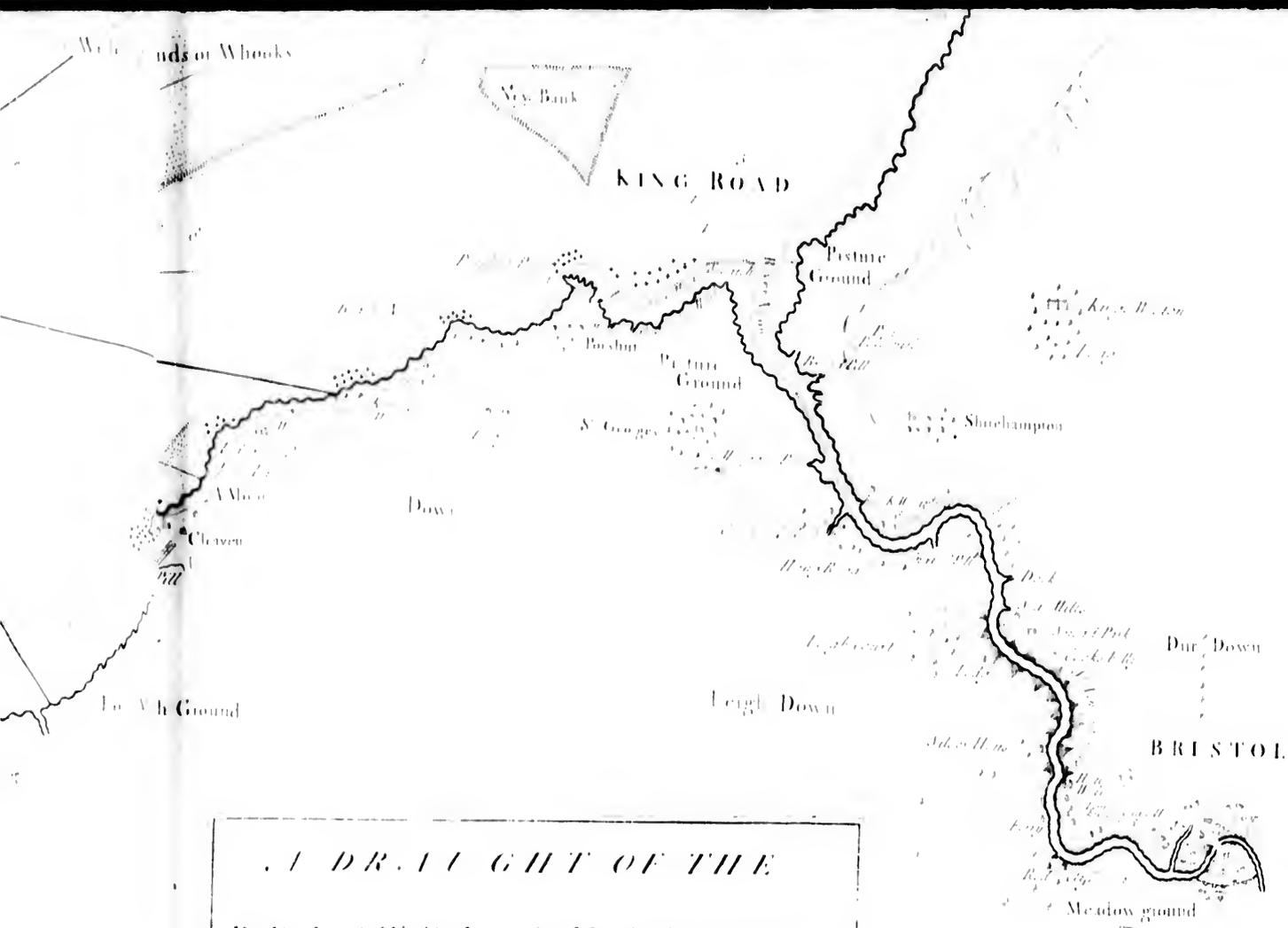




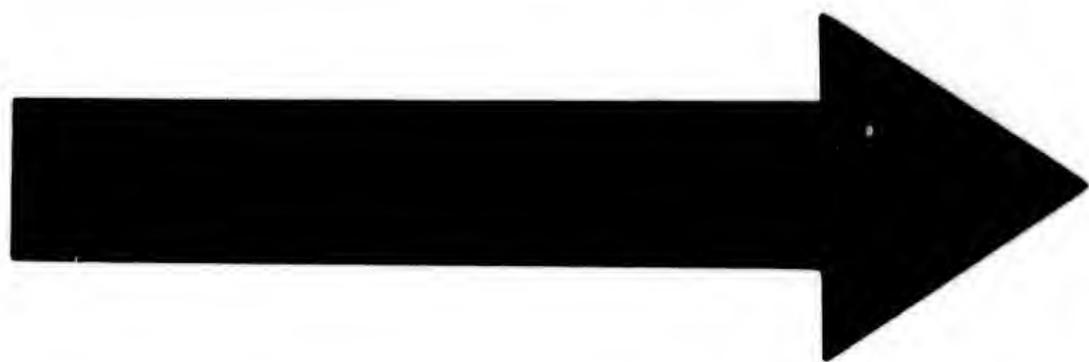
Miles

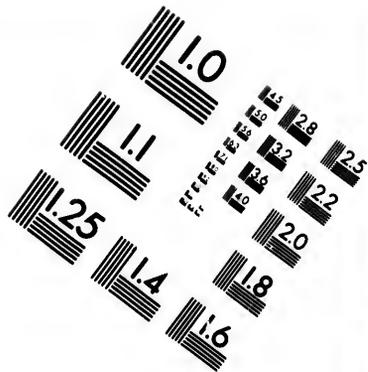
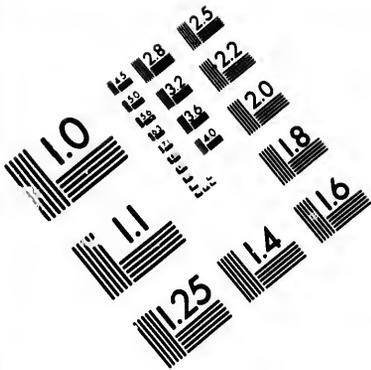
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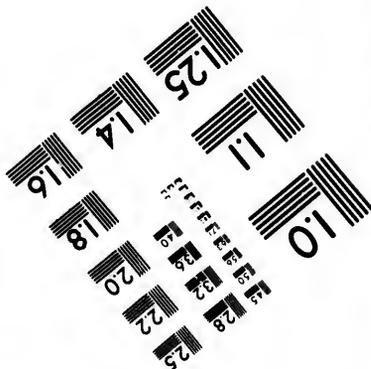
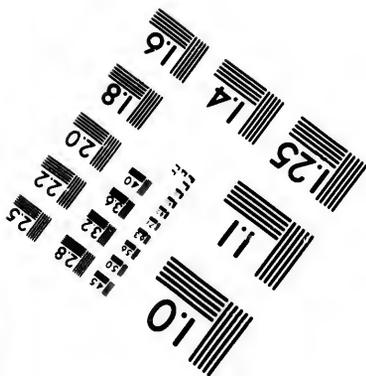
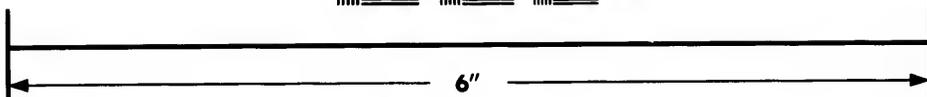
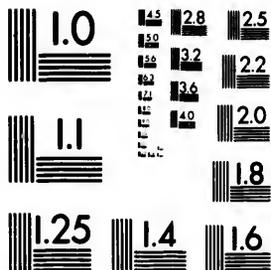


*A DRAUGHT OF THE
 BRISTOL CHANNEL
 FROM THE HOLMES
 TO KING ROAD,
 including the River Avon.*
*Taken from Capt. Holliday's Survey of
 the said River by the Merchants Hall at
 BRISTOL.*





**IMAGE EVALUATION
TEST TARGET (MT-3)**

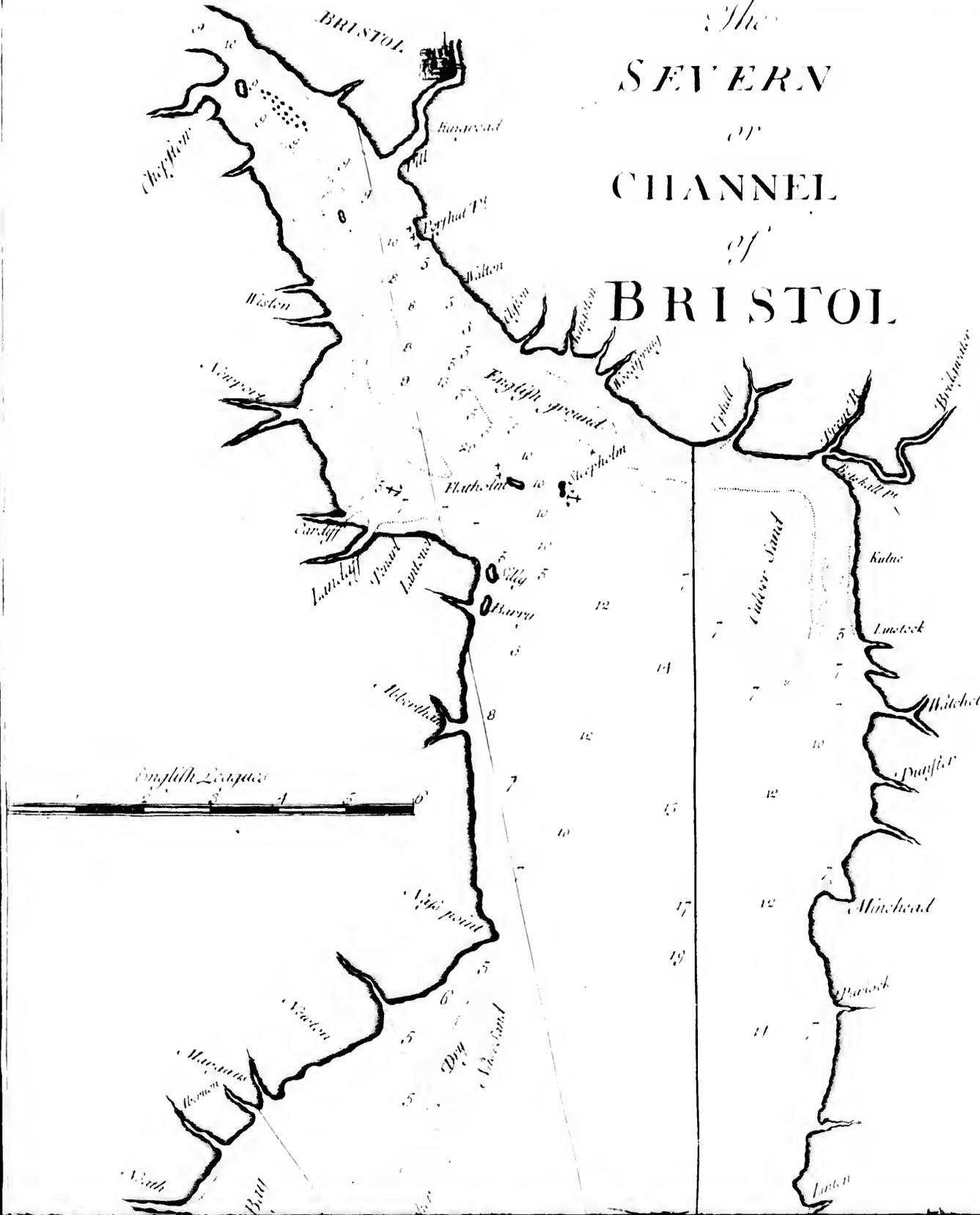


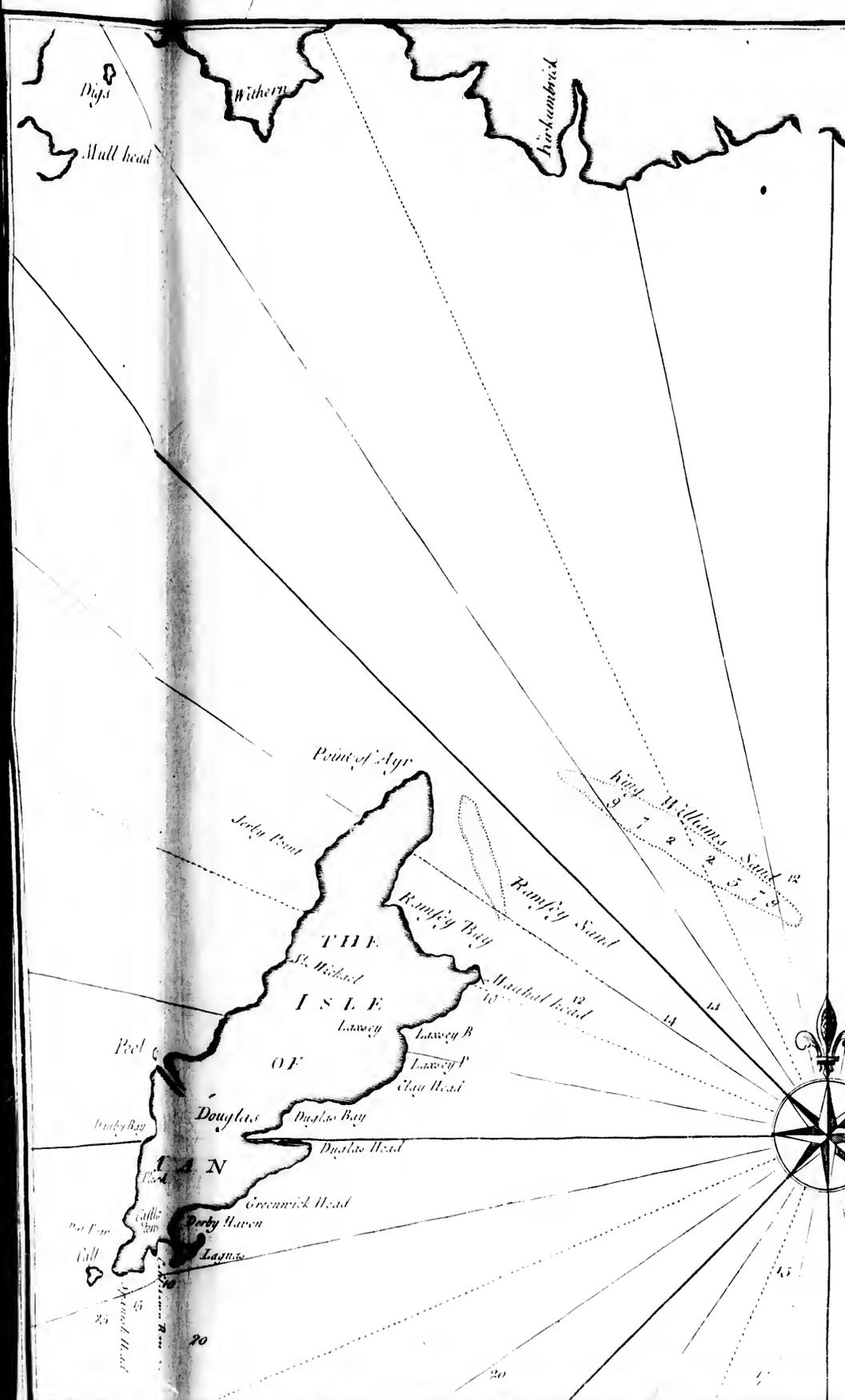
**Photographic
Sciences
Corporation**

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-0503

13

The
SEVERN
or
CHANNEL
of
BRISTOL





Digs

Mull head

Withern

Hockhambrick

Point of Agr

July Point

Ranby Bay

Ranby Sand

King Williams Sound 13
3 7 8 2 5 7 9

10

THE

St. Michael

ISLAND

OF

Part C

Douglas

Douglas Bay

Douglas Head

Derby Bay

THE CANINE

Greenwich Head

Derby Haven

Layme

Castle
The Cape
Call

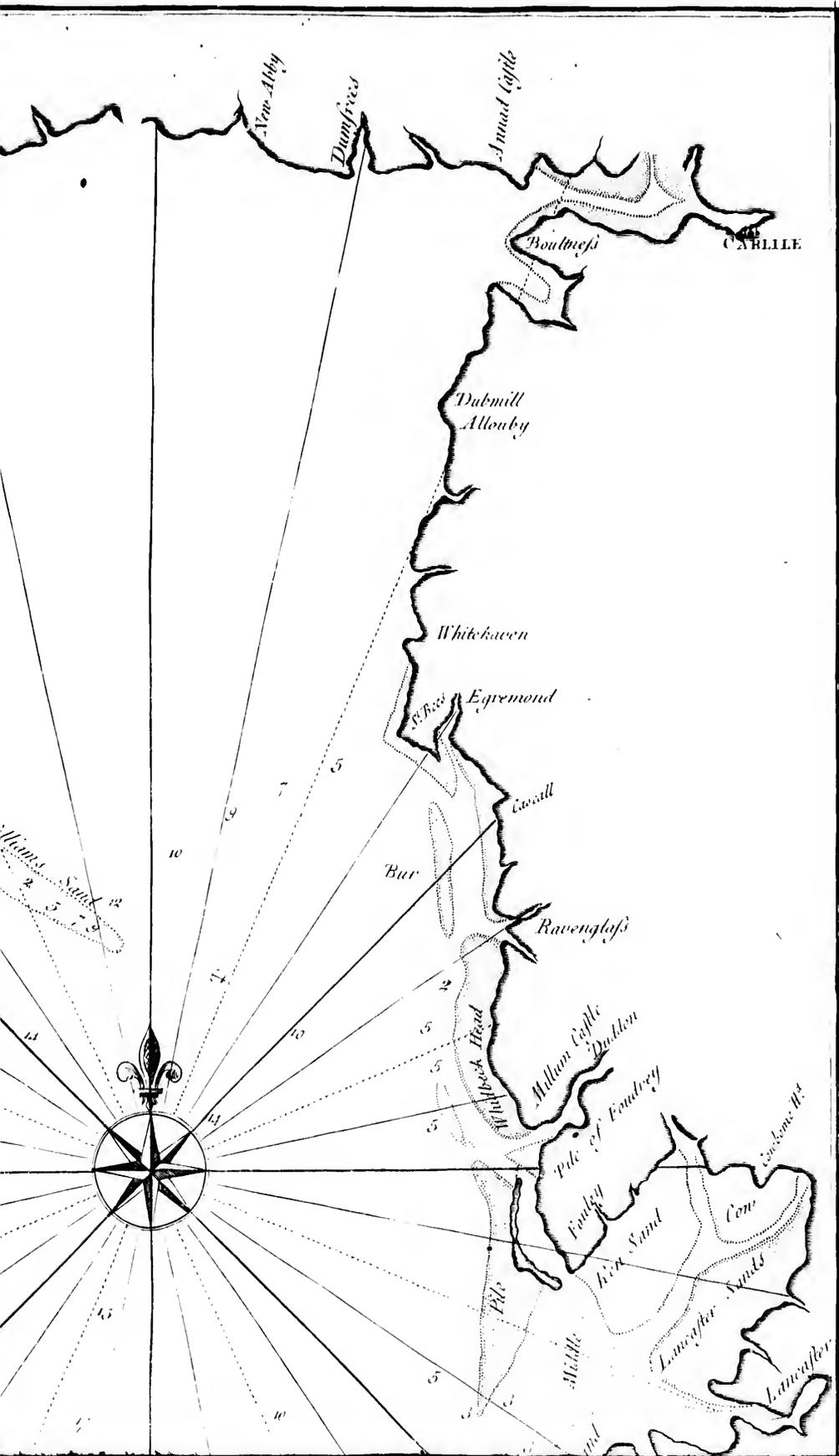
Greenwich Head

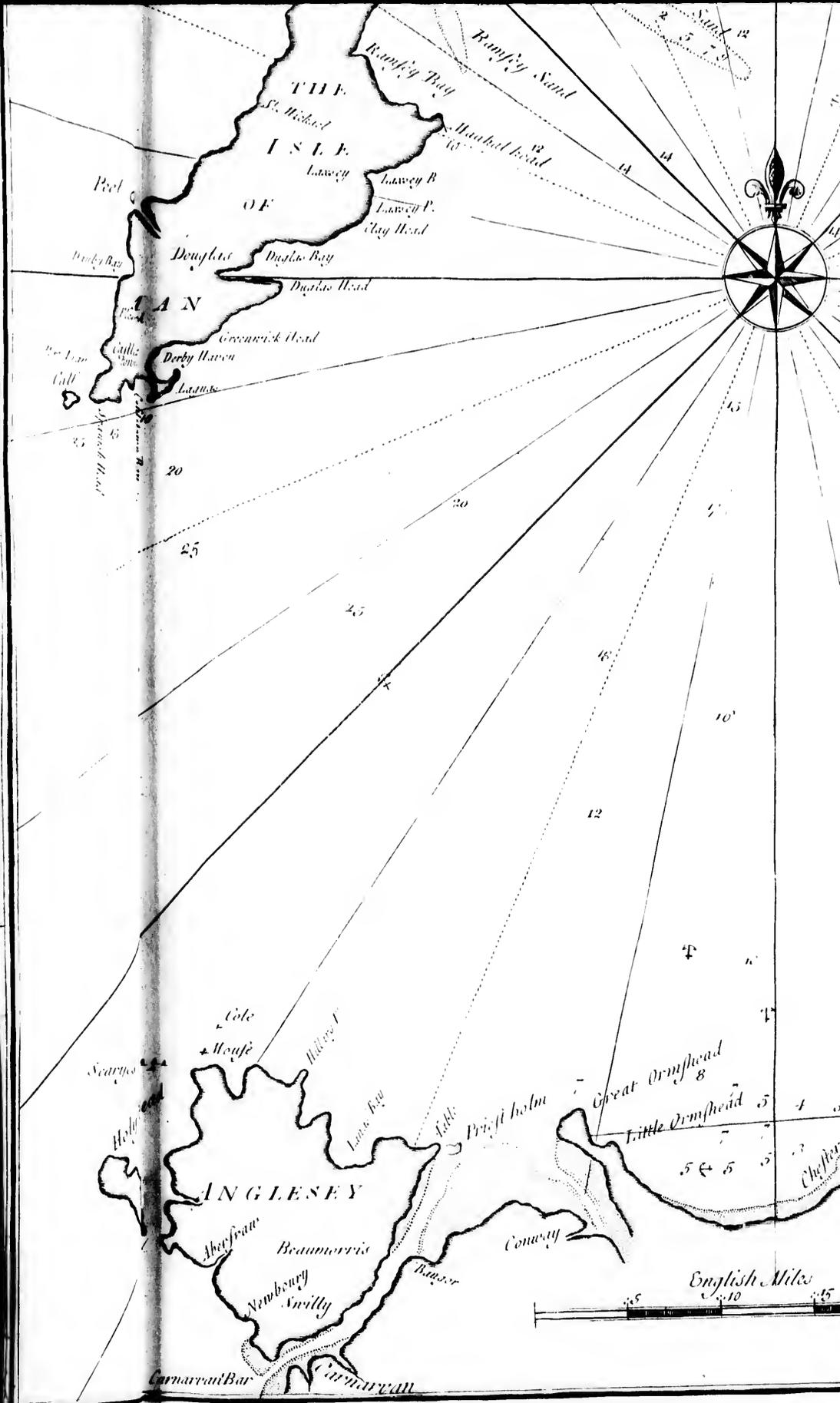
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15

20





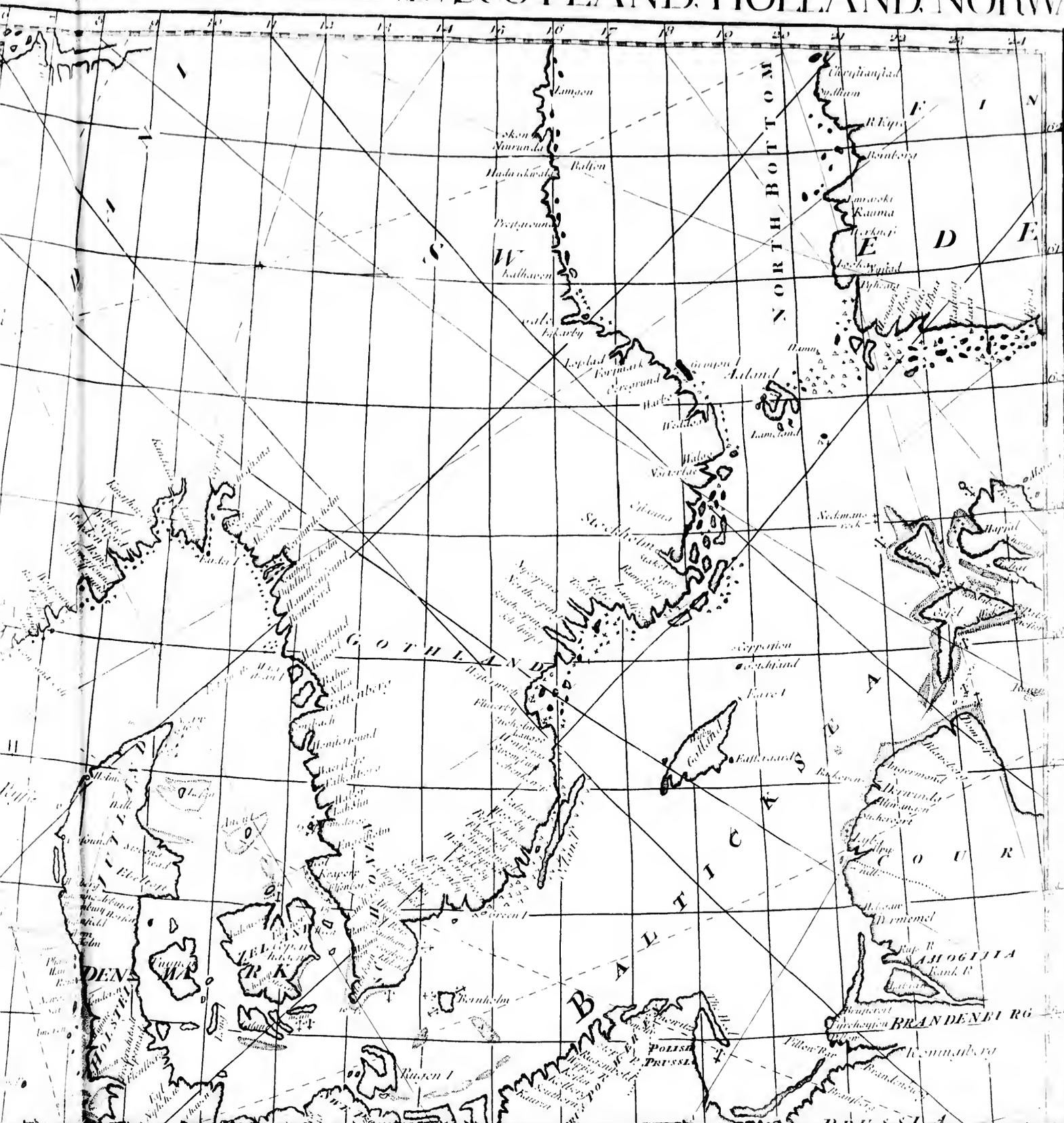
Ramply Bay
 Ramply Sand
 St. Michael's Head
 Douglas Bay
 Douglas Head
 Derby Head
 Derby Haven
 Llanrwst
 Greenwick Head
 Conway
 Carnarvon Bar
 Carnarvon

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 5
 7
 9
 12
 14
 15
 20
 25
 30
 35

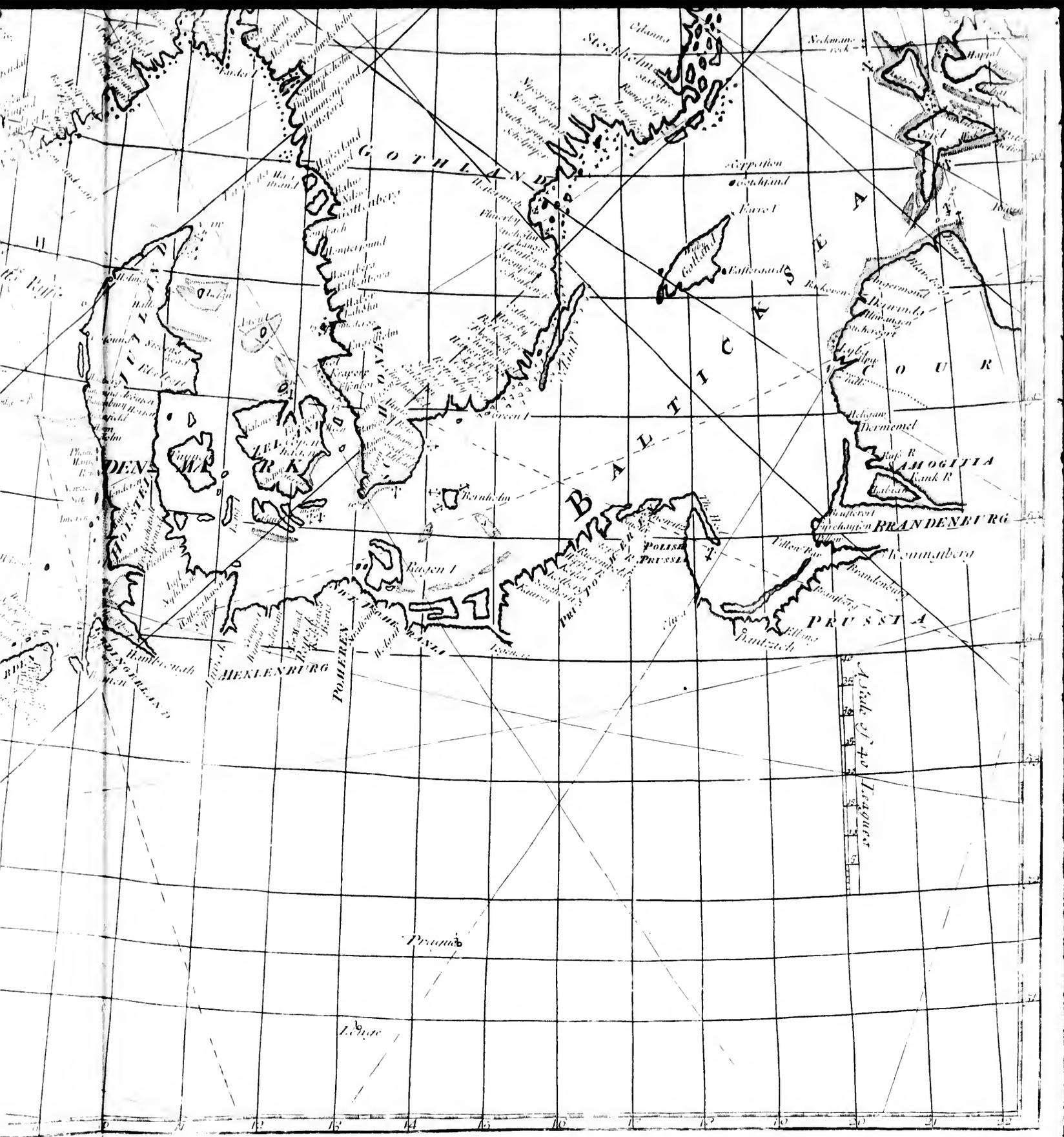
Cole
 Holyhead
 Beaumaris
 Newbury
 Swilly
 Conway
 Great Ormshead
 Little Ormshead
 English Miles
 5
 10
 15

13

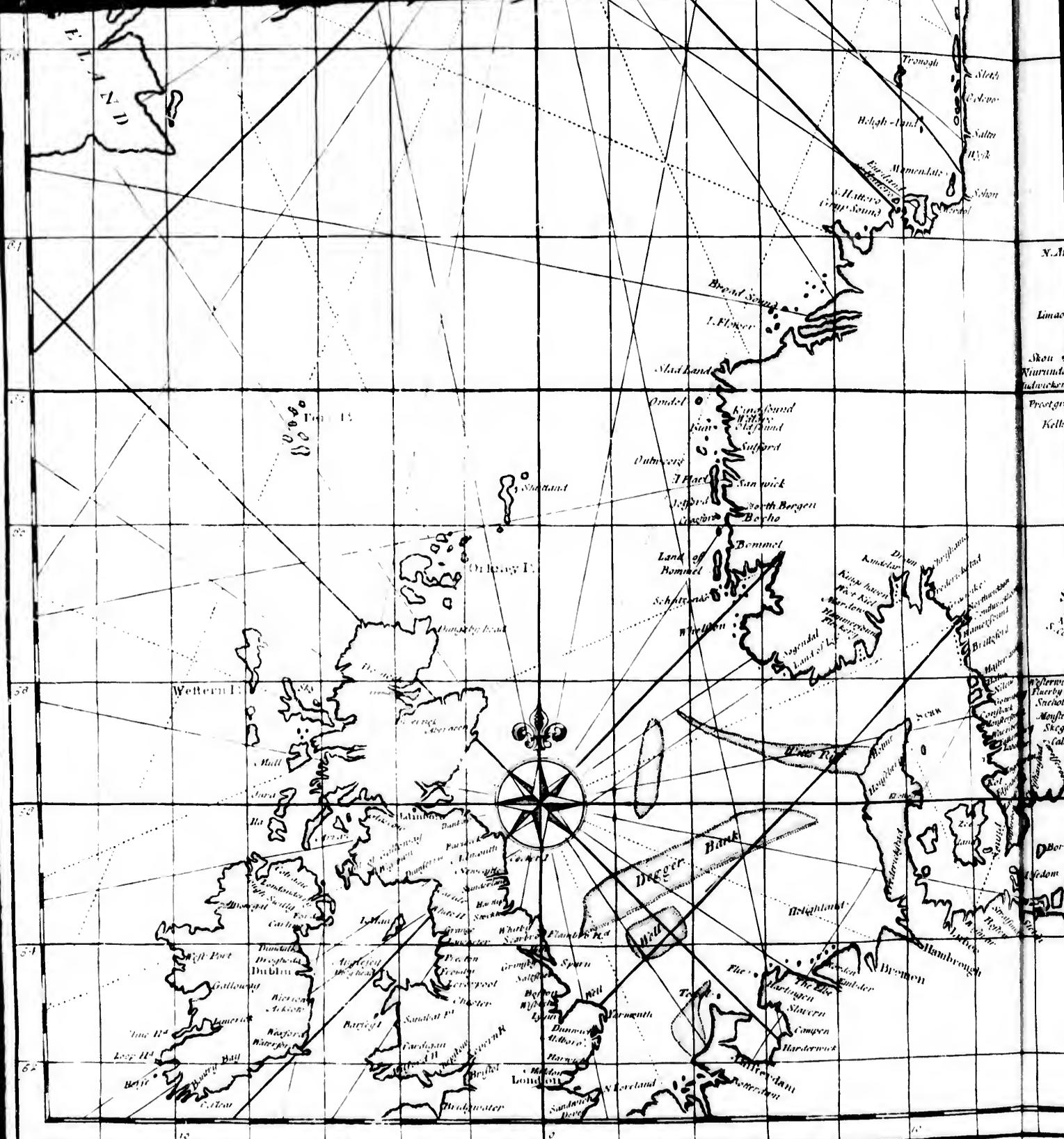
THE COAST OF ENGLAND, SCOTLAND, HOLLAND, NORWAY

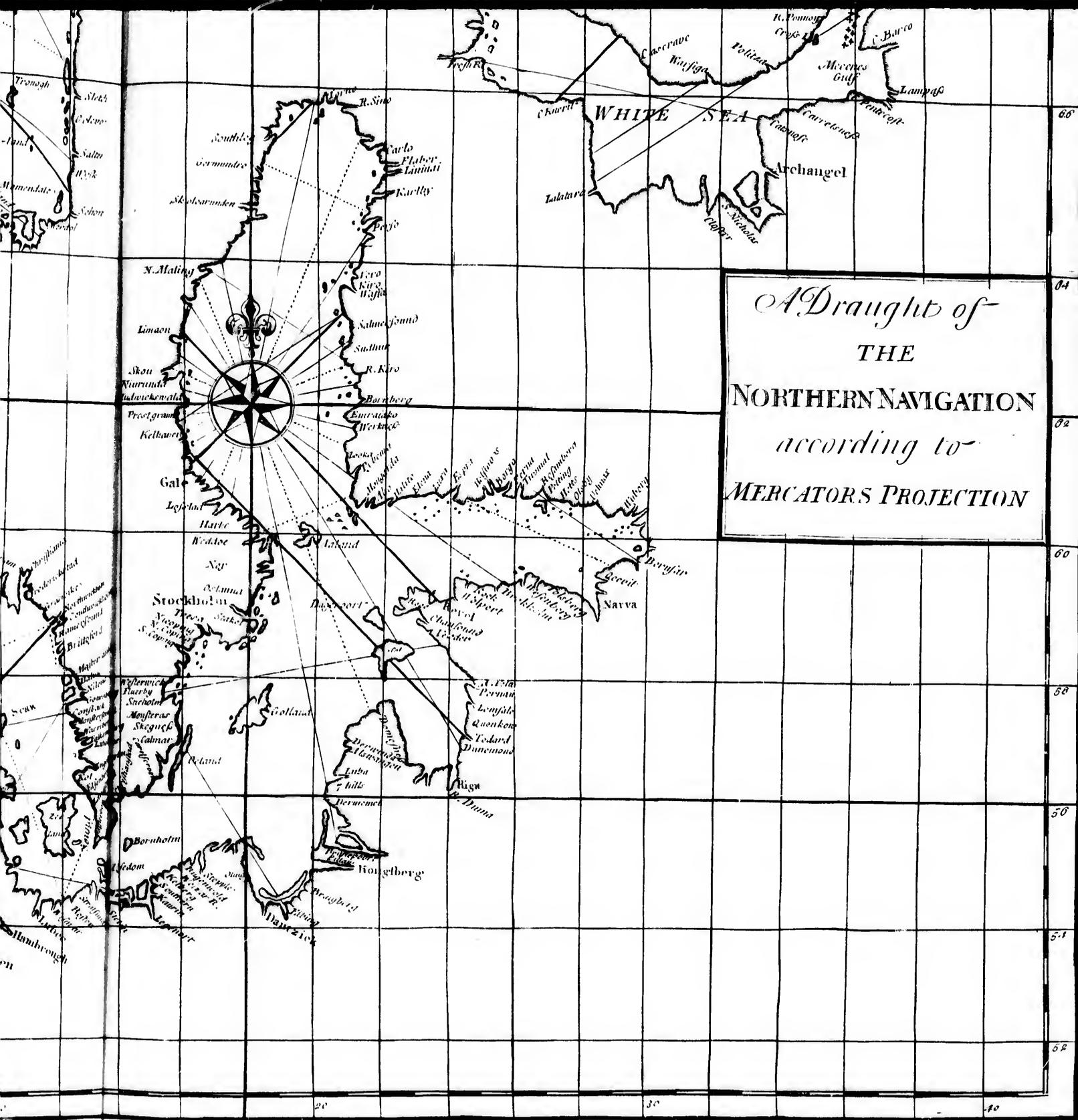






14





A Draught of
THE
NORTHERN NAVIGATION
according to
MERCATORS PROJECTION

68
 64
 62
 60
 58
 56
 54
 52

STOCKHOLM

Koningsham

Skaggio

Ormskoven

Harna

Härnäs

Ingeen

English Leagues



Härnäs

St. Trophus

St. Trophus

Svindy Fær

D. Henry Castle

Alytal

R. Tholhu

Ormskoven

Ekeby

Musköen

Epimab

Nylingen

Nymat

Red Koo

Ellhorn

Layhar Cape

Dunka k Gatt

Muckjen

Scrapo

Gunnar Stone

A Rock 15 feet

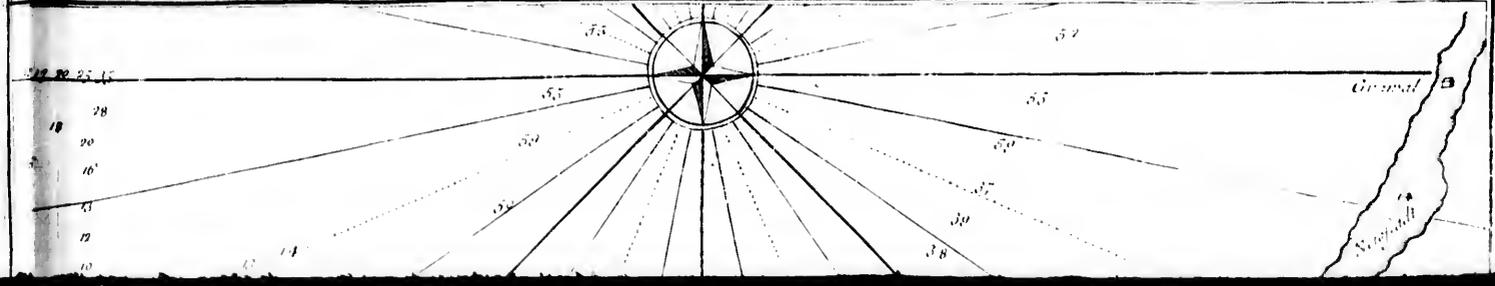
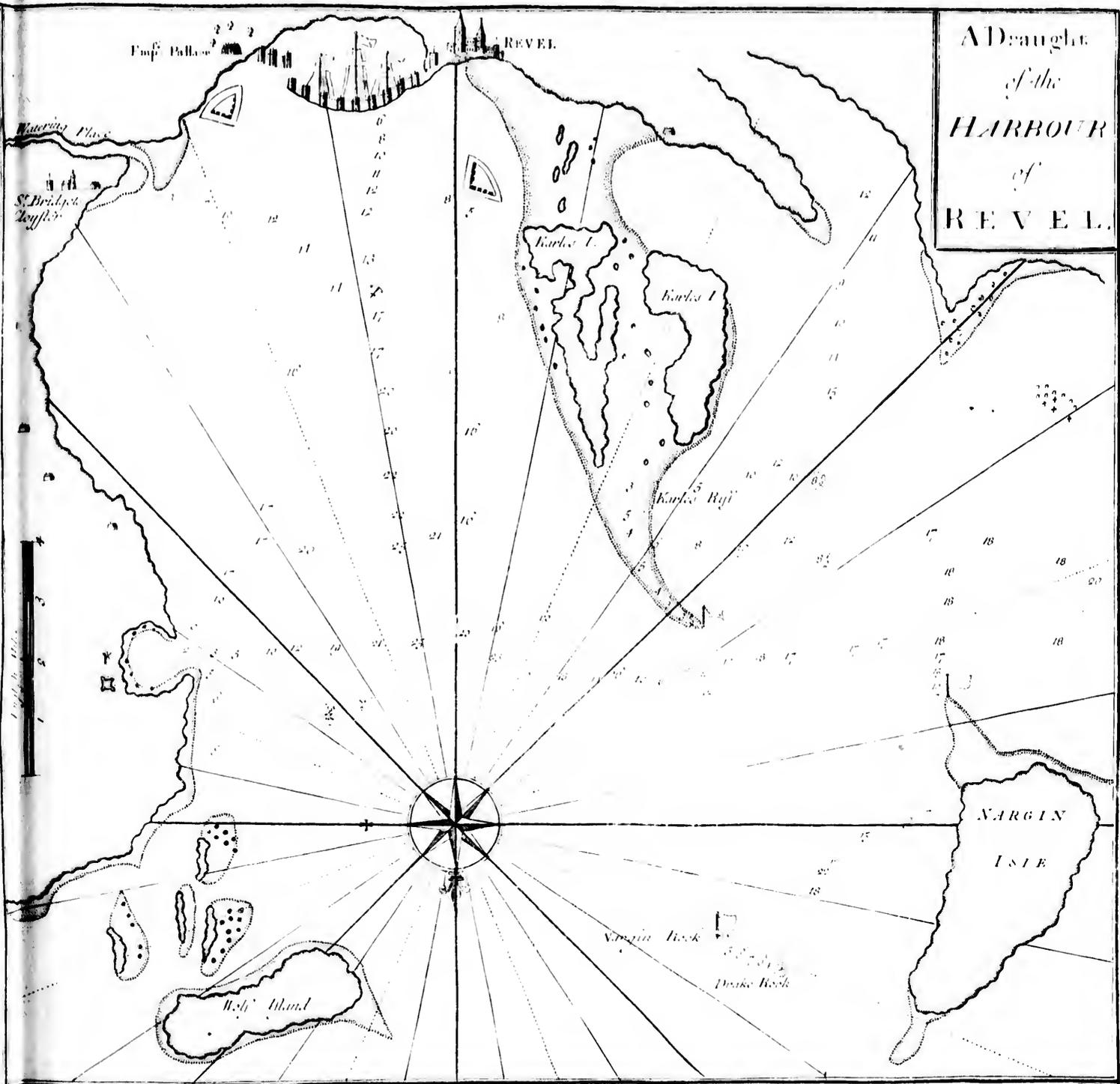
Landsort

French rock

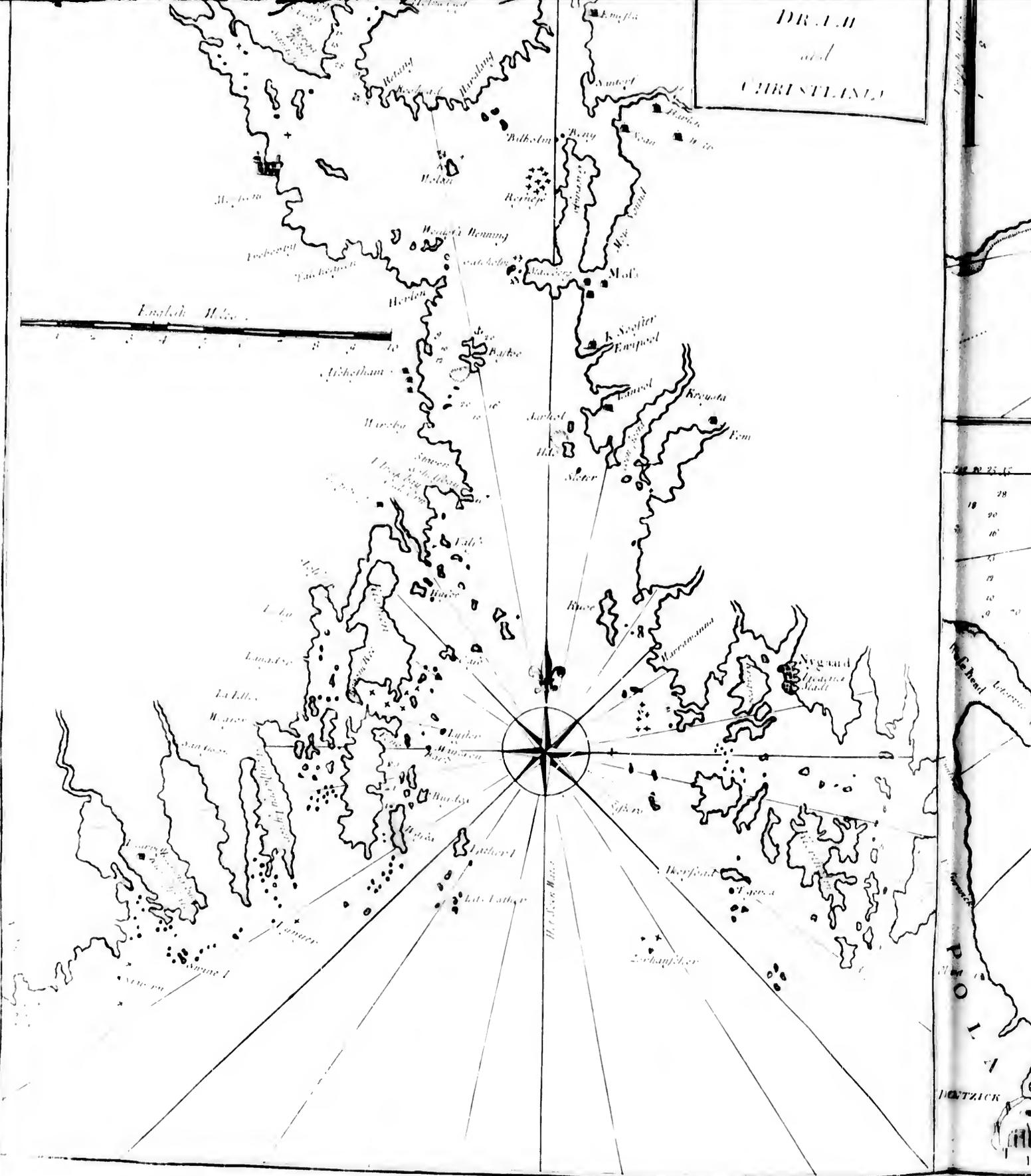
D. Henry Castle

16

A Draught
of the
HARBOUR
of
REVEL.

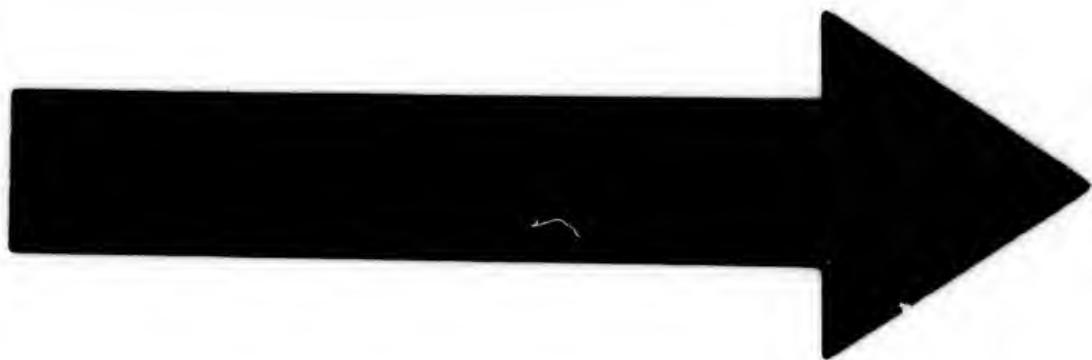


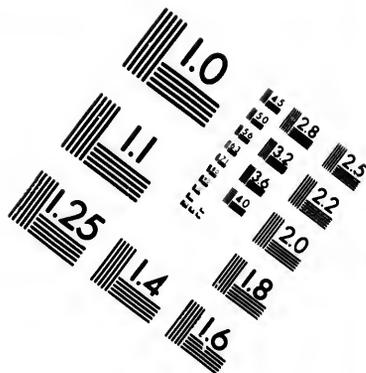
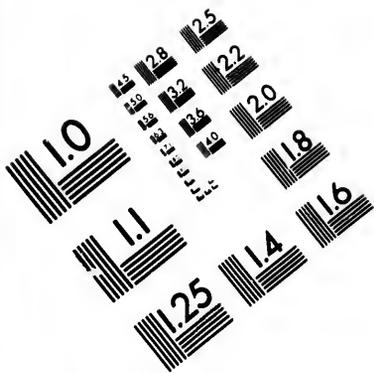
DR. J. H.
and
CHRISTIANI



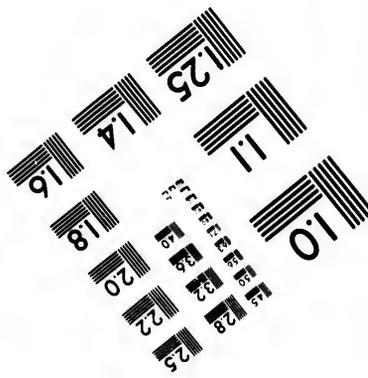
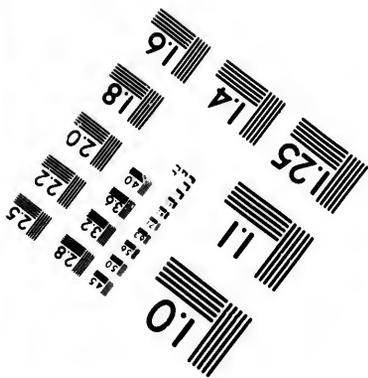
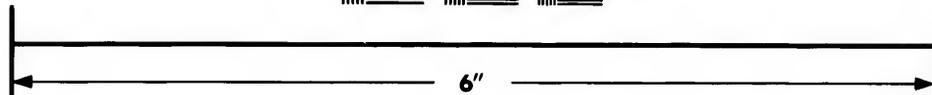
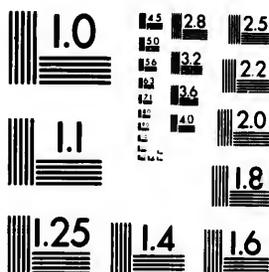
24	25	27
18	28	
20		
16		
23		
19		
12		
10	20	22

P.O. I.
HENTZACK





**IMAGE EVALUATION
TEST TARGET (MT-3)**



**Photographic
Sciences
Corporation**

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(716) 872-4503

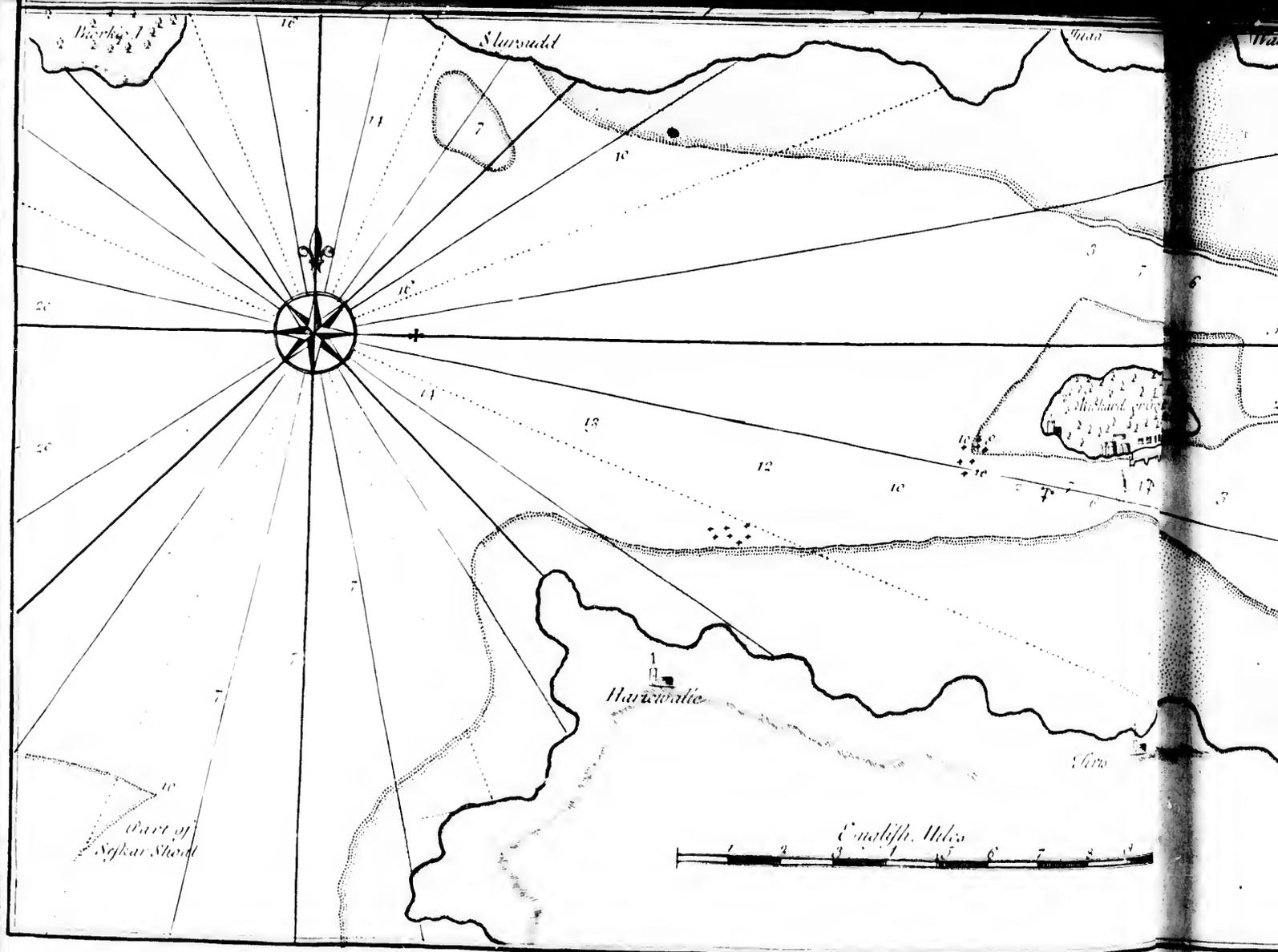
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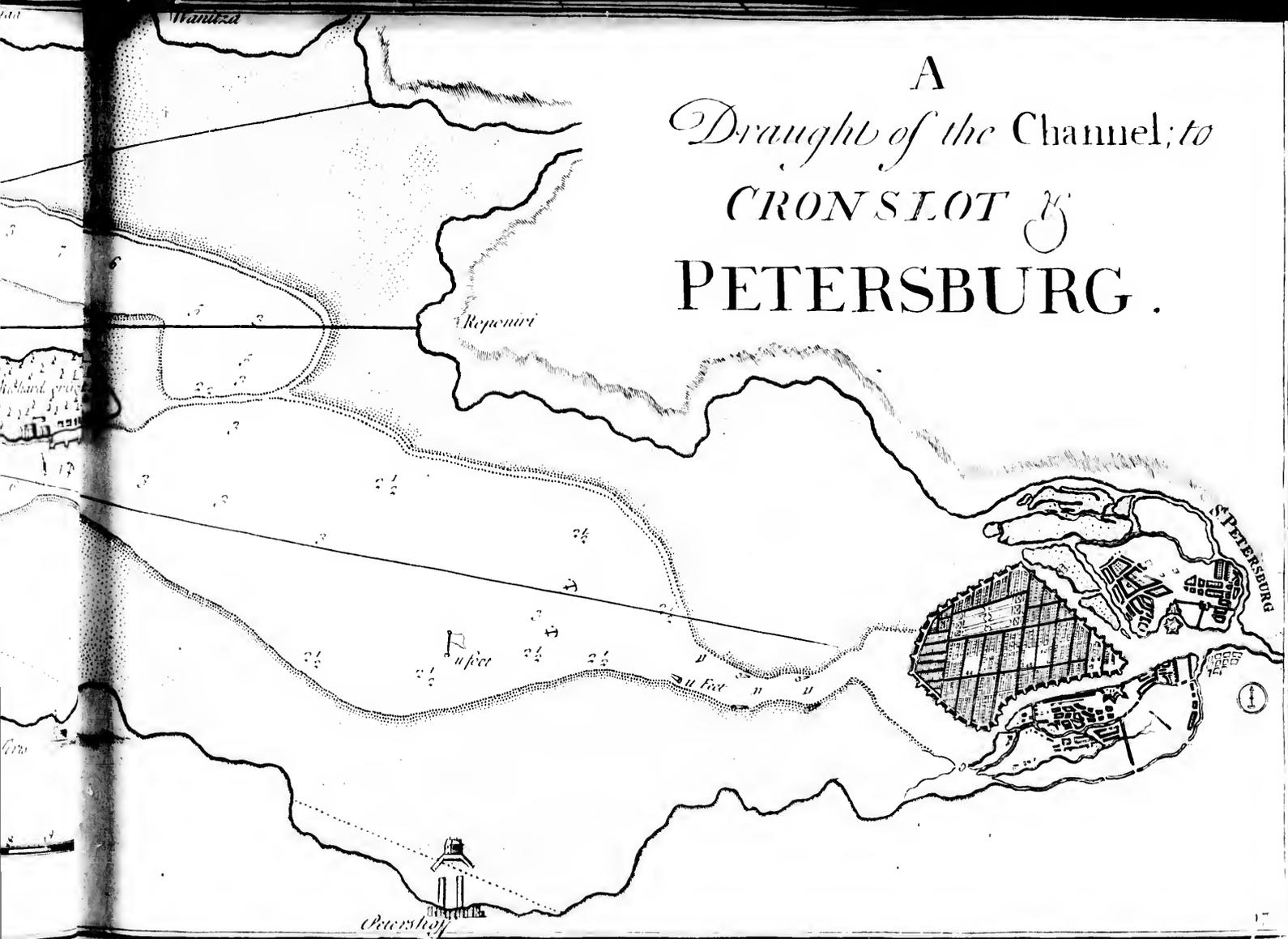


A
Draught of
CARLSCRONE



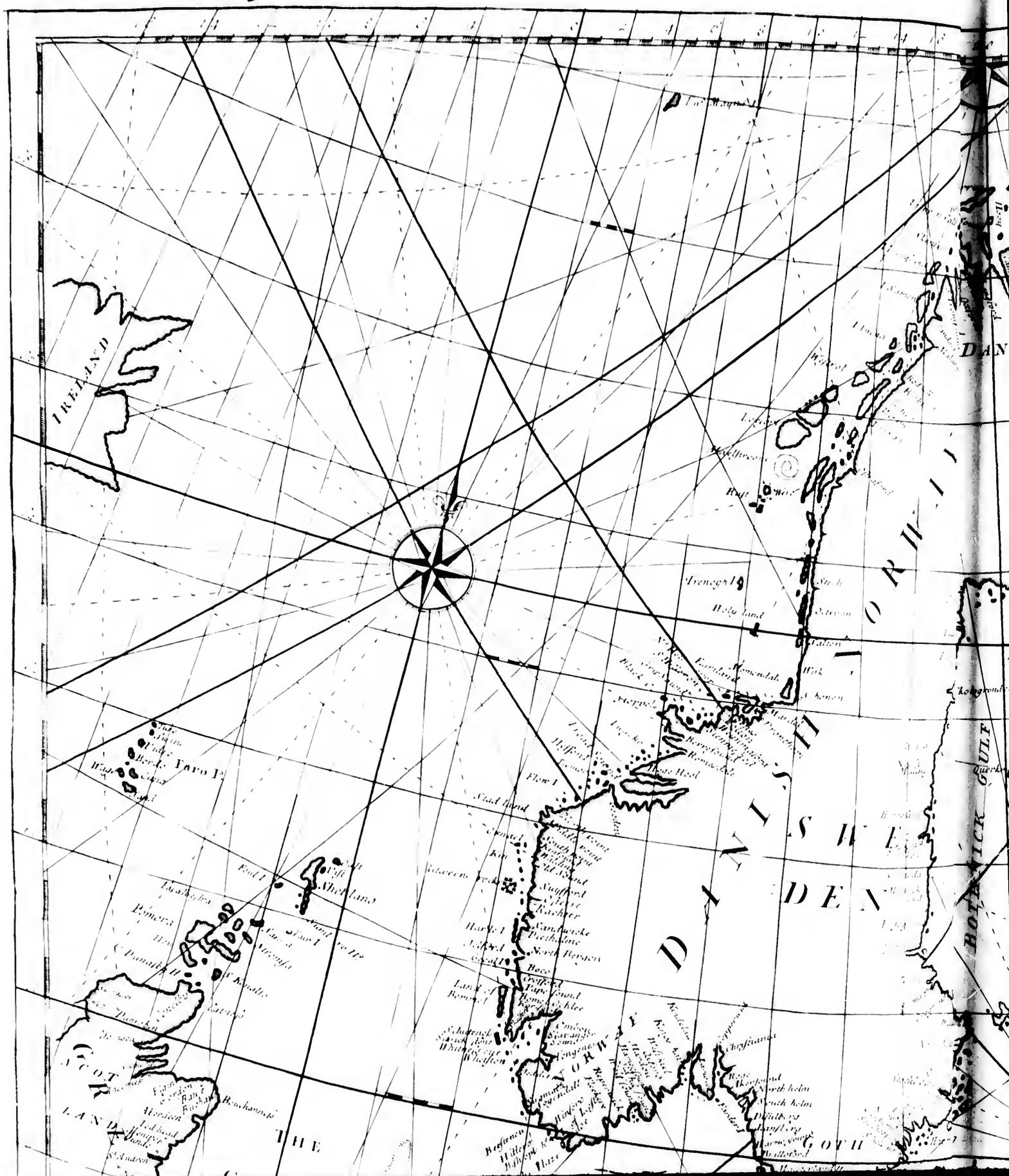


A
Draught of the Channel; to
CRONSLOT &
PETERSBURG.





18



IRELAND

Faro E.

Shetland

SCOTLAND

North

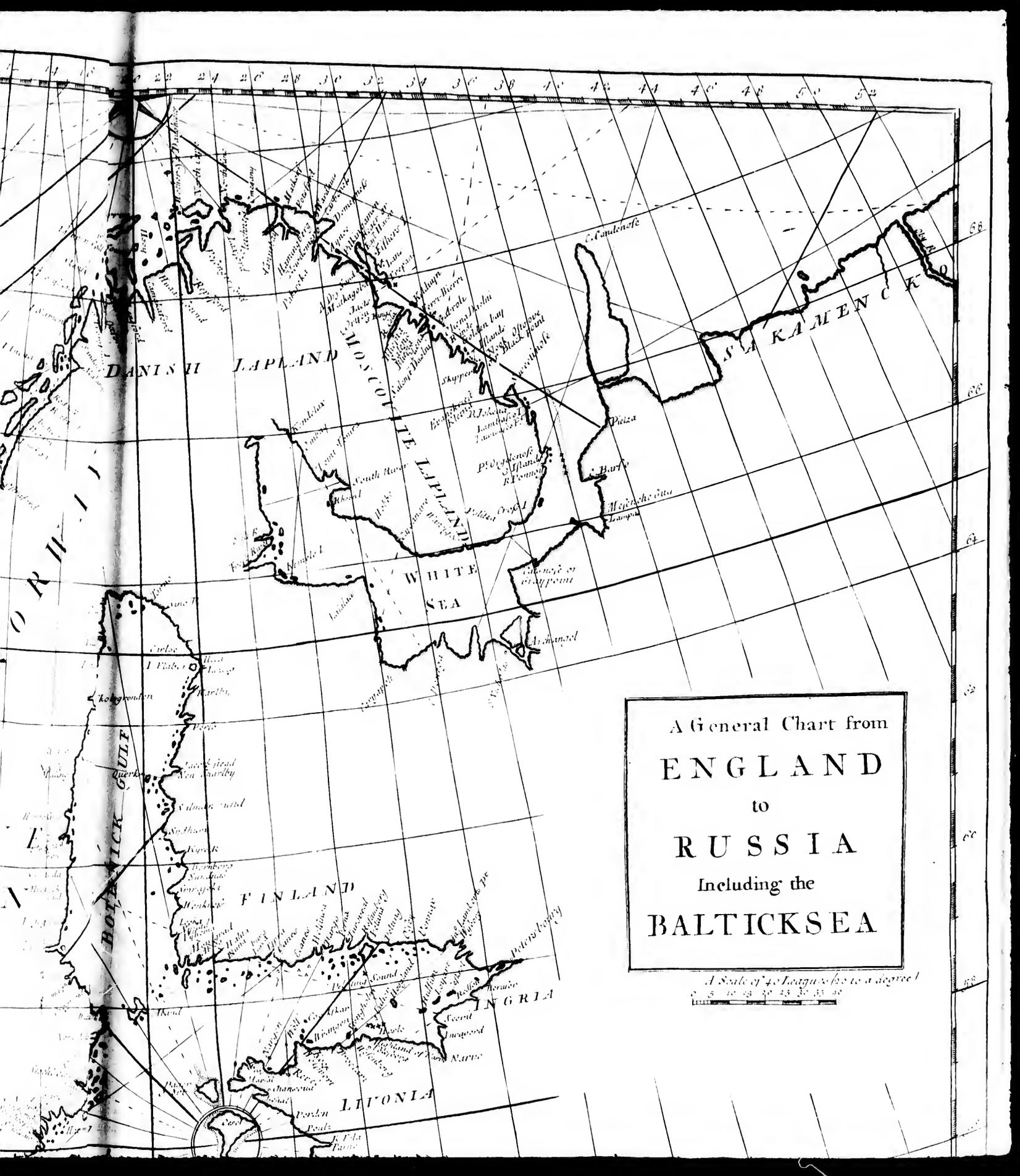
DENMARK

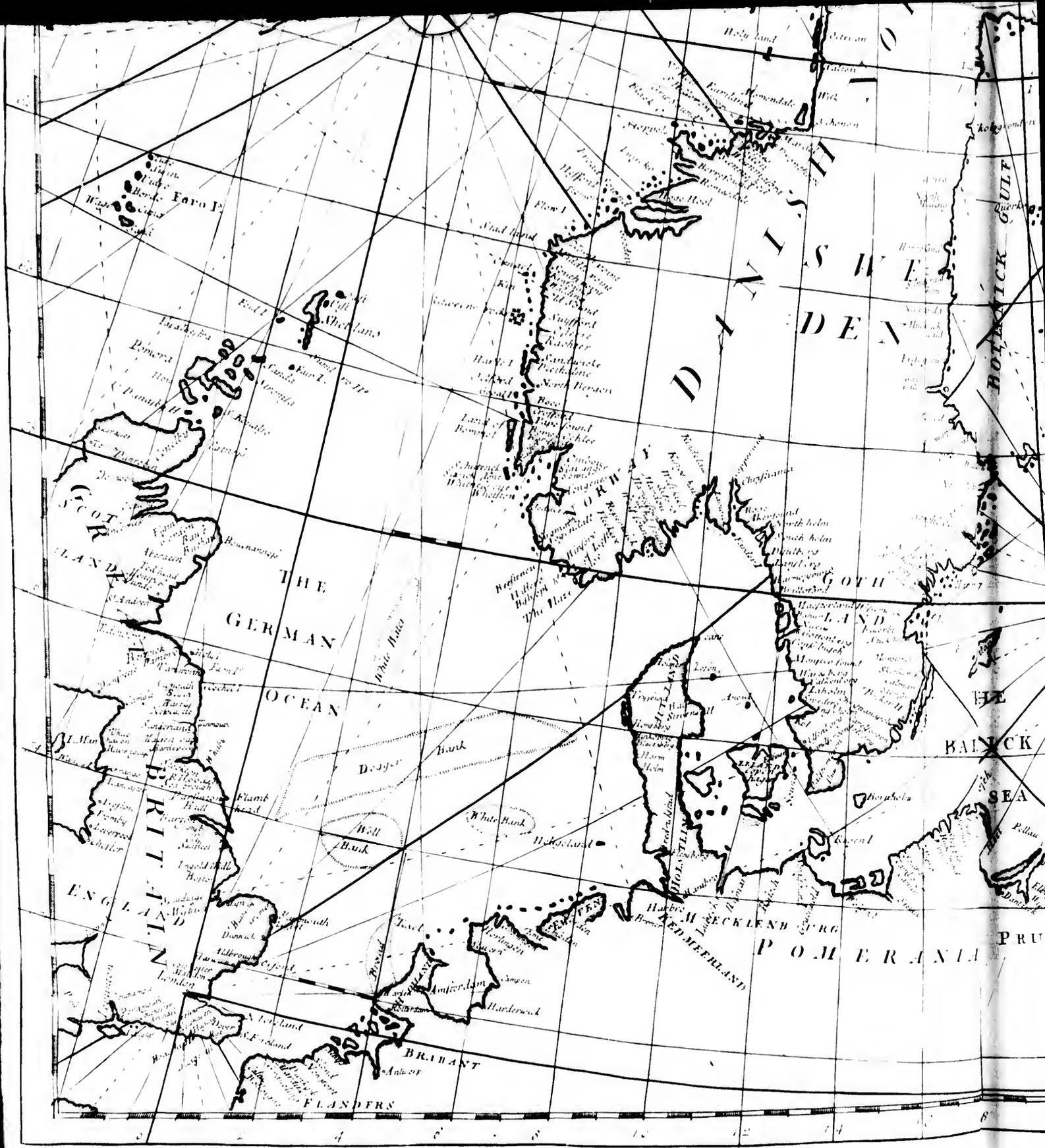
Denmark

BALTIC GULF

THE

DAN





Windsor
Isles
Faro Ids
Windsor
Isles
Faro Ids

Shetland
Islands

DANISH
WEST
DEN

HOLLAND GULF

SCOTLAND

THE
GERMAN
OCEAN

NORW

SWEDEN

BRITAIN
ENGLAND

Bank
Daguer
Bank
White Bank

SWEDEN
GOTH

THE
BALCK
SEA

BRITAIN
FLANDERS

SECKLENB
POMERANIA
PRU

A General Chart from
ENGLAND
to
RUSSIA
Including the
BALTICKSEA

A Scale of 40 Leagues to a degree
0 5 10 15 20 25 30 35 40

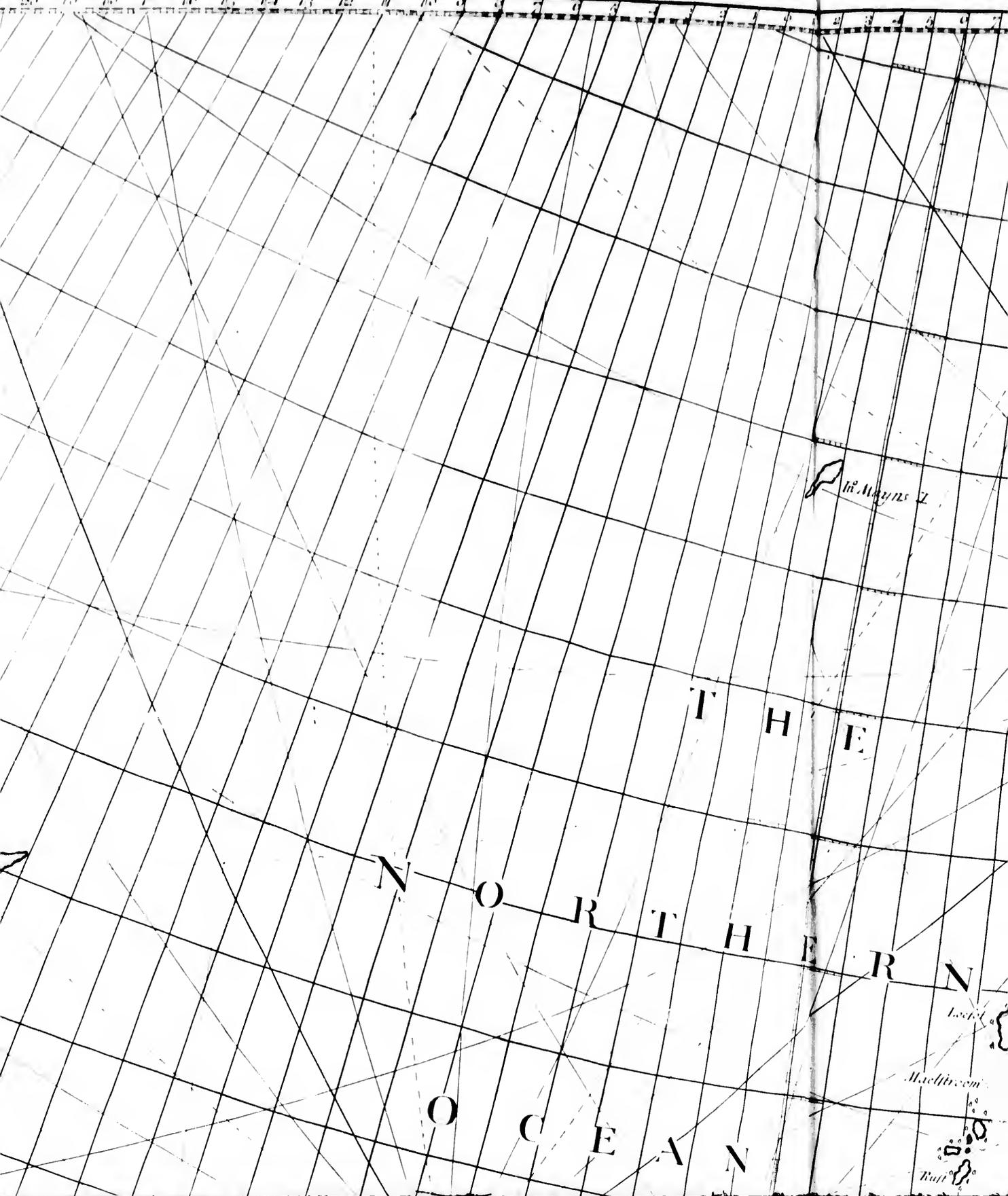




19



15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



St. Marys I.

T H E

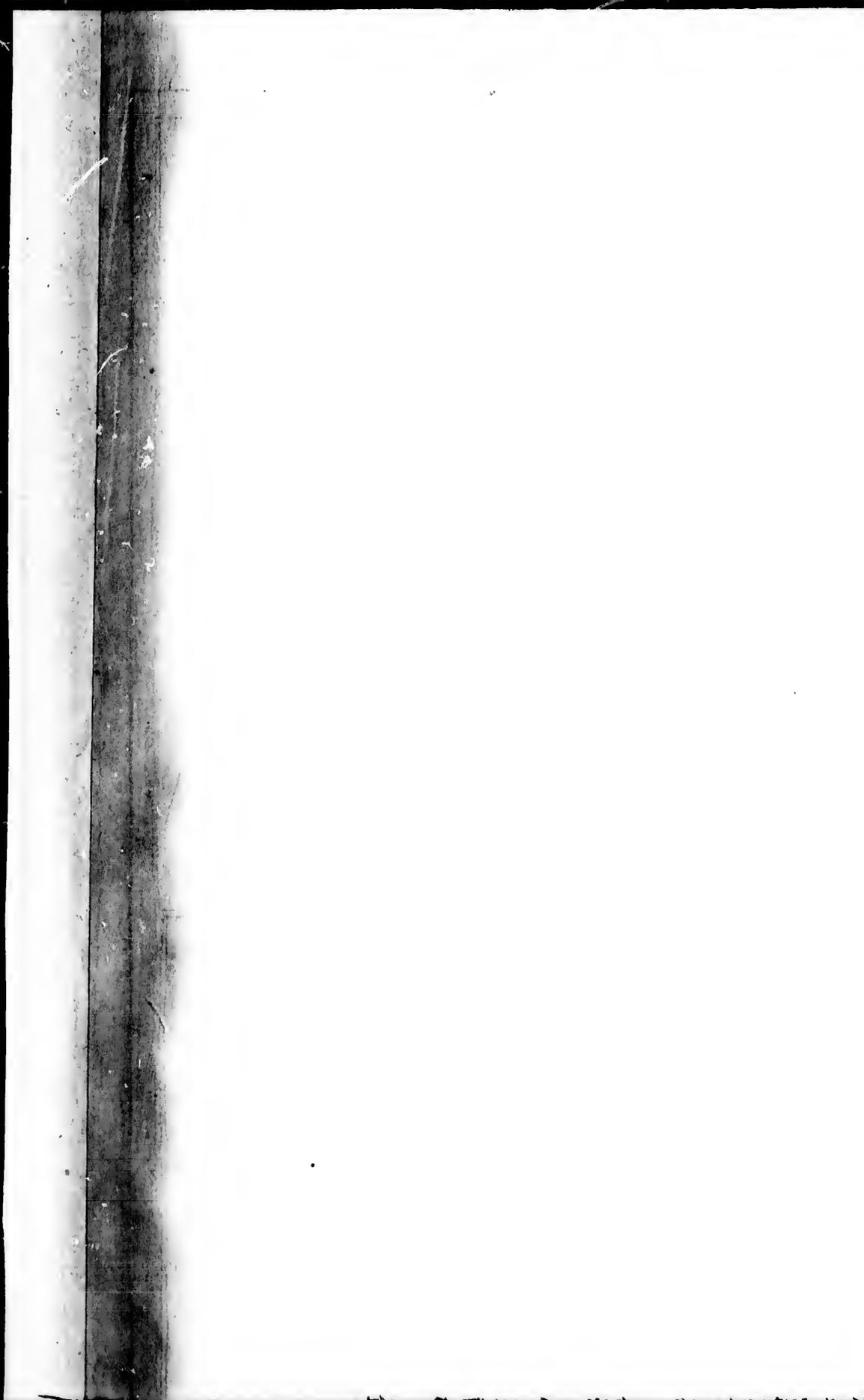
N O R T H E R N

O C E A N

Lactia I.

Machibrom I.

Tull I.

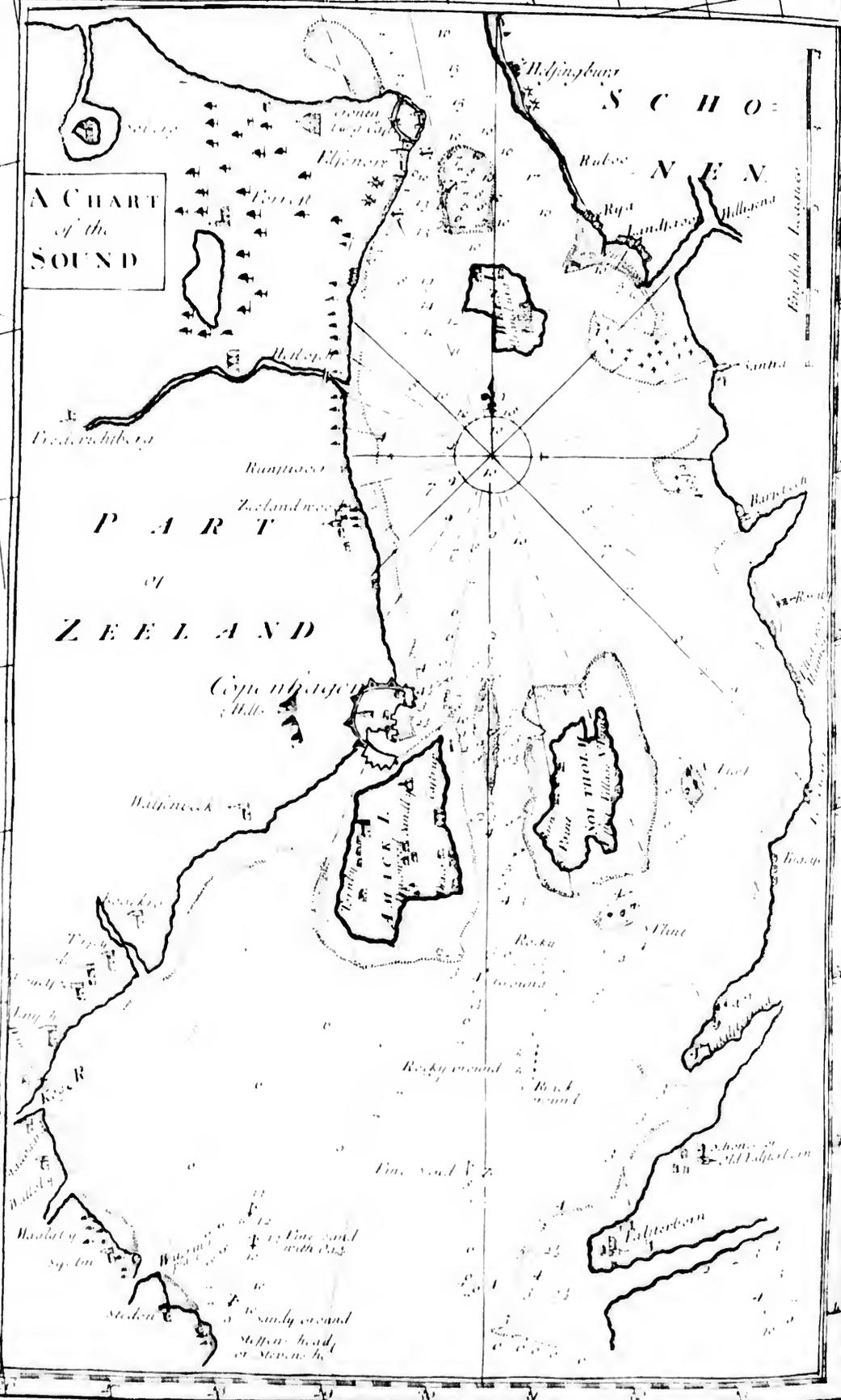


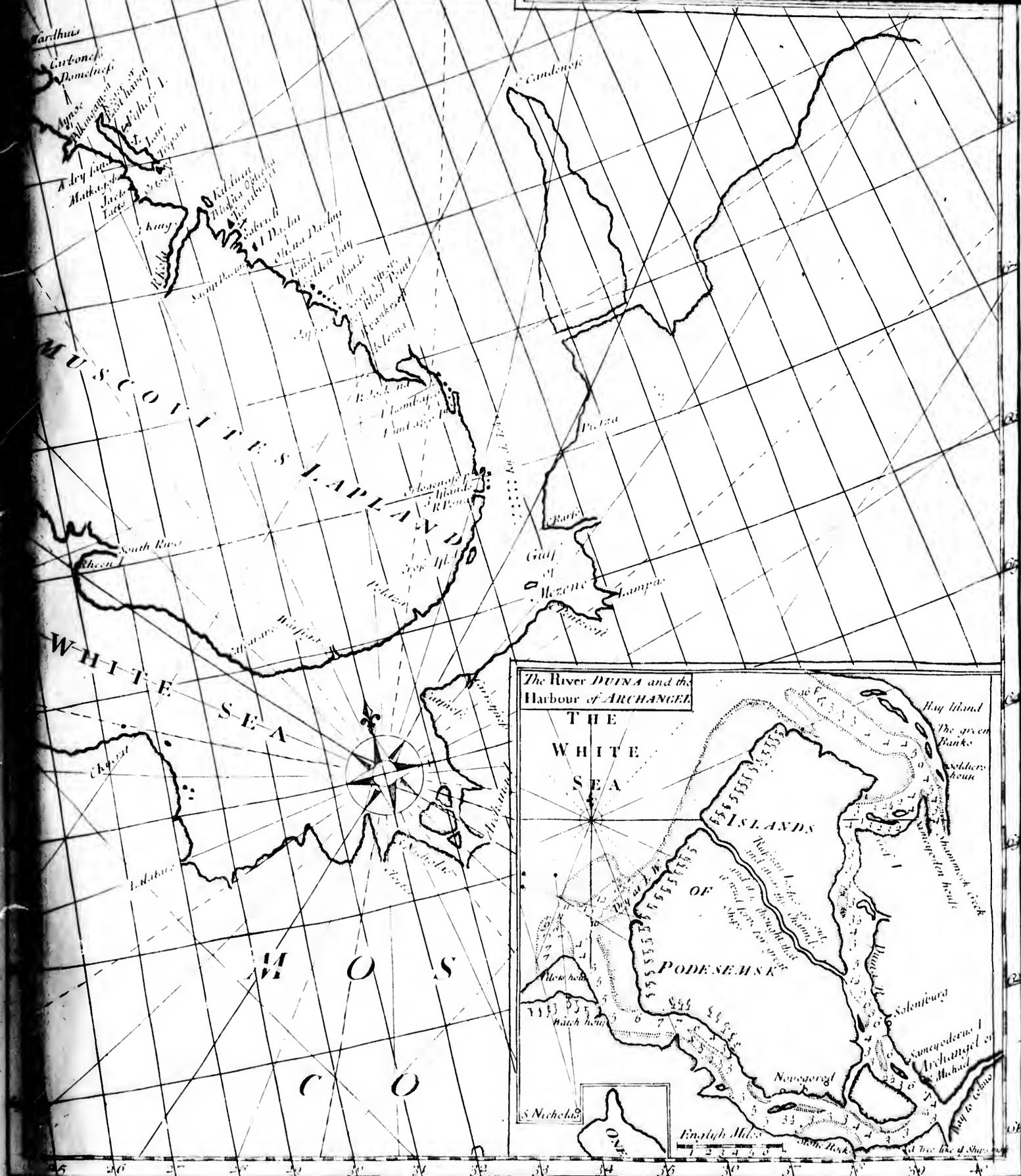
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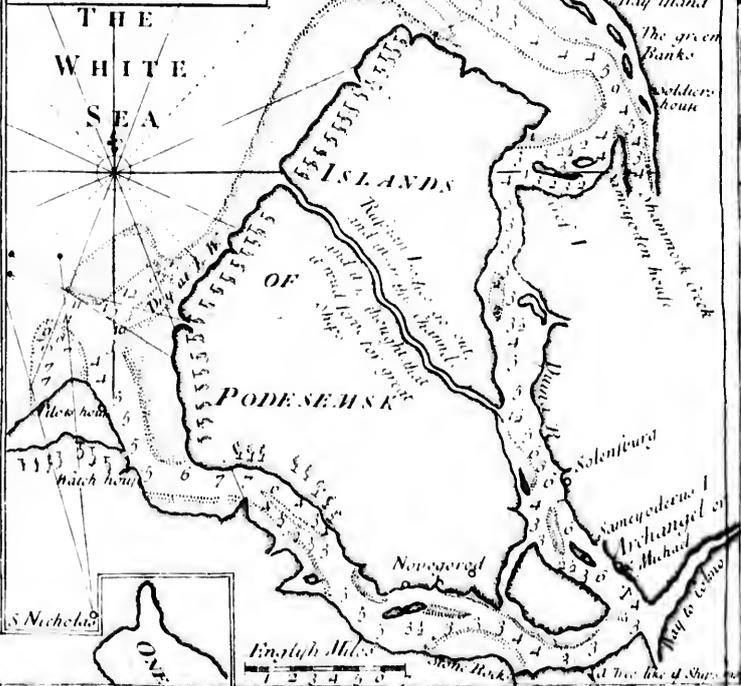
**A CHART
of the
SOUND**

**PART
of
ZEE LAND**





The River DUINA and the Harbour of ARCHANGEL



S. Nichol's

English Miles

MUSCOVY

LAPLAND

WHITE SEA

MOSCOW

THE WHITE SEA

ISLANDS

PODESEISK

NEWGOTLAND

ARCHANGEL

Michael

St. Nicholas

St. Peter

St. Paul

St. Andrew

St. George

St. Mark

St. Luke

St. John

St. James

St. Philip

St. Andrew

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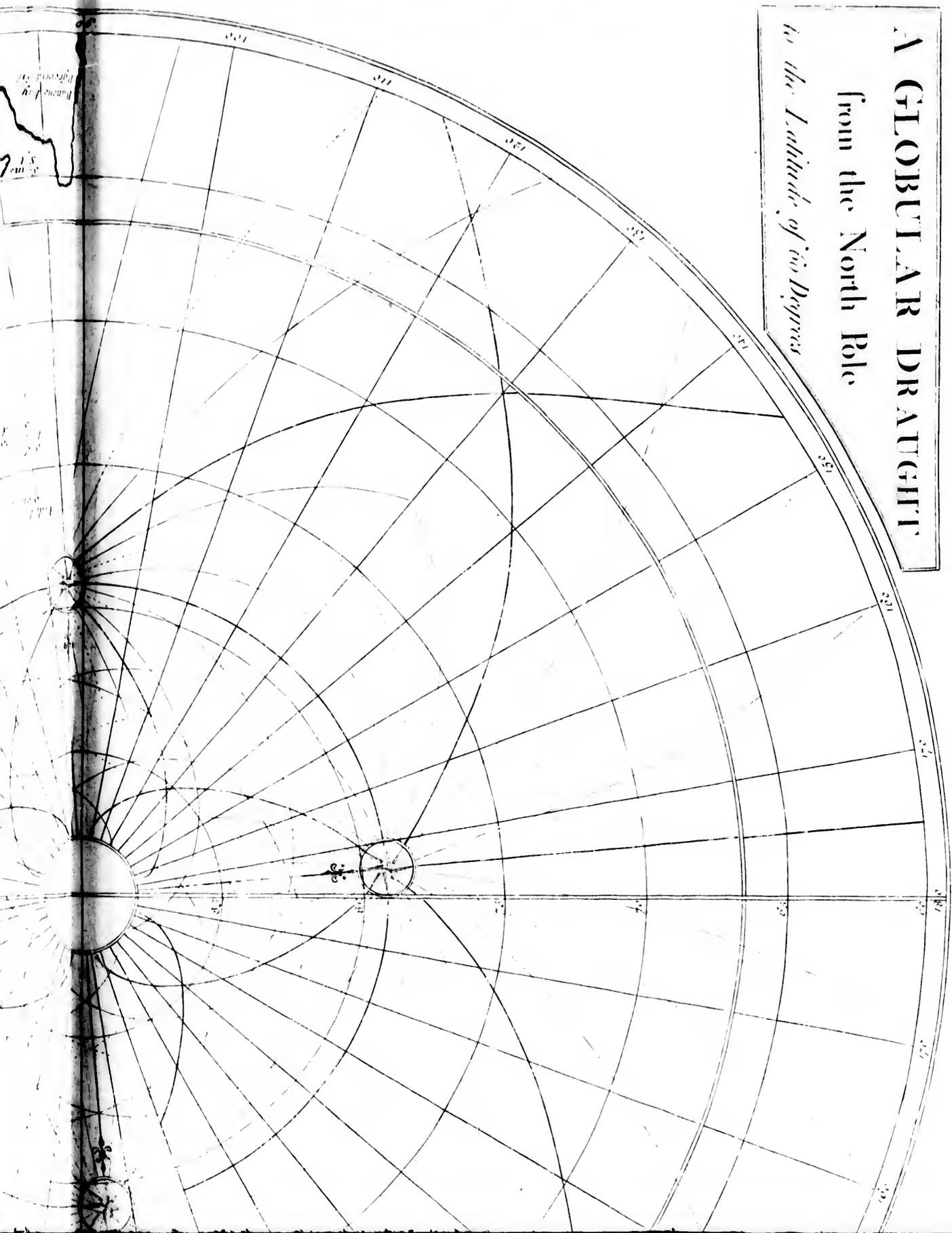
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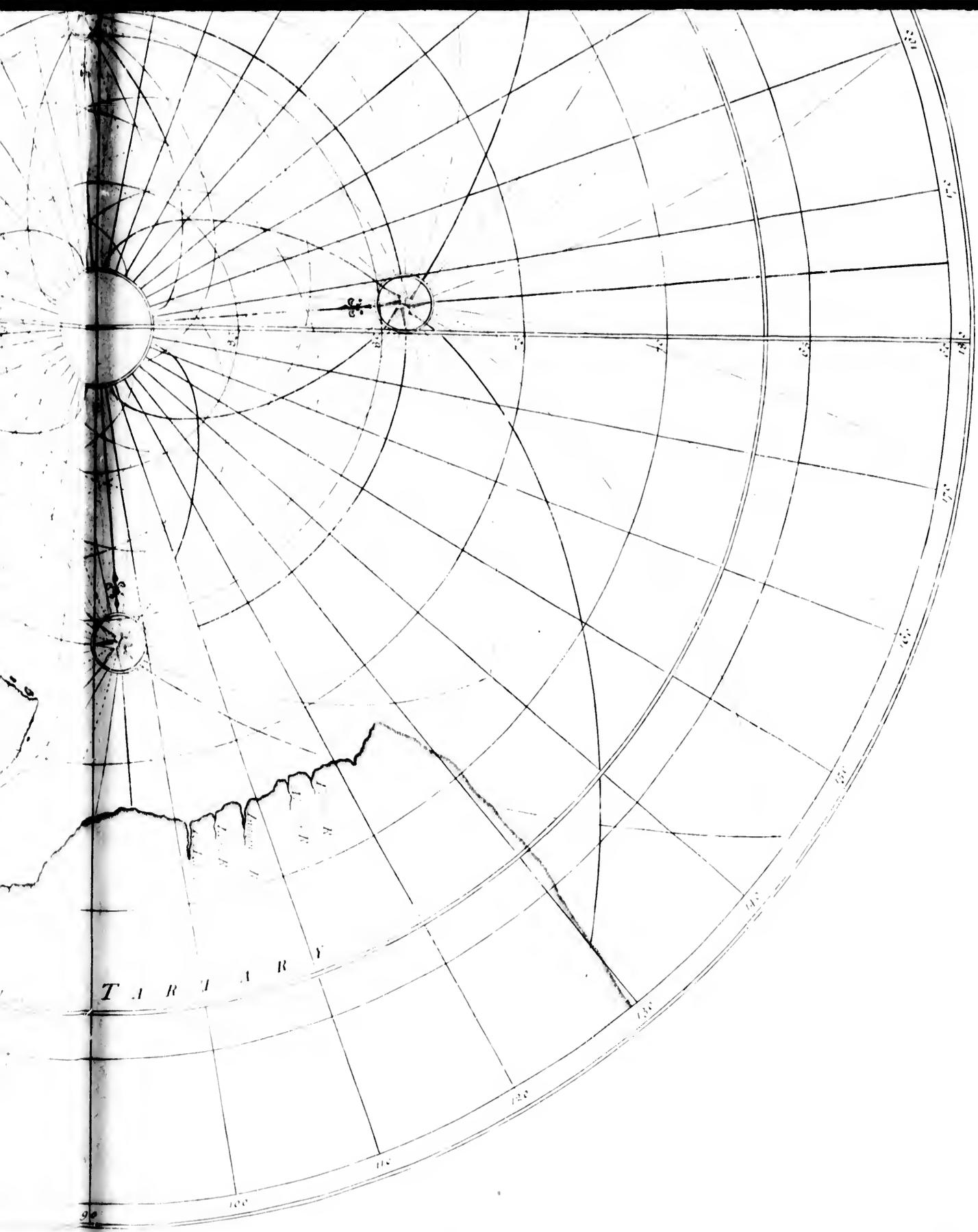


A GLOBULAR DRAUGHT

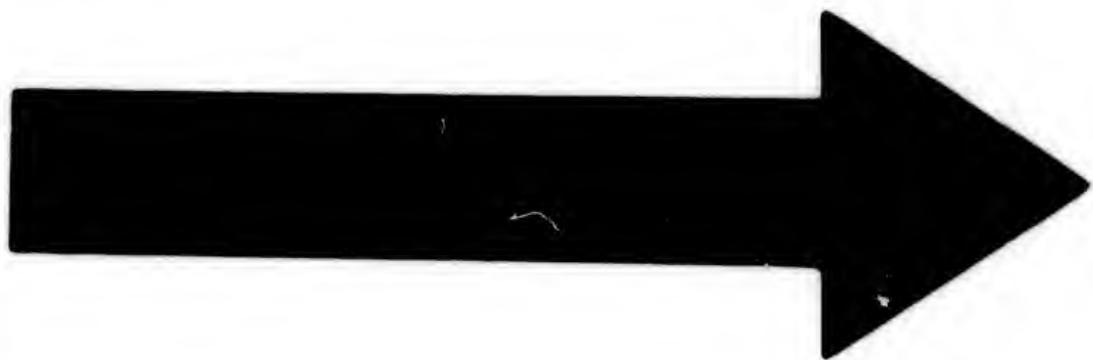
From the North Pole

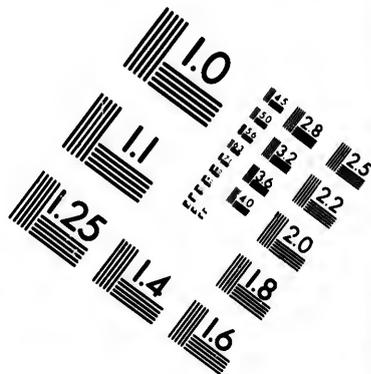
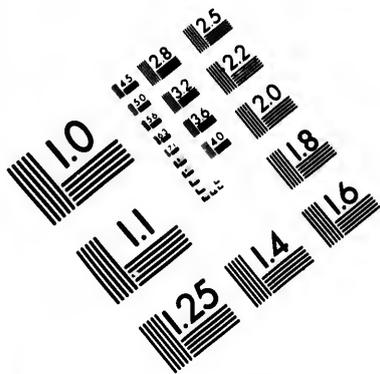
to the Latitude of 60 Degrees



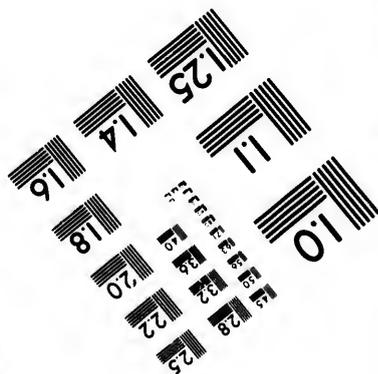
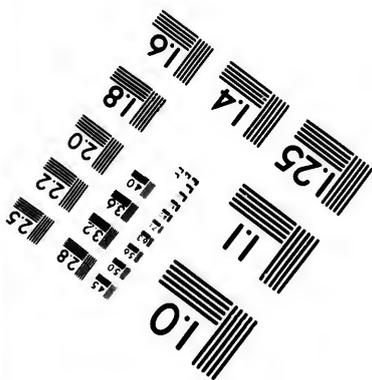
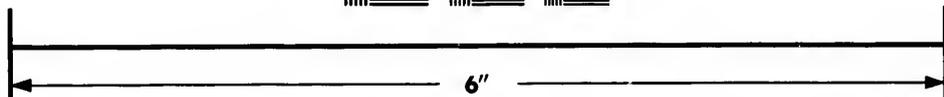
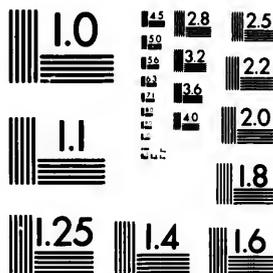


TERRARY





**IMAGE EVALUATION
TEST TARGET (MT-3)**



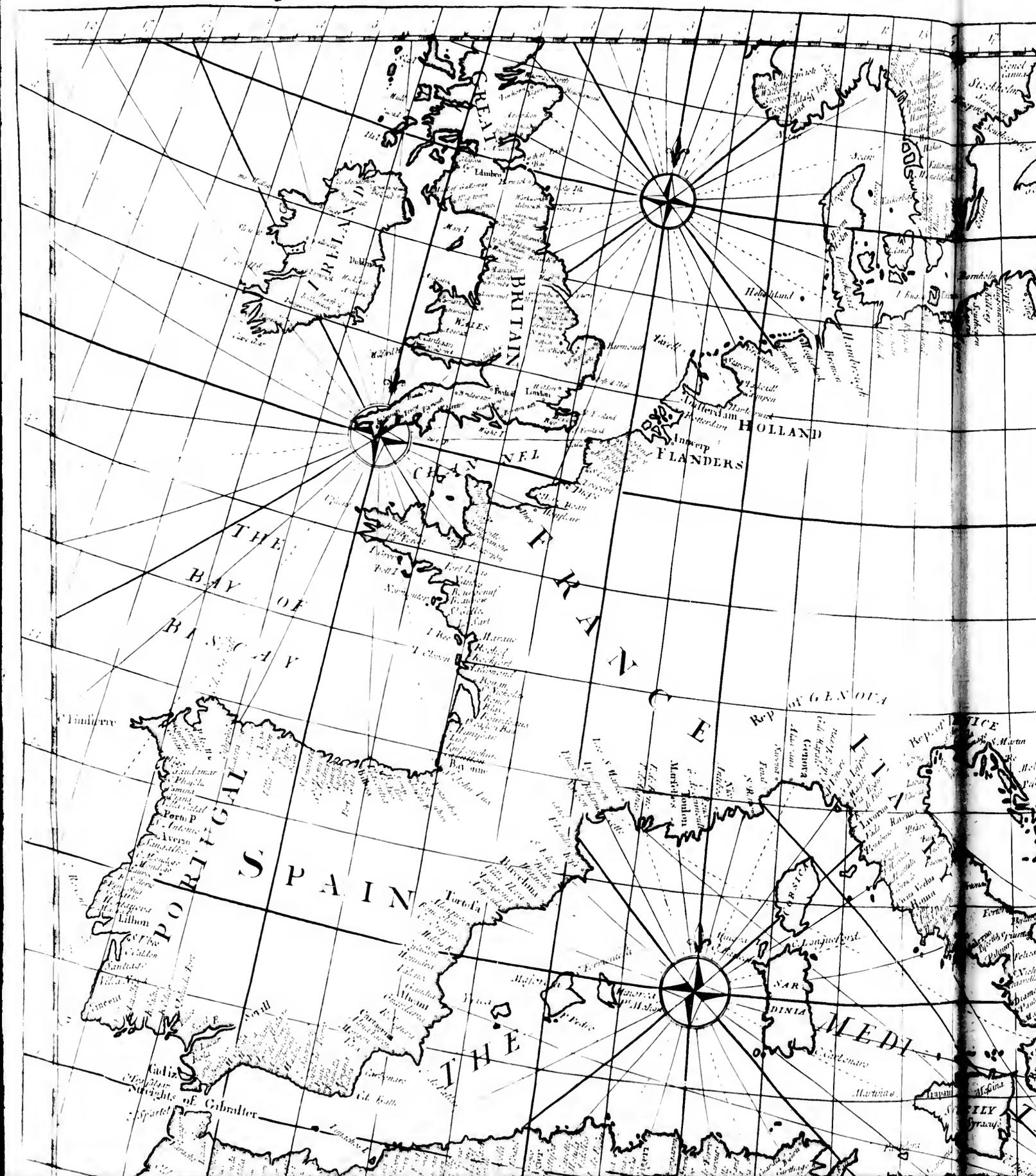
**Photographic
Sciences
Corporation**

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

15 28 25
32 22
20
8

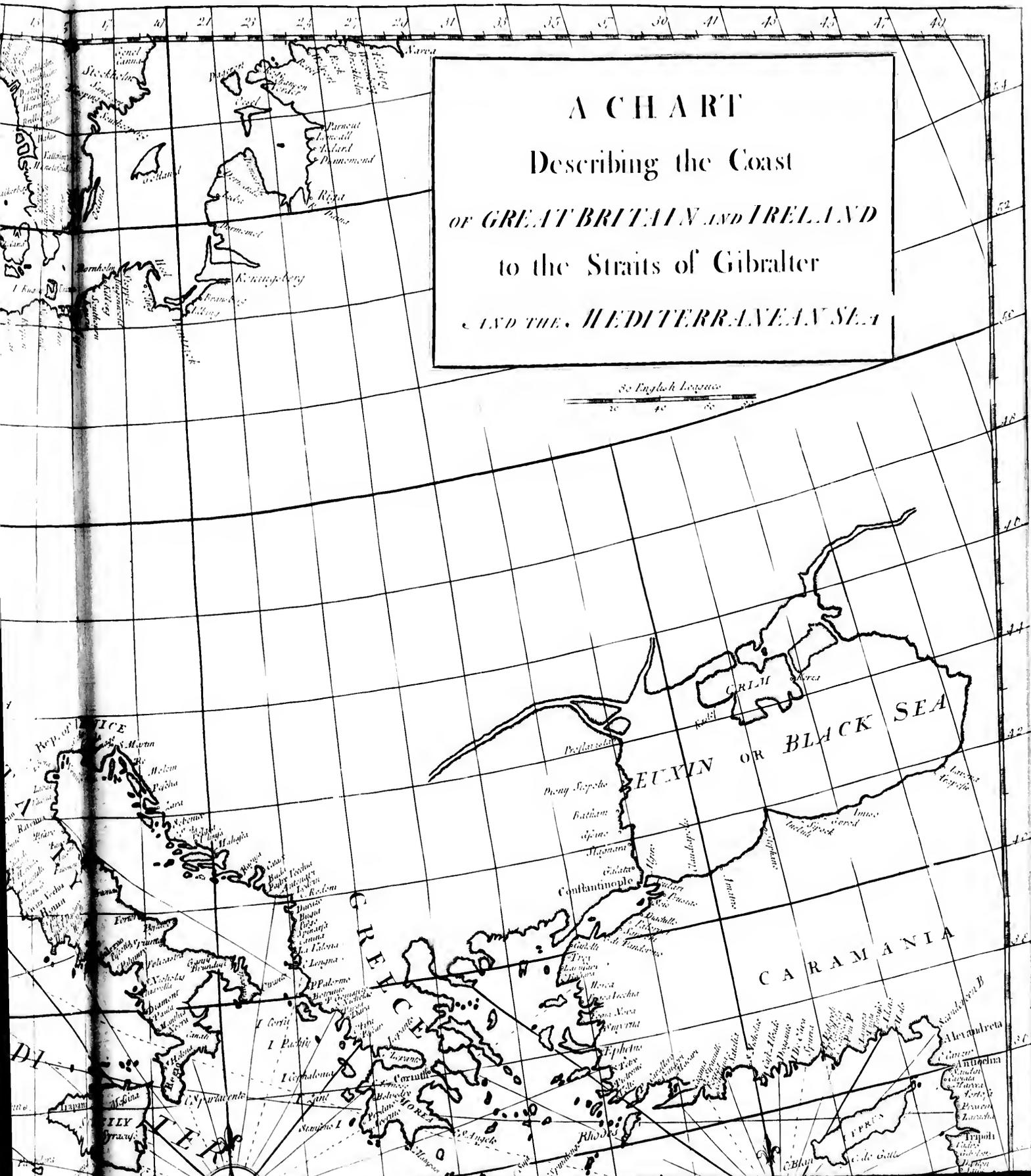
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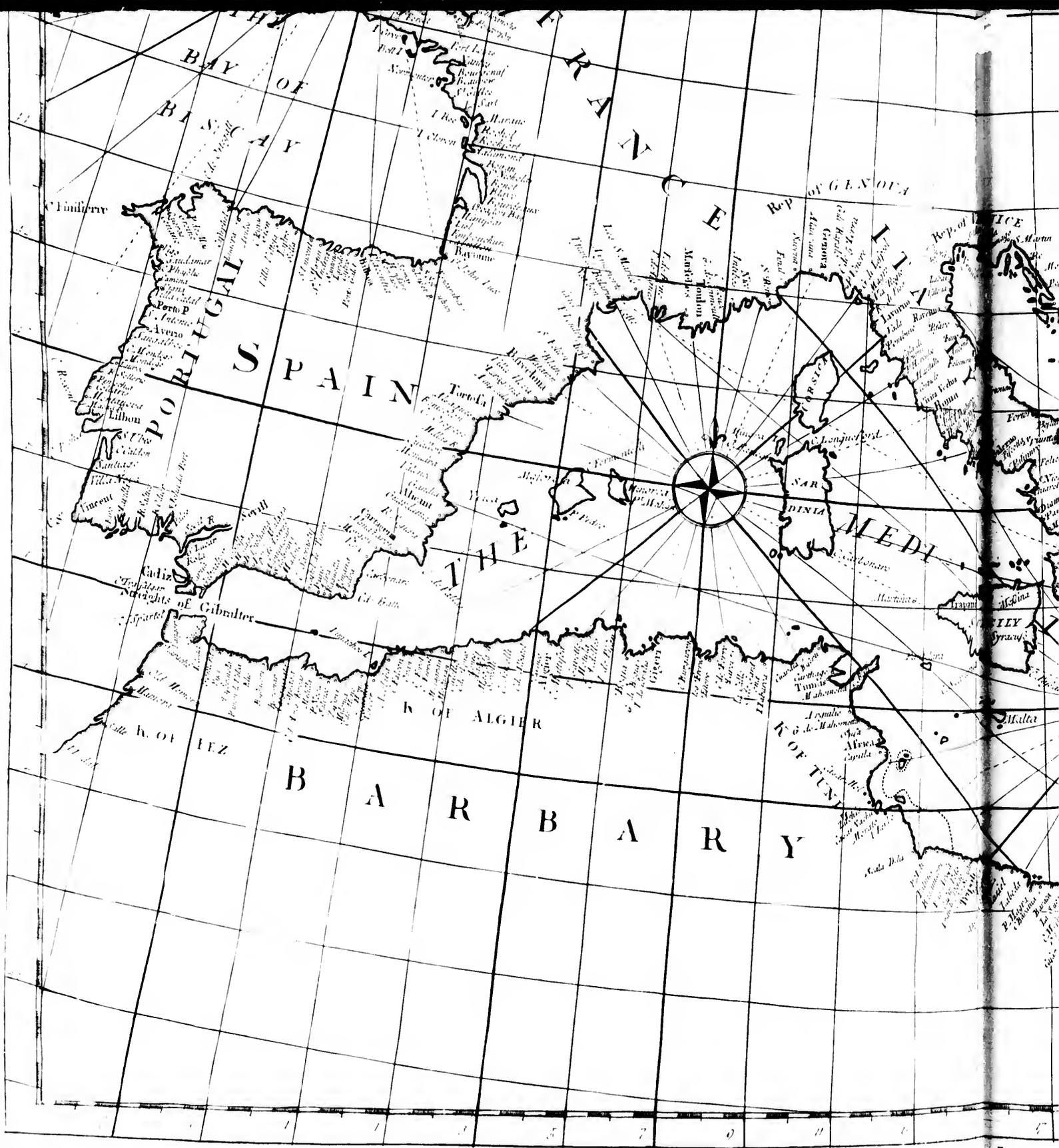


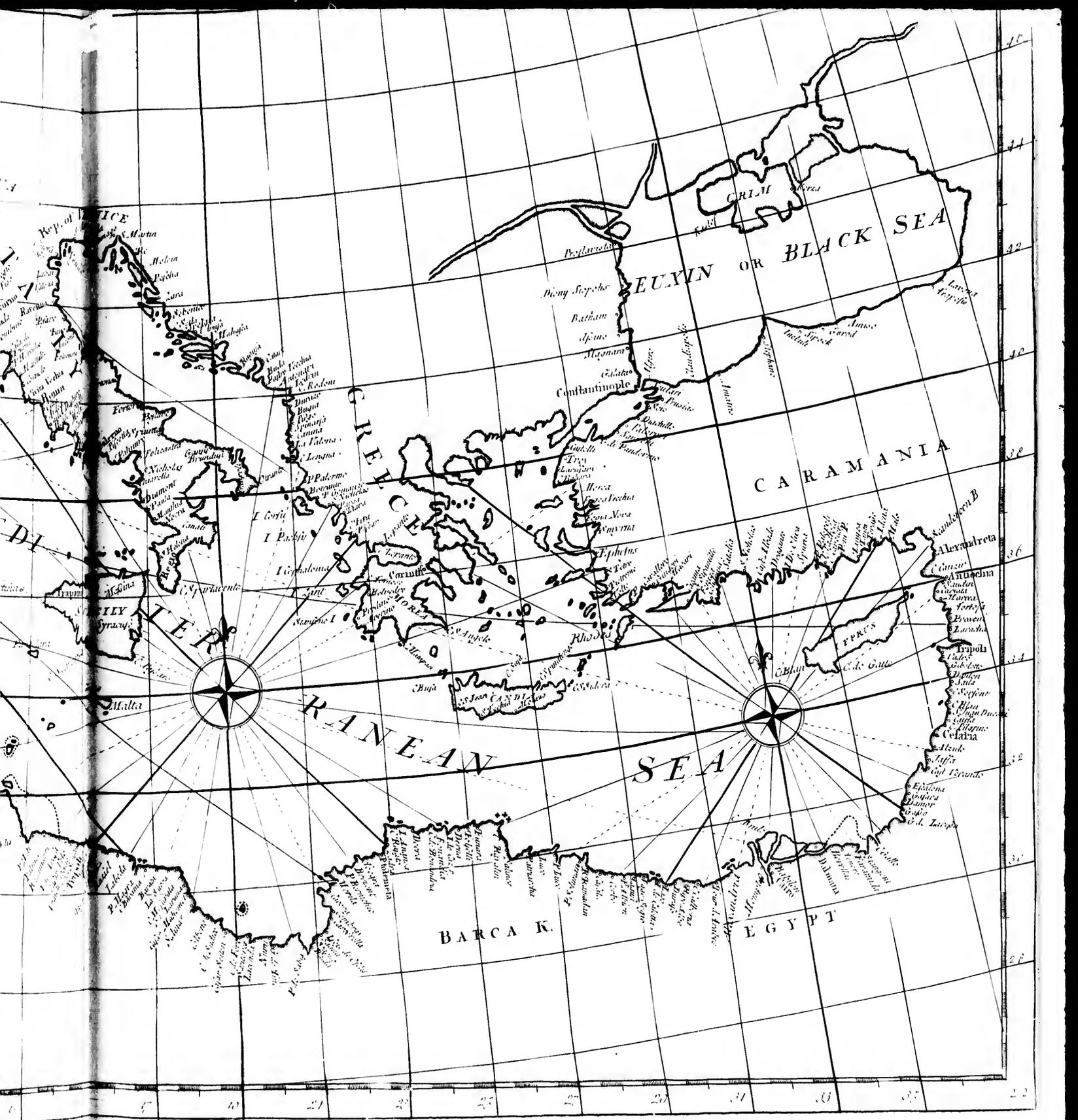


A CHART
Describing the Coast
OF GREAT BRITAIN AND IRELAND
to the Straits of Gibraltar
AND THE MEDITERRANEAN SEA

50 English Leagues



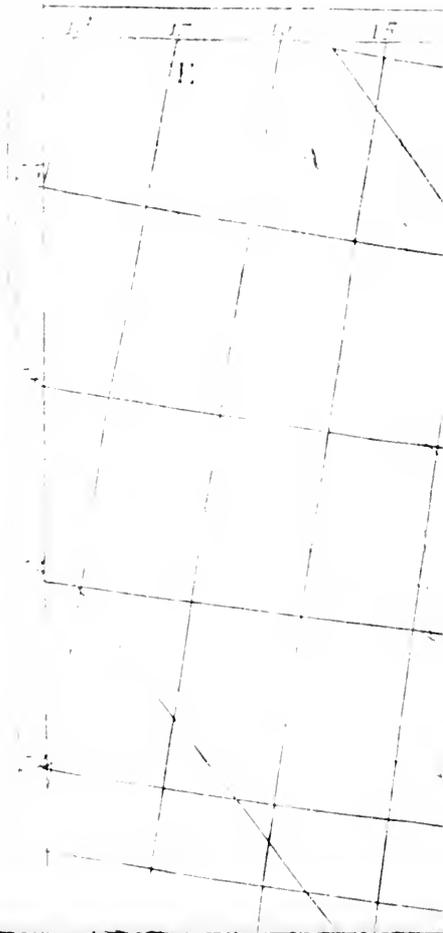




Shewing the Errors of Plain

To the most Hon.
The Lord PA
LORD HIGH-CHA
of GREAT BR

*This new Invention
Chart, is humbly De
U. to Length
Obdu*



A GLOBULAR CHART

Plain, and the Deficiencies of Mercators Sailing and Discovering the true Navigation according

Honourable
PARKER,
CHANCELLOR
BRITAIN &c.

*Author of a Globular
Dedicated by
all his most
devoted Servants*

*John Harris
John Jones
Henry Wilson*



CHART

Navigation according to the Globe. Invented and Performed by John Harris, John Senex & Henry Willson.



TO

... of the Great Circle ...
... of the Great Circle ...
... of the Great Circle ...

EDMUND HALLIY,

Sea Chart, showing both the
... of the Great Circle ...
... of the Great Circle ...
... of the Great Circle ...

J. HERRY

THE BAY OF BISCAY





C. Ferriere

PORTUGAL

ASTURIAS

BEIRA

MINHO
DOURO

ESTRÉMUA
LISBON

ALENTEJO

ALGARVE

GRANADA

THE STRAIGHTS OF GIBRALTAR

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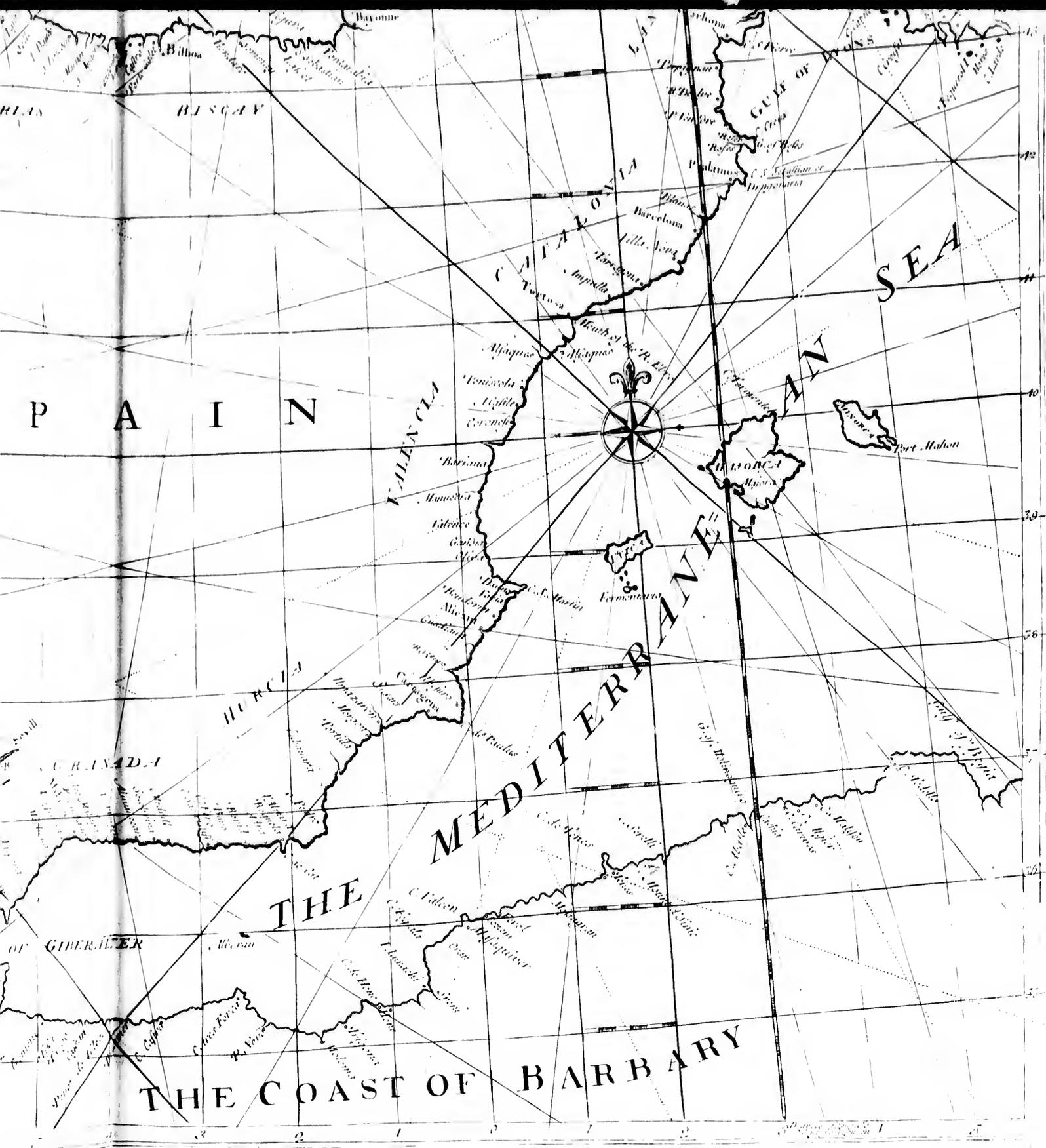
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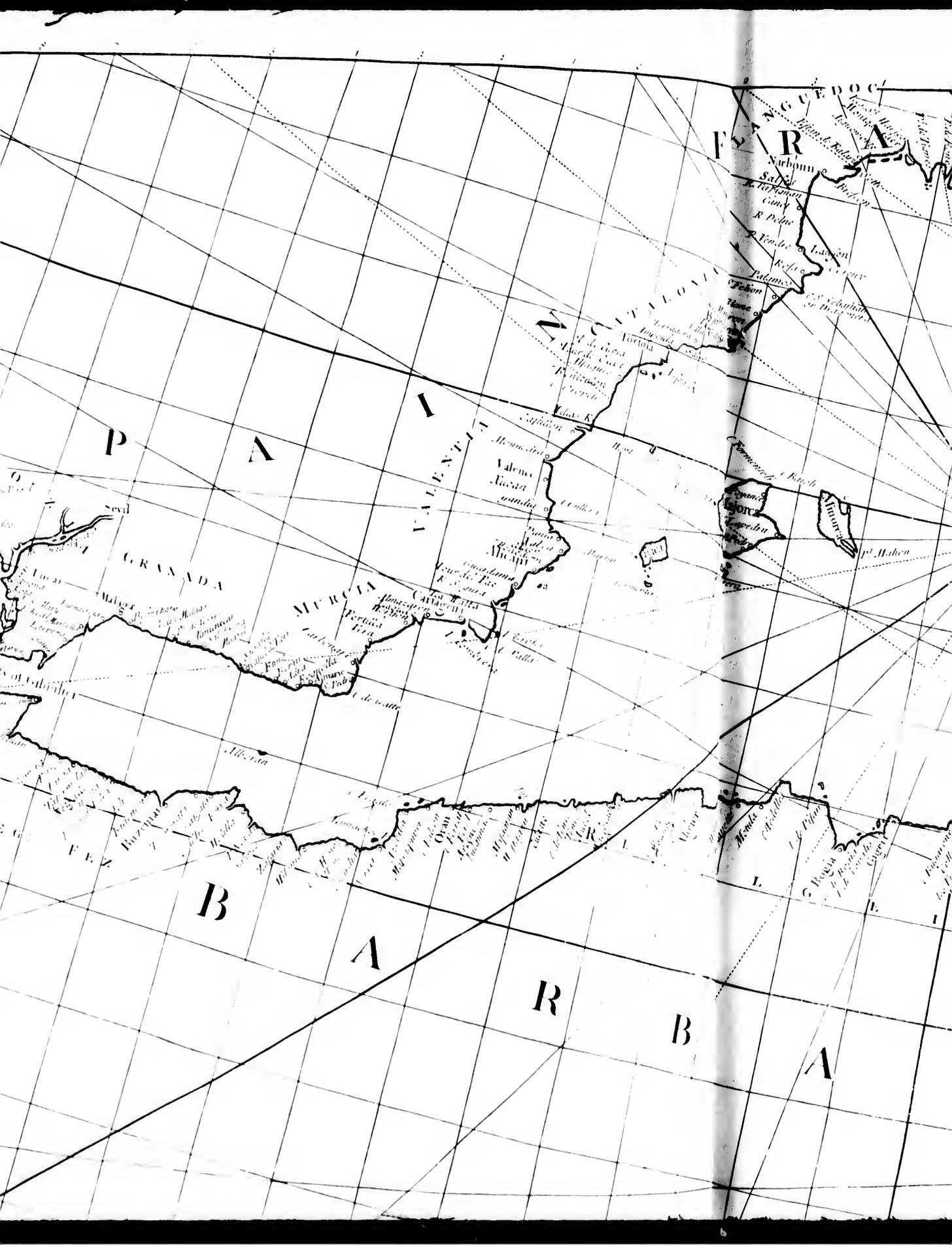
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P A

GRANADA

MURCIA

VALENTIA

FERRUGUEDOC

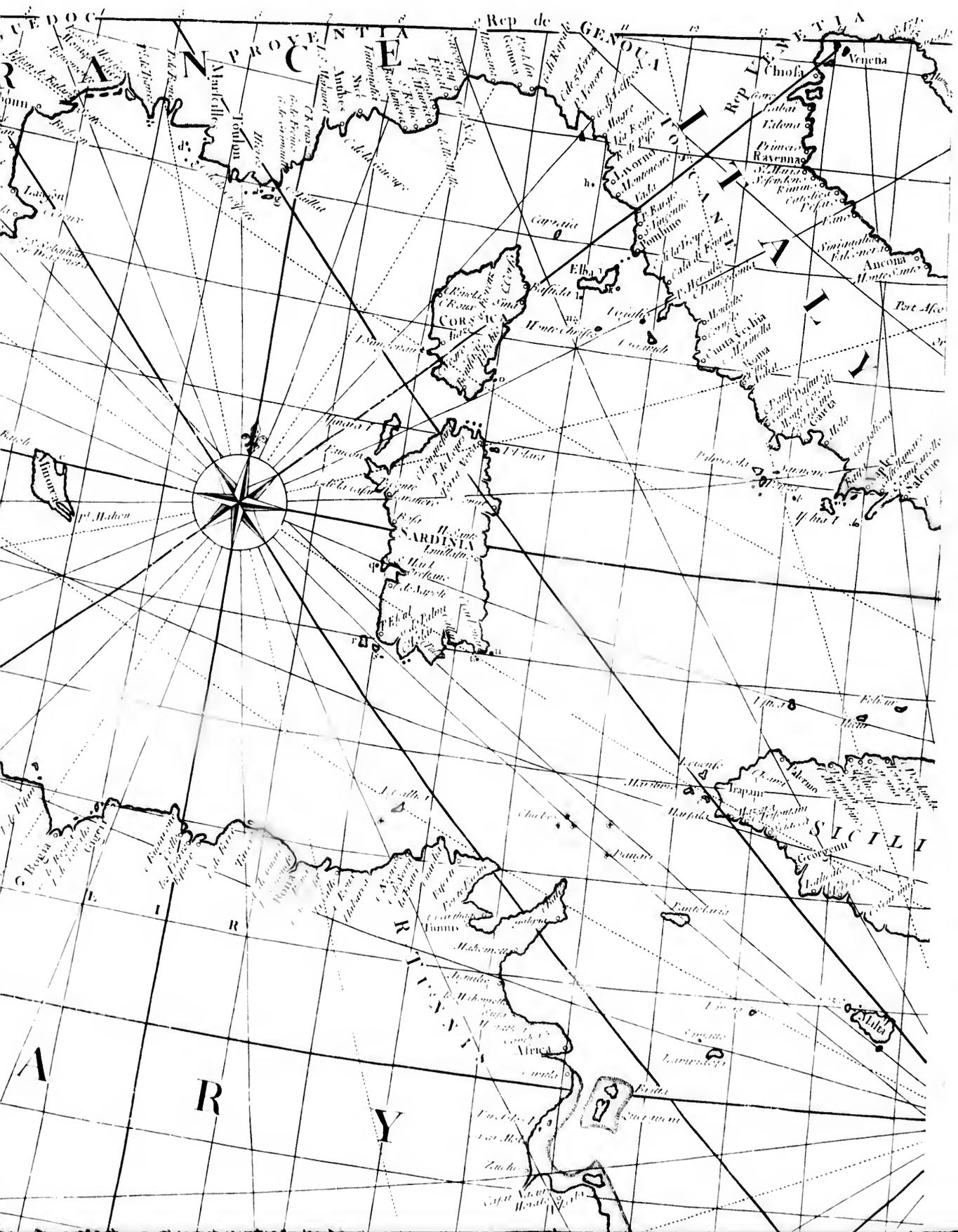
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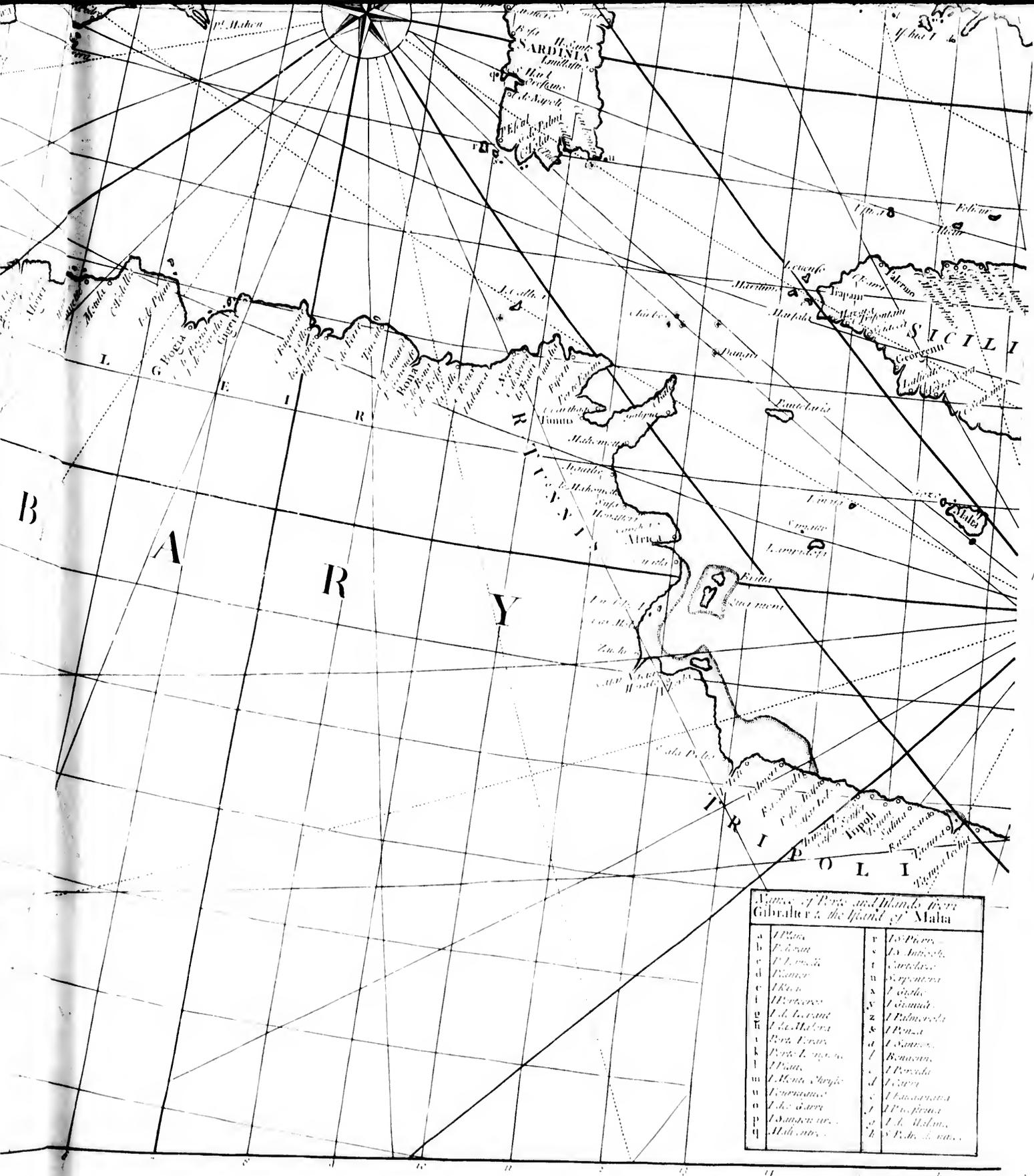
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A New and Correct
CHART OF THE
MEDITERRANEAN
SEA

English Lengths

5 10 15 20 25 30 35 40



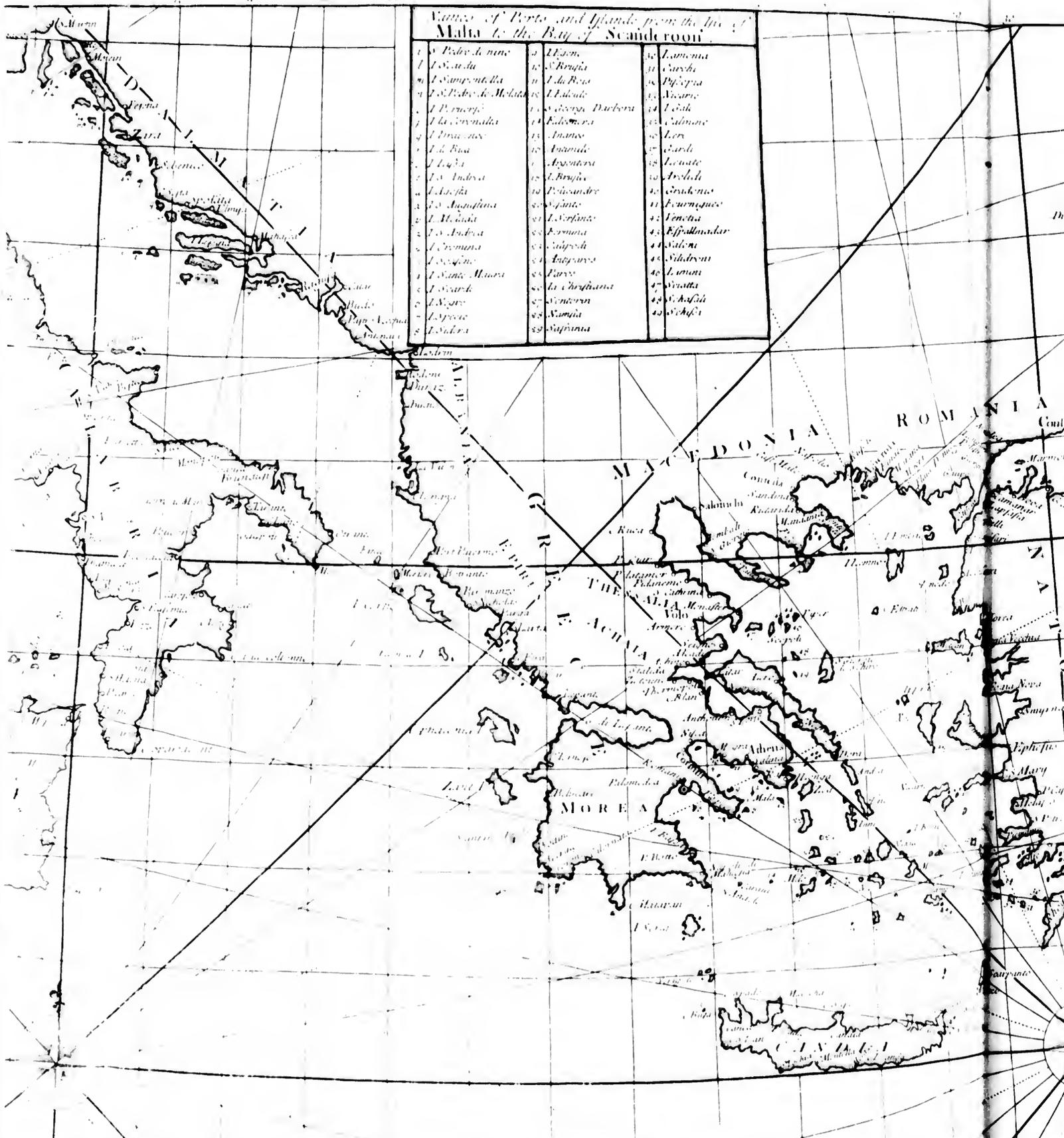
Names of Ports and Islands from Gibraltar & the Island of Malta

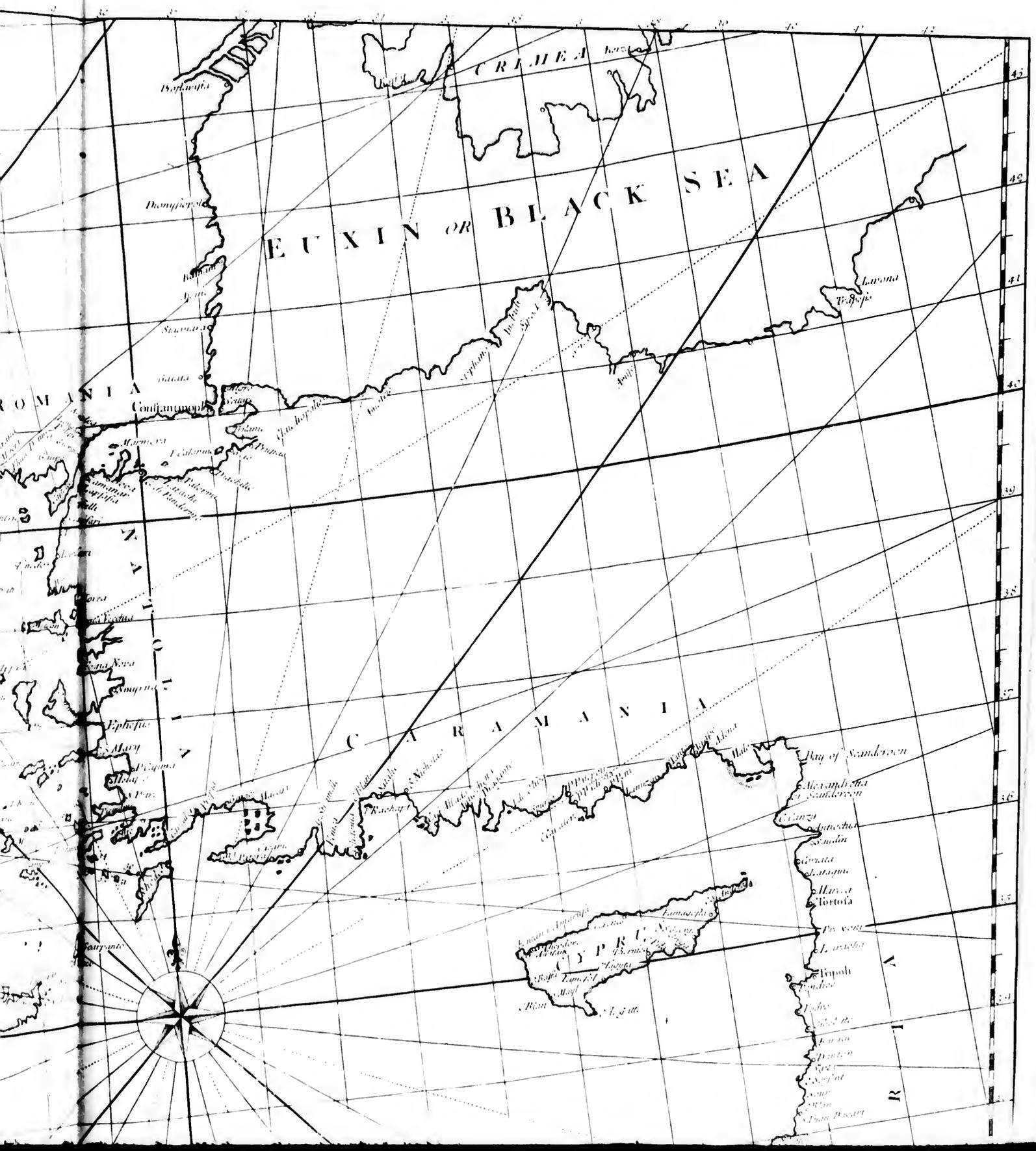
a	<i>Algeria</i>	r	<i>Is. Phoen.</i>
b	<i>Algeria</i>	s	<i>Is. Antioch.</i>
c	<i>Algeria</i>	t	<i>Antiochia</i>
d	<i>Algeria</i>	u	<i>Antiochia</i>
e	<i>Algeria</i>	x	<i>Is. Antioch.</i>
f	<i>Algeria</i>	y	<i>Is. Antioch.</i>
g	<i>Algeria</i>	z	<i>Is. Antioch.</i>
h	<i>Algeria</i>	aa	<i>Is. Antioch.</i>
i	<i>Algeria</i>	ab	<i>Is. Antioch.</i>
k	<i>Algeria</i>	ac	<i>Is. Antioch.</i>
l	<i>Algeria</i>	ad	<i>Is. Antioch.</i>
m	<i>Algeria</i>	ae	<i>Is. Antioch.</i>
n	<i>Algeria</i>	af	<i>Is. Antioch.</i>
o	<i>Algeria</i>	ag	<i>Is. Antioch.</i>
p	<i>Algeria</i>	ah	<i>Is. Antioch.</i>
q	<i>Algeria</i>	ai	<i>Is. Antioch.</i>



Names of Ports and Islands from the Iles of
Malta to the Bay of Scanderoon

1. S. Paolo de mare	17. S. Elena	32. Lamonia
2. S. Nicola	18. S. Kiriakia	33. Sarska
3. S. Sampsonella	19. S. La Rosa	34. Pyrgos
4. S. Paolo de Melita	20. S. Katak	35. Aigaris
5. S. P. Nicopoli	21. S. Sotero, Diabera	36. S. Sakh
6. S. S. Symonella	22. Kalamira	37. Kalimene
7. S. Dorothea	23. Anaxos	38. Lora
8. S. S. Rosa	24. Anaxos	39. Sardi
9. S. S. Sofia	25. Agioskara	40. Kaluste
10. S. Andrea	26. S. Broghis	41. Arsheli
11. S. Sofia	27. P. Sander	42. Grotteno
12. S. Anna	28. S. S. S. S.	43. Fourniquis
13. S. Melita	29. S. S. S. S.	44. Venetia
14. S. Andrea	30. S. S. S. S.	45. Effallmadar
15. S. Symon	31. S. S. S. S.	46. S. S. S.
16. S. S. S. S.	32. S. S. S. S.	47. S. S. S.
17. S. S. S. S.	33. S. S. S. S.	48. S. S. S.
18. S. S. S. S.	34. S. S. S. S.	49. S. S. S.
19. S. S. S. S.	35. S. S. S. S.	50. S. S. S.
20. S. S. S. S.	36. S. S. S. S.	





EUXIN OR BLACK SEA

CRIMEA

ROMANIA

CARAMANIA

CYPRUS

R I A

Borhanija

Dionysopolis

Babina

Apollonia

Scythopolis

Constantinople

Marmara

Palermo

Trapani

Alghero

Genoa

Porto Nuovo

Genova

Alghero

Ephesus

Almyra

Heraclea

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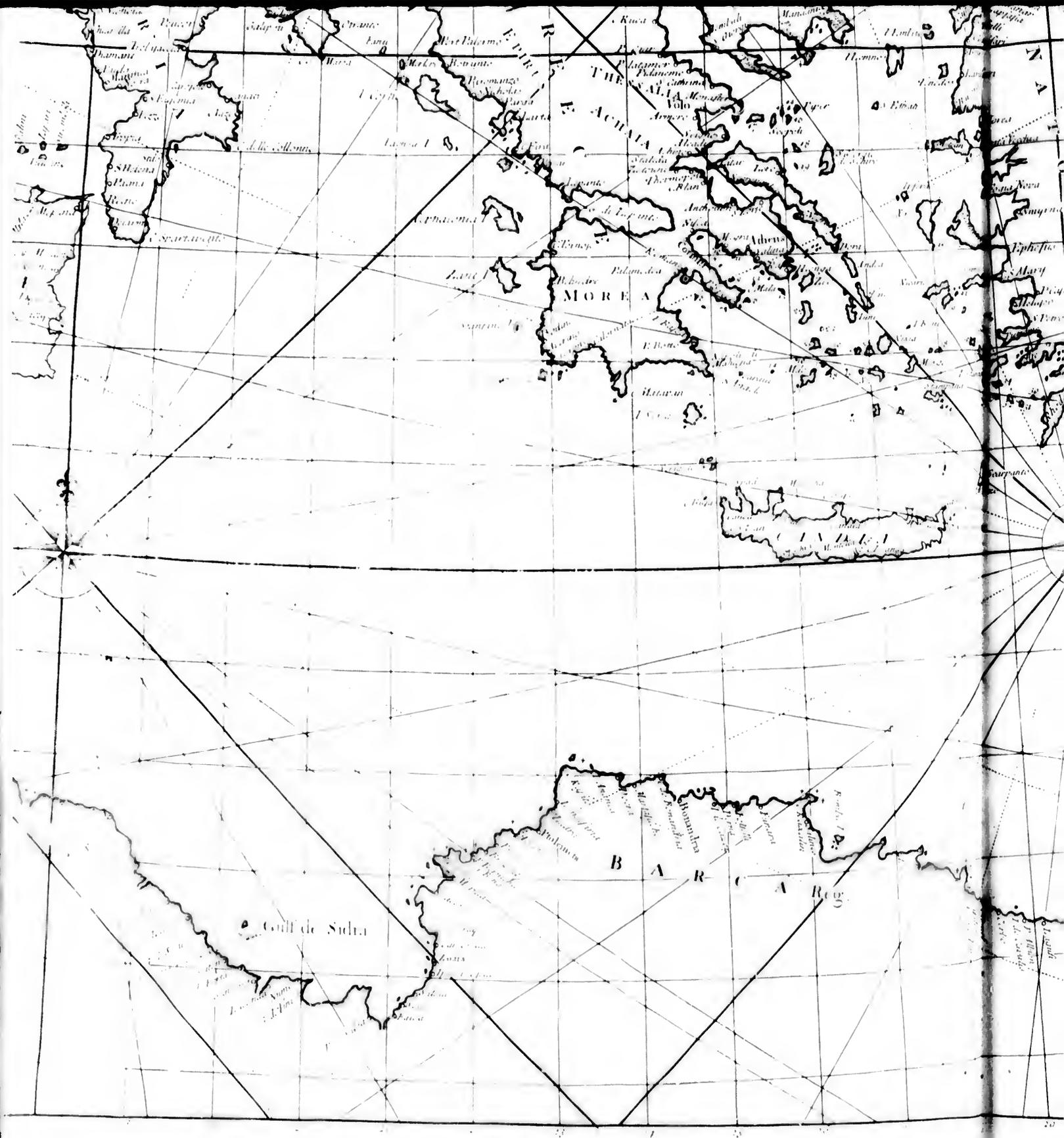
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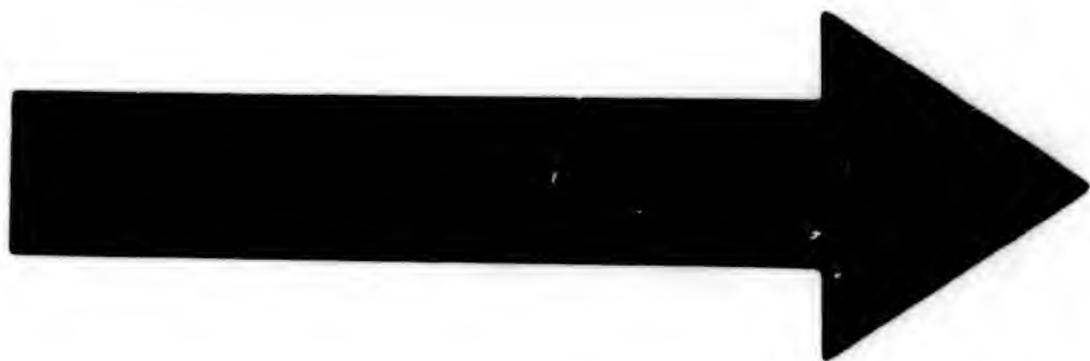
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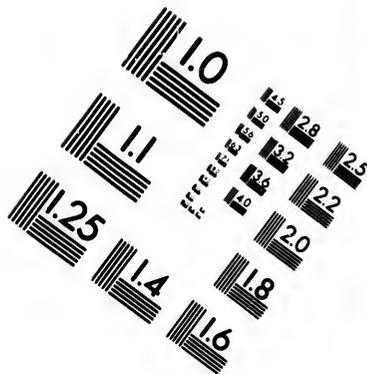
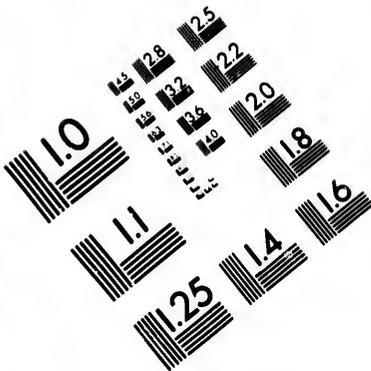
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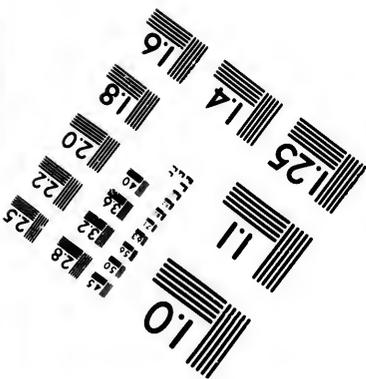
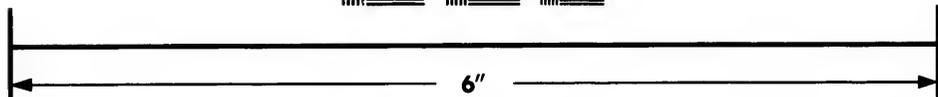
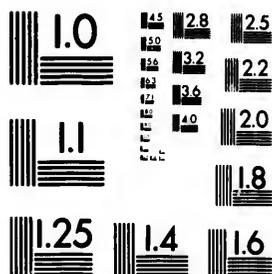
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**IMAGE EVALUATION
TEST TARGET (MT-3)**

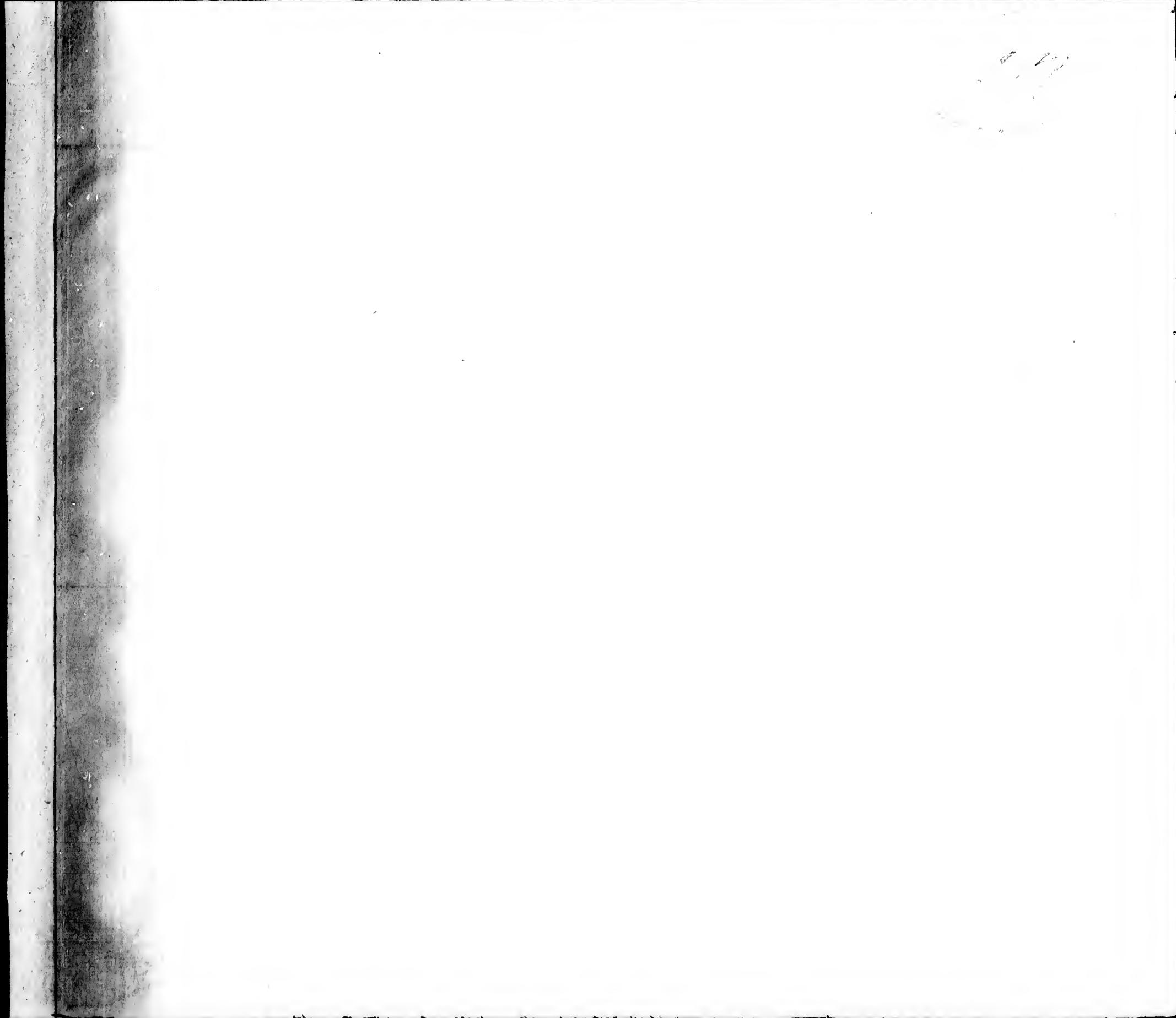


**Photographic
Sciences
Corporation**

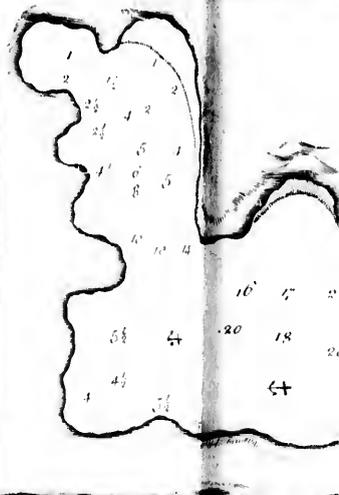
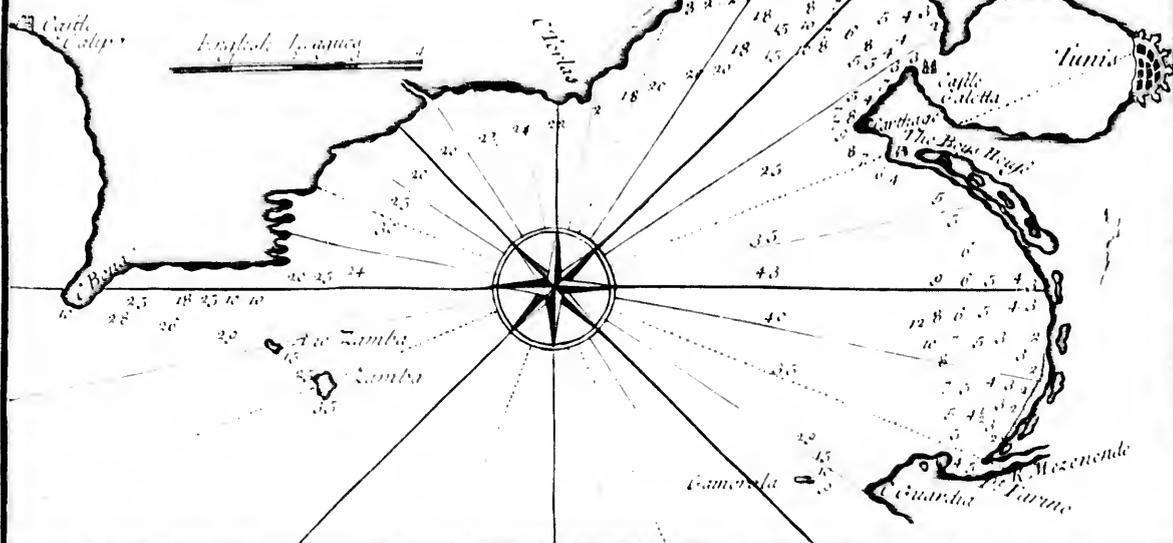
23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

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2.0 3.2
3.6 4.0
4.5 5.0
5.6 6.3
7.1 8.0
9.0 10.0
11.8 12.5

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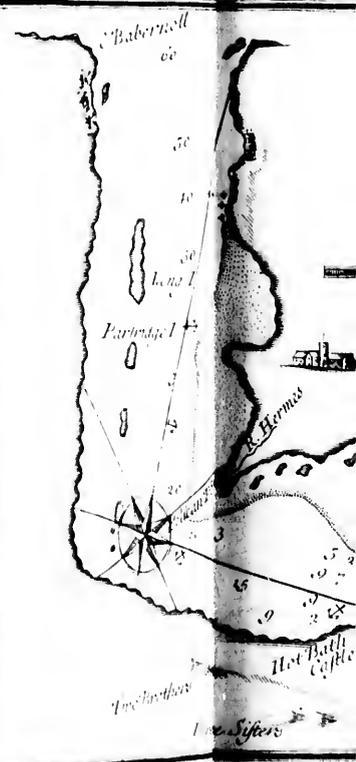
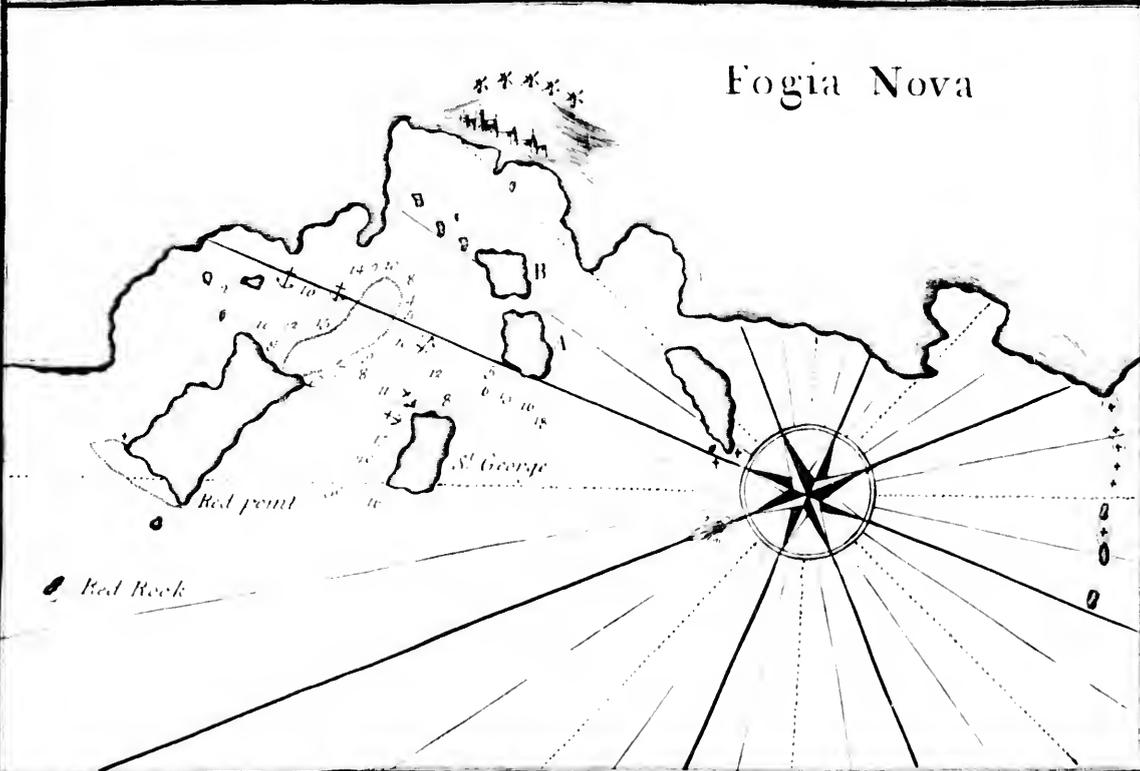


The Bay of Tunis

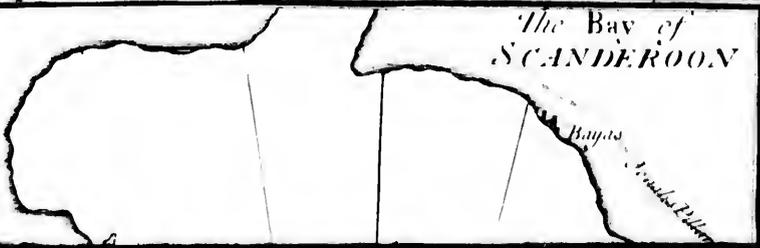


The Haven of Zea

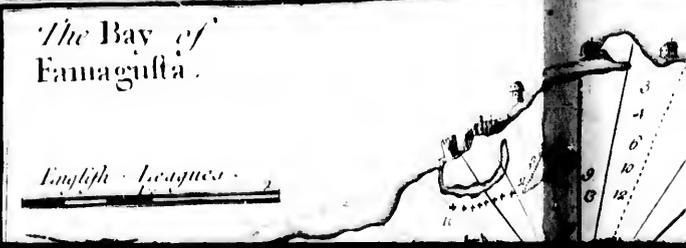
Fogia Nova

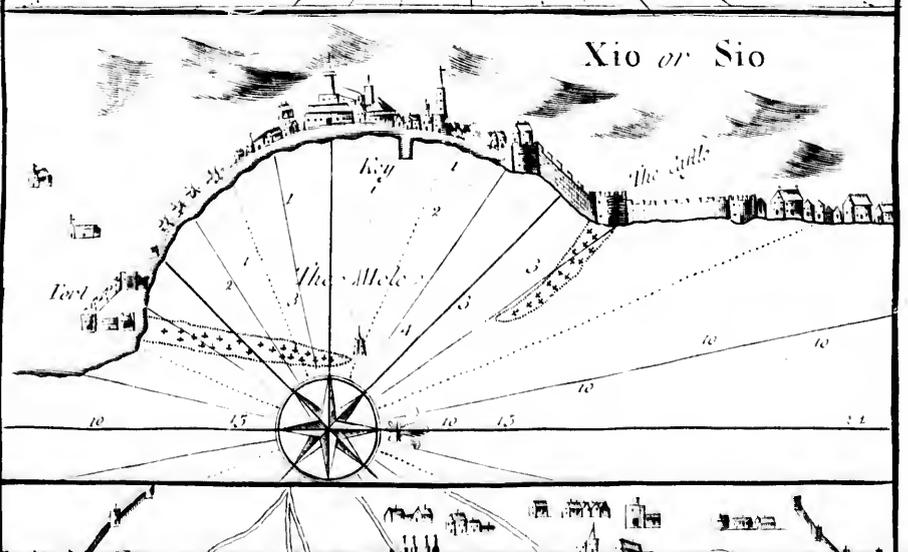
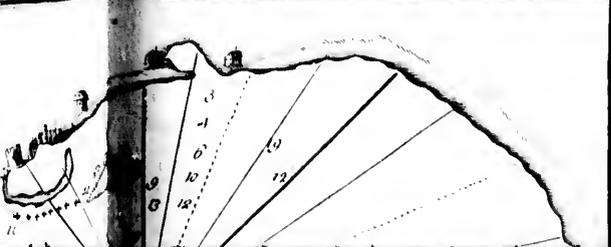


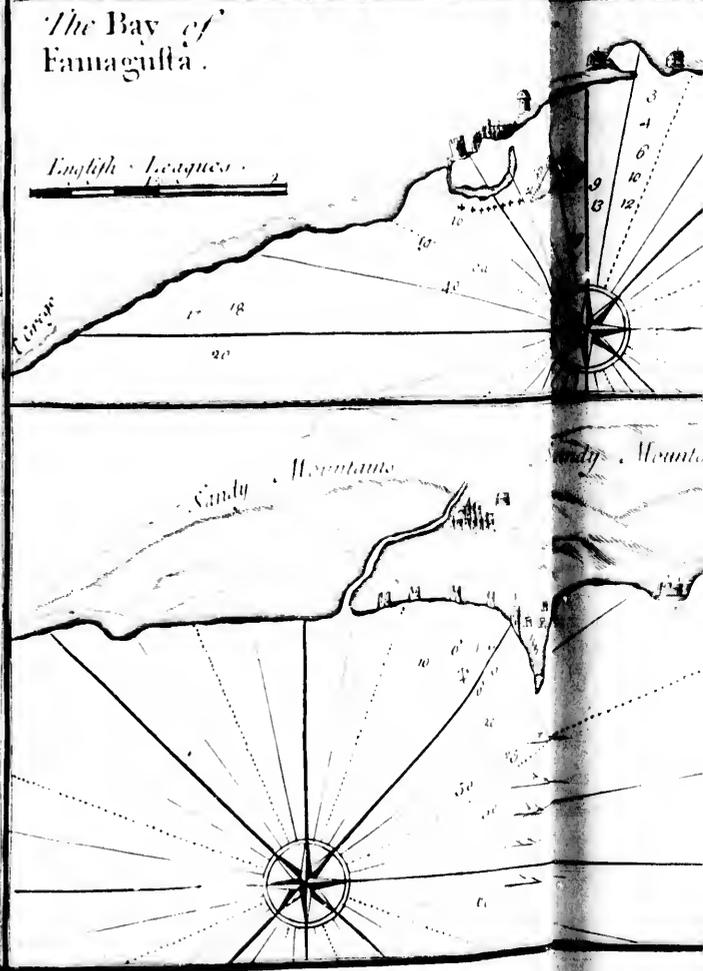
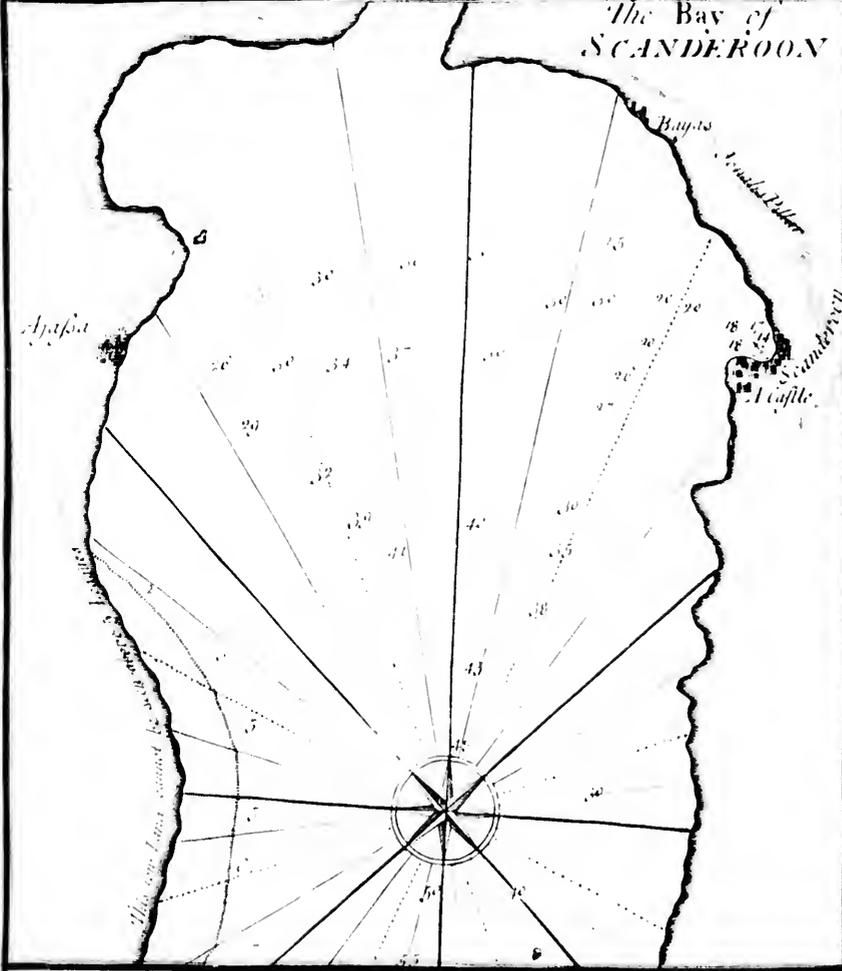
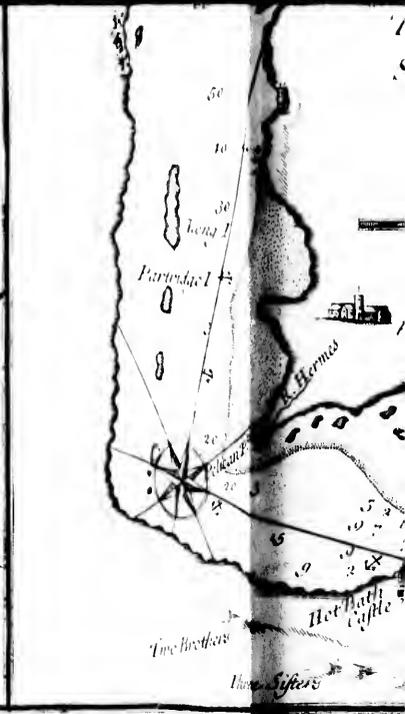
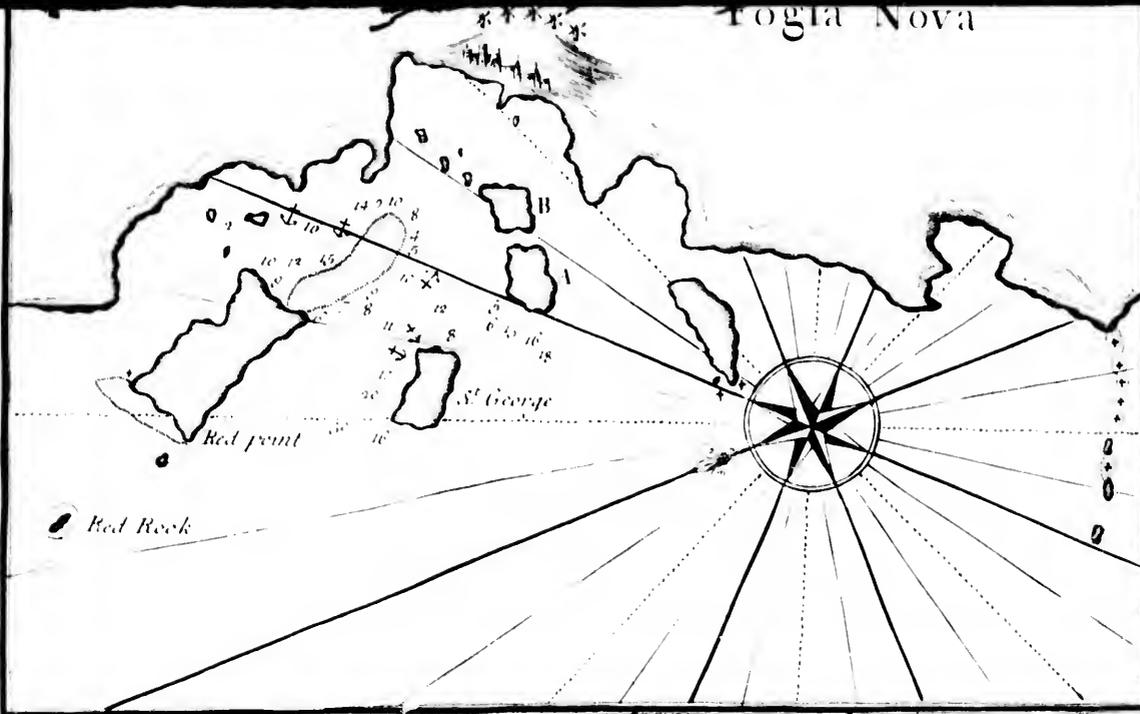
The Bay of SCANDEROON



The Bay of Famagusta

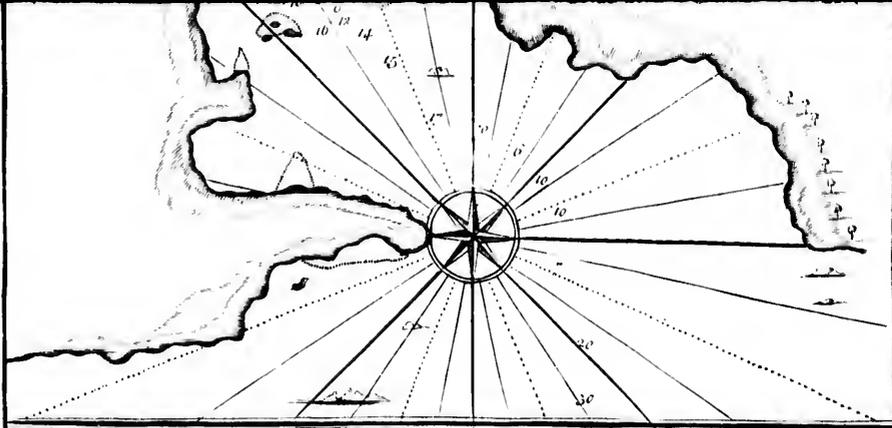
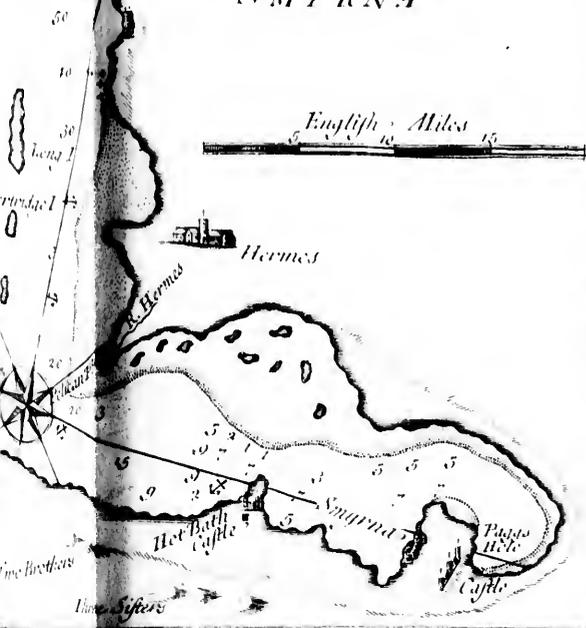




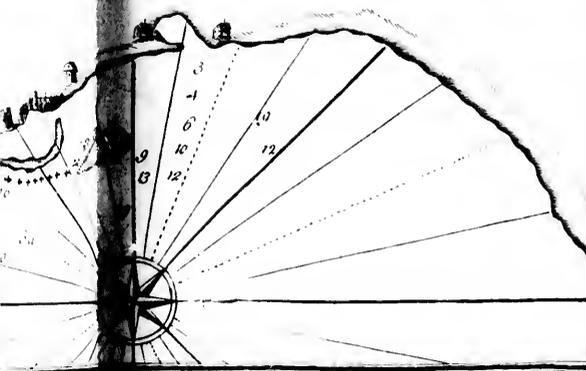
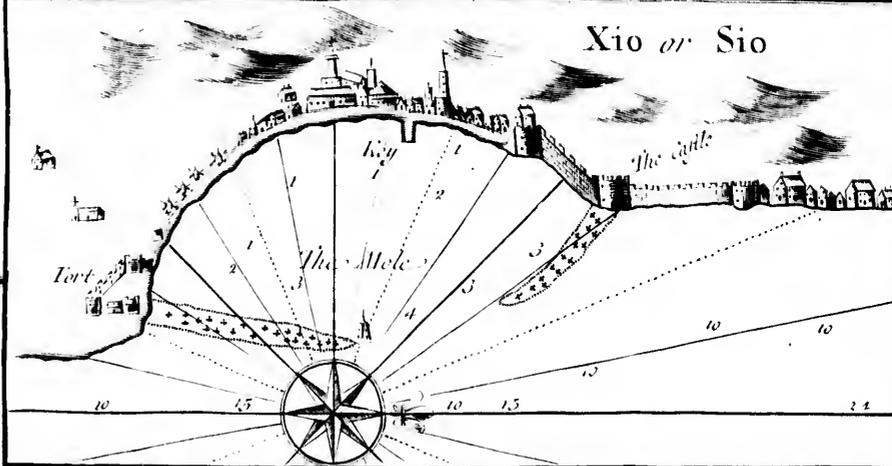


*The Gulf of
SMIRNA*

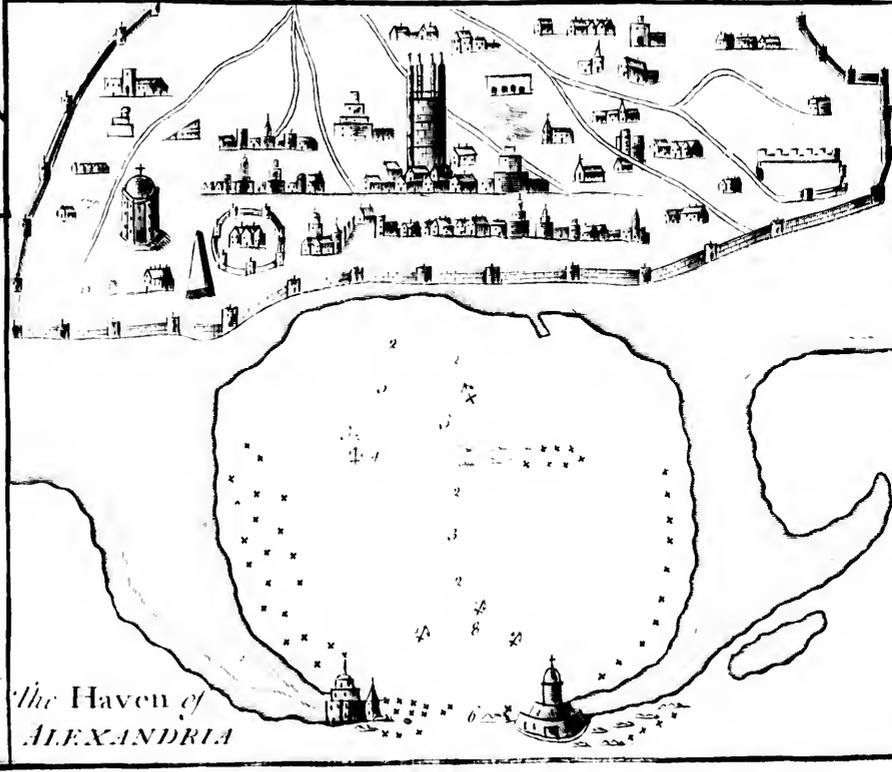
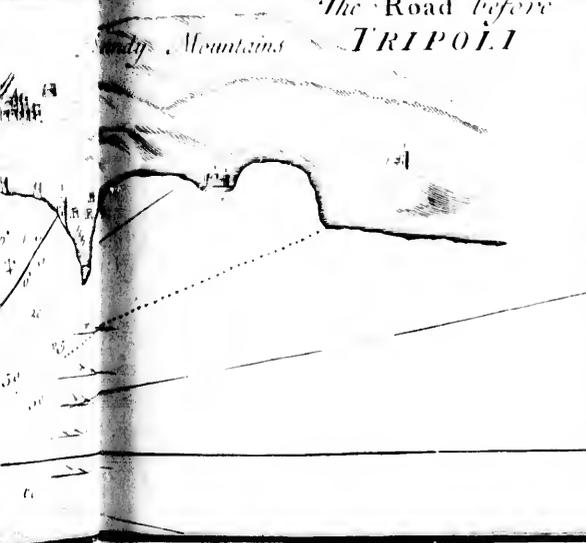
English Miles



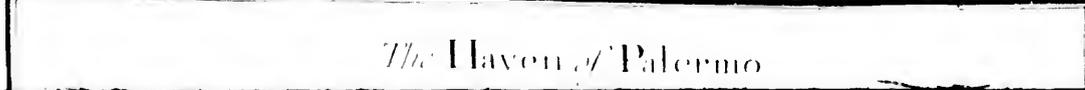
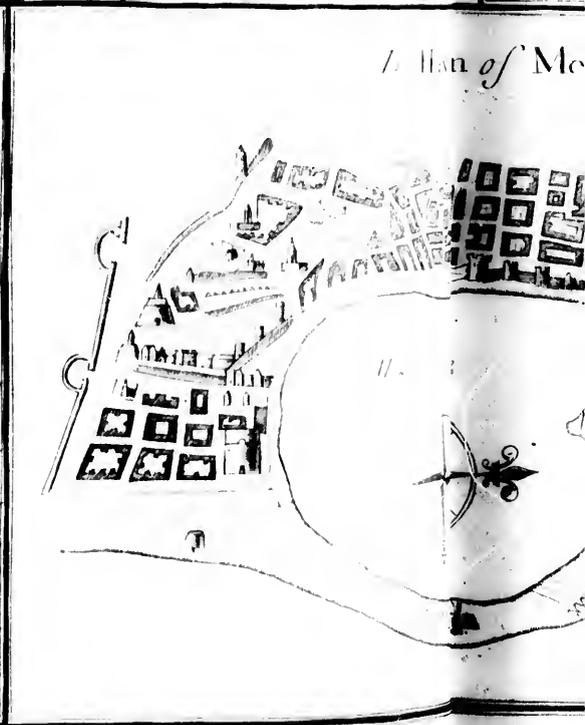
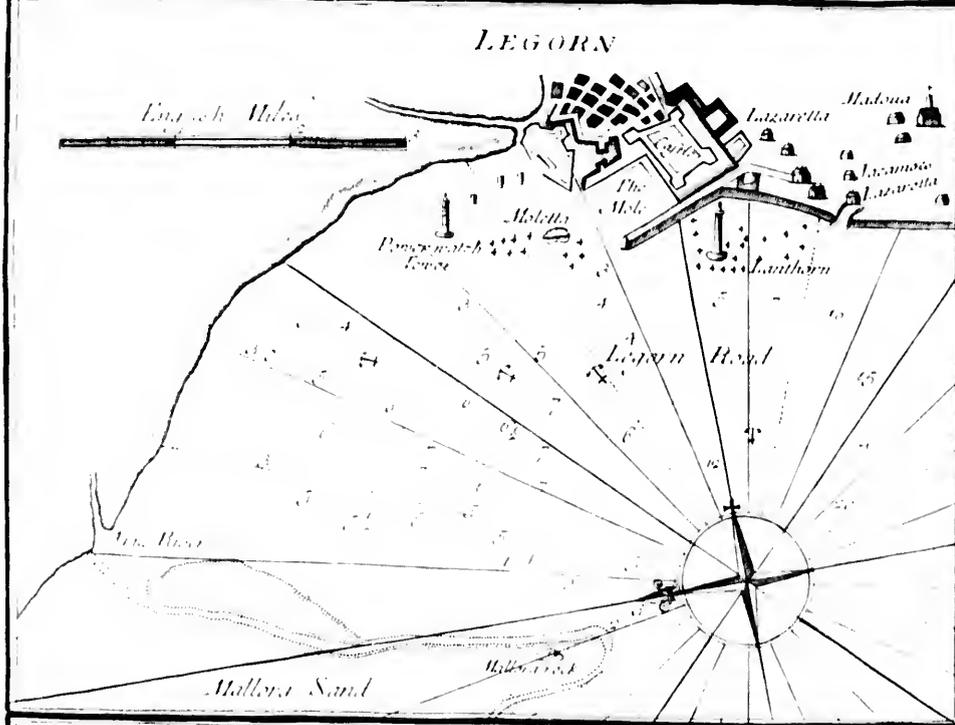
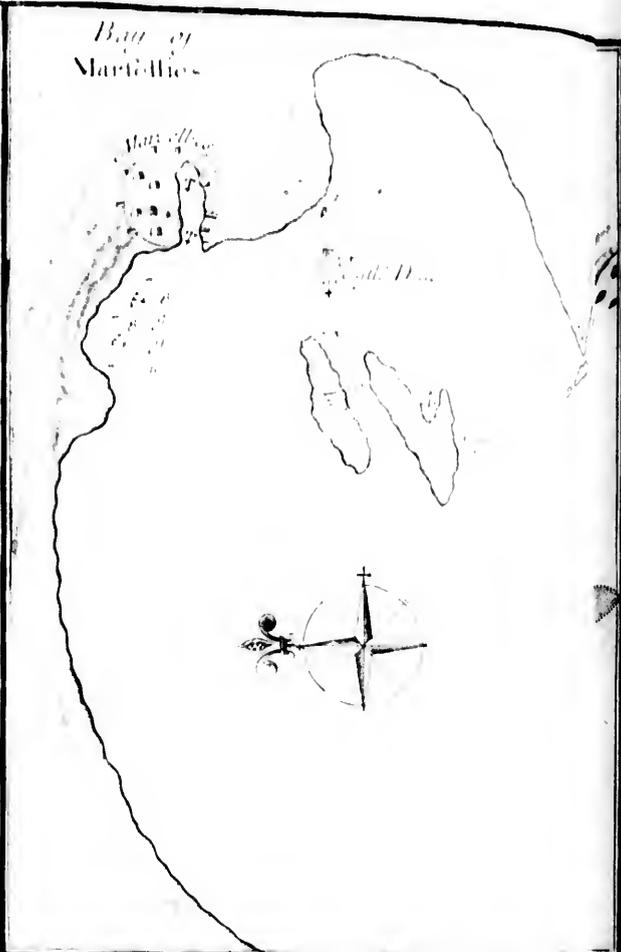
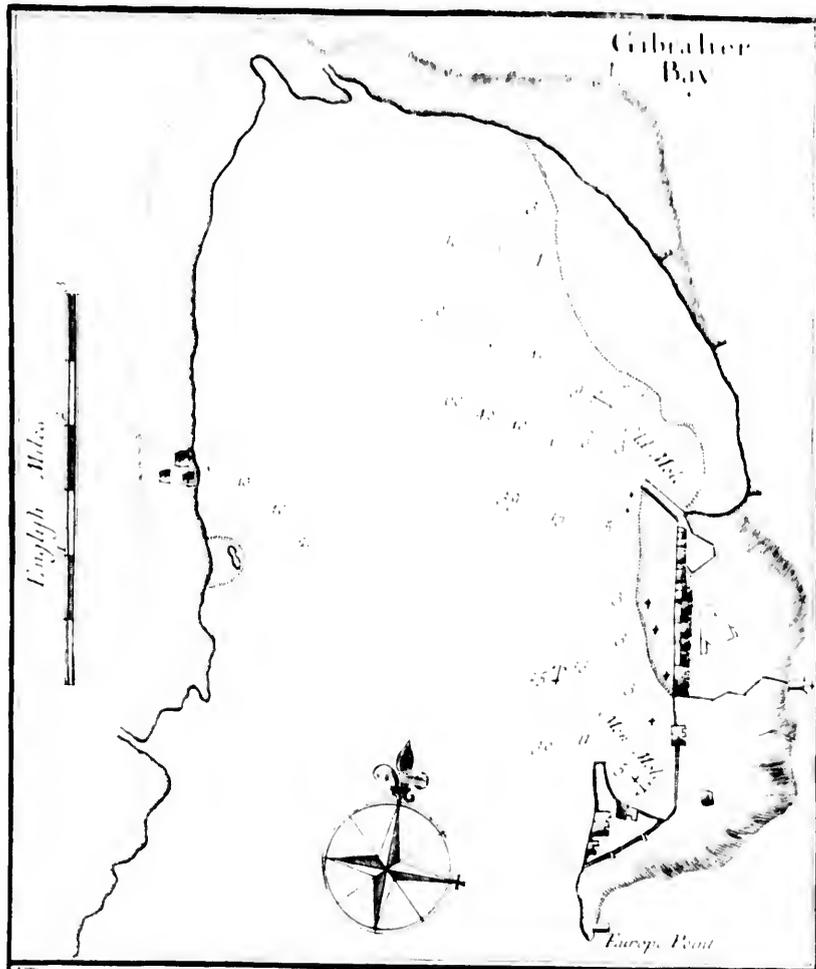
Xio or Sio

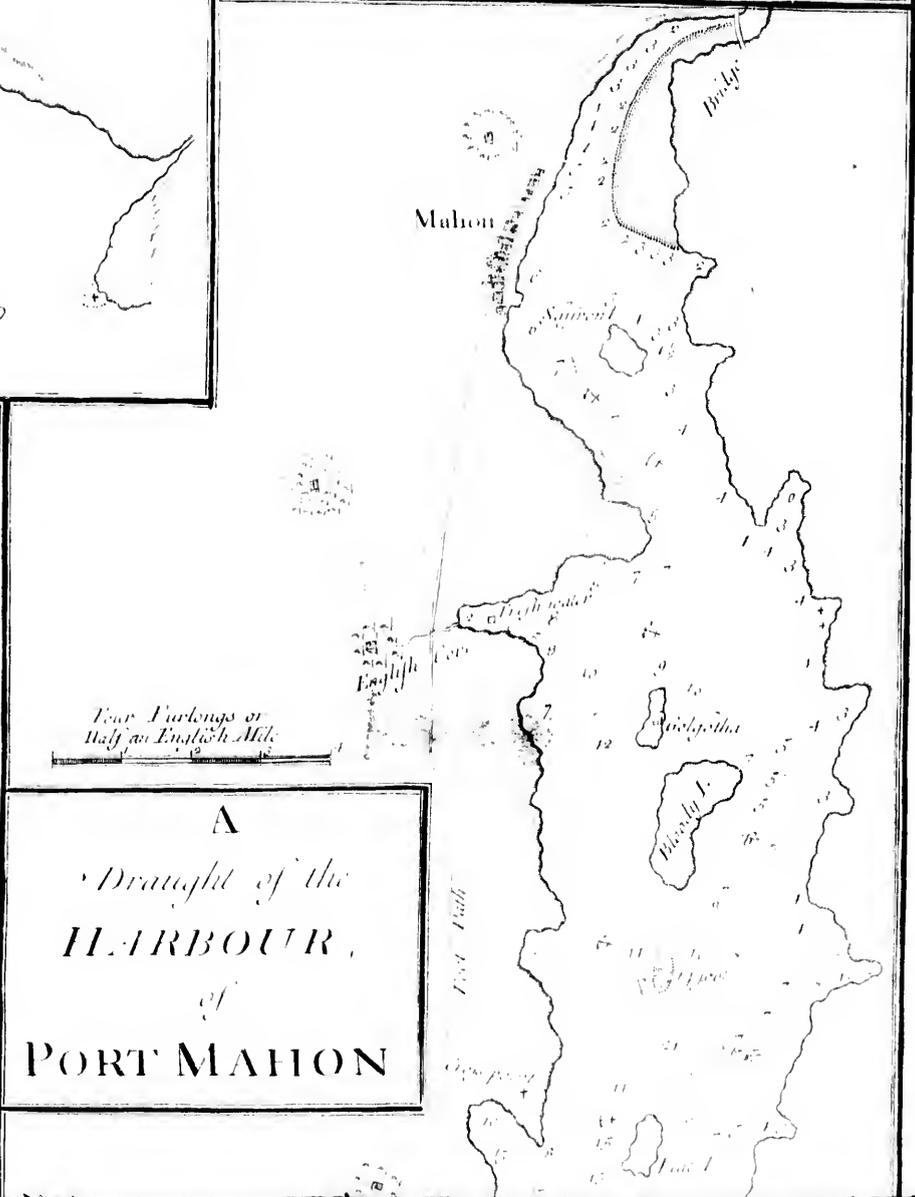
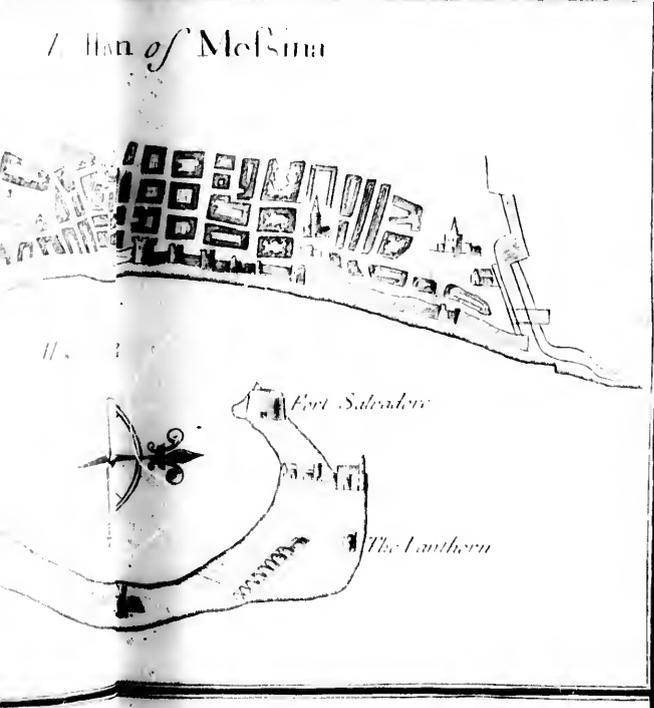
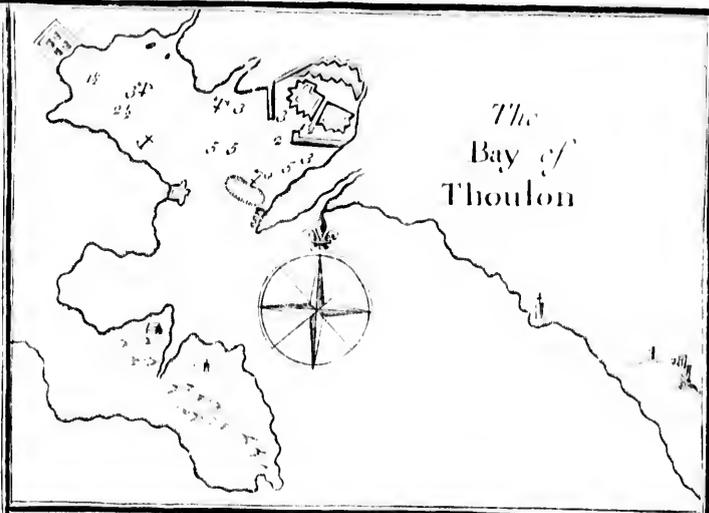
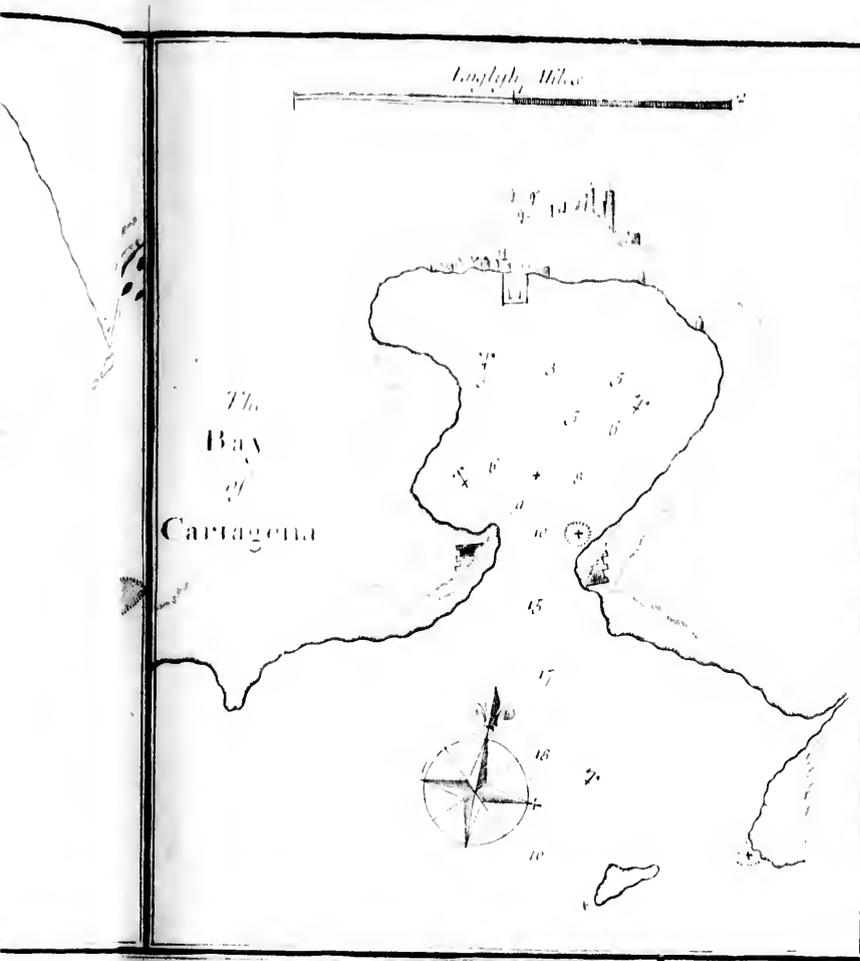


*The Road before
TRIPOLI*



10



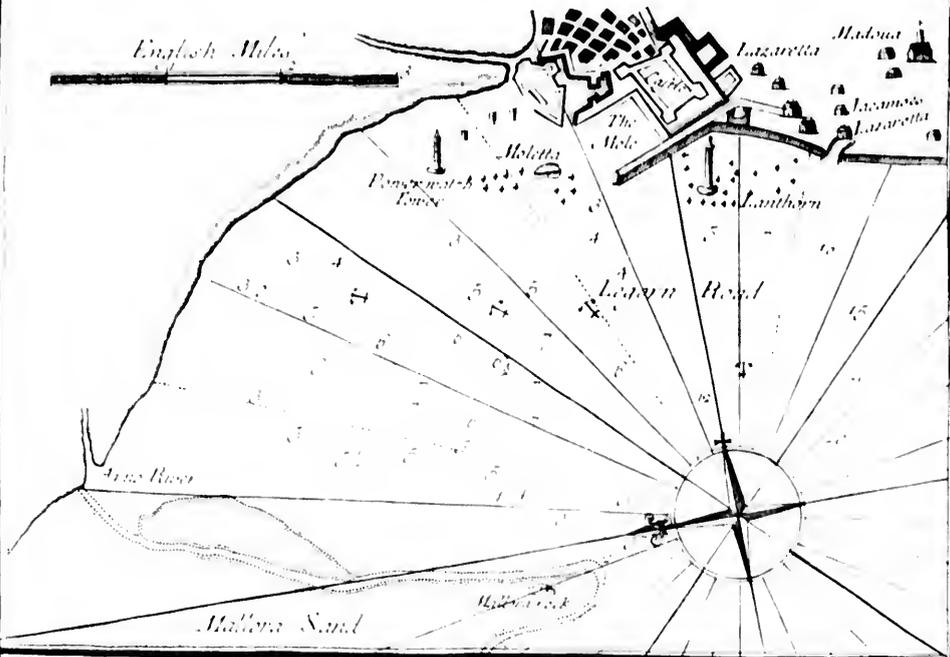


MALTA

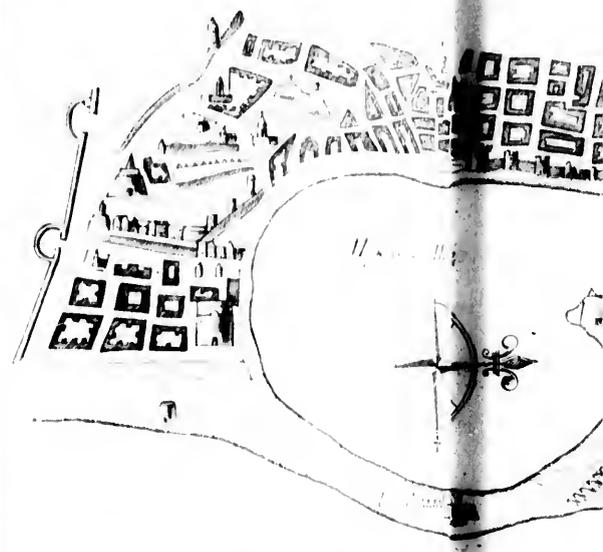


Europe Point

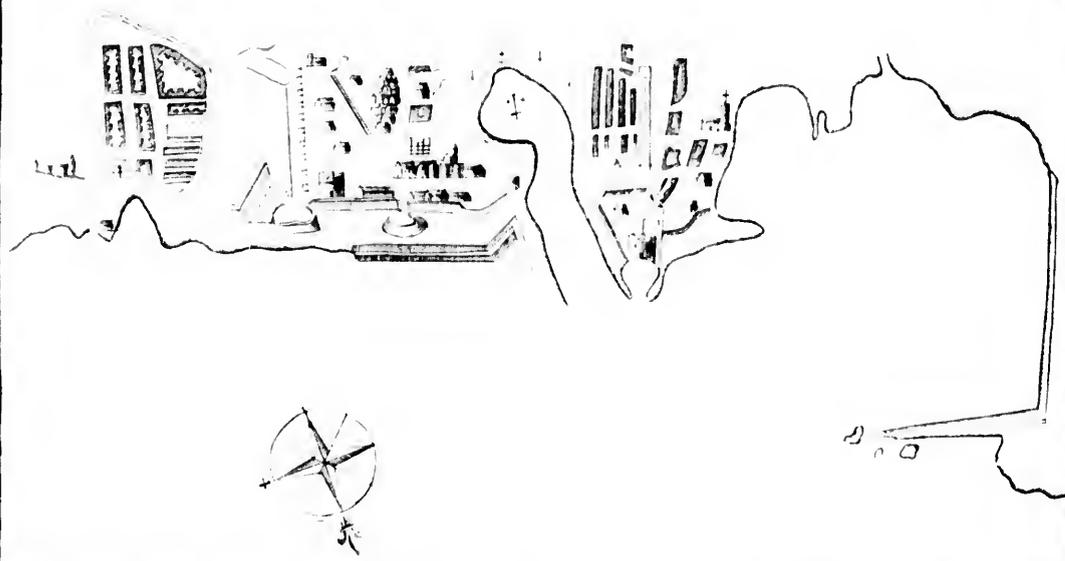
LEGORN



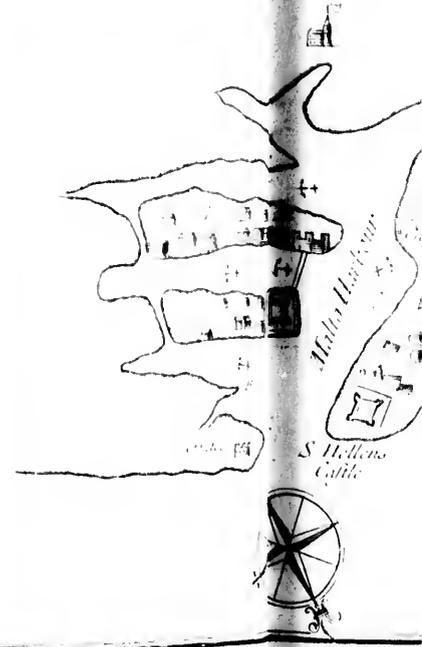
The Haven of Mel



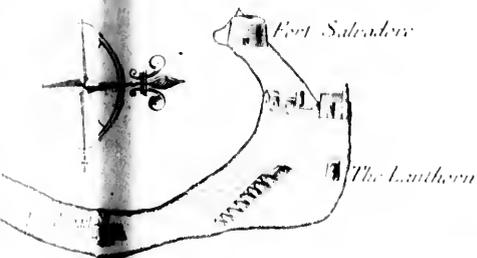
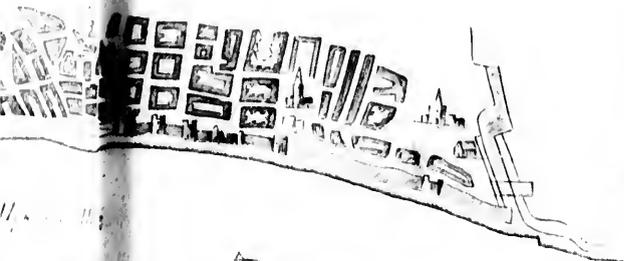
The Haven of Palermo



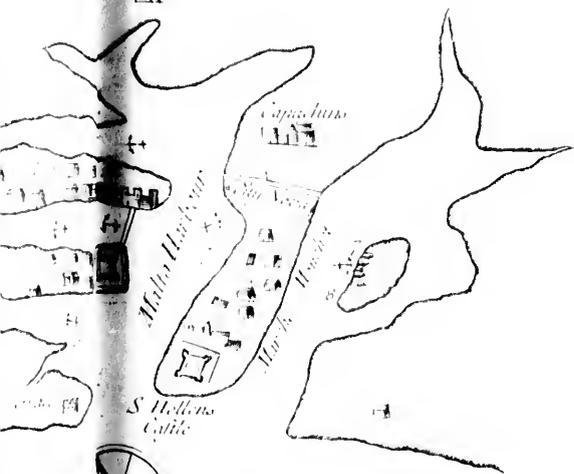
MALTA



11 Haven of Melina



MALTA



English Miles



Four Furlongs or
Half an English Mile

A
Draught of the
HARBOUR,
of
PORT MAHON

S. Stephens Cove

Philips
Town

Philips
Castle



Mulion

East Path

Open point

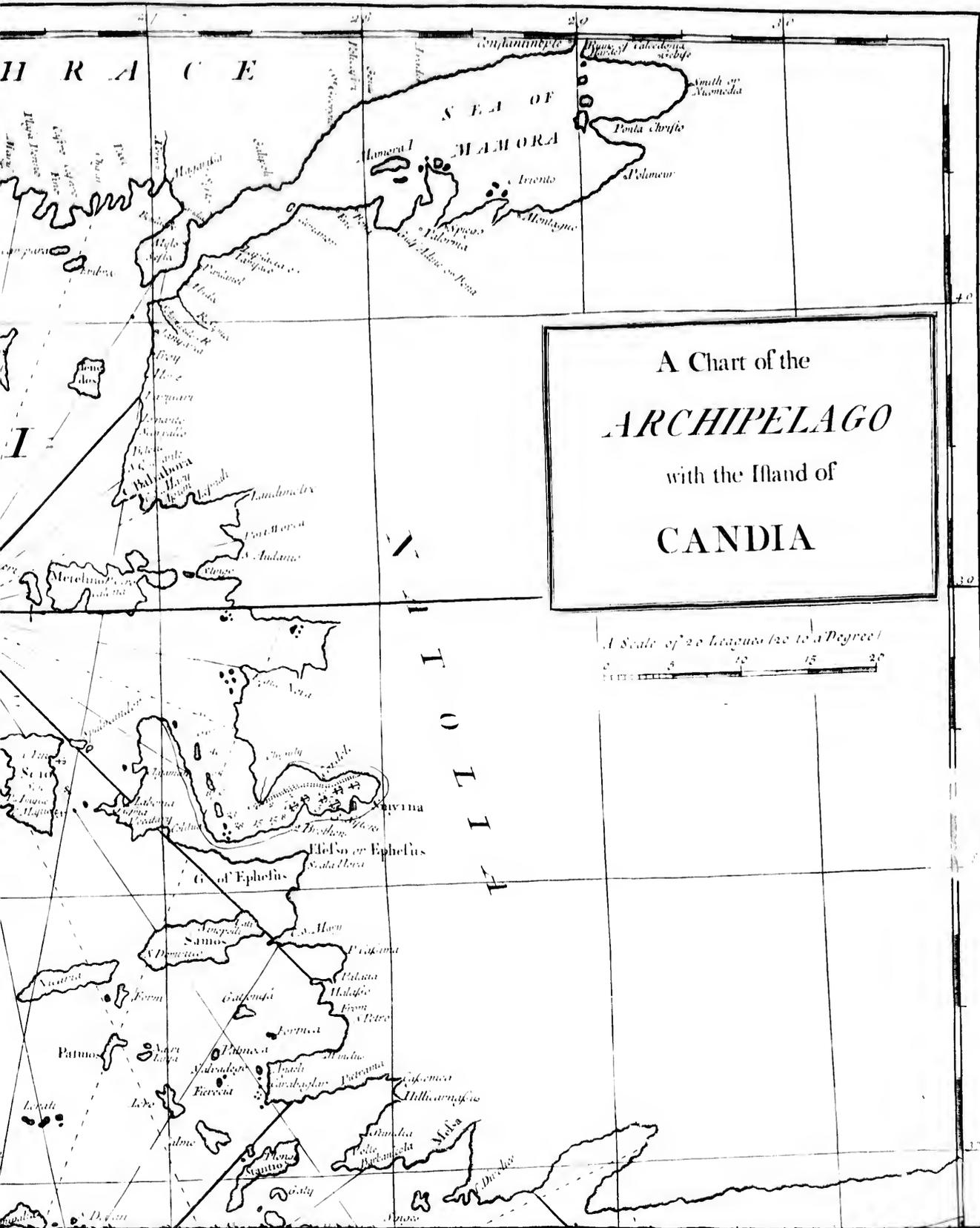
Philips

a Pond

West Tower



G R E F C E



A Chart of the
ARCHIPELAGO
 with the Island of
CANDIA

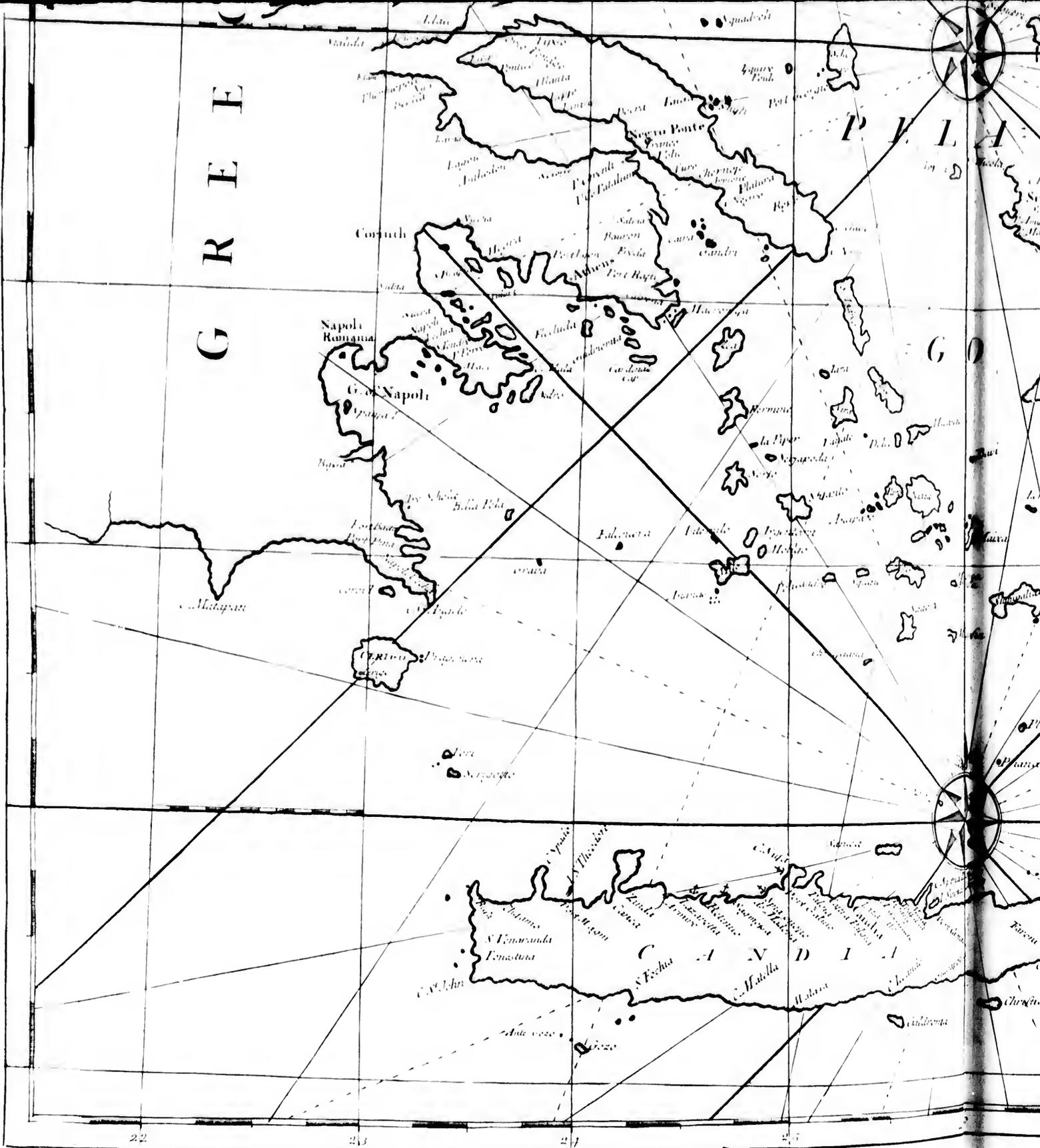
A Scale of 20 Leagues to a Degree

G R E E K

I Y L I

G O

C A N D I A



3

H

*A NEW & CORRECT
 CHART
 OF THE COAST OF
 GUINEA
 From Cape Verd to Cape Negro.*

I N E A

Guinea Coast

Gold Coast

BIGHT OF BENIN

BENIN

BIAFARA

GABON

LOAN GO

CON

GO

H E

R E T H I O P I C K

E A N



London

Map of the Atlantic Ocean showing the eastern coast of North America. Labels include: Maryland, Delaware, Pennsylvania, Virginia, North Carolina, South Carolina, Georgia, Florida, and various rivers like the Chesapeake, James, and Savannah. The word "Atlantic" is written vertically along the coast.

THE

ATLANTIC OCEAN

OCEAN

of the

Scale



T H E

A New and Correct
CHART
of the Coast of
AFRICA
From Cape Negro to Cape Bona Esperance

A Scale of 40 Leagues / 20 to a degree



O R

S O U T H E R N

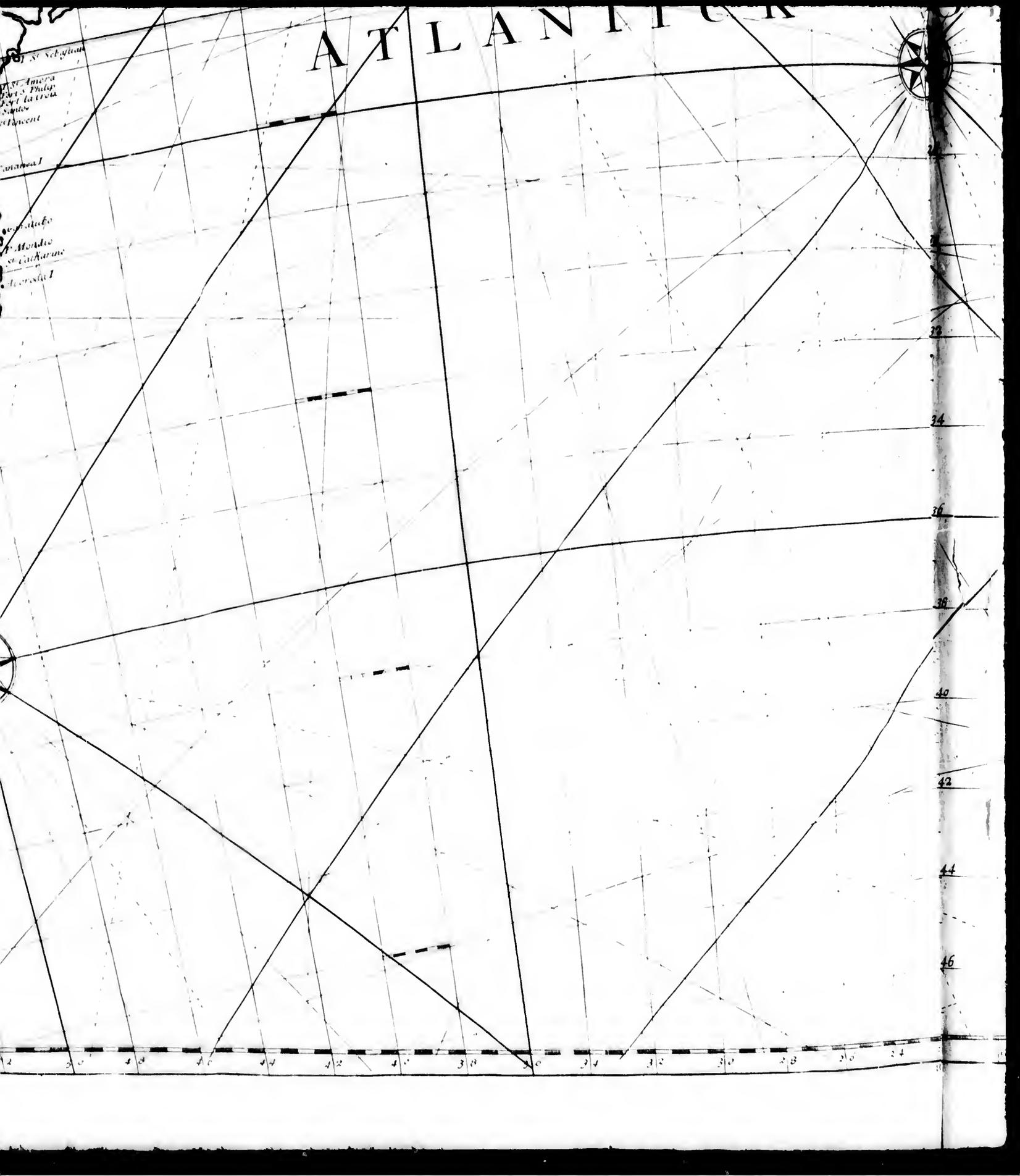
O C E A N



St. Helena

Trifun da Cunha

ATLANTIC

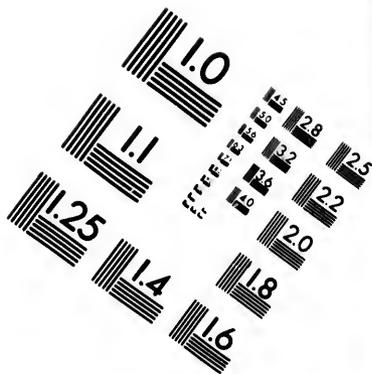
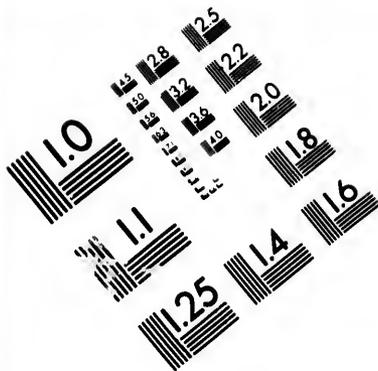


OCEAN

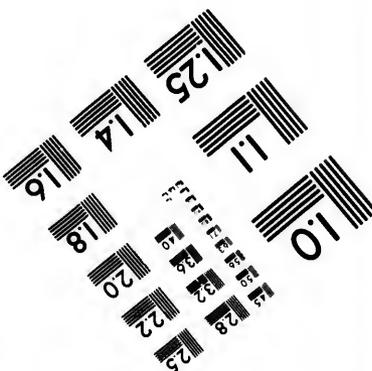
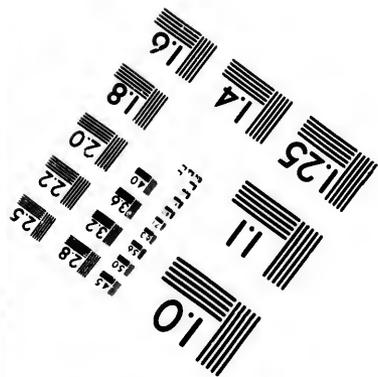
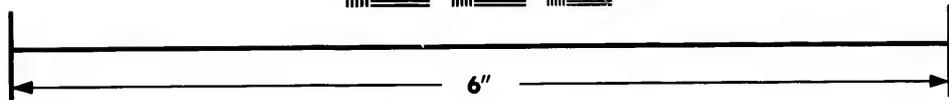
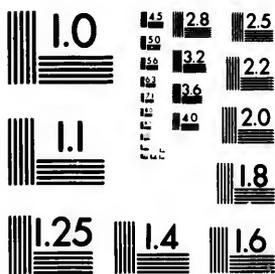
Tulani da Cunha
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**IMAGE EVALUATION
TEST TARGET (MT-3)**

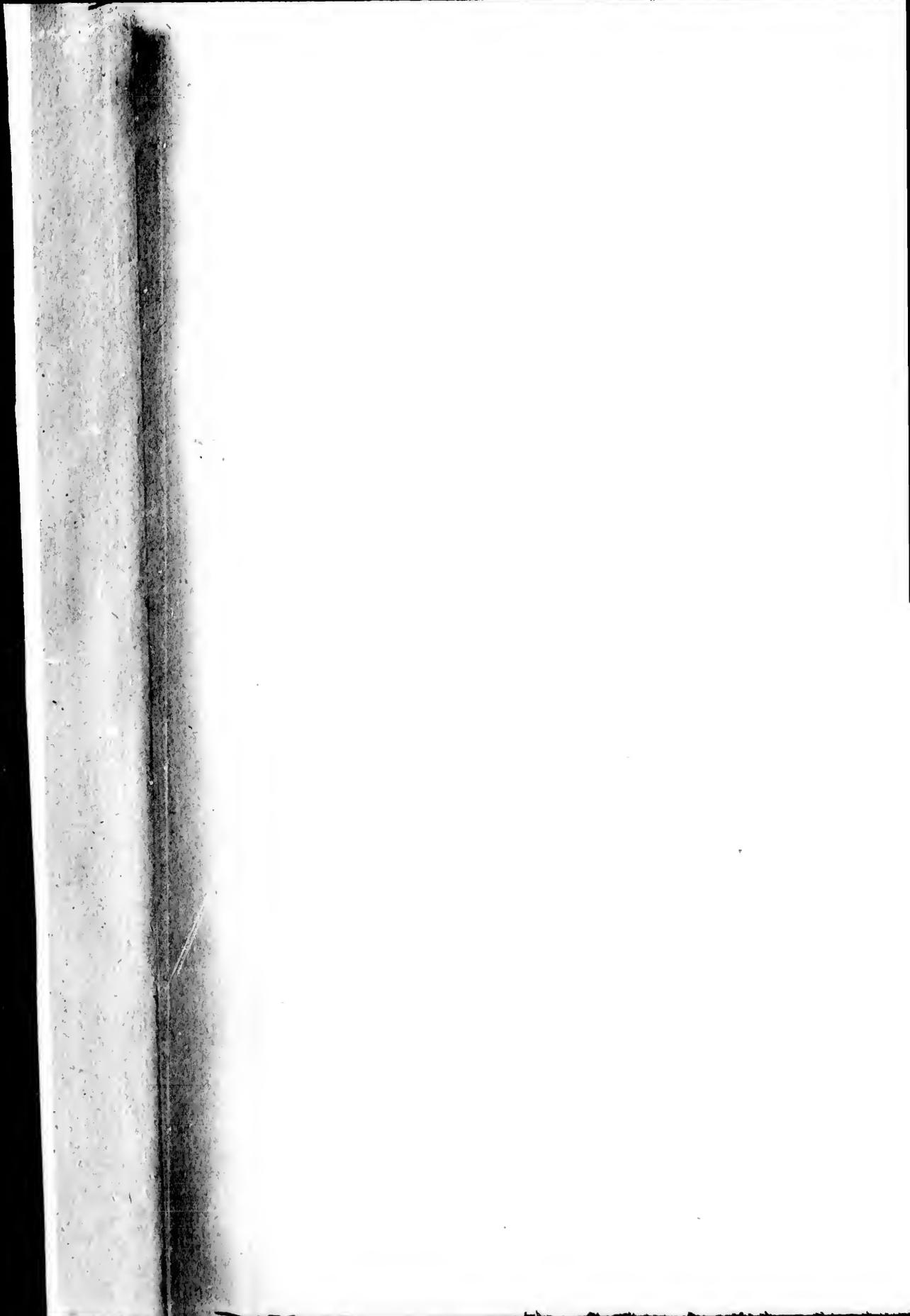


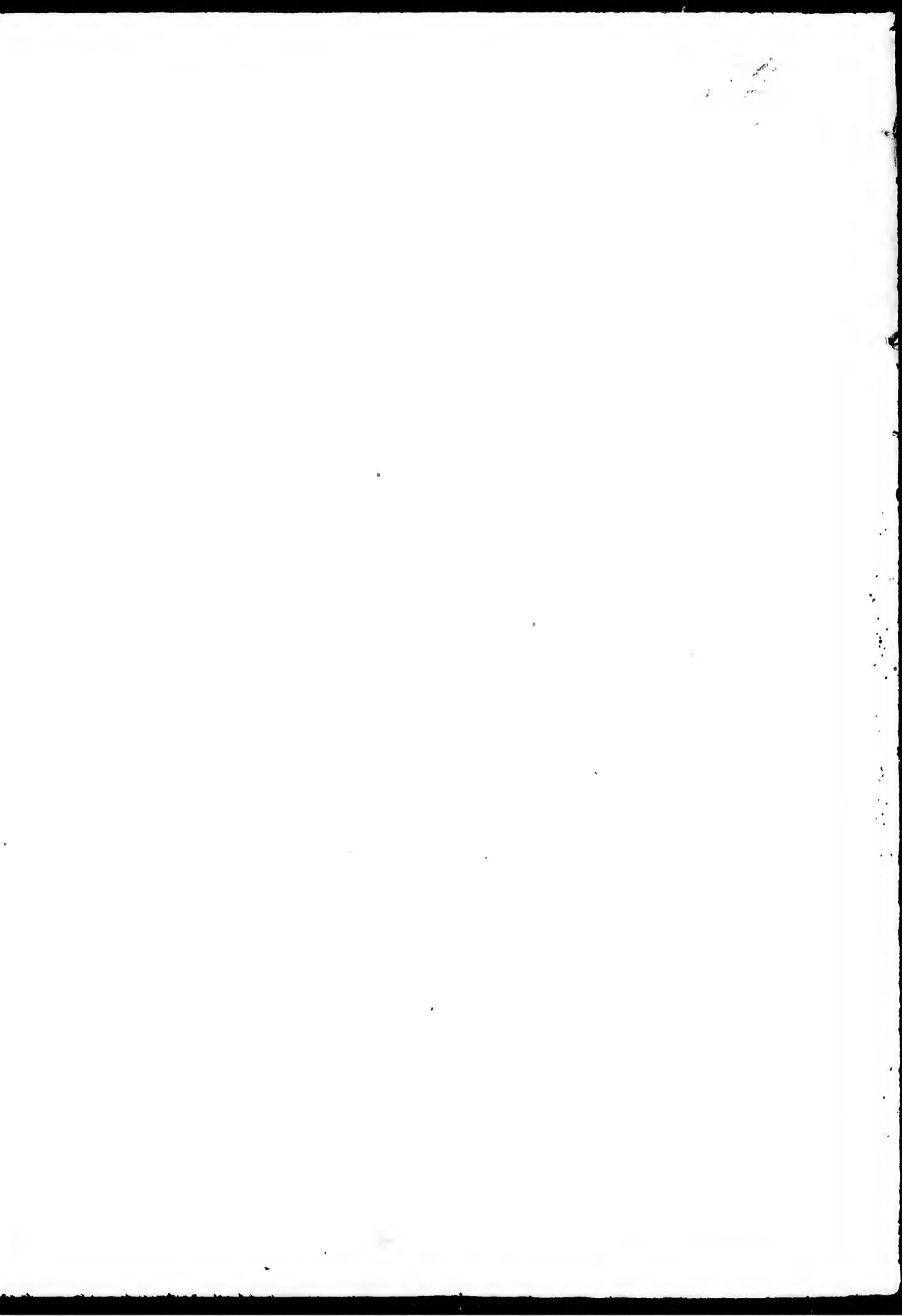
**Photographic
Sciences
Corporation**

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

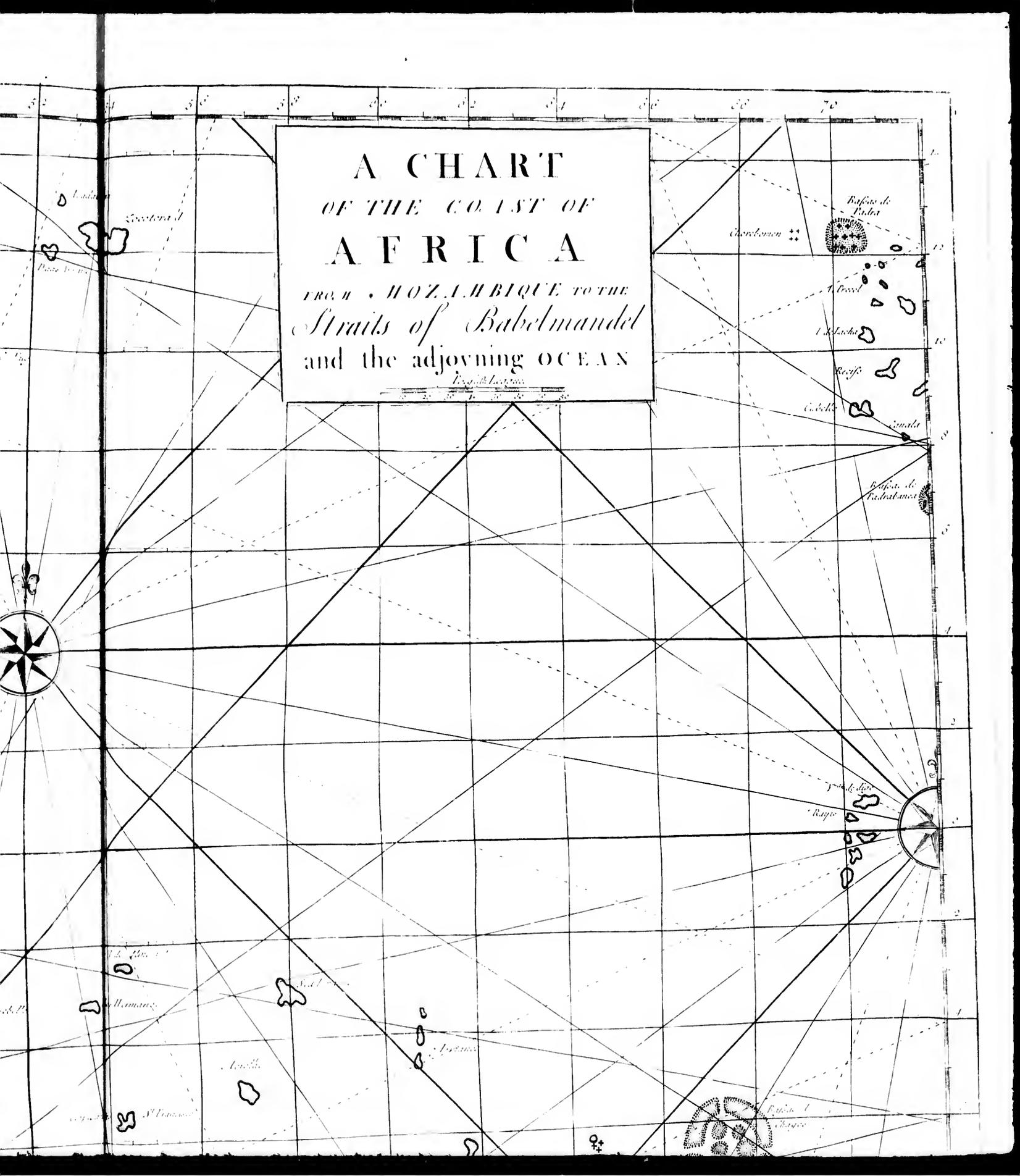
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2.8 3.2 3.6 4.0 4.5
5.0 5.6 6.3 7.1 8.0

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A CHART
OF THE COAST OF
AFRICA
FROM MOZAMBIQUE TO THE
Straits of Babelmandel
and the adjoining OCEAN



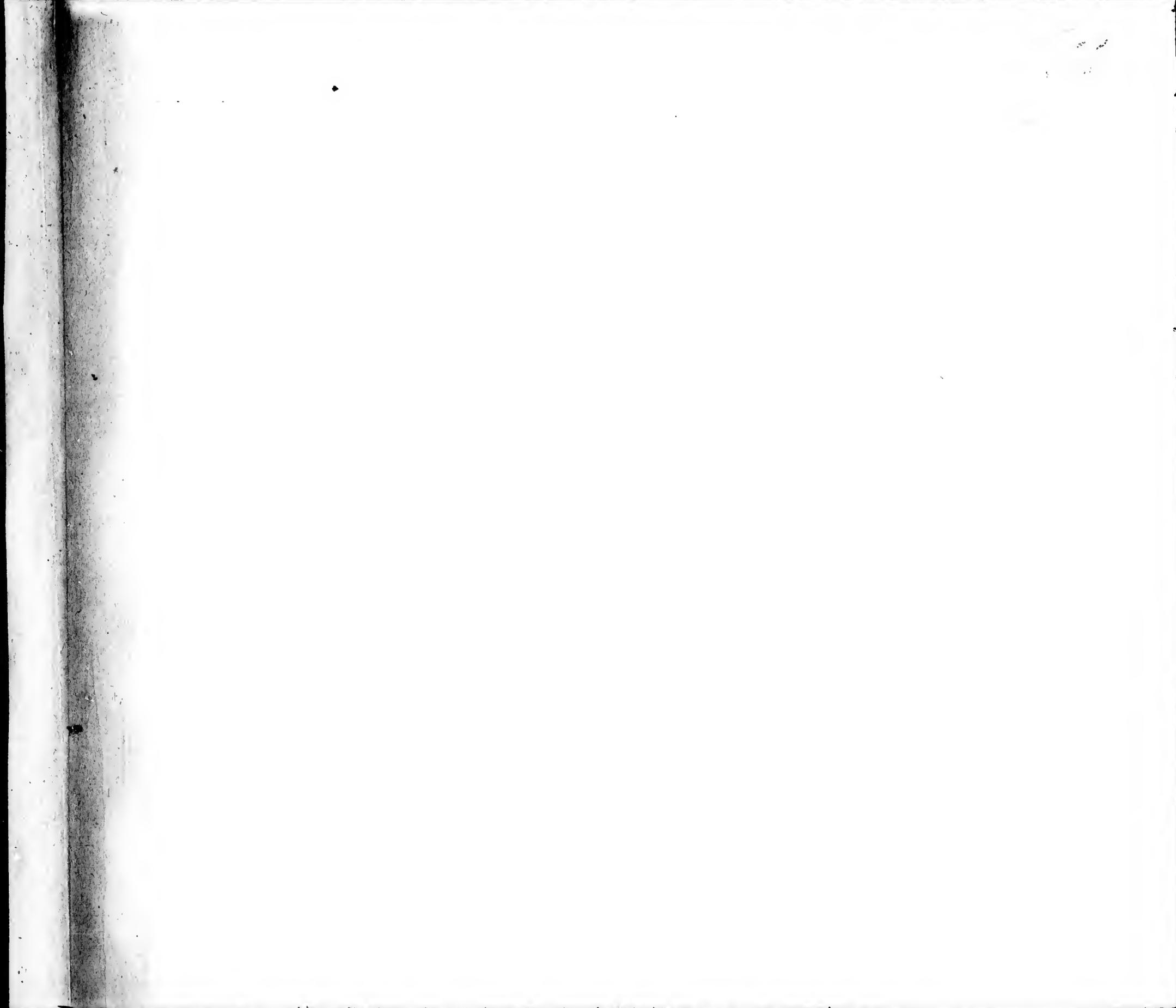
Socotora
D. Inda
D. Inda

Bafas de Inda
Cabo de Natal
Cabo de Natal
Cabo de Natal
Cabo de Natal
Cabo de Natal

Straits of Babelmandel
Cabo de Natal
Cabo de Natal

Straits of Babelmandel
Cabo de Natal
Cabo de Natal
Cabo de Natal
Cabo de Natal

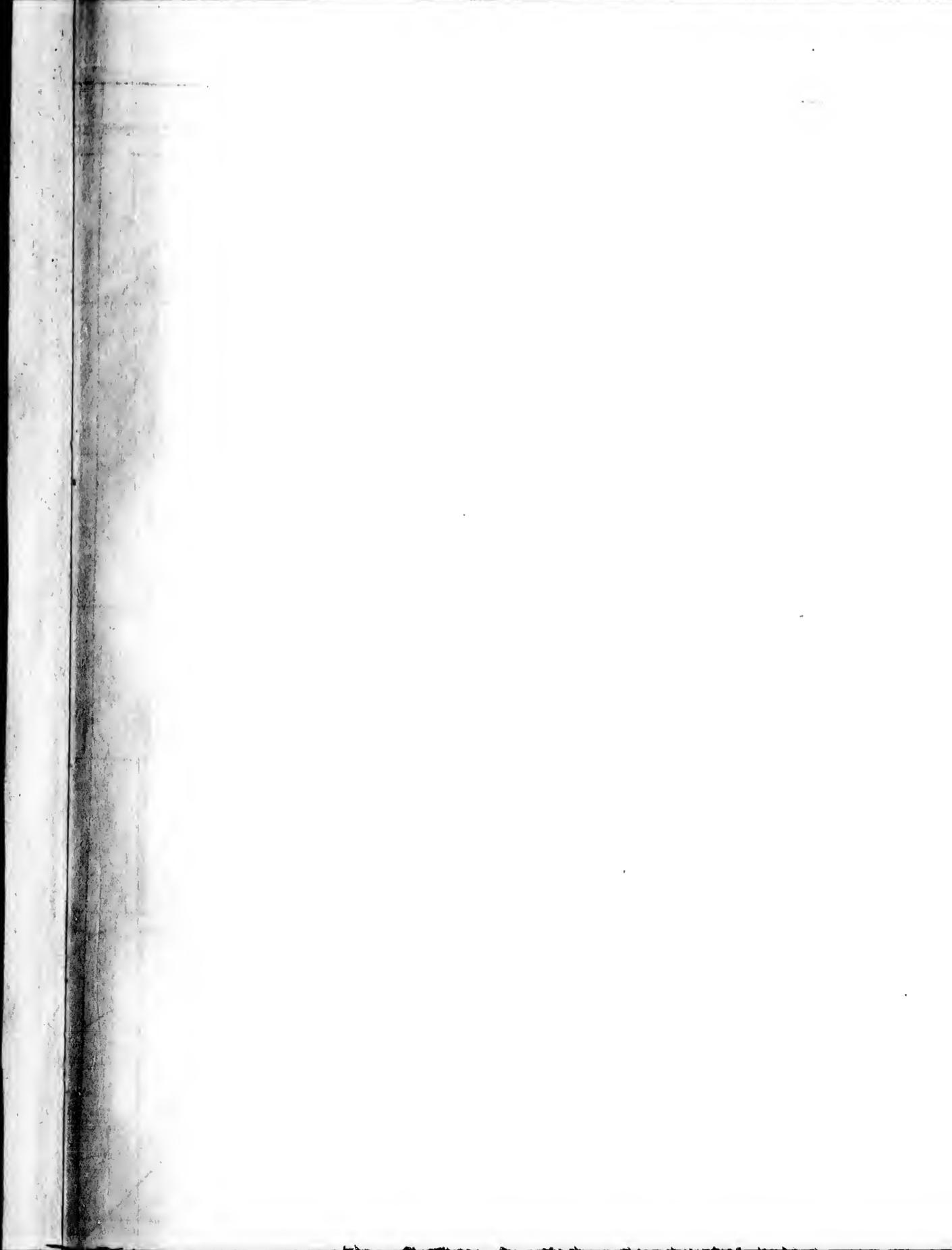
Cabo de Natal
Cabo de Natal



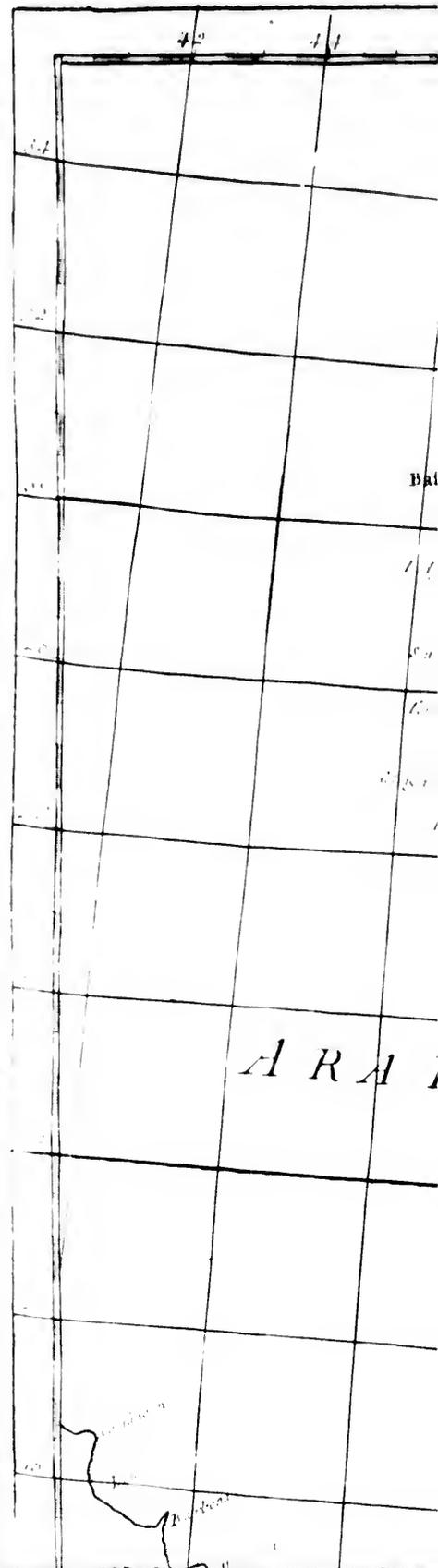
Canal
Candelo
Canala
Candelo
Maldive
Tullis
Maldive
Candelo

A CHART
of the
EAST INDIA OCEAN
from the Islands of Maldivy
to *CAMBODIA*
From English Voyages





114



A CHART OF THE
 EAST INDIAN
 OCEAN
 from Cape Guardafoy
 TO COCHIN
 on the Coast of Malabar

S I A

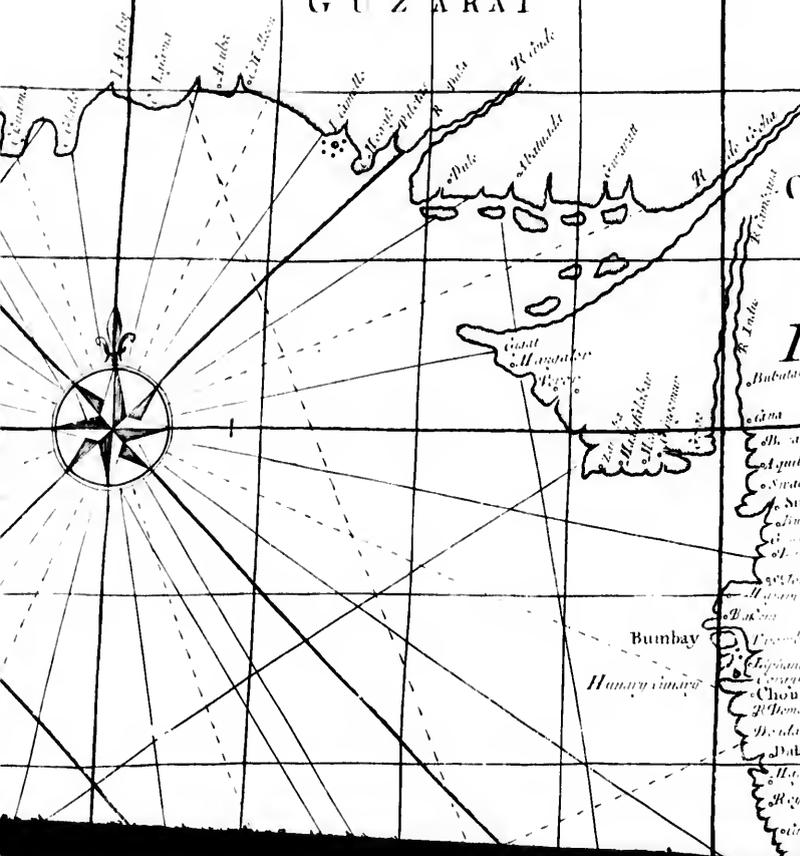
G U Z A R A T

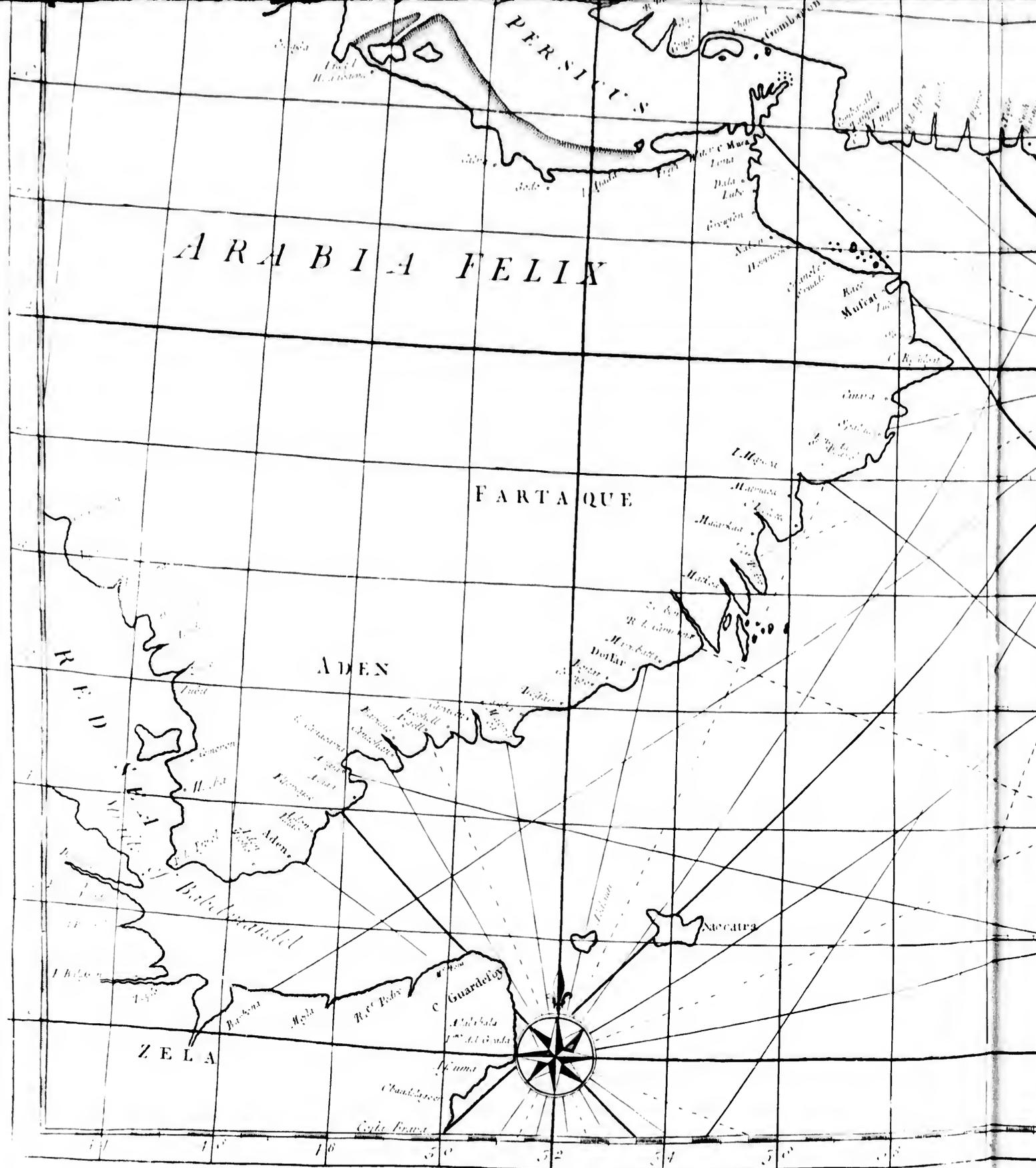
C A N B A I A

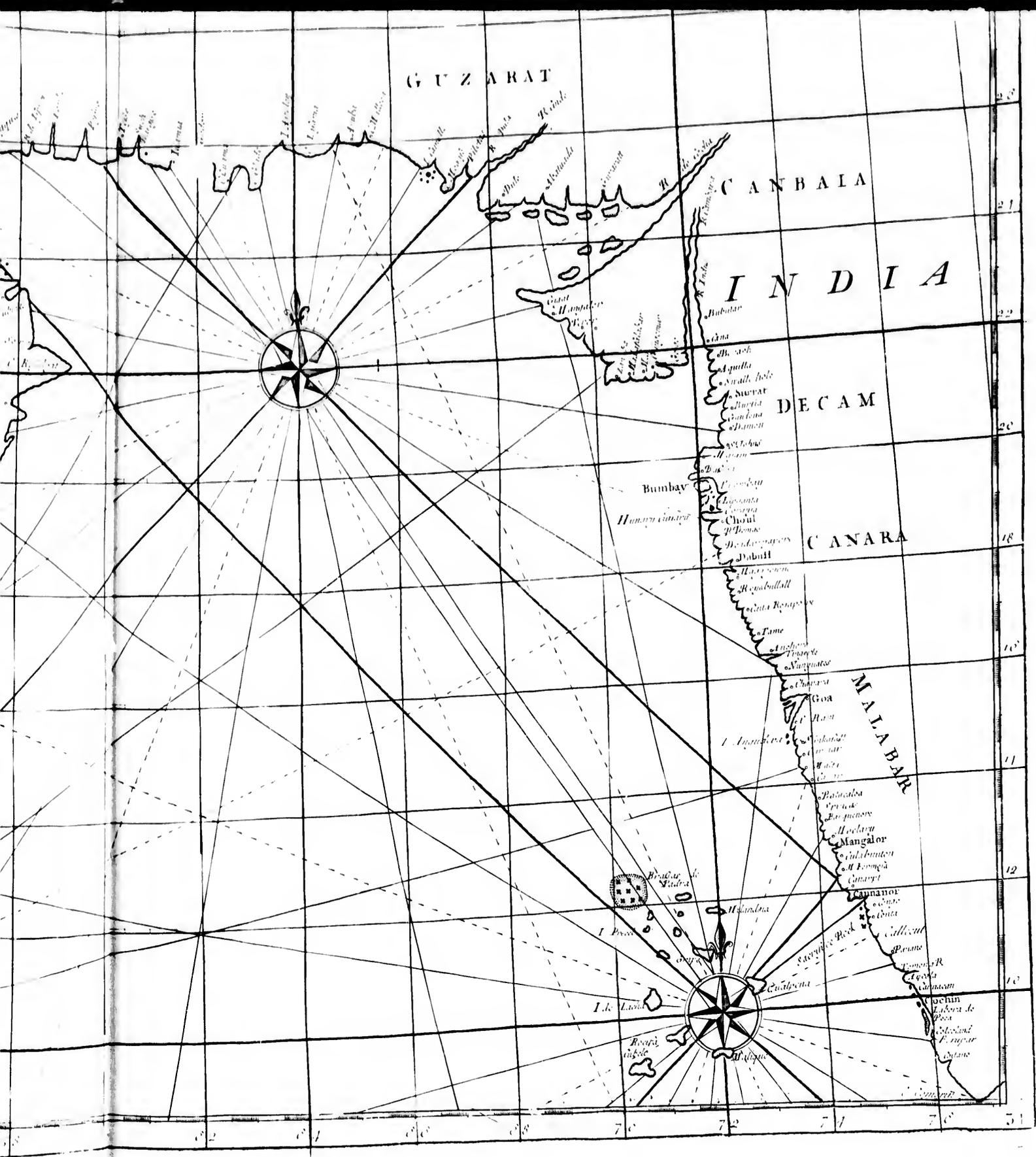
I N D I A

D E C A M

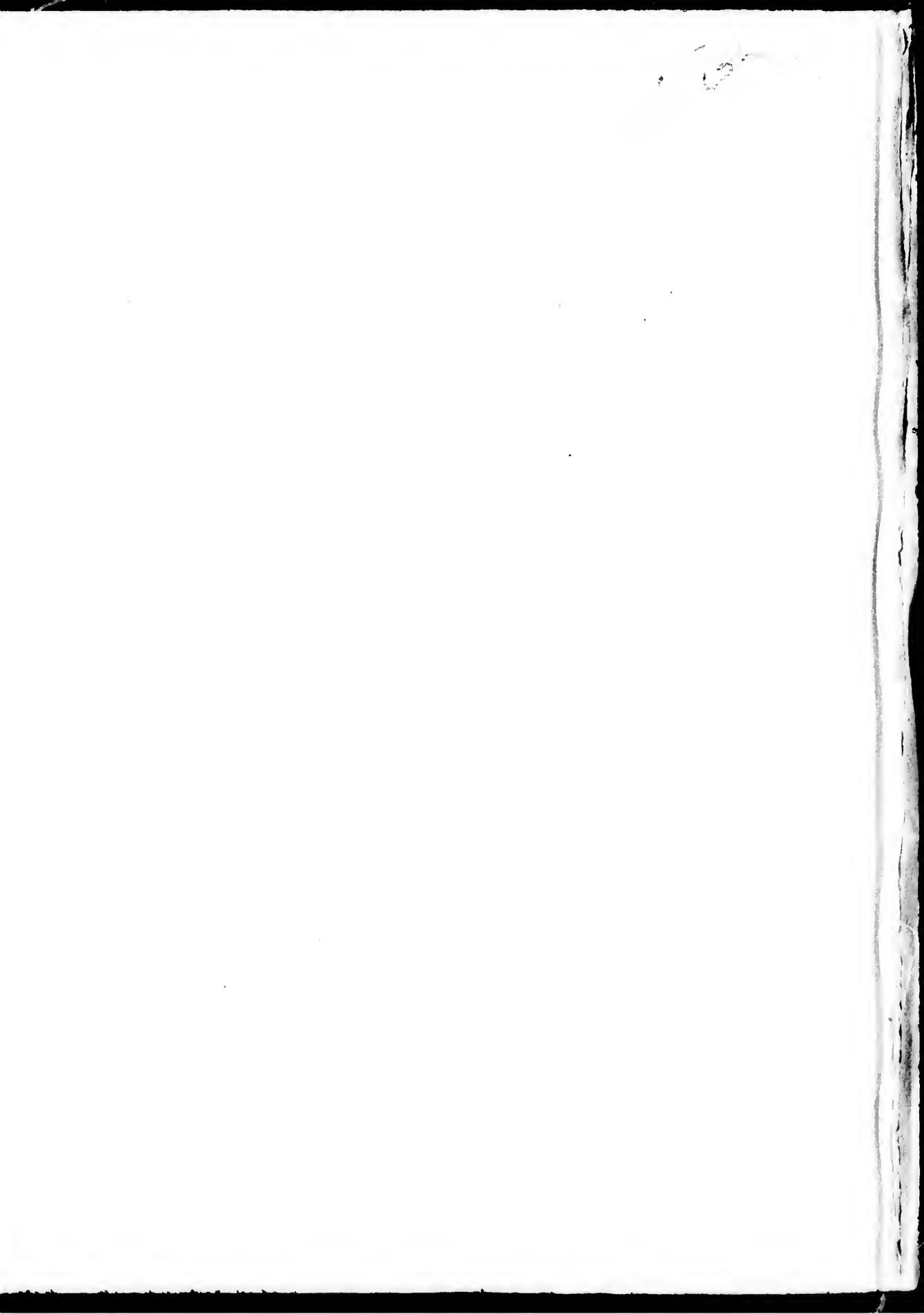
C A N A R A

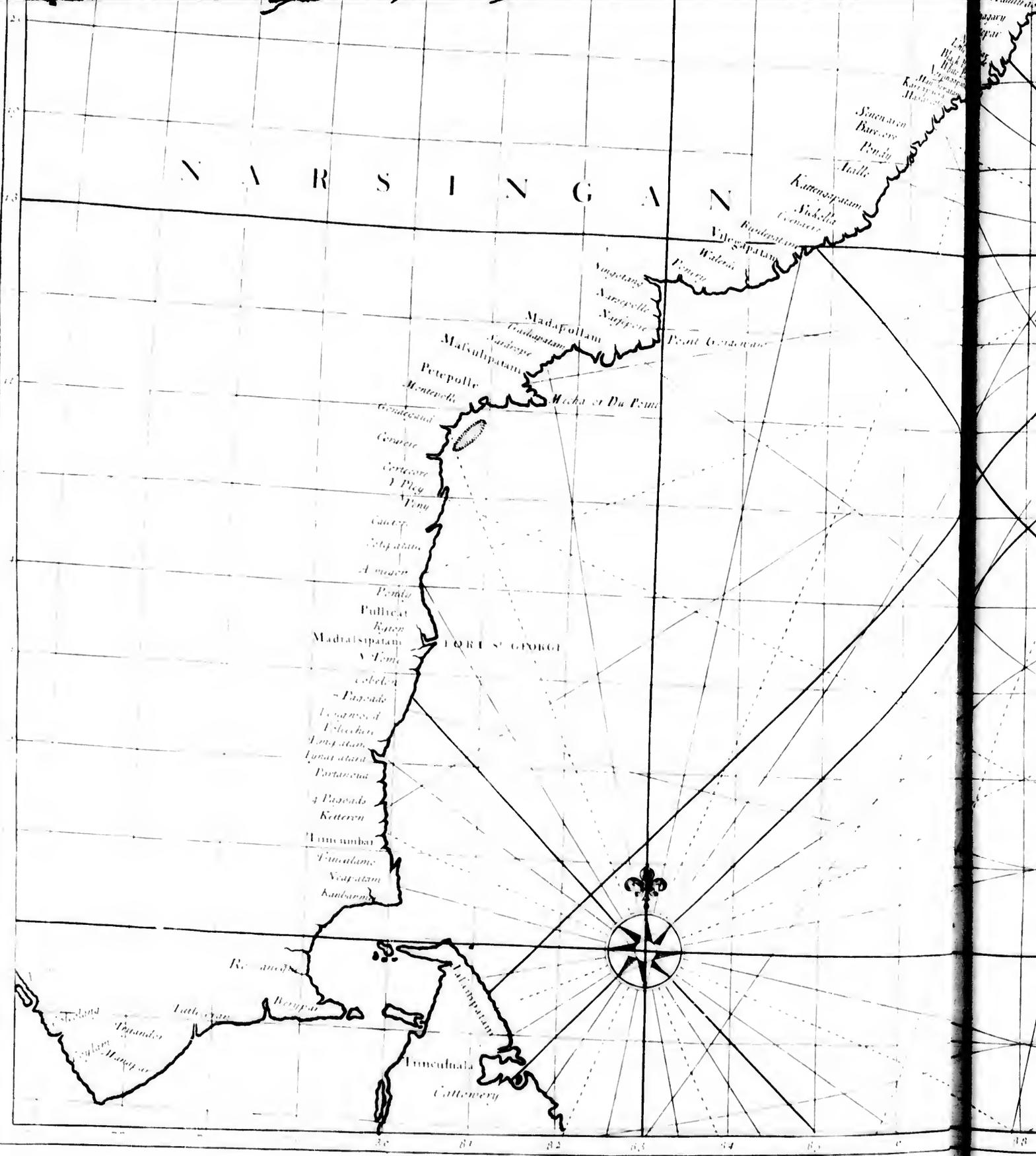












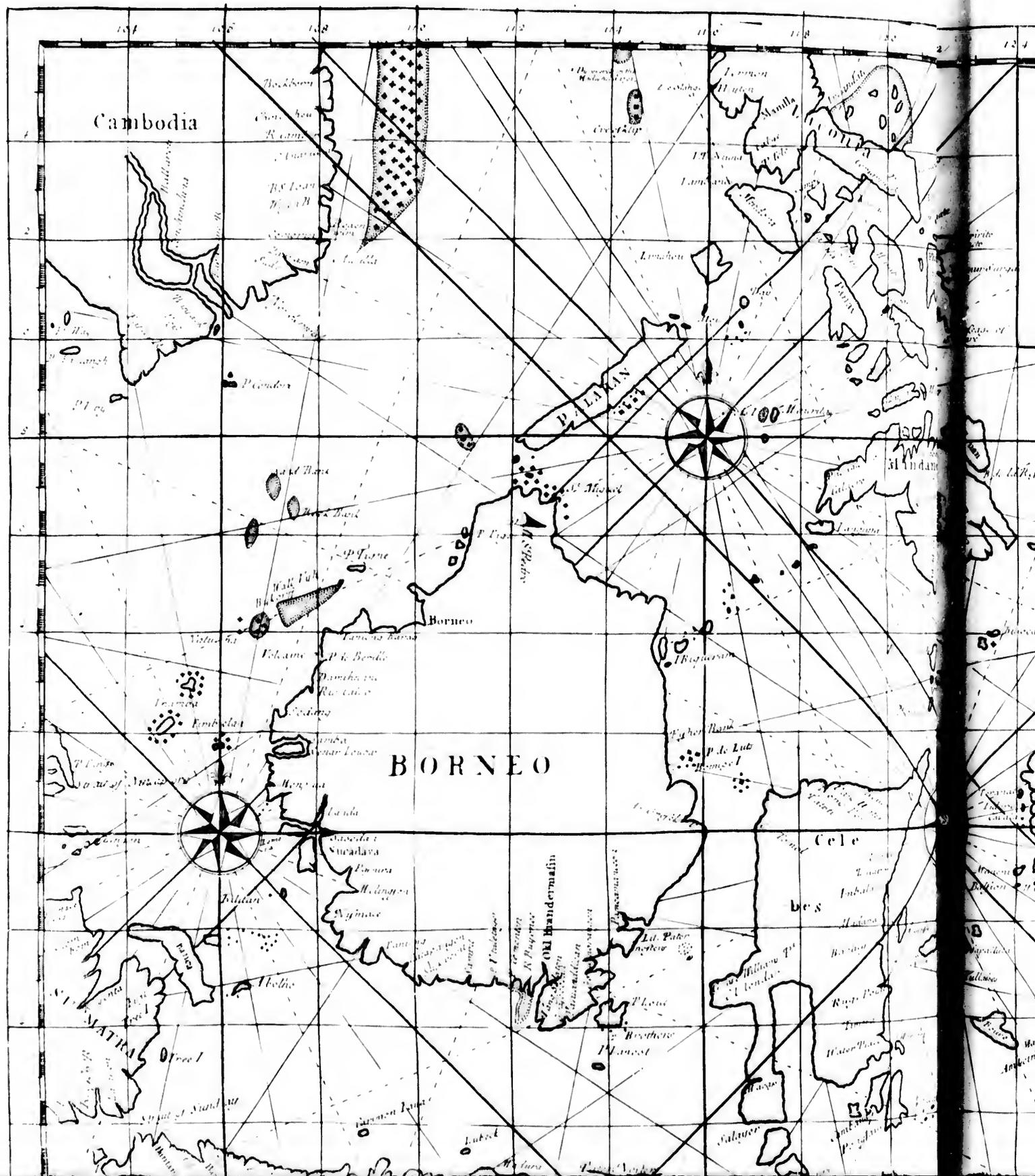
NARSINGAN

FORT ST. GEORGE

Ke...
L...
M...
T...
C...

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A Chart of
BORNEO JAVA and
the *PHILIPPINE* Islands

English Leagues

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de la *Mancha*

1. 60° *Isarum*

Palense

Meretay

Chara

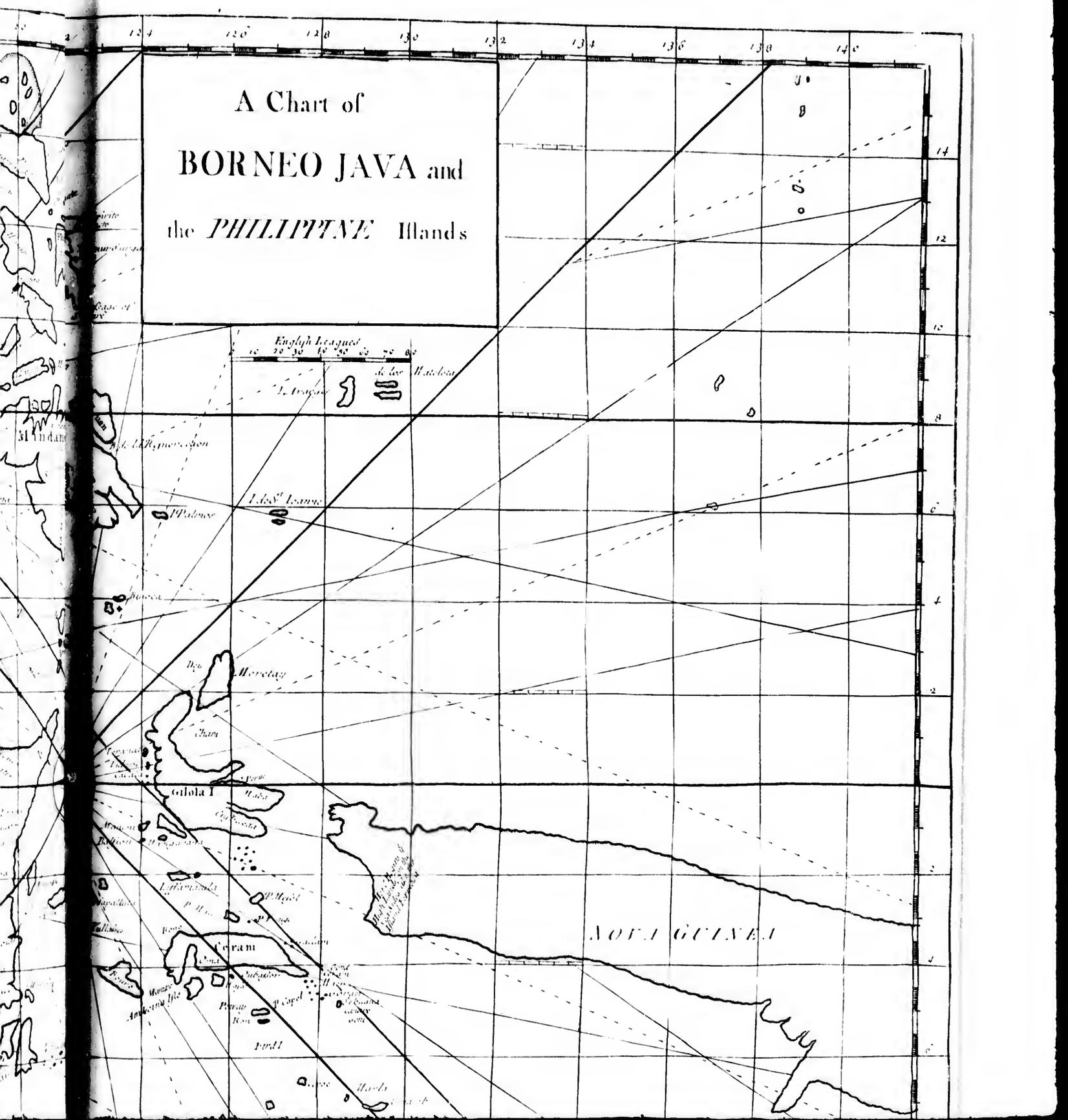
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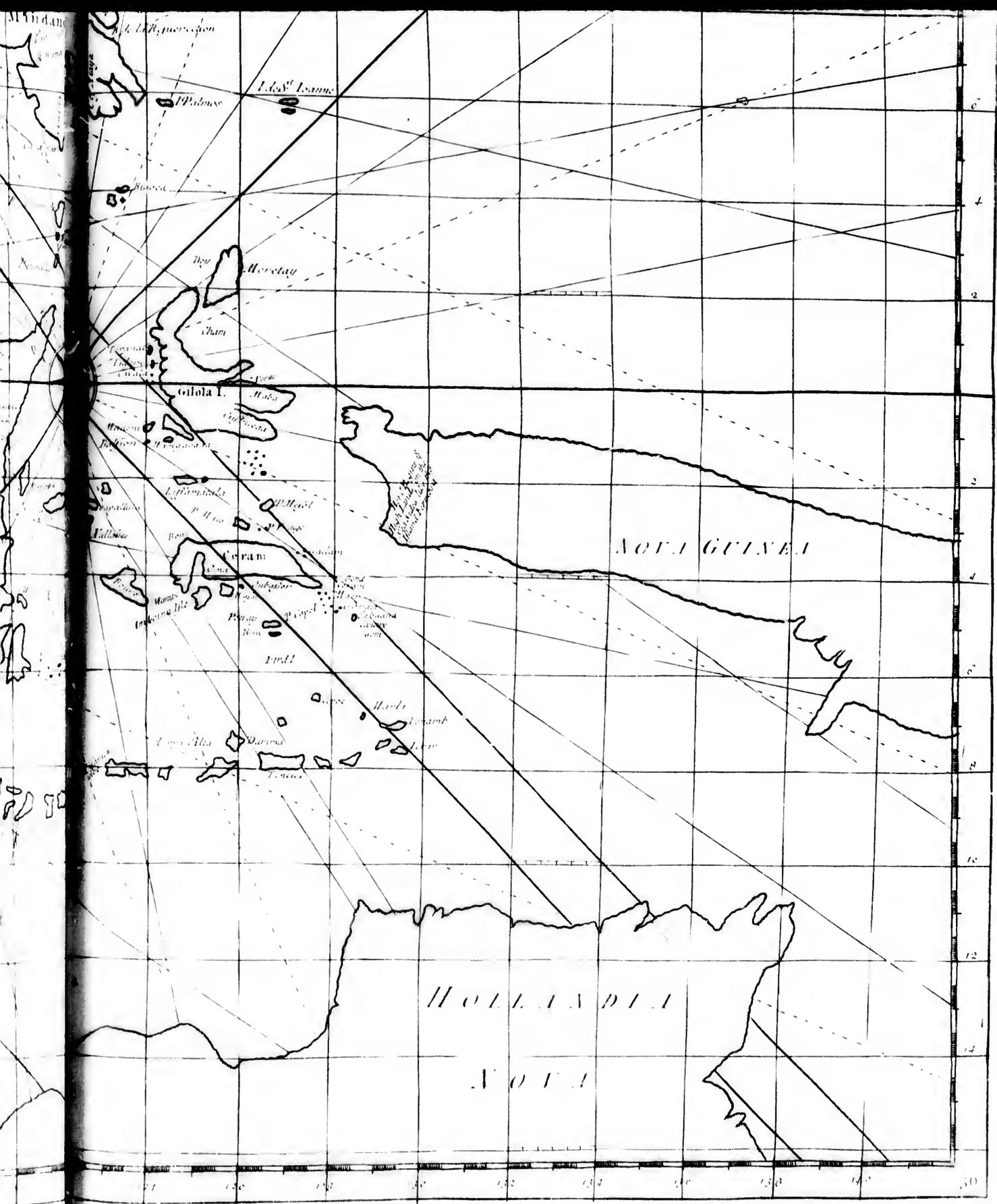
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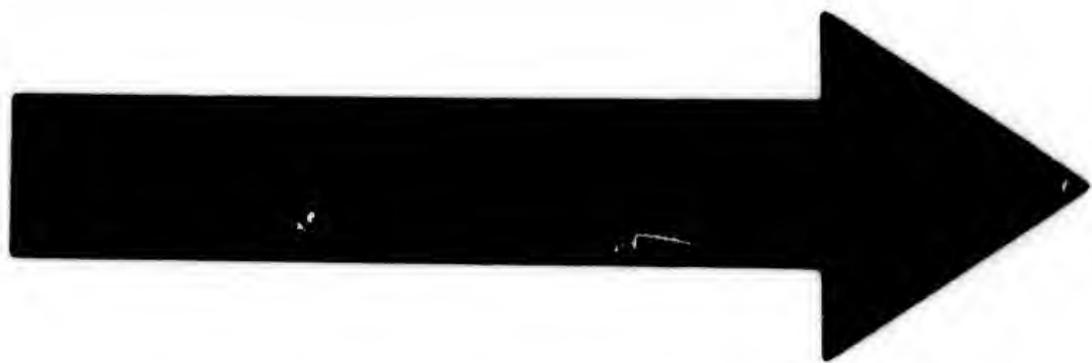
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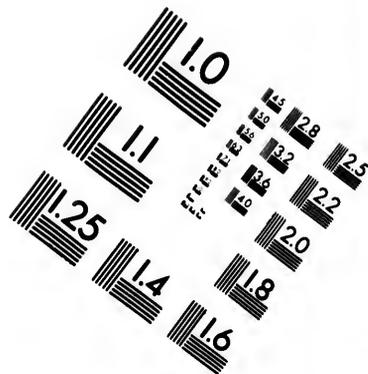
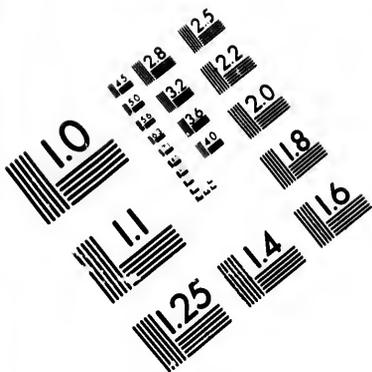
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NOVA GUINEA

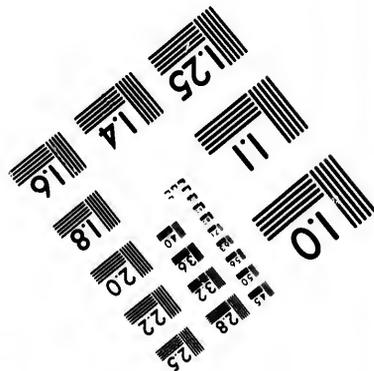
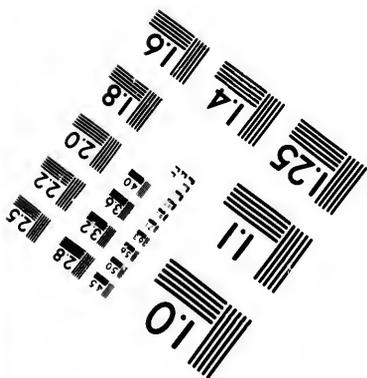
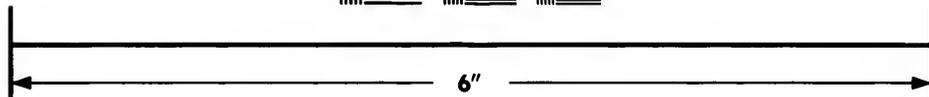
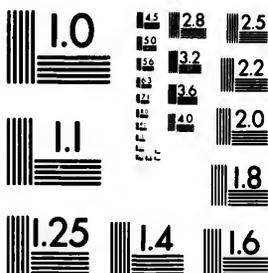








**IMAGE EVALUATION
TEST TARGET (MT-3)**

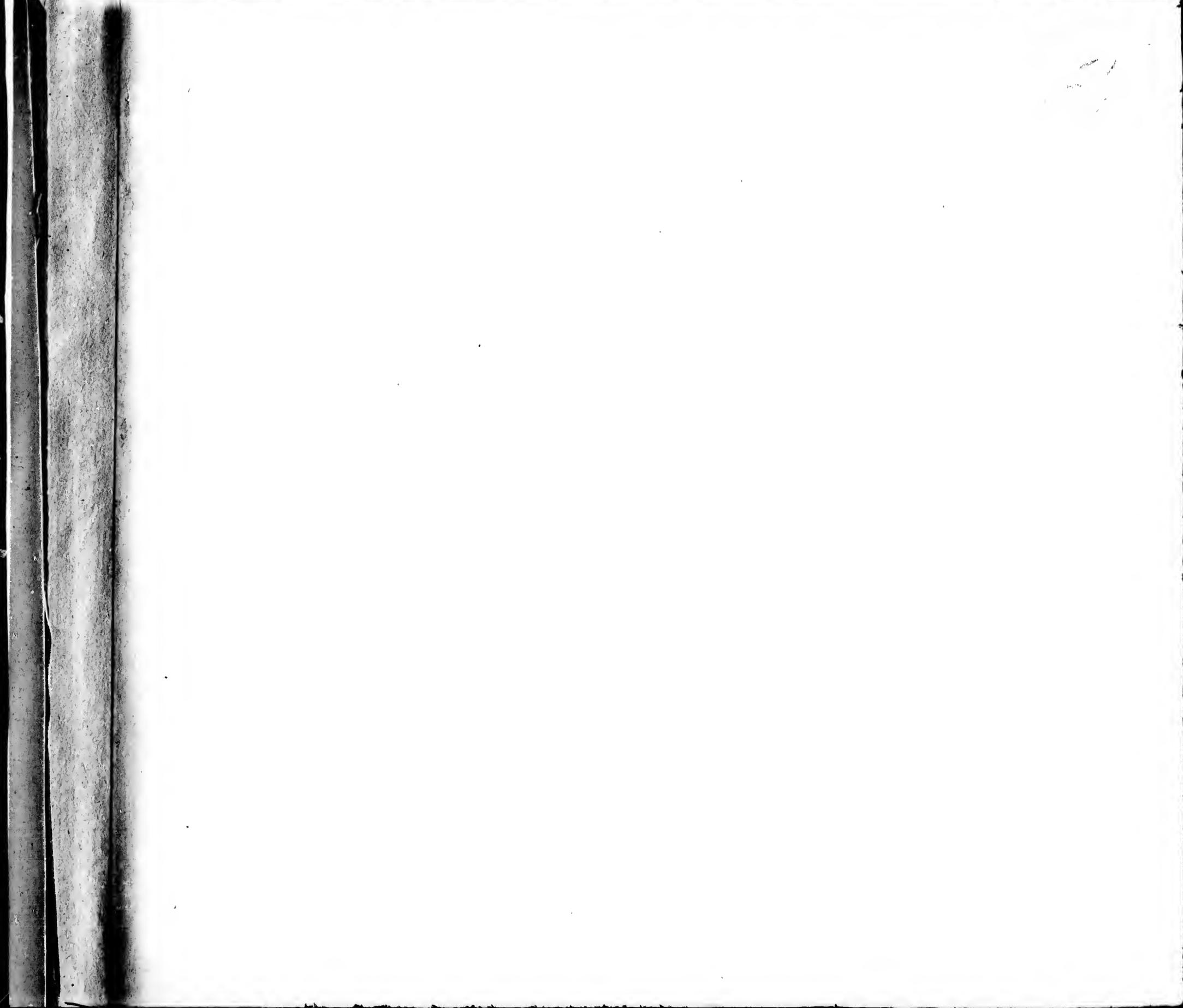


**Photographic
Sciences
Corporation**

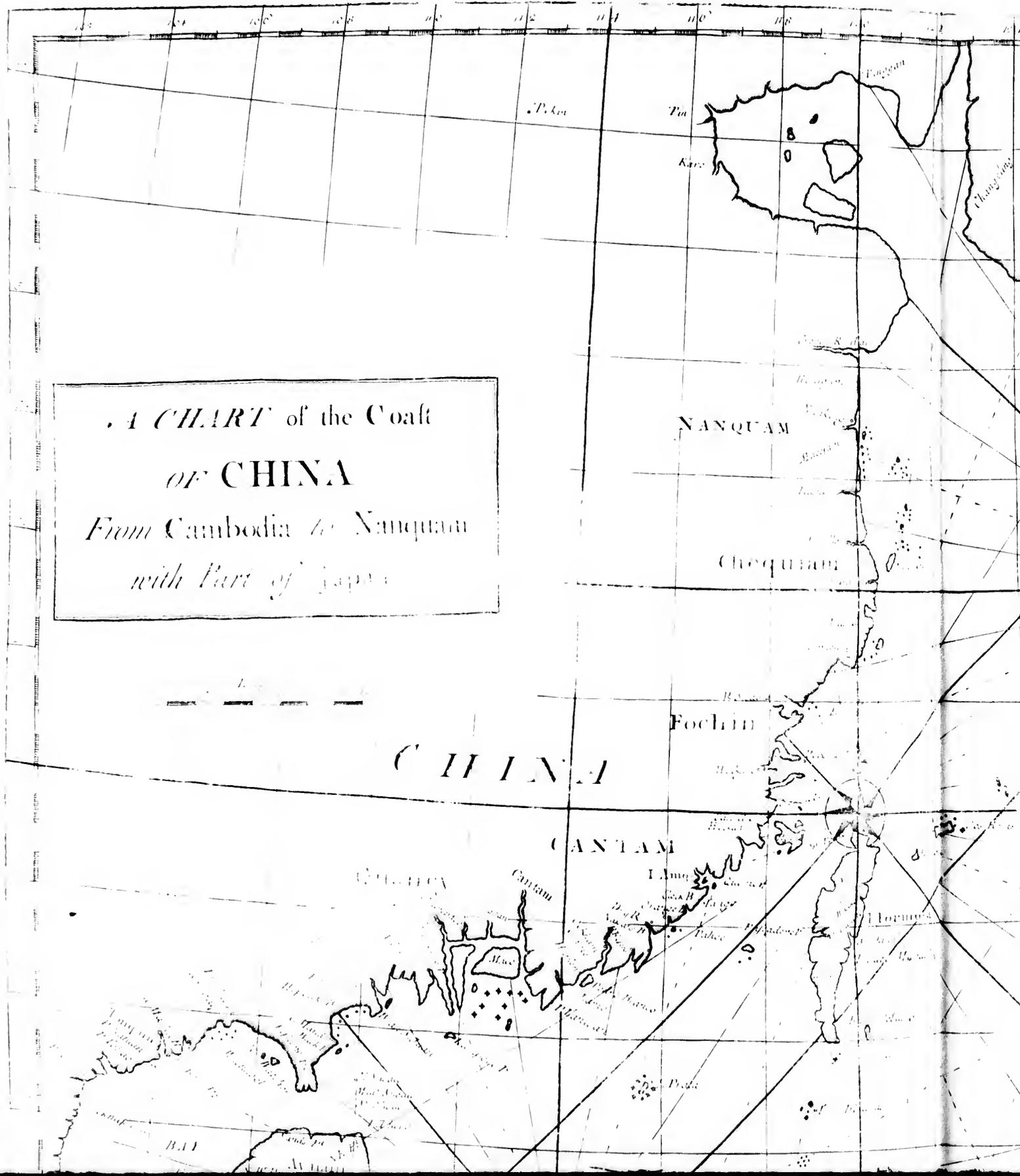
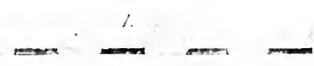
23 WEST MAIN STREET
WEBSYER, N.Y. 14580
(716) 872-4503

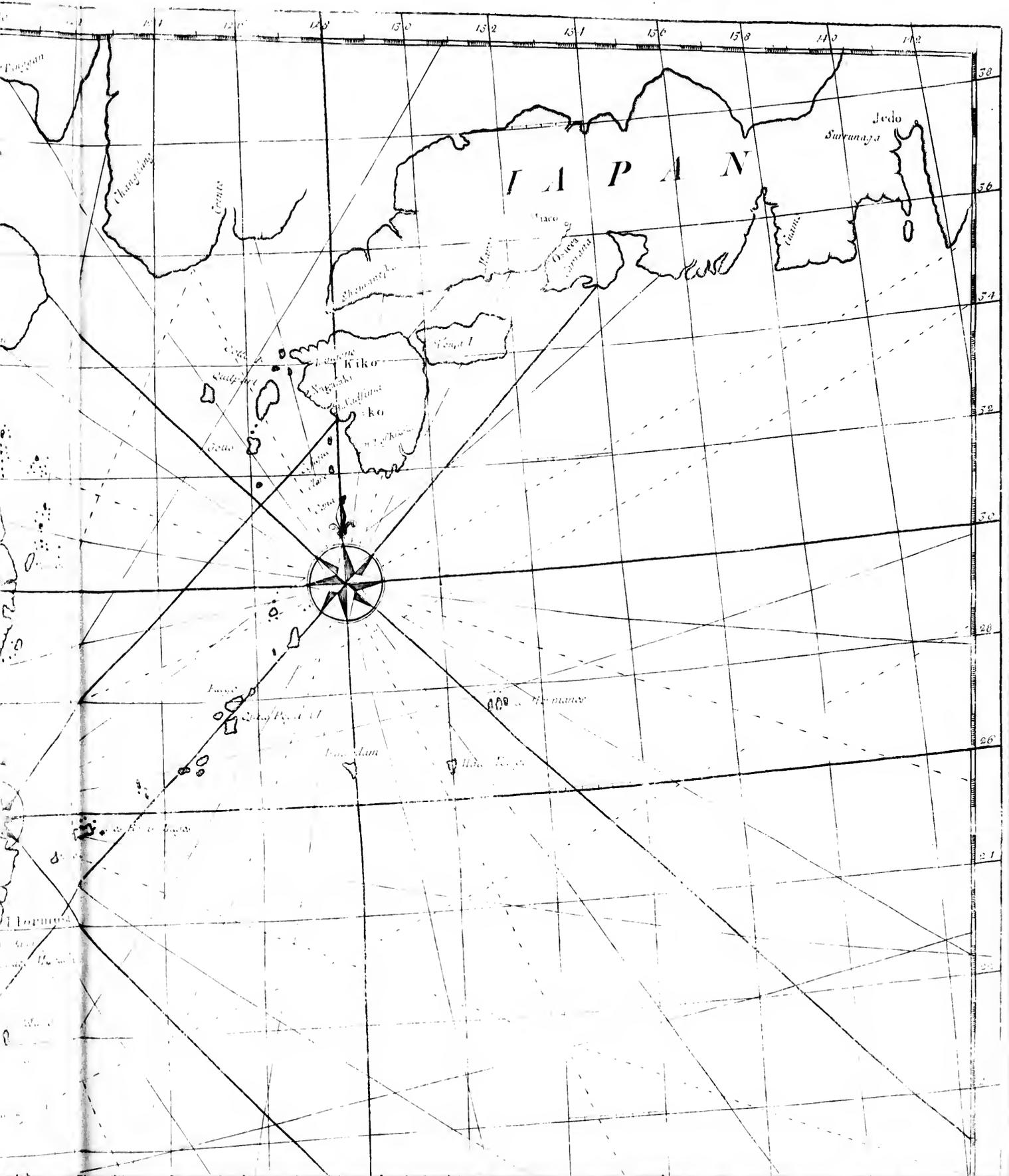
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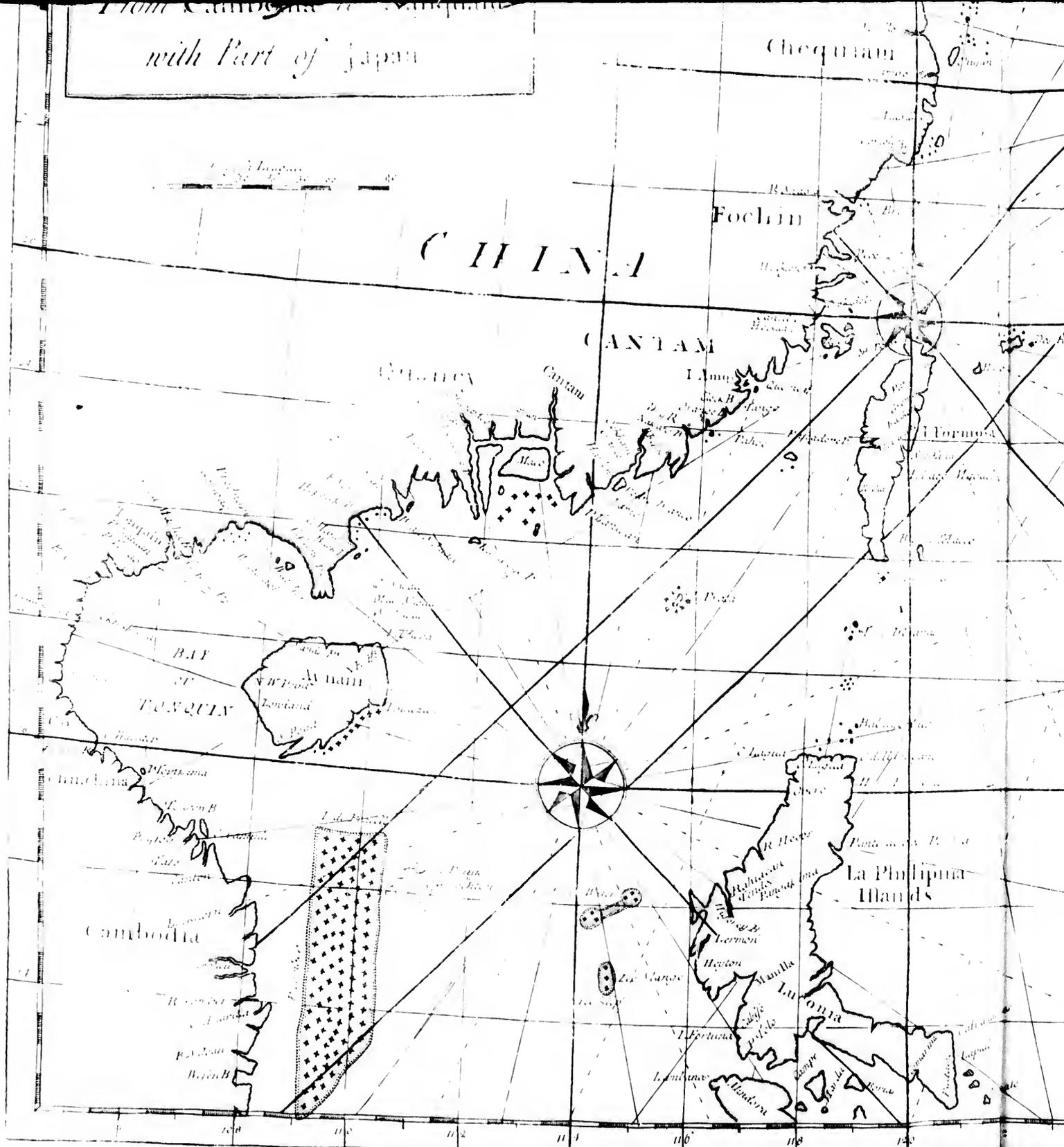
*A CHART of the Coast
OF CHINA
From Cambodia to Nankum
with Part of Japan*

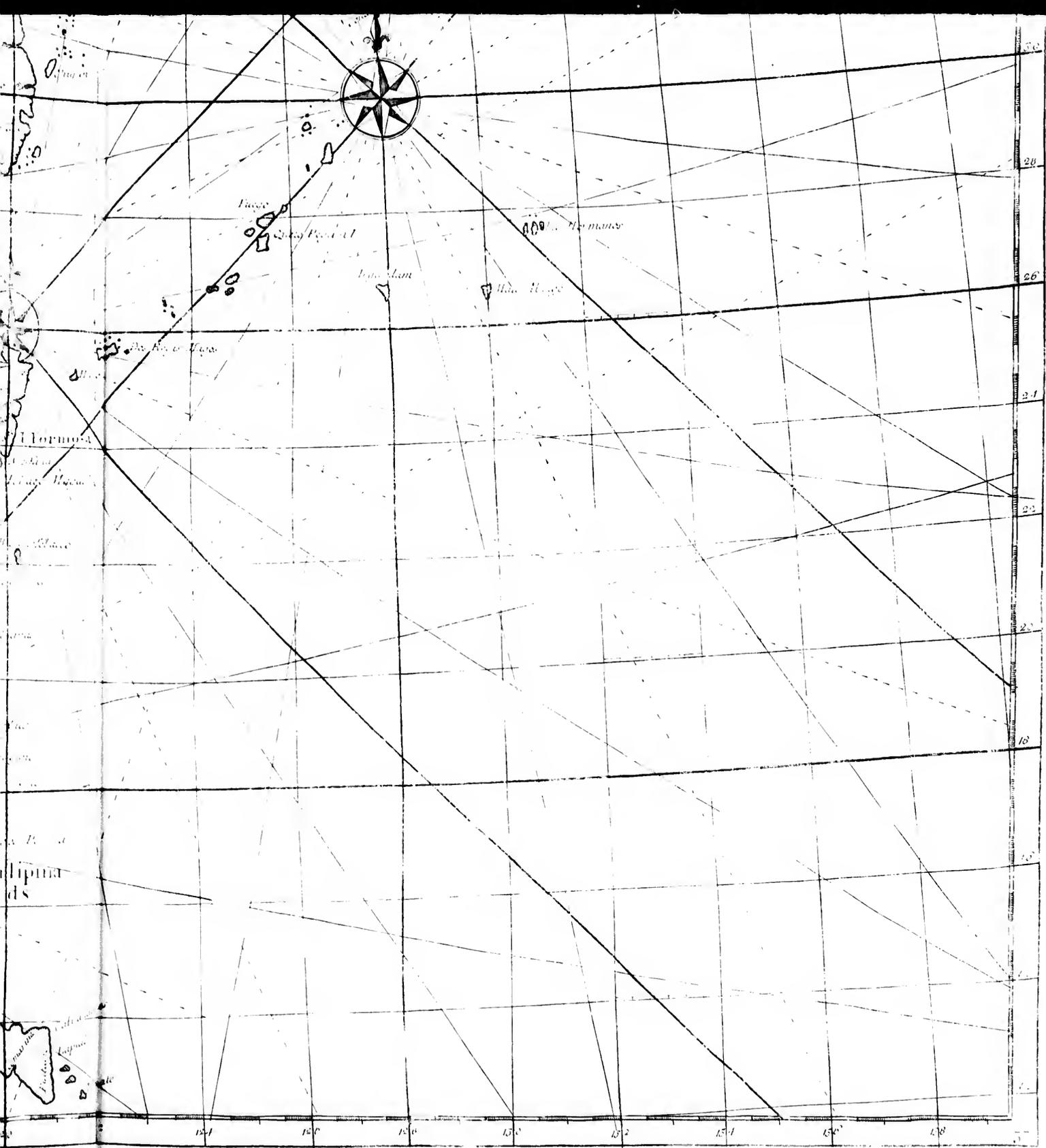


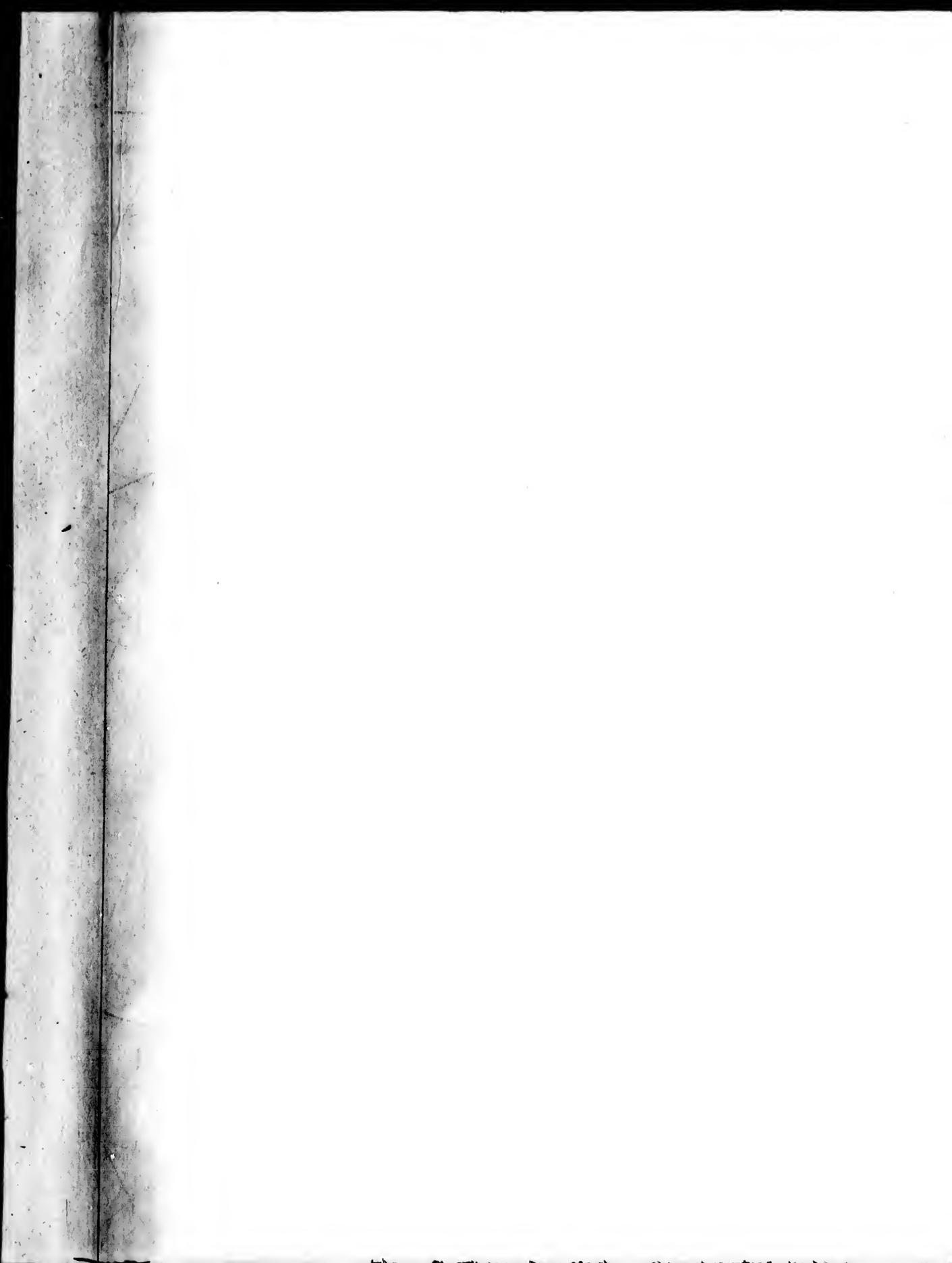


From Cambodia to Siam

with Part of Japan







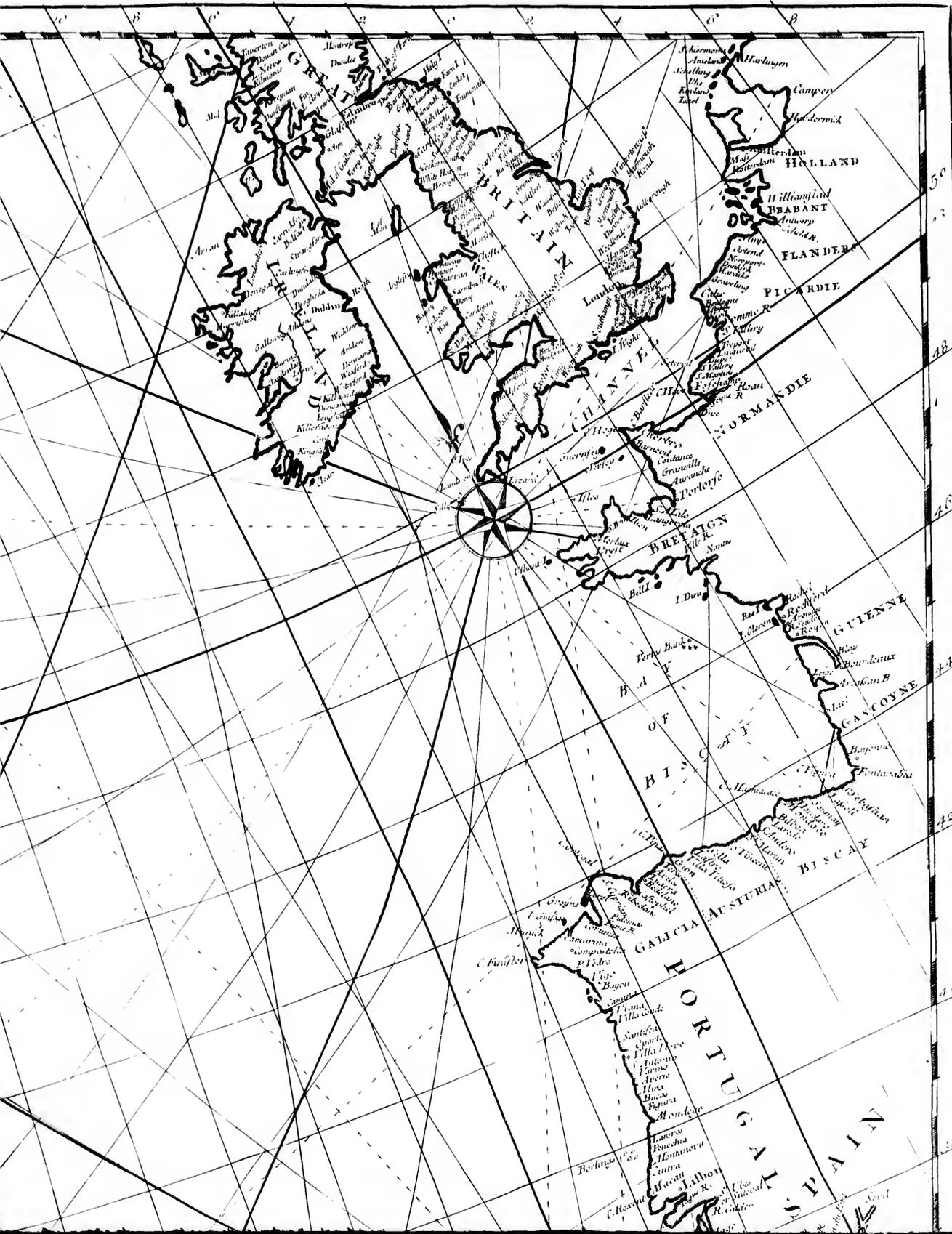
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A CHART of the
ATLANTICK OCEAN
along the Coast from γ Texel to C. Cantin
ENGLAND IRELAND
and *WESTERN ISLANDS*

THE

WESTERN



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WELSH

ENGLAND

HOLLAND

FLANDERS

PICARDIE

NORMANDIE

BRETAGN

GUYENNE

GASCOYNE

BISCAY

GALICIA AUSTRIAS

PORTUGAL SPAIN

T H E

W E S T E R N

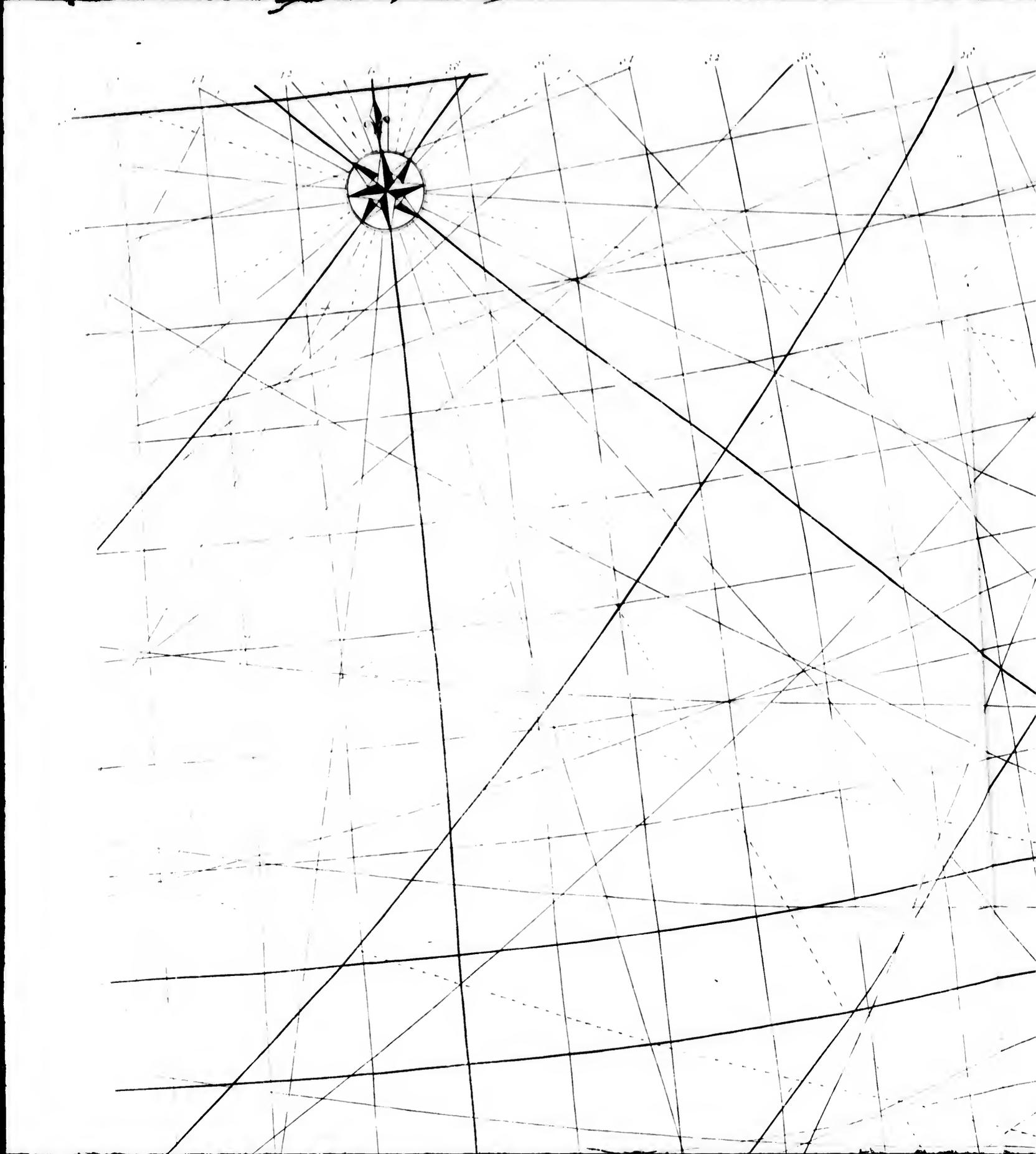
O C E A N

North
Flow



10 11 12 13 14 15 16 17 18 19 20

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A CHART of the
ATLANTIC OCEAN
Describing the Coast of
AFRICA
from Cape Teflalana to
CAPE FORHOSE

16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

40



P E N N
S I L
V A N I A

W E S T

N E W

J E R S E Y

J E R S E Y

M A R Y L A N D

V I R G I N I A

N O R T H

C A R O L I N A

E N G L A N D

P E N N S Y L V A N I A

P E N N S Y L V A N I A

[Detailed map labels including: Philadelphia, New York, Baltimore, Annapolis, Chesapeake Bay, Delaware River, James River, York River, Pamlico River, and various counties like York, Chester, Kent, and Sussex.]

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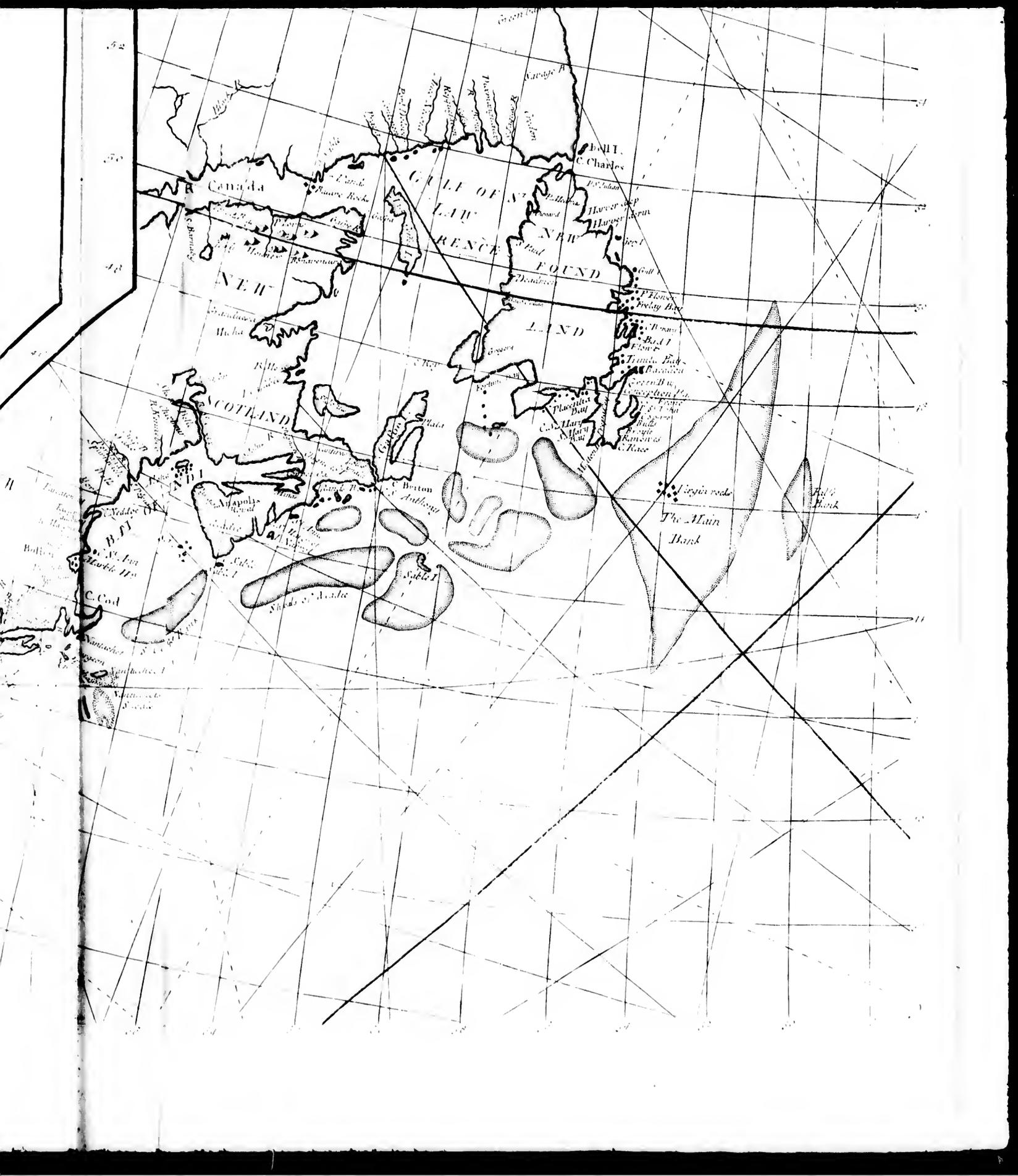
Scale bar and other small text at the bottom left.

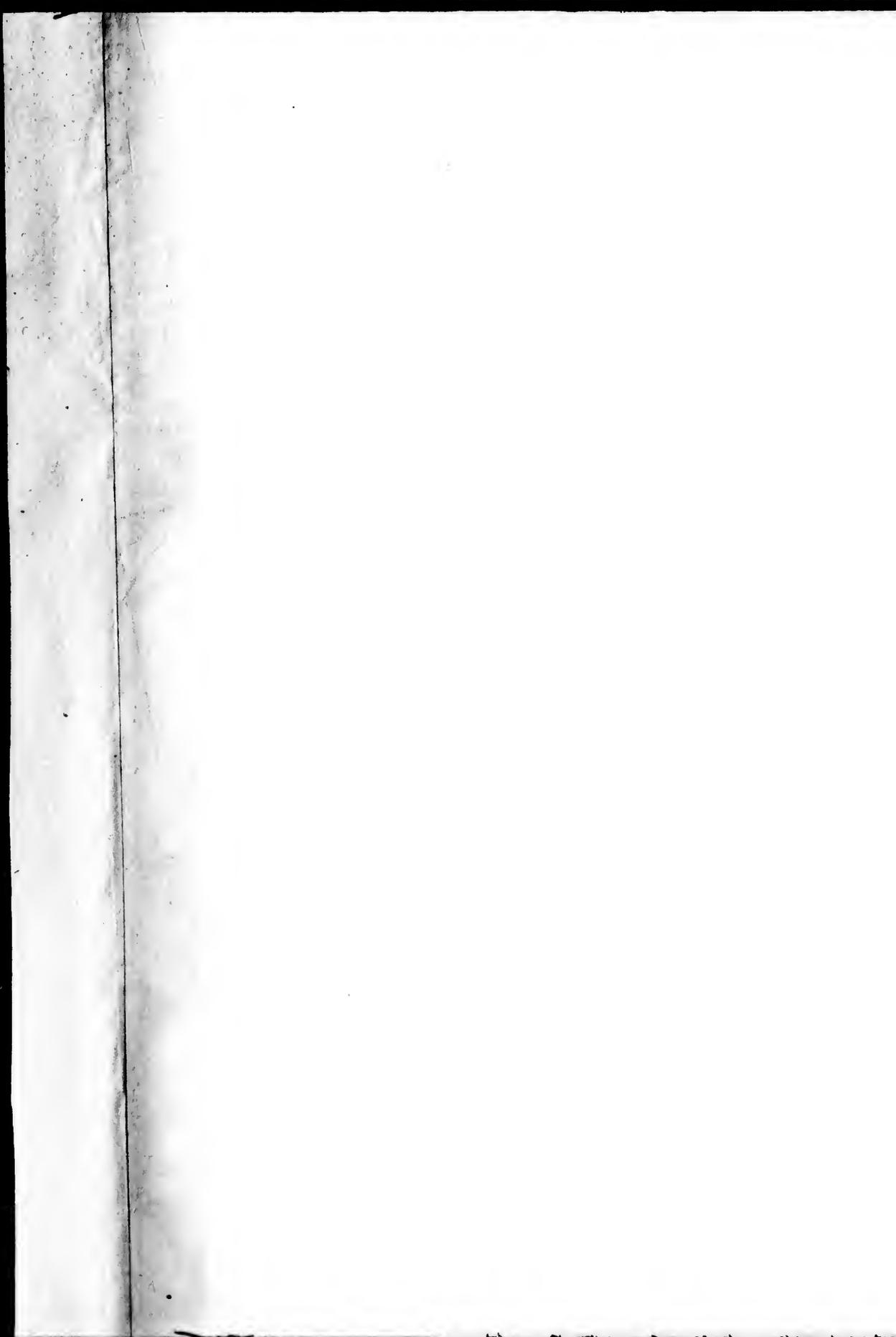
*A CHART OF THE
ATLANTICK
OCEAN
from Buttons Island
TO PORT ROYALL*

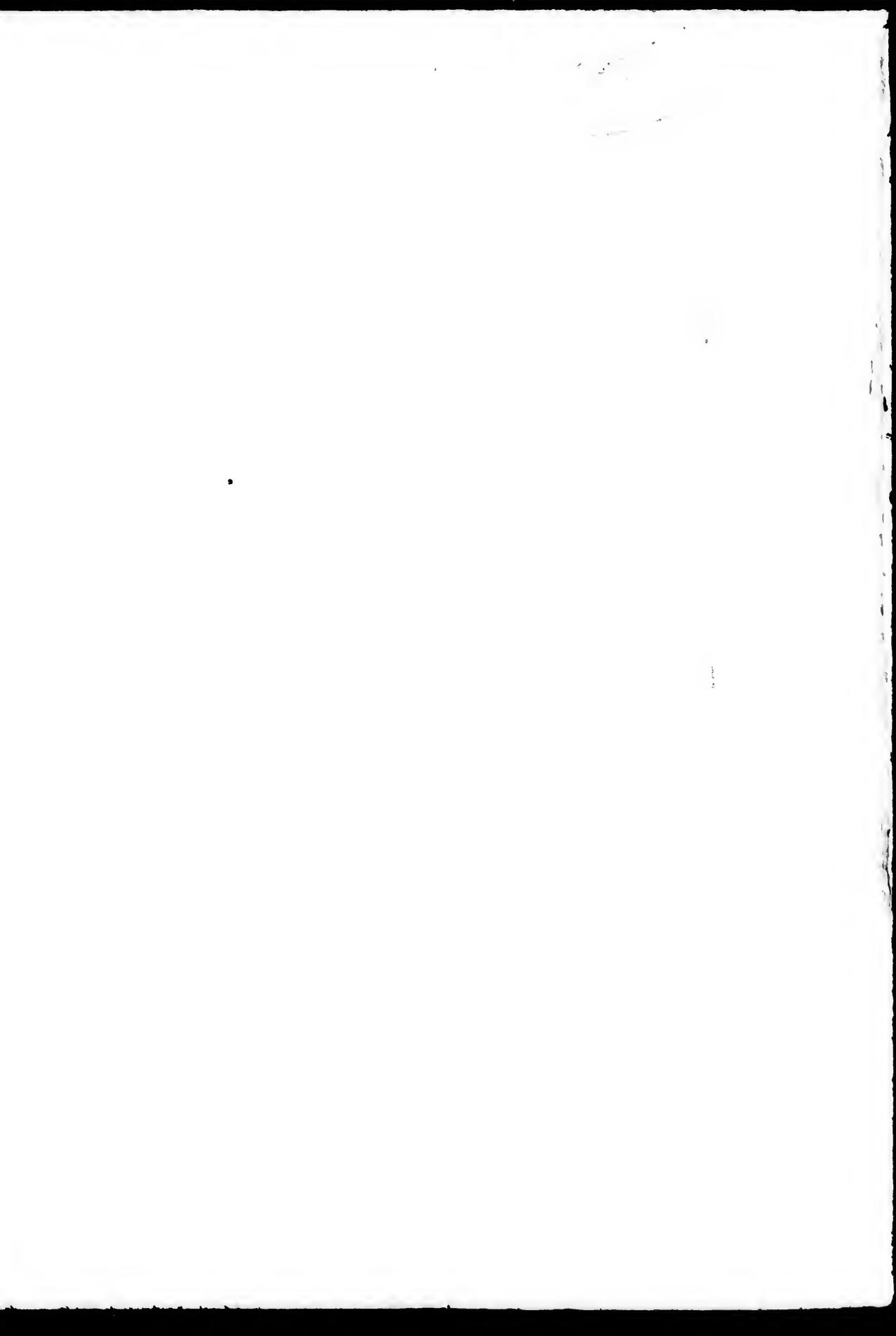
Scale in English Leagues

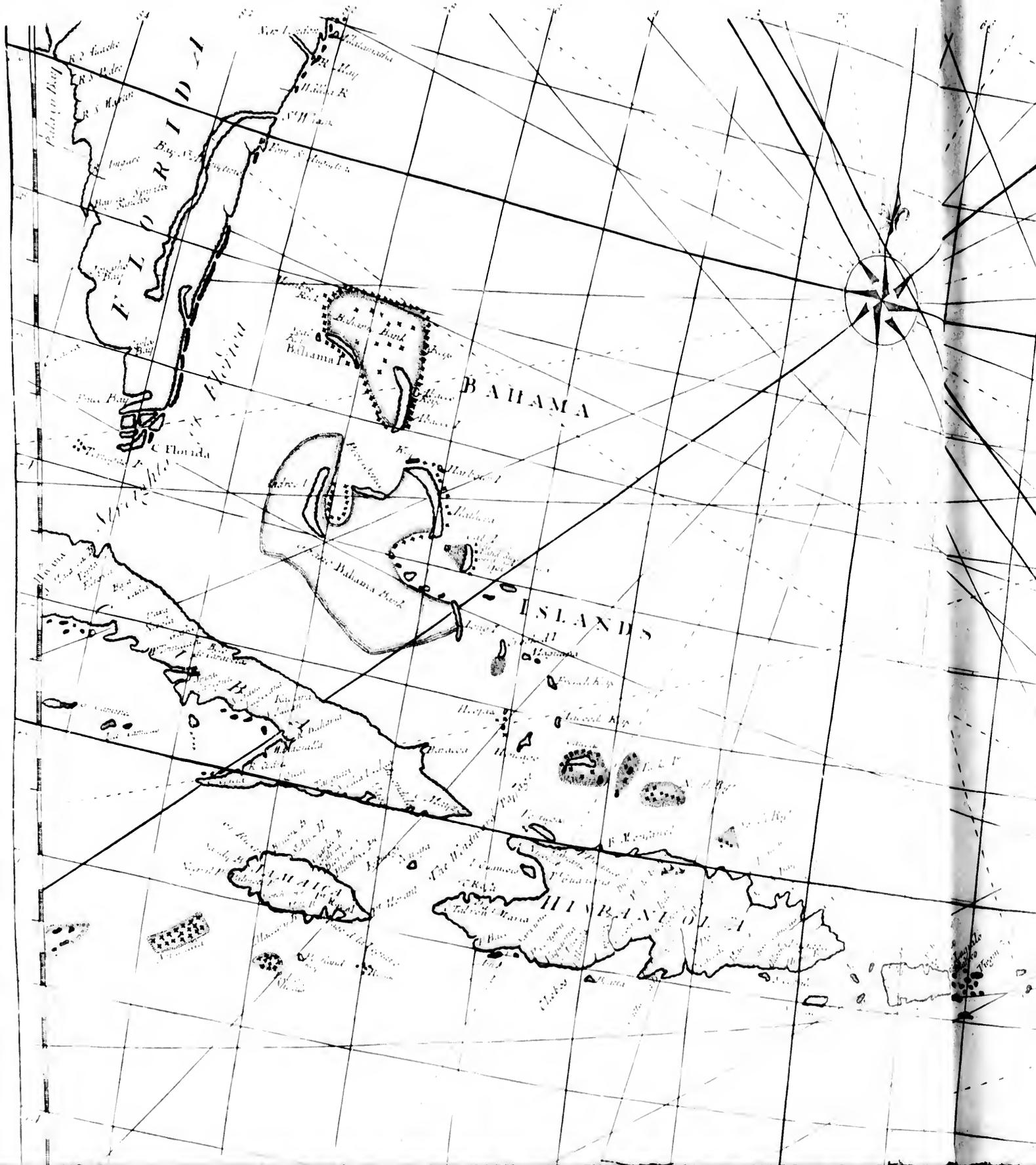




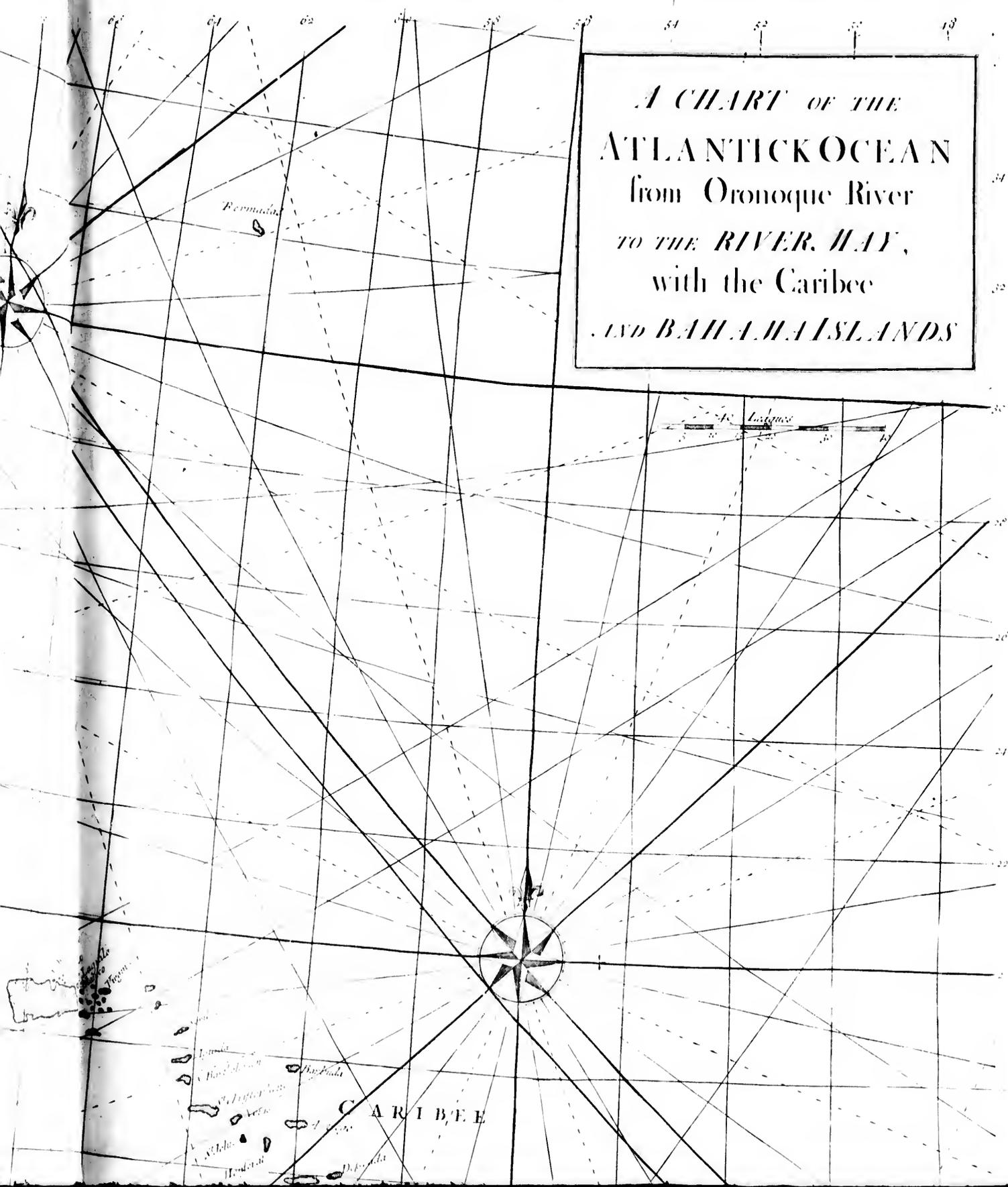


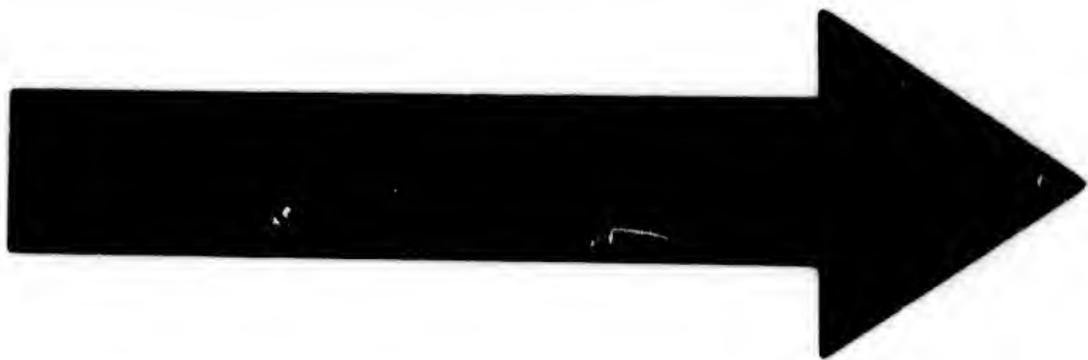


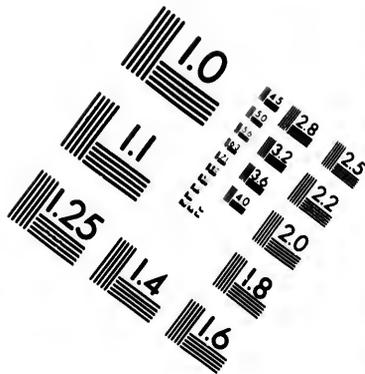
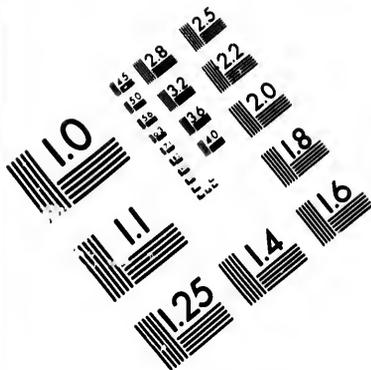




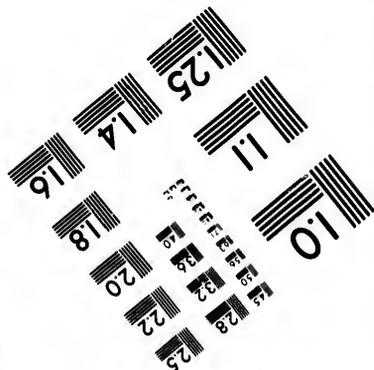
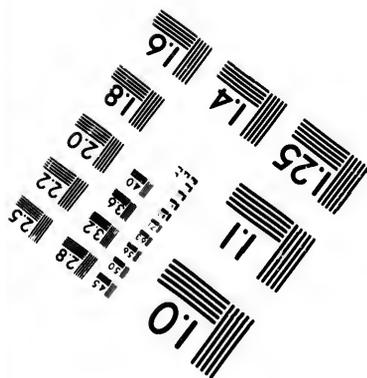
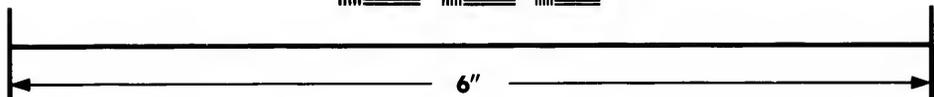
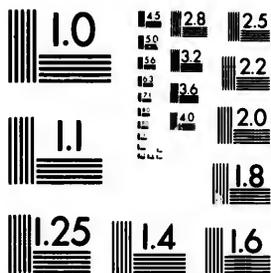
*A CHART OF THE
ATLANTICK OCEAN
from Oronoque River
TO THE RIVER MAY,
with the Caribee
AND BAHAMA ISLANDS*







**IMAGE EVALUATION
TEST TARGET (MT-3)**

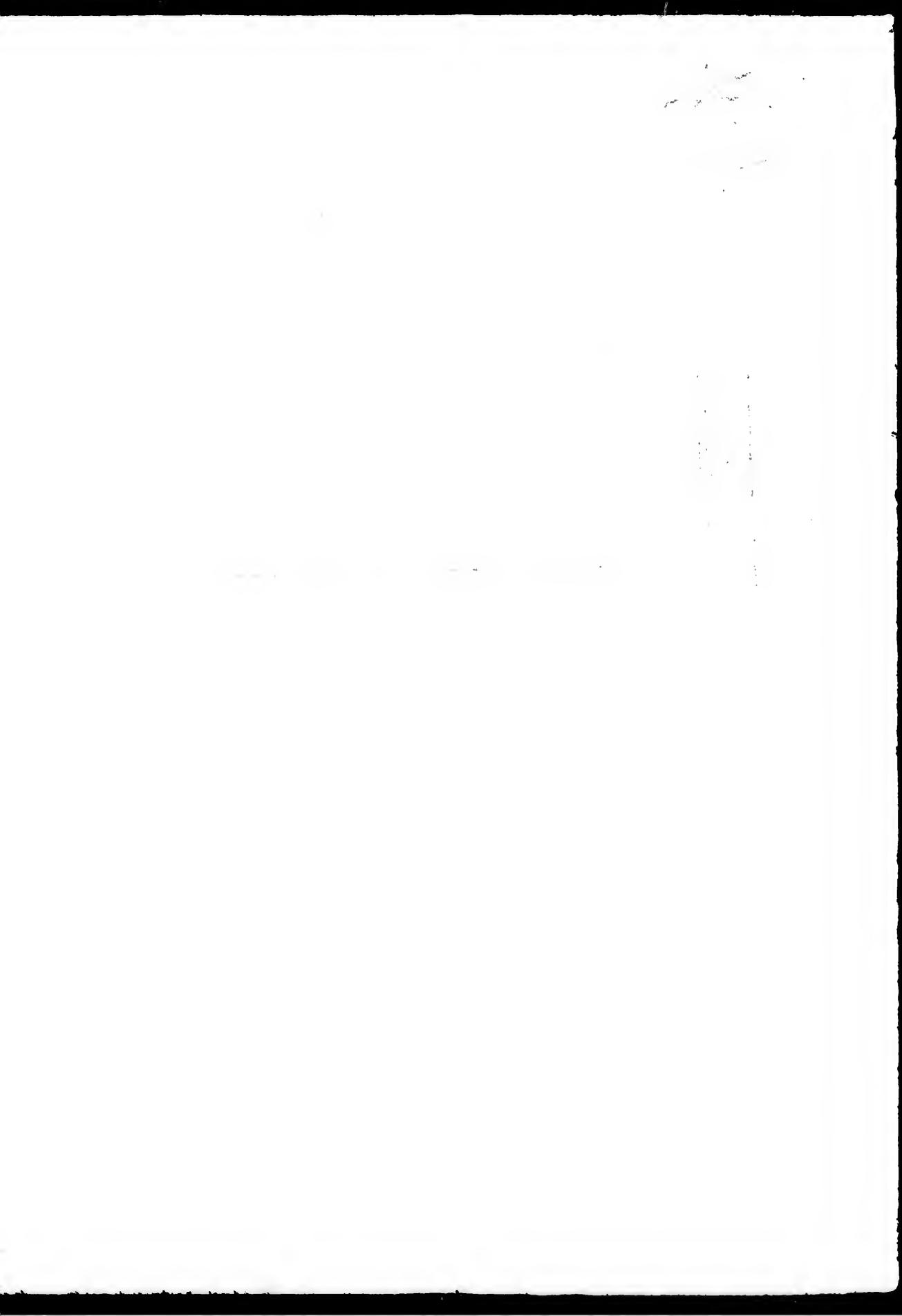


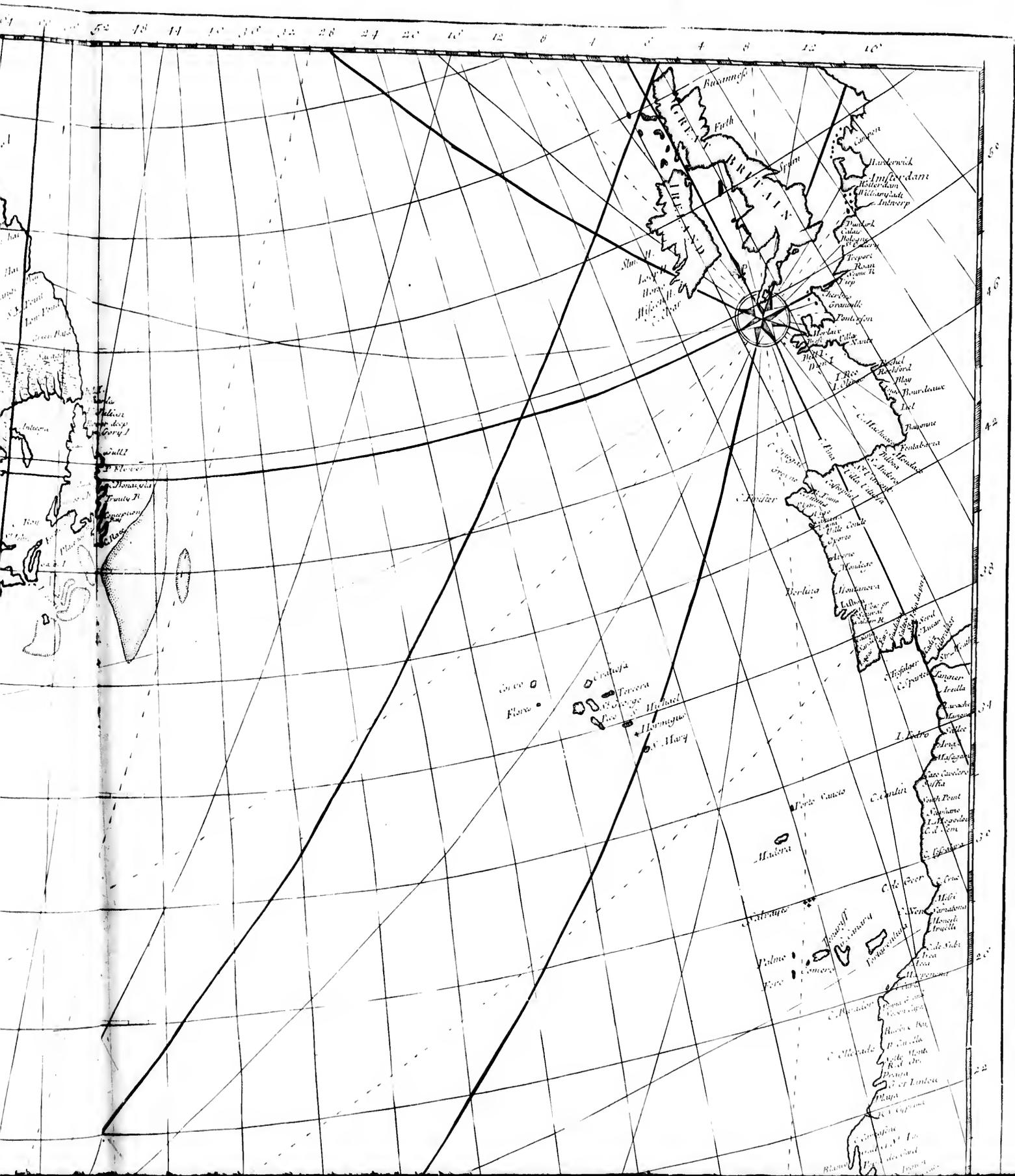
**Photographic
Sciences
Corporation**

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

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Rossmogel

Feth

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Amsterdam

Rotterdam

Antwerpen

Brussels

Paris

London

Constantinople

Alexandria

Suez

Aden

Malabar

India

China

Japan

Philippines

Indonesia

Sumatra

Borneo

Sulawesi

Moluccas

Maldives

Comoros

Madagascar

Reunion

Mauritius

India

China

Flora

Terrace
Hortus
Hortus
Hortus

Hydrus

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Hortus

Porto Canis

Madara

Palme

Palme

Palme

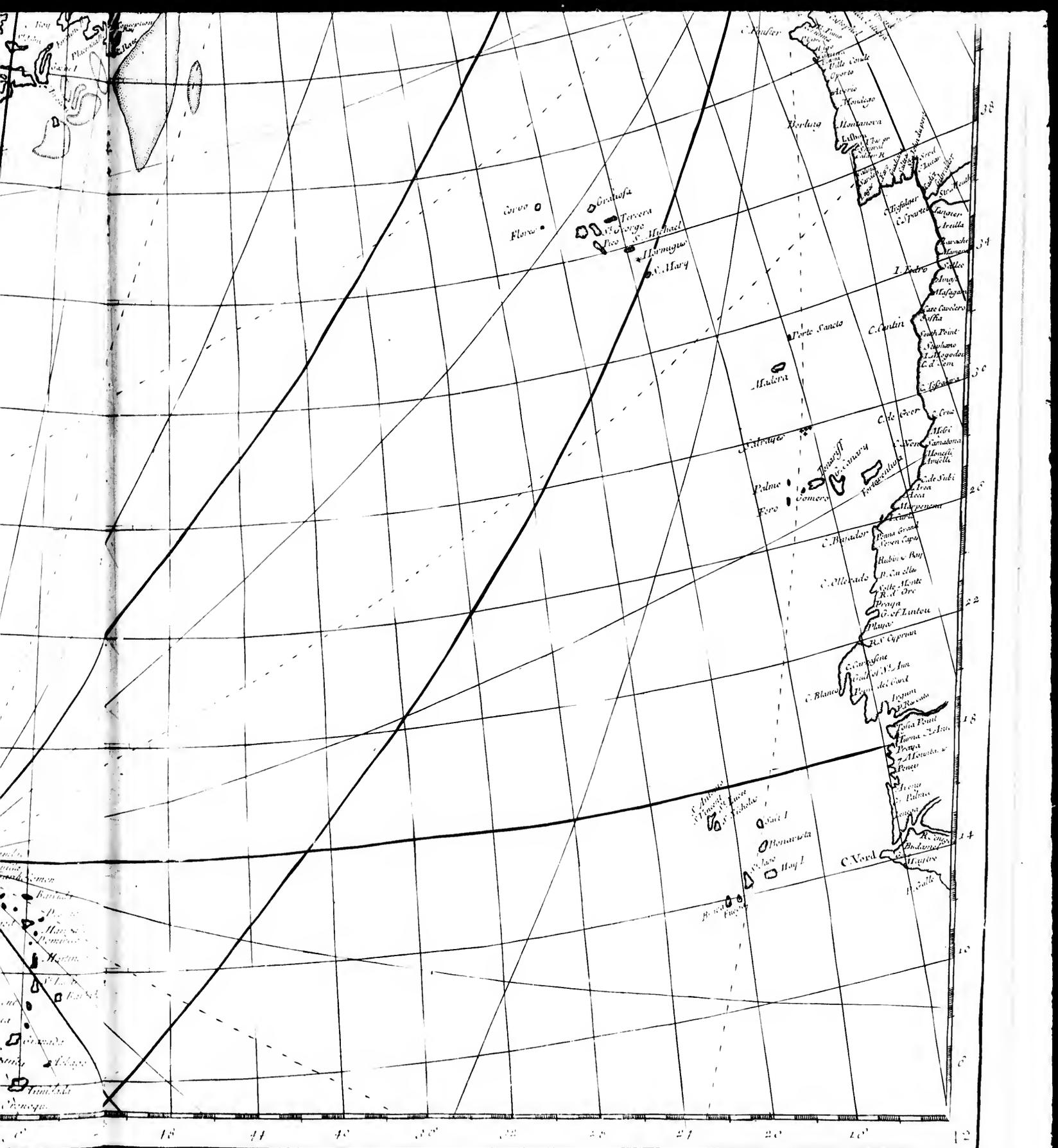
Palme

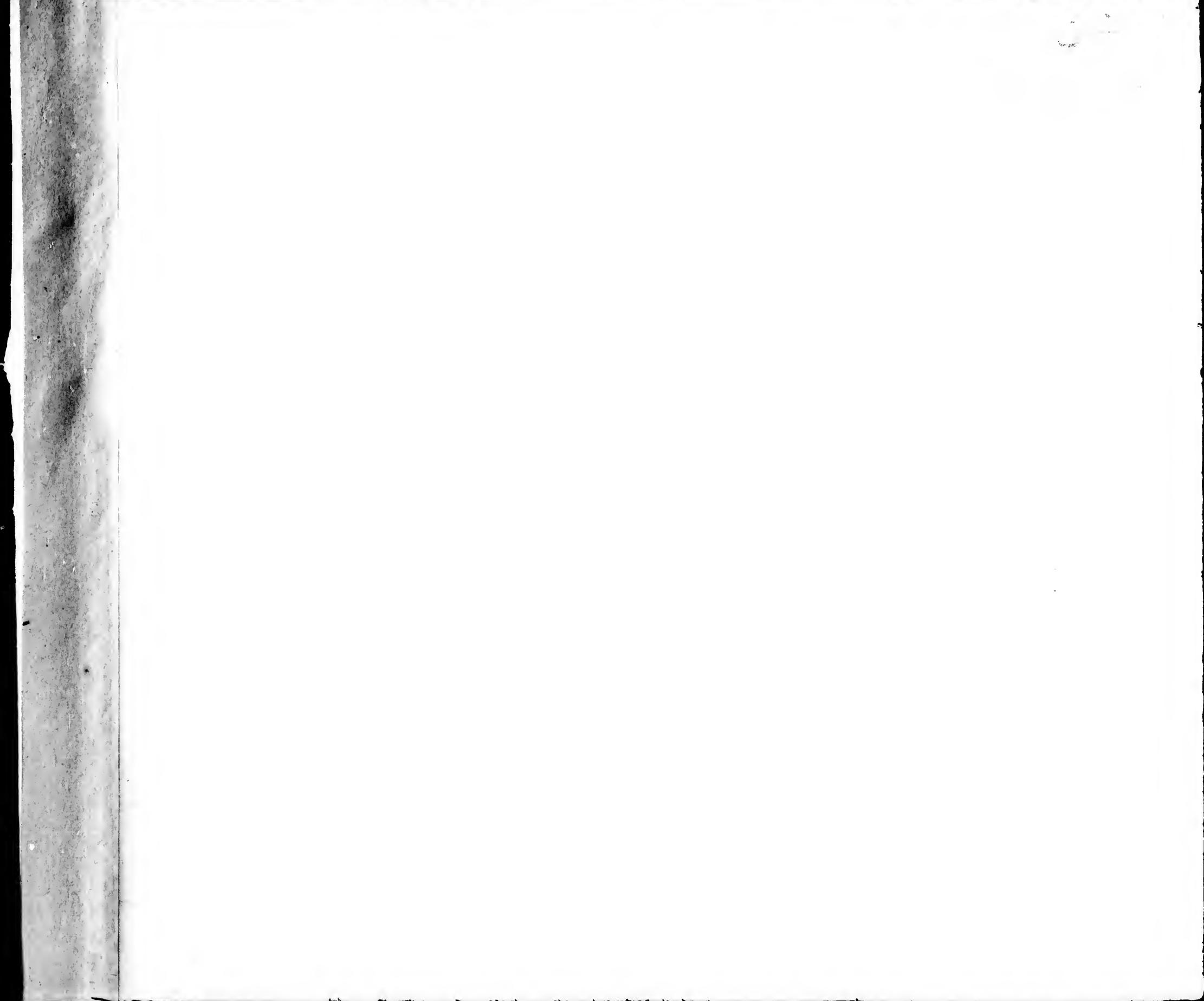
Palme

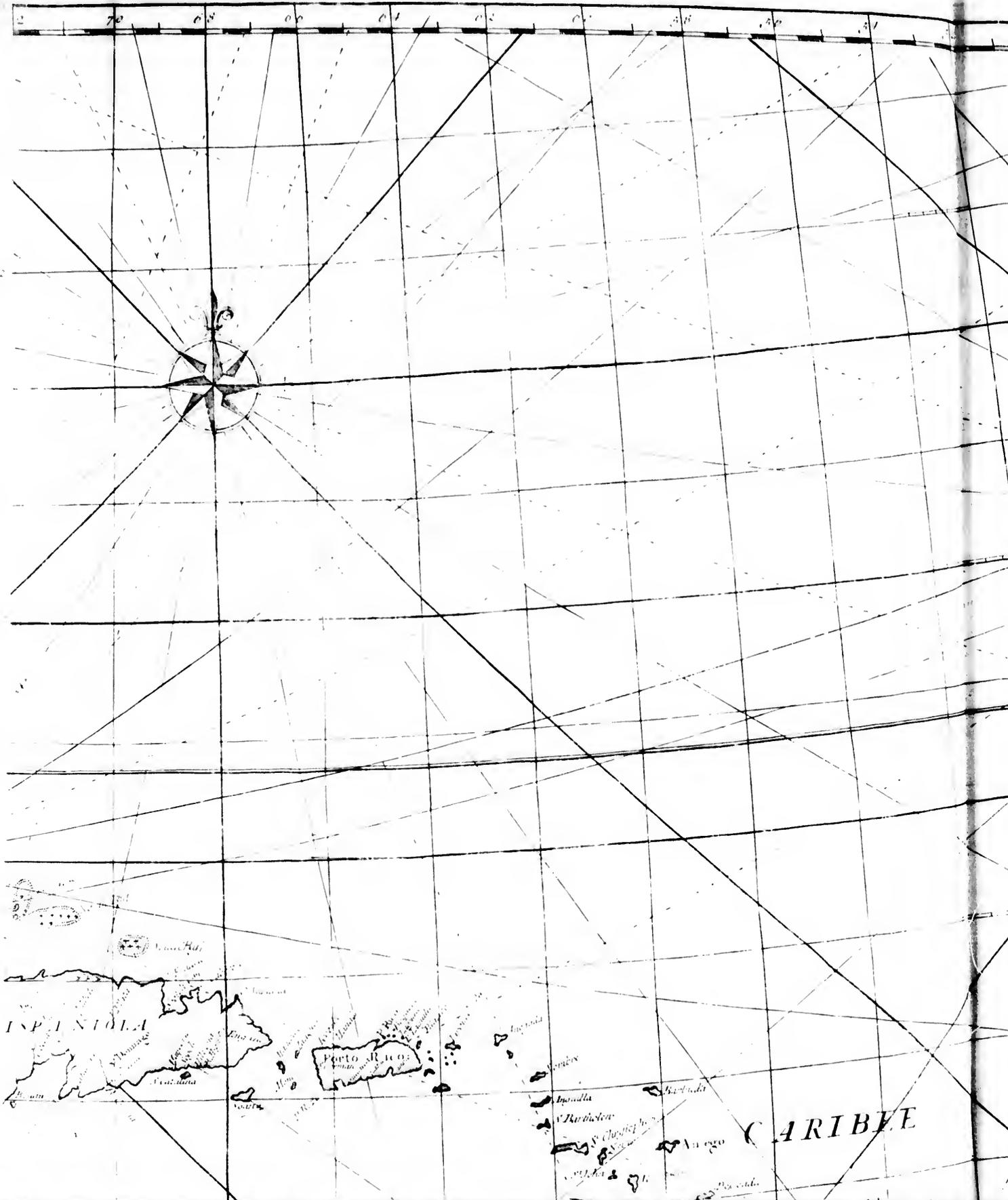
Palme

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Palme





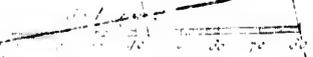


ISPANIOLA

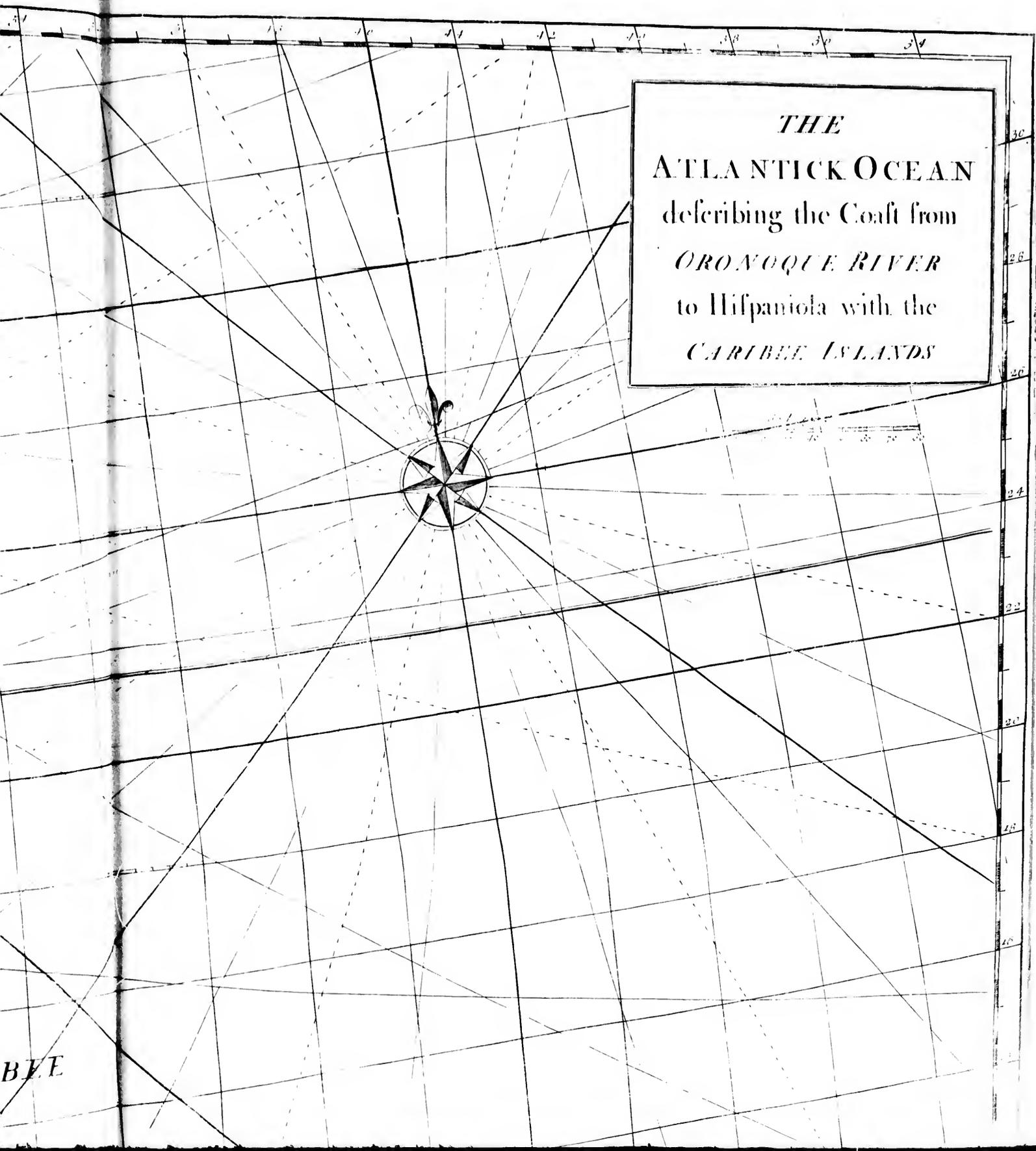
Porto Rico

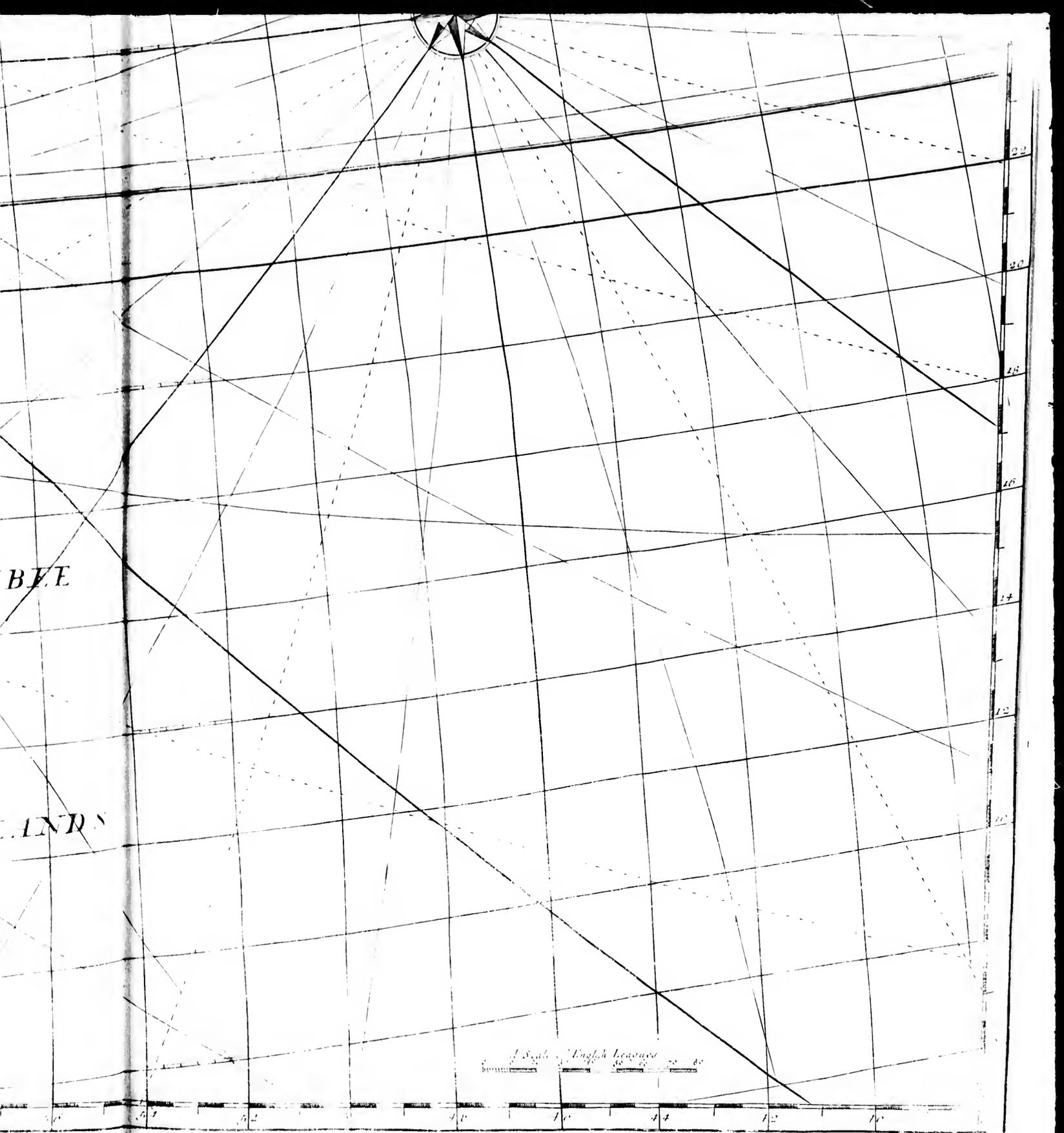
CARIBBEE

THE
ATLANTICK OCEAN
describing the Coast from
ORONOQUE RIVER
to Hispaniola with the
CARIBBEE ISLANDS



BVE





A NEW and
COMPLETE
of the
OF
WEST

and CORRECT
PART
Trading Part
OF THE
WEST INDIES



MEXICO OR YUCATAN

MEXICO

BAY

OF

MEXICO

Bay of Campeche

GULF OF HONDURAS



FLORIDA

GULF OF FLORIDA

BAHAMA ISLAND

ISLAND

GULF OF HONDURAS

Windward Passage

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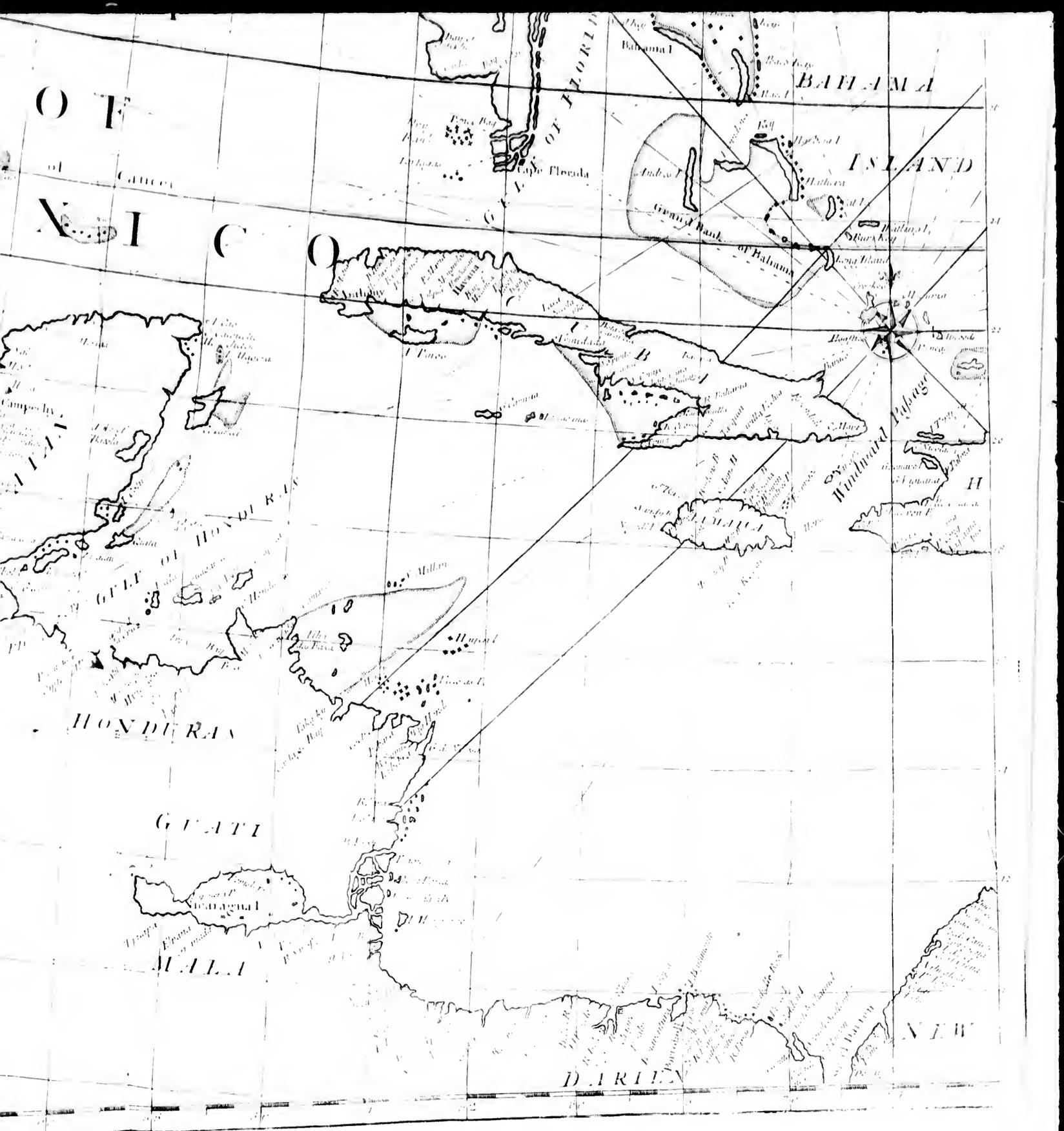
Bay of Campechy

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GULF OF HONDURAS

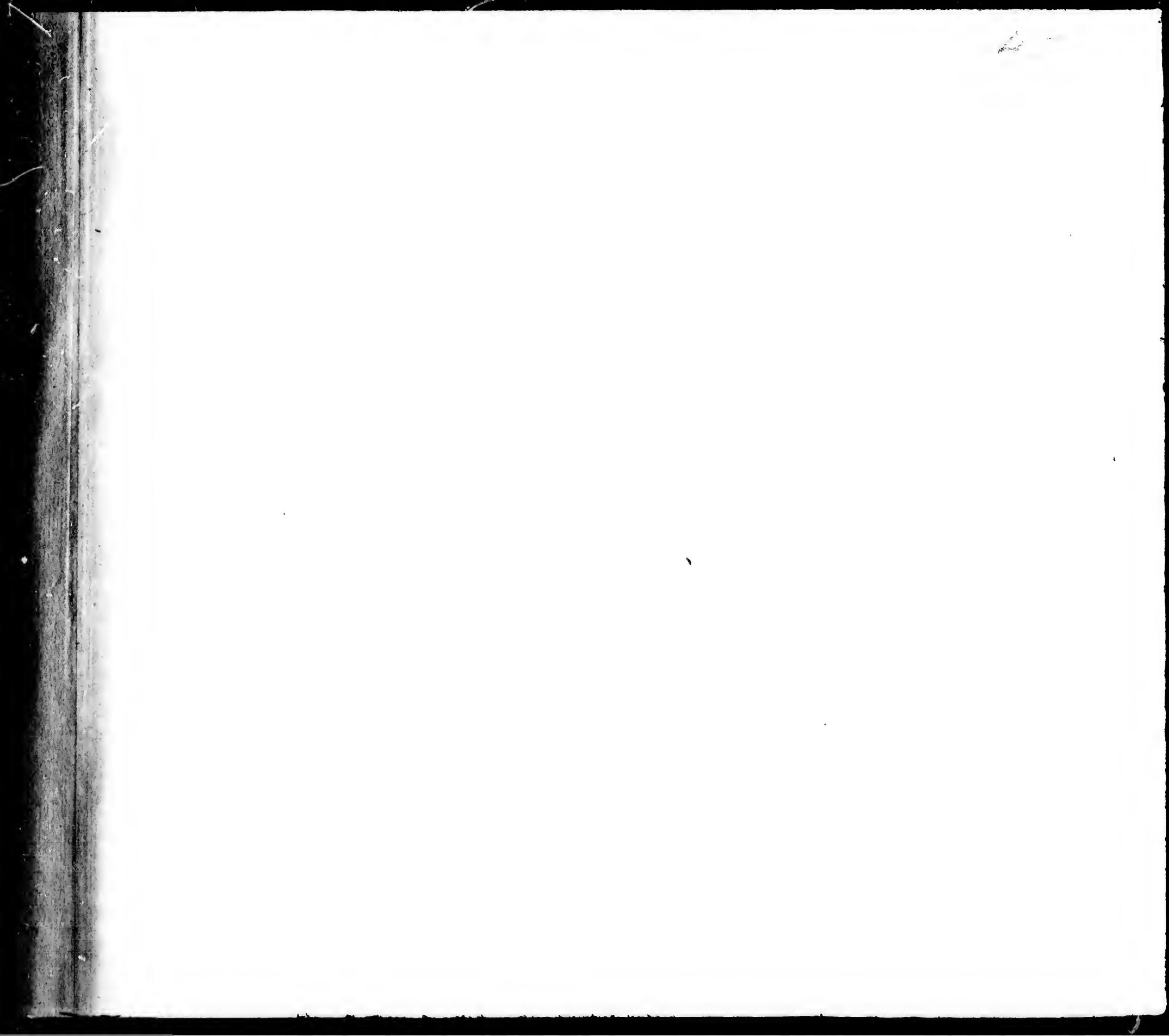
HONDURAS

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CIRIBEE ISLANDS



THE WEST

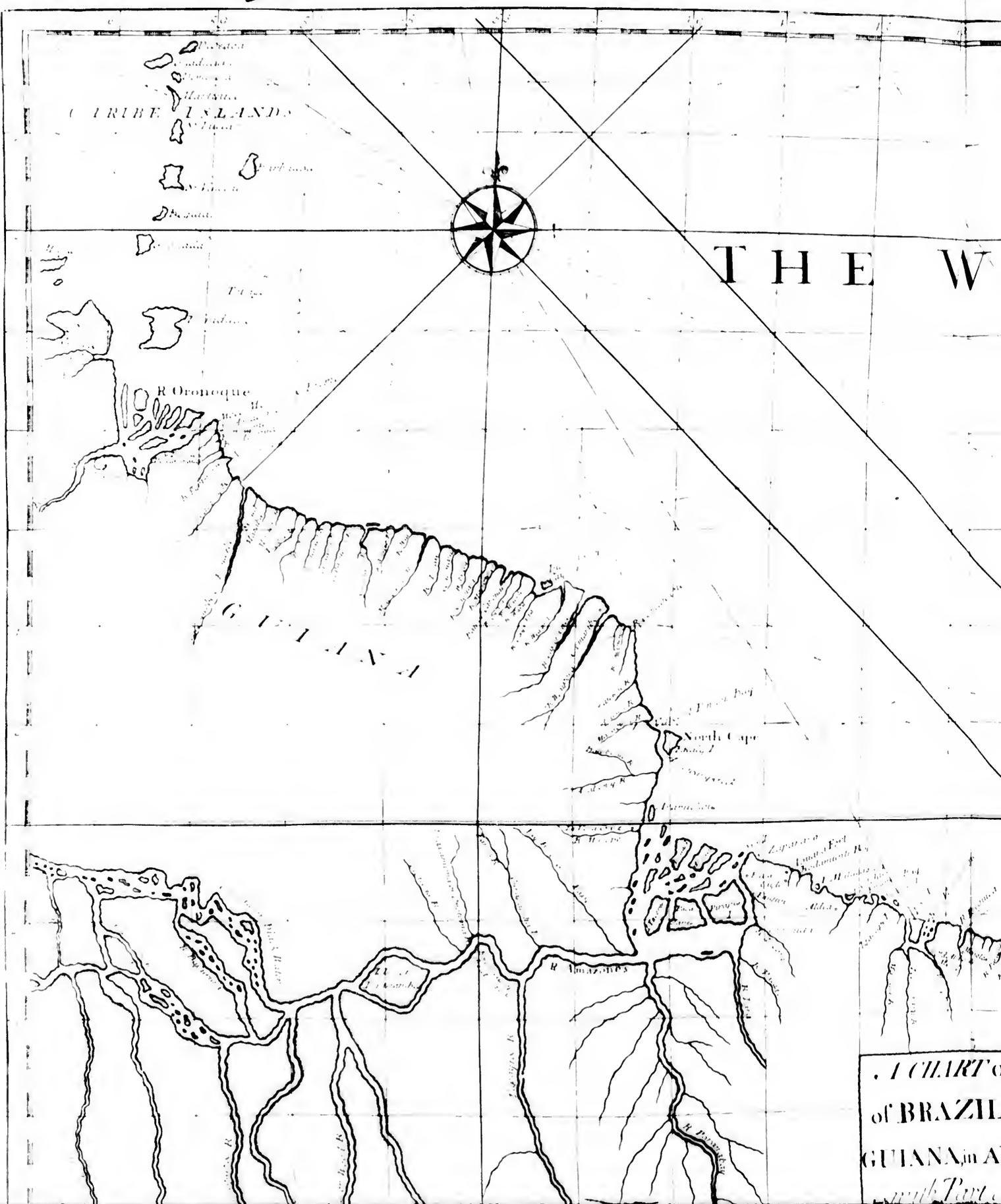
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GUAYANA

North Cape

R Amazon

A CHART of
of BRAZIL
GUAYANA in AM
with Part of





GUAYANA

S O U T H A M E R I C A

A CHART of
of BRAZIL
GUAYANA and
Part of
Caribbe Sea

Scale of English Leagues

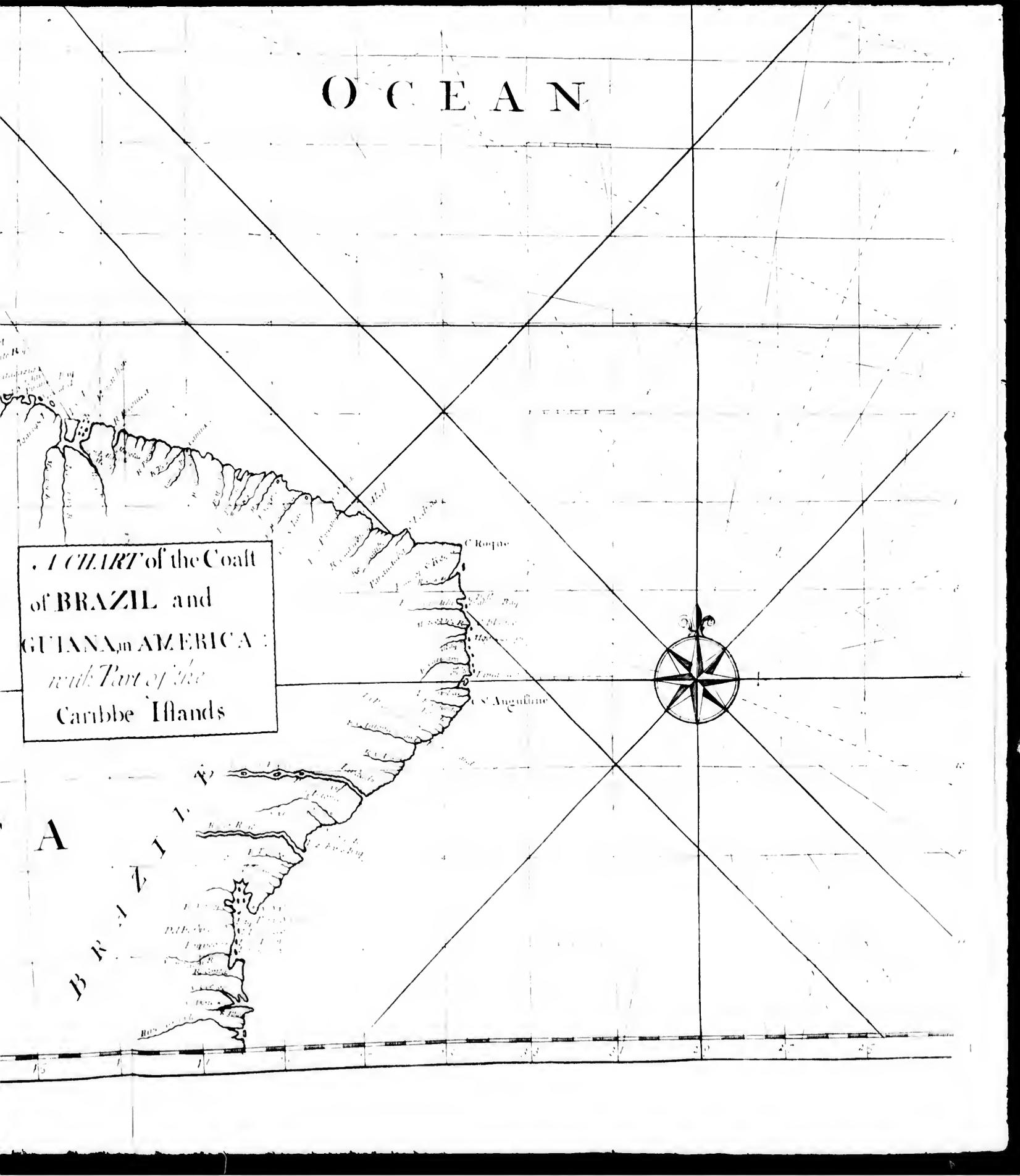
B R A Z I L

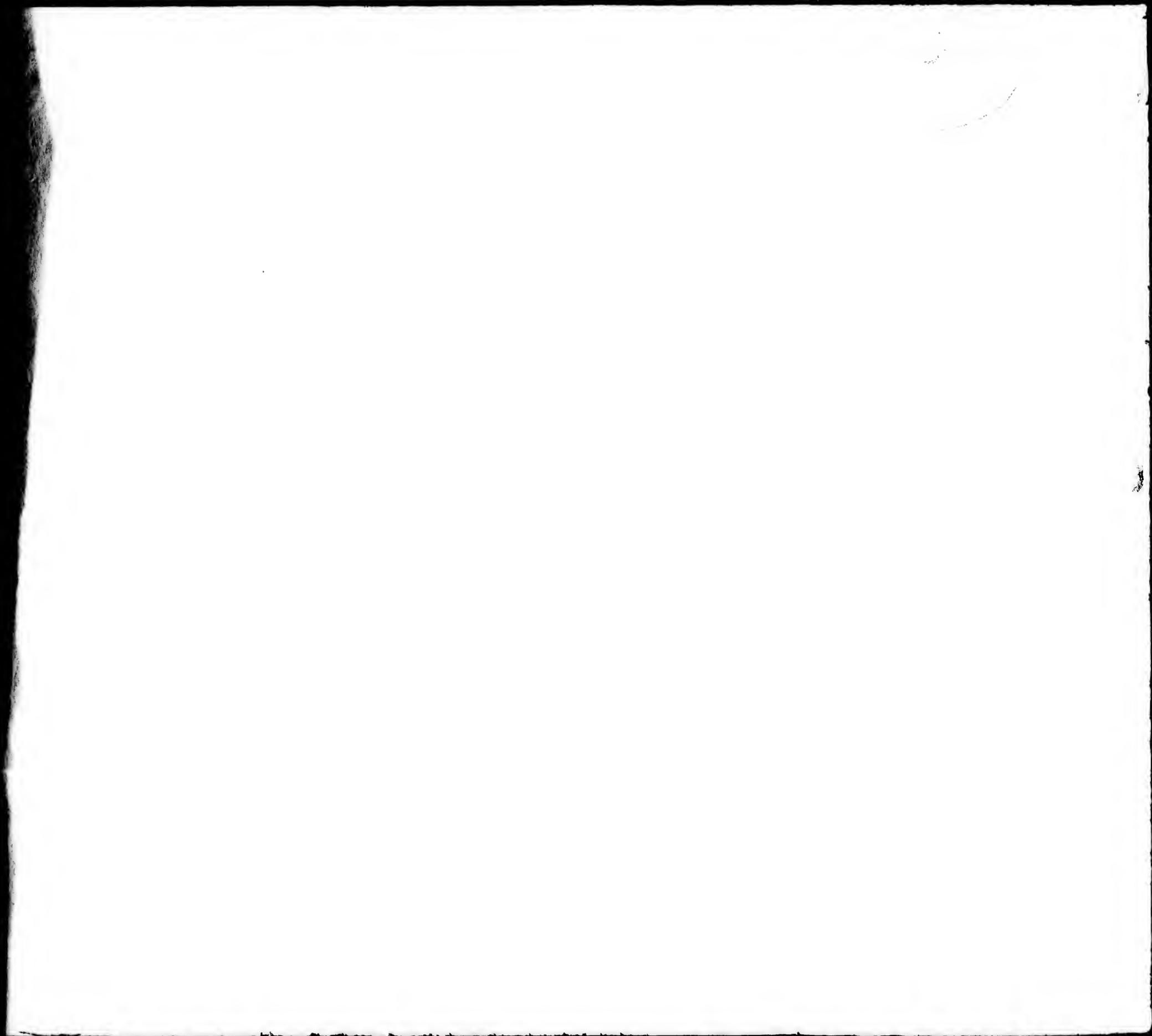
OCEAN

A CHART of the Coast
of BRAZIL and
GUIANA in AMERICA:
with Part of the
Caribbe Islands

A

BRAZIL





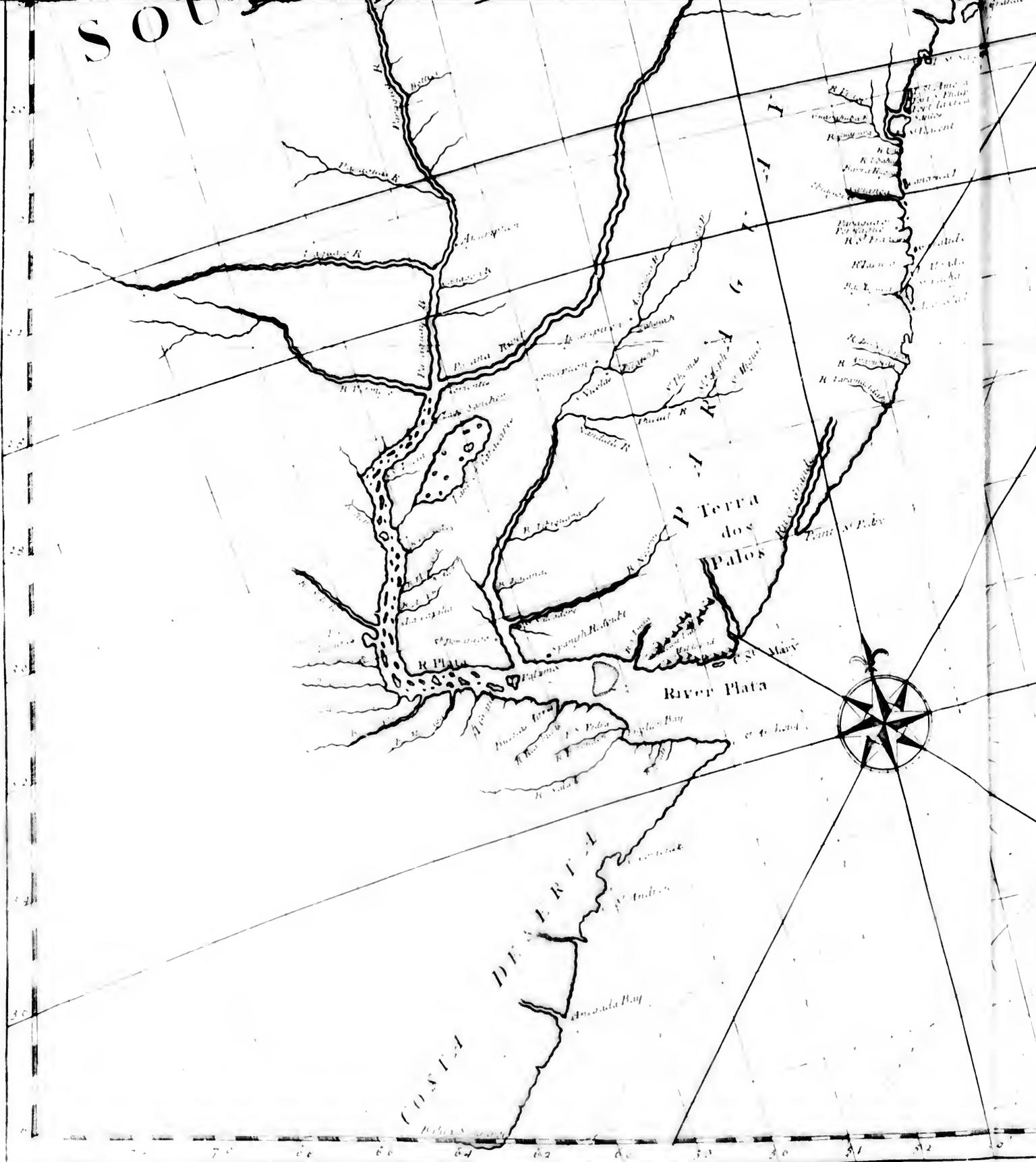
The East Coast of
SOUTH AMERICA
from
TODOS SANCTOS
to
SINIFUNDI

Scale of 100 Leagues or 1000 Miles

SOUTH AMERICA



SOUTH



COSTA DE PARÍ

Terra dos Palos

River Plata

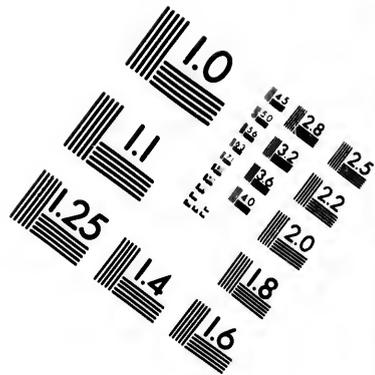
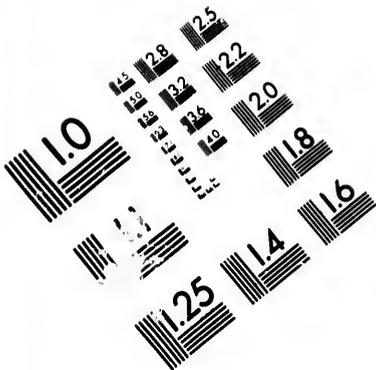
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ATLANTICK

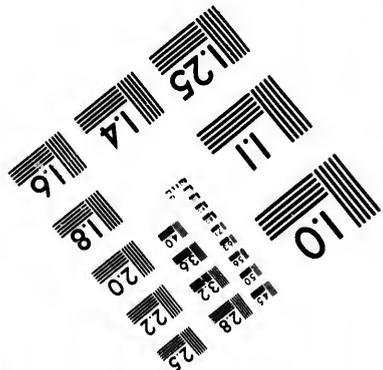
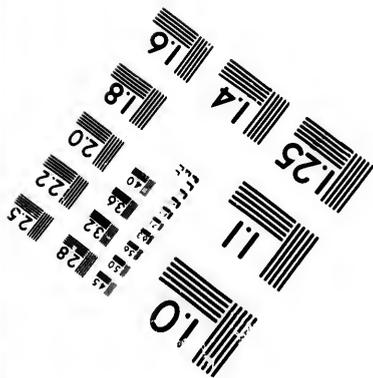
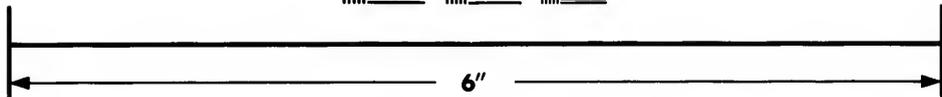
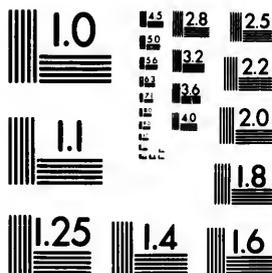


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**IMAGE EVALUATION
TEST TARGET (MT-3)**



**Photographic
Sciences
Corporation**

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

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THE

GREAT

SOUTH

SEA

SOUTH

AMERICA

AMERICA

PATAGONIA

TIERRA DEL FUEGO

TERRA DEL FUEGO

Cape Horn

Magellan's Bay

St. Paul

St. Martin

Norfolk

St. Helena

St. Paul

St. Helena

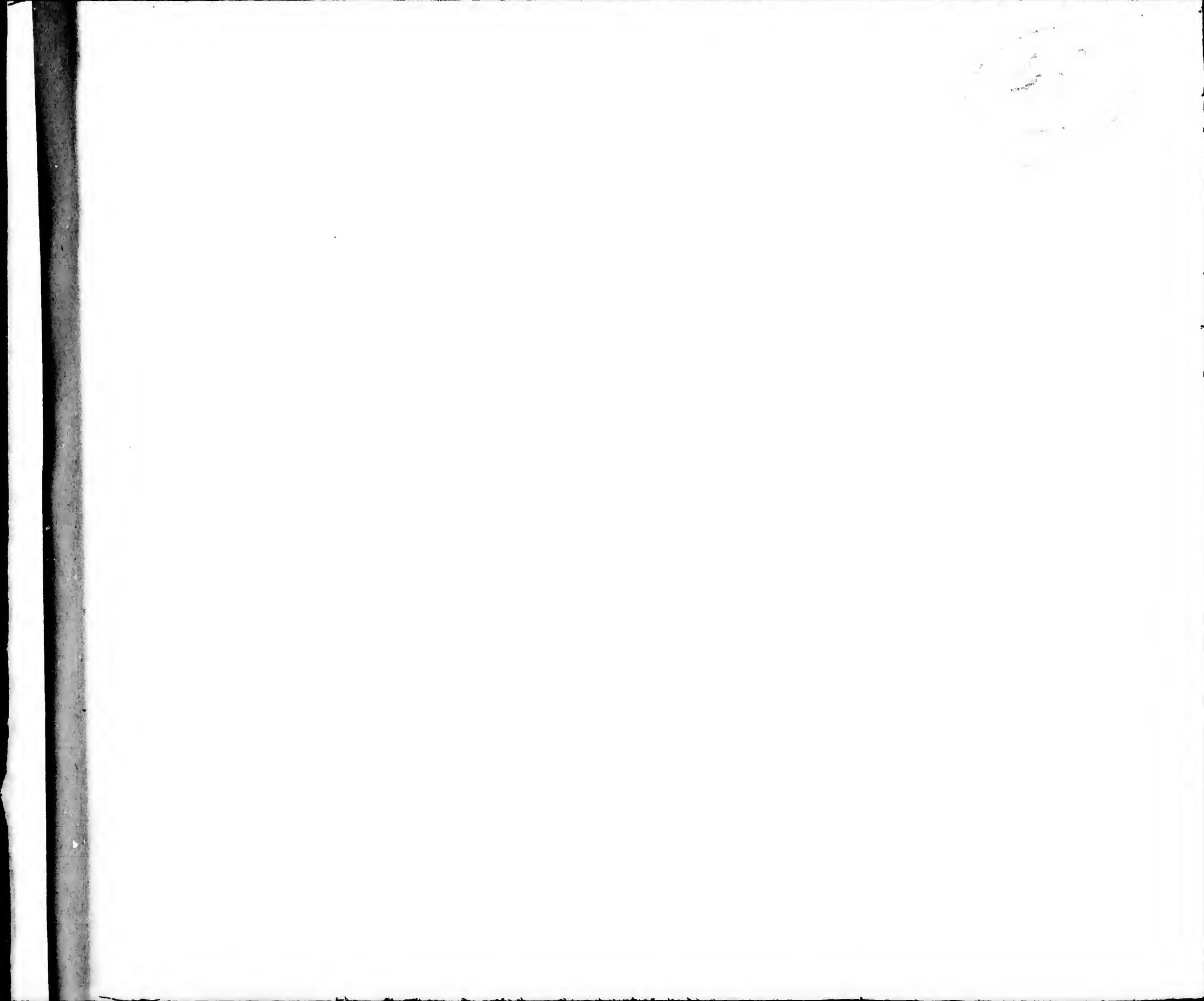
G R E A T
S O U T H
S E A



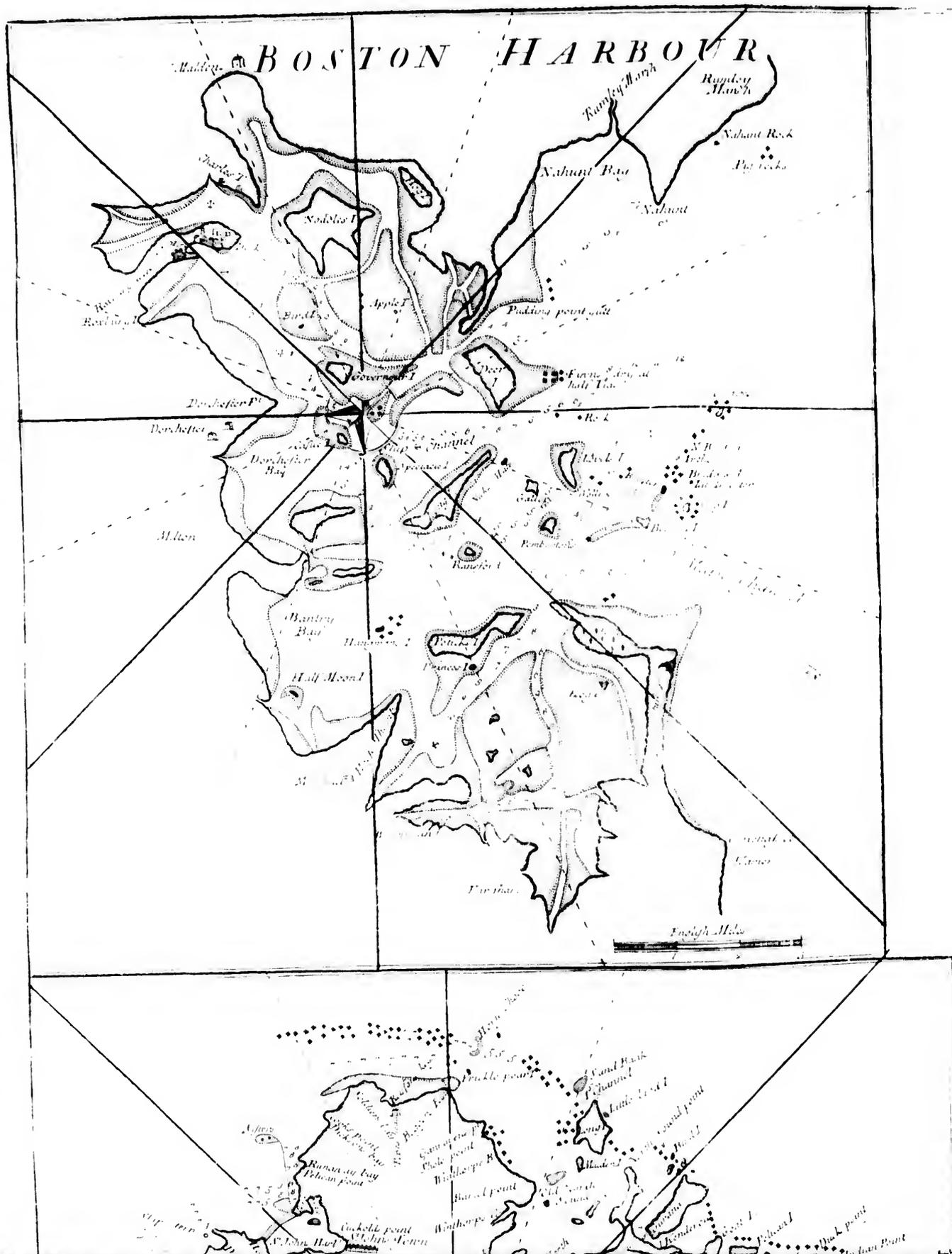
A Chart of the Coast of
SOUTH AMERICA
from Arica to Pay to Cape Horn
et al.
Cape Horn to Baldivia

A Scale of 10 Leagues to 100 Miles

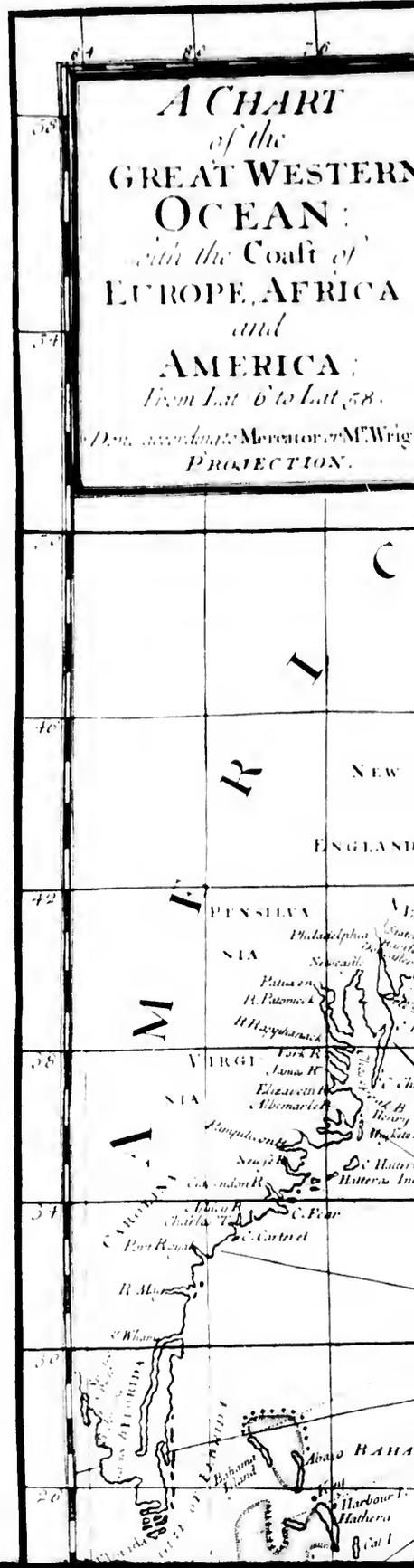


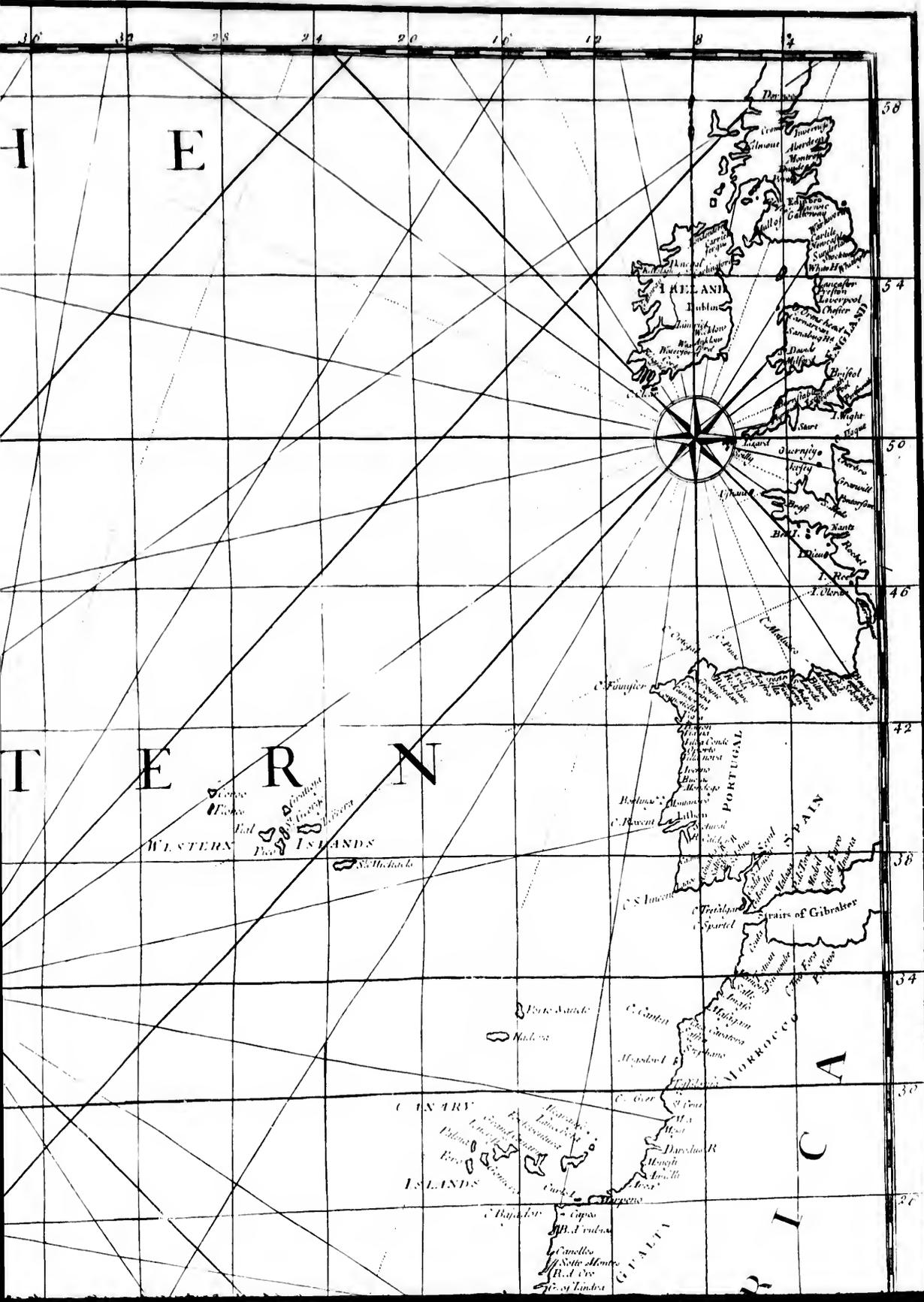


BOSTON HARBOUR



A CHART
of the
GREAT WESTERN OCEAN:
with the Coast of
EUROPE, AFRICA
and
AMERICA:
from Lat 6 to Lat 58.
Drawn according to Merentor & M^r Wright
PROJECTION.





H E

T E R R A

WESTERN ISLANDS

PORTUGAL

SPAIN

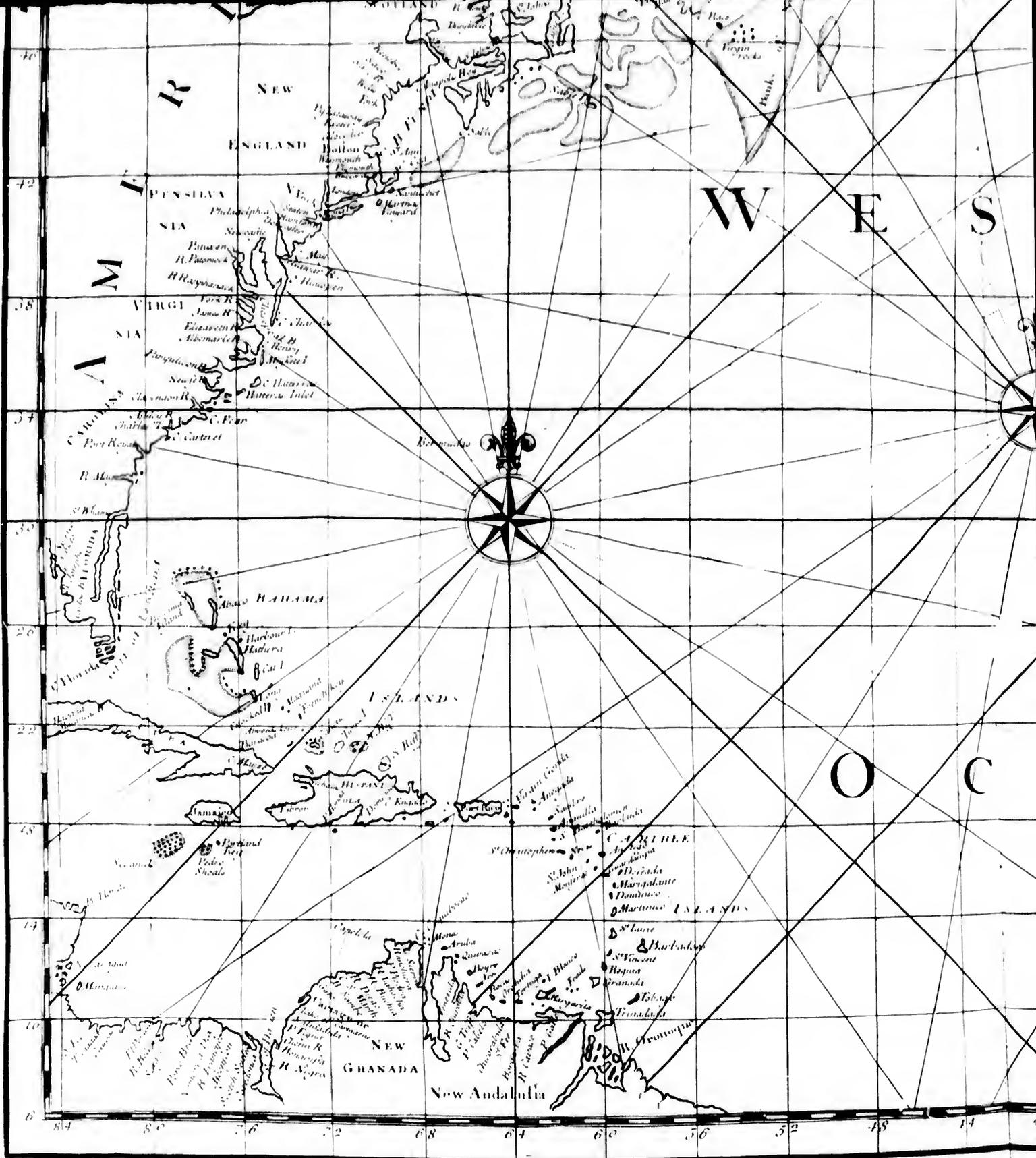
MOROCCO

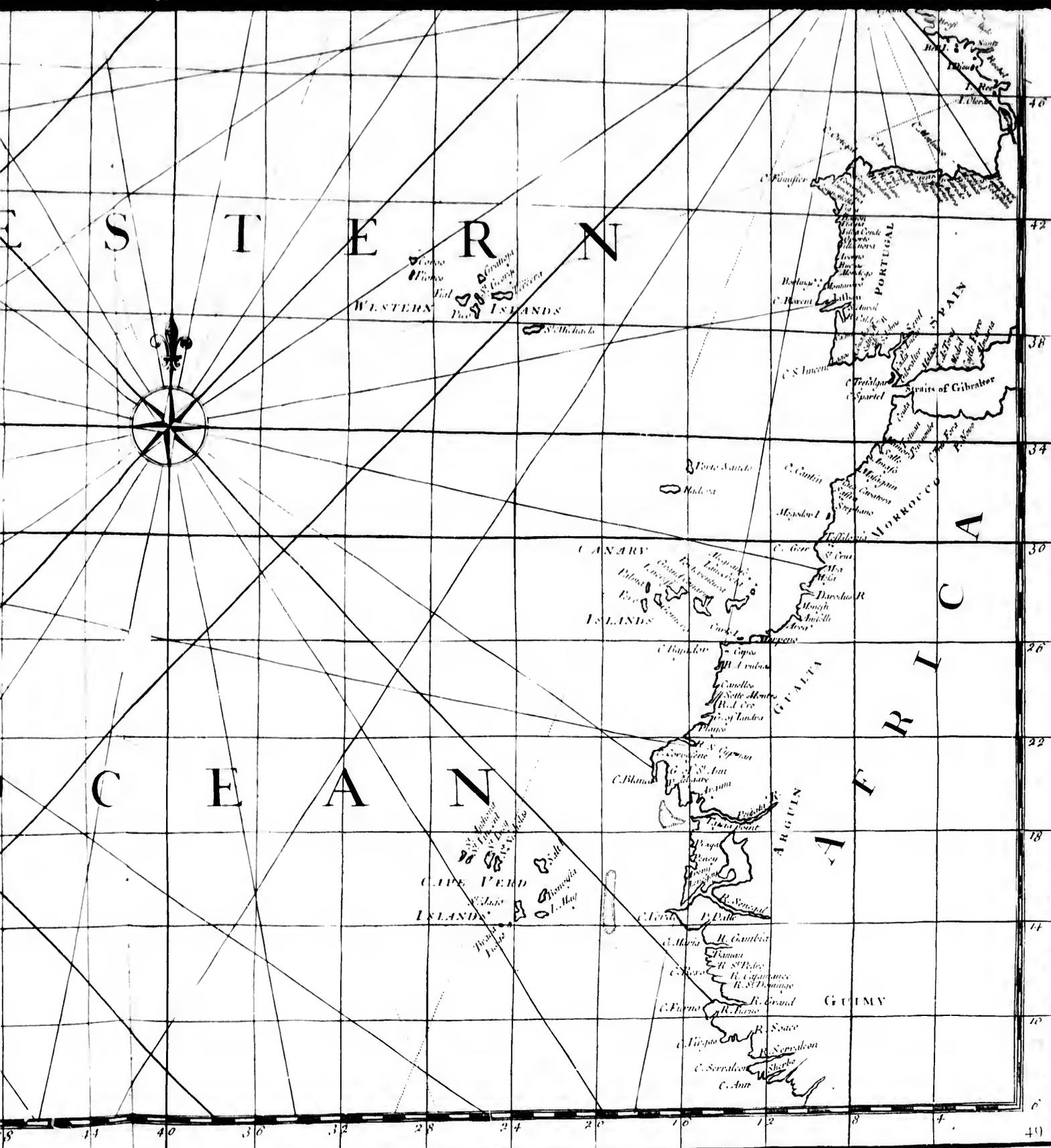
GIBRALTAR

CANARY ISLANDS

AFRICA

GALEA





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WESTERN ISLANDS

PORTUGAL

SPAIN

MOROCCO

GUINNY

GUINNY

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CAPE VERD ISLANDS

CANARY ISLANDS

ARGENTINA

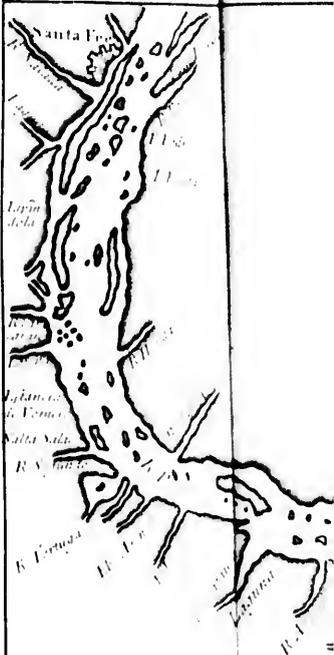
40
42
38
34
30
26
22
18
14
10
6
40

38 40 36 32 28 24 20 16 12 8 4 40

52

From
Placencia to Cape Bonavilla

English Leagues



English Leagues



Part of the Banks of
Newfoundland

100

The Coast of
CHILI AND PERU
 from *BALDIVIA*
 to
LIMA

A Scale of Latitudes to a degree



T H E
R E A T
S O U T H
S E A

Juan Fernandez

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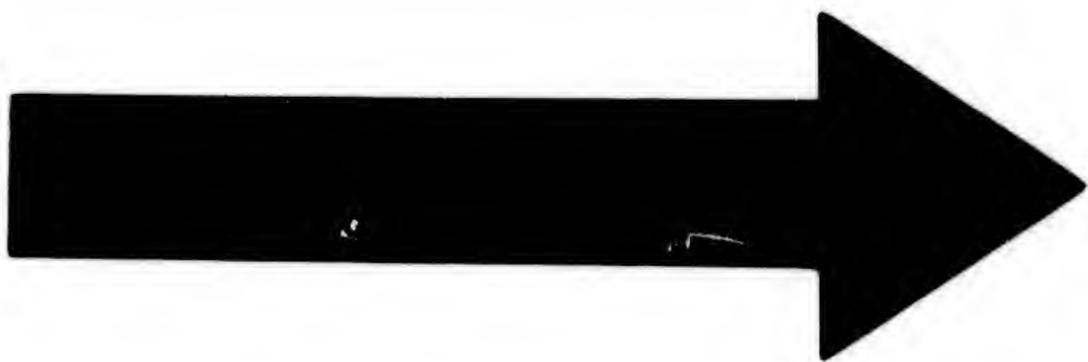
E

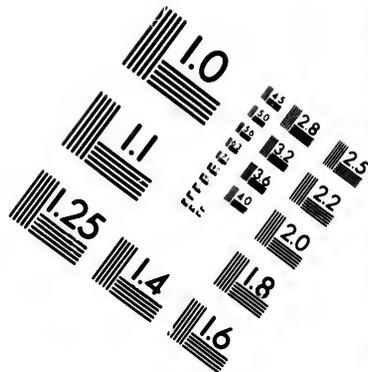
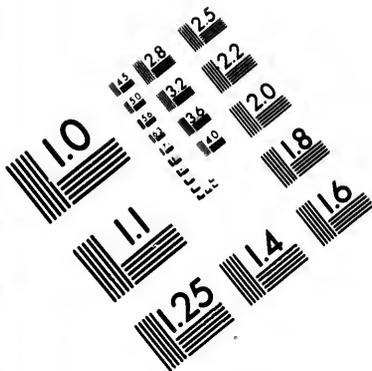
A

Pointe de la
O

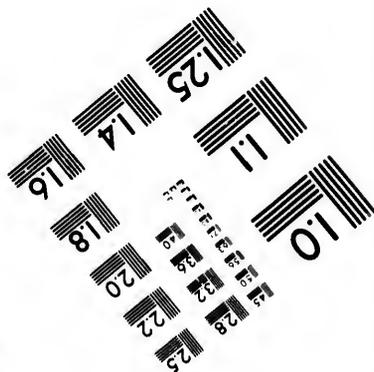
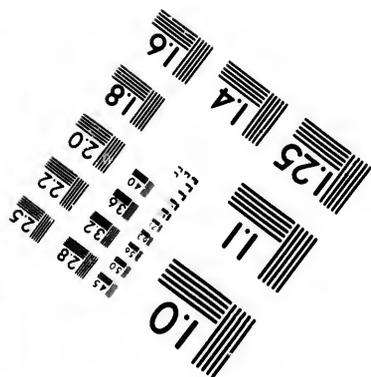
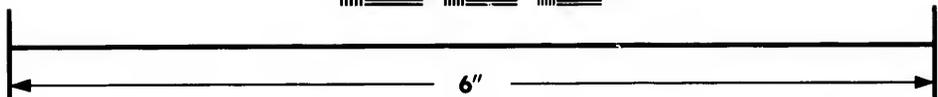
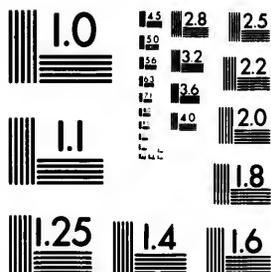


100 08 00 04 02 00 88 80 82 80



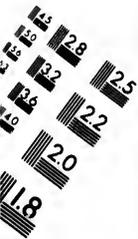


**IMAGE EVALUATION
TEST TARGET (MT-3)**



**Photographic
Sciences
Corporation**

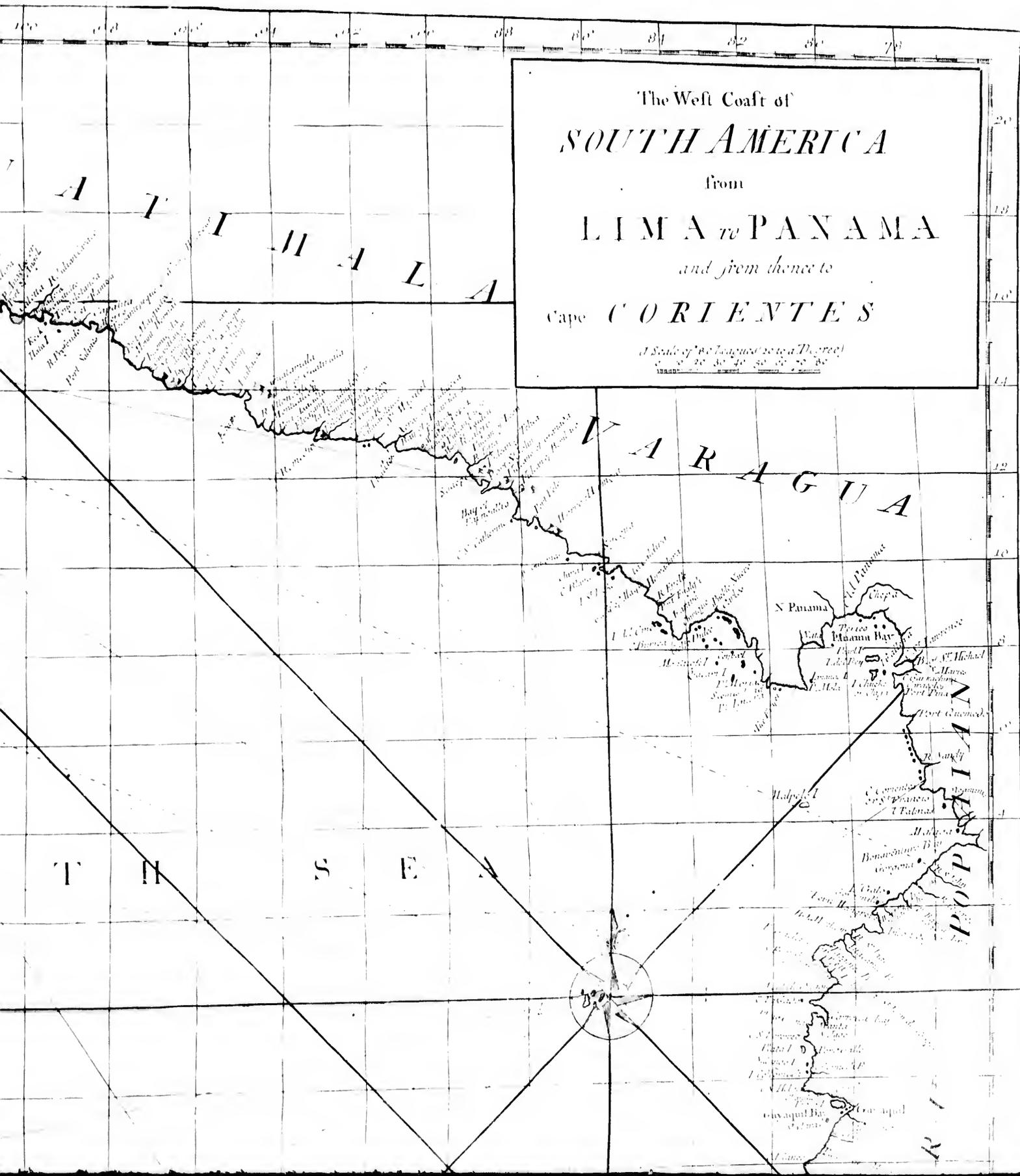
23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 972-4503



52

The West Coast of
SOUTH AMERICA
from
LIMA to PANAMA
and from thence to
Cape **CORIENTES**

(Scale of 40 leagues to a Degree)
0 10 20 30 40 50 60 70 80



ATLANTIC

VARAGUA

THISE

POPAYAN

G R E A T S O U T H
T H E

118 116 114 112 110 108 106 104 102 100 98

53

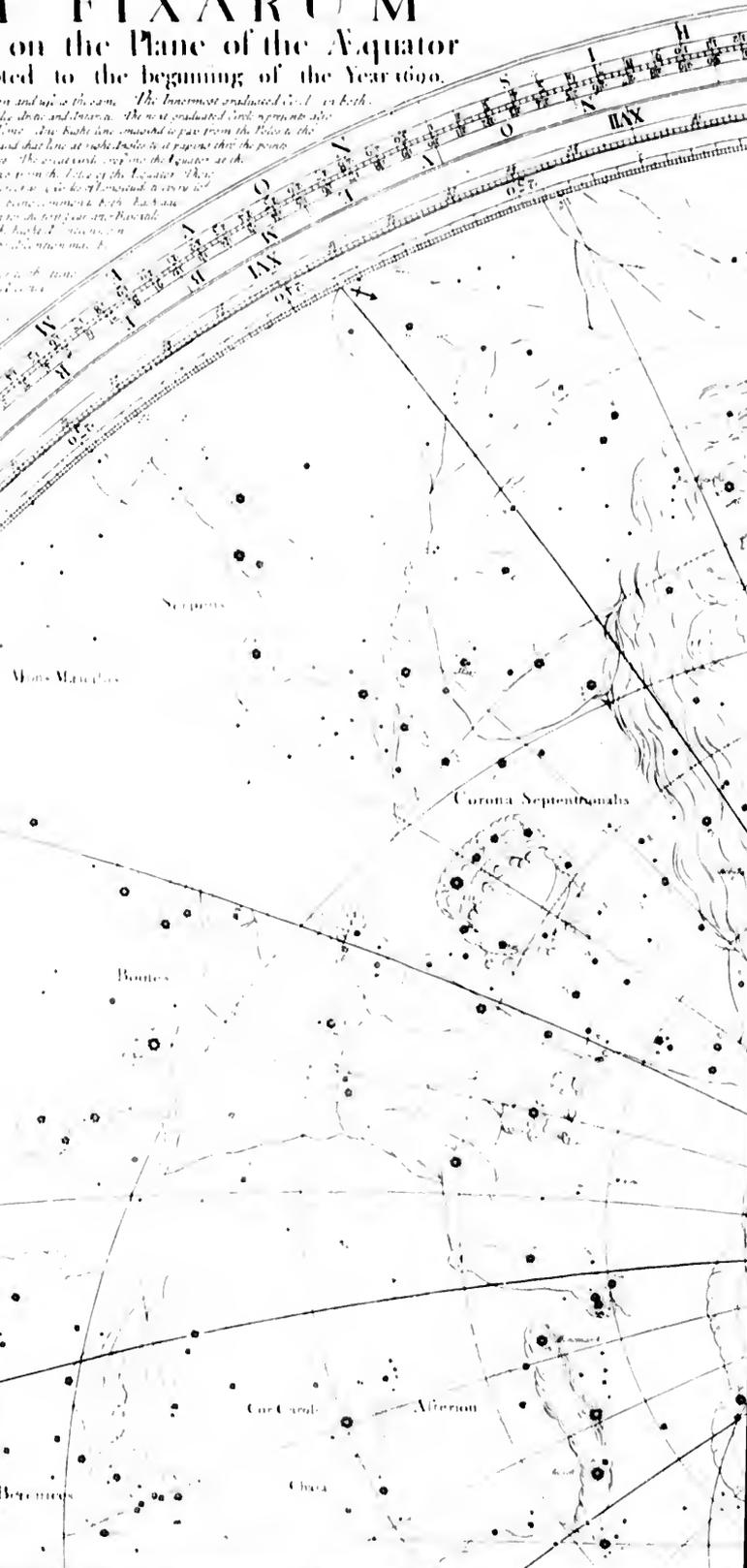
STELLARUM FIXARUM

The Northern Hemisphere Projected on the Plane of the Aequator
are carefully laid down and adapted to the beginning of the Year 1600.

*This Hemisphere was both constructed in the Plane of the Aequator, their declination and right ascension. The innermost graduated Circle is both
the Equator, and the ecliptic, and is divided into 360 Degrees, and 60 Minutes, and 10 Seconds, and is the center of the whole. The outermost graduated Circle represents the
celestial meridian, and is divided into 24 Hours, and 60 Minutes, and 10 Seconds, and is the center of the whole. The middle line, or ecliptic, is divided into 12
Signs, and 30 Degrees, and 60 Minutes, and 10 Seconds, and is the center of the whole. The other lines, or parallels, are divided into 90 Degrees, and 60
Minutes, and 10 Seconds, and are the center of the whole. The stars are marked with their names, and their right ascension and declination, and are
projected on the plane of the Aequator, and are adapted to the beginning of the Year 1600.*

The stars are marked with their names, and their right ascension and declination, and are projected on the plane of the Aequator, and are adapted to the beginning of the Year 1600.

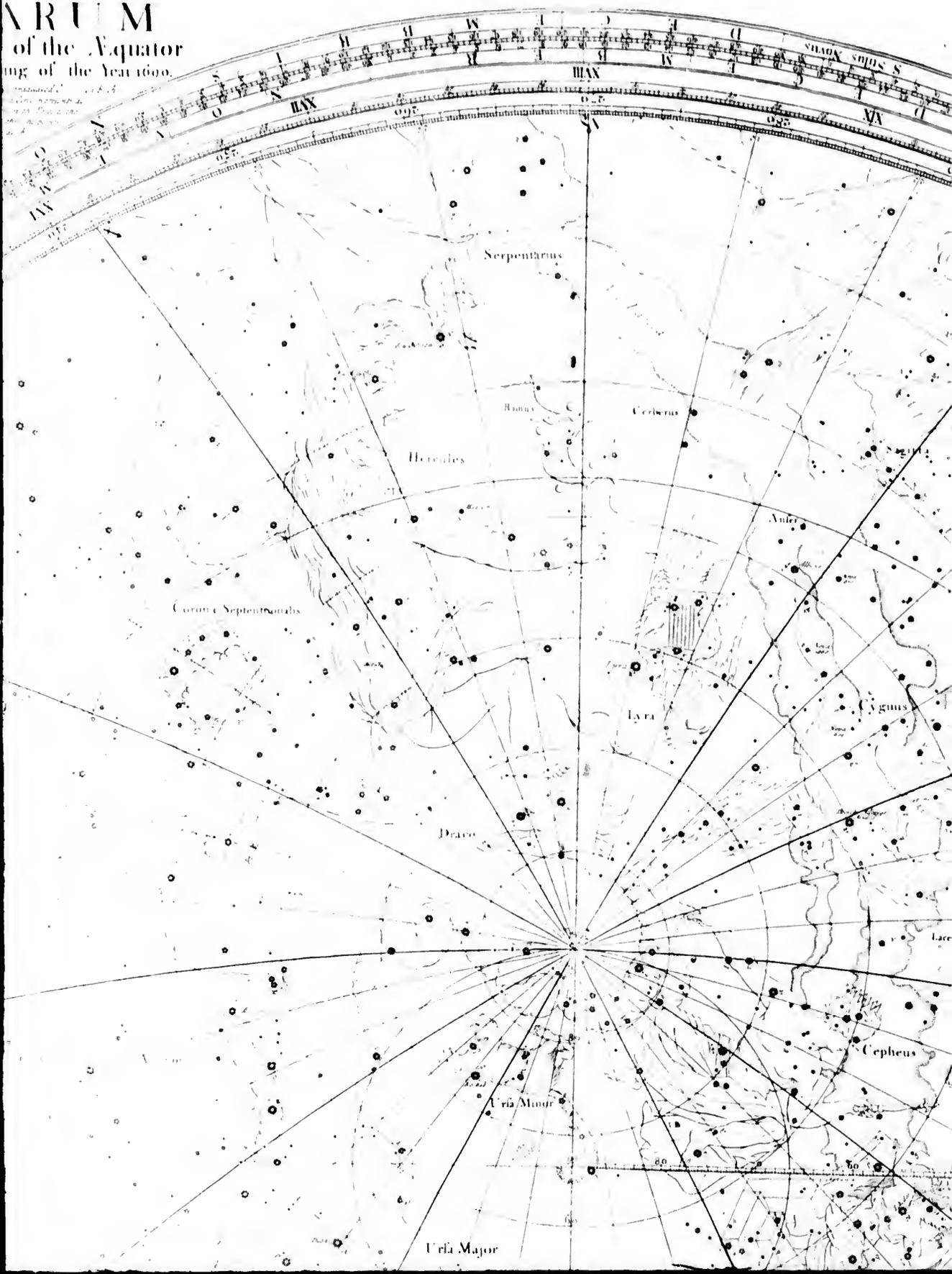
The stars are marked with their names, and their right ascension and declination, and are projected on the plane of the Aequator, and are adapted to the beginning of the Year 1600.



ARUM

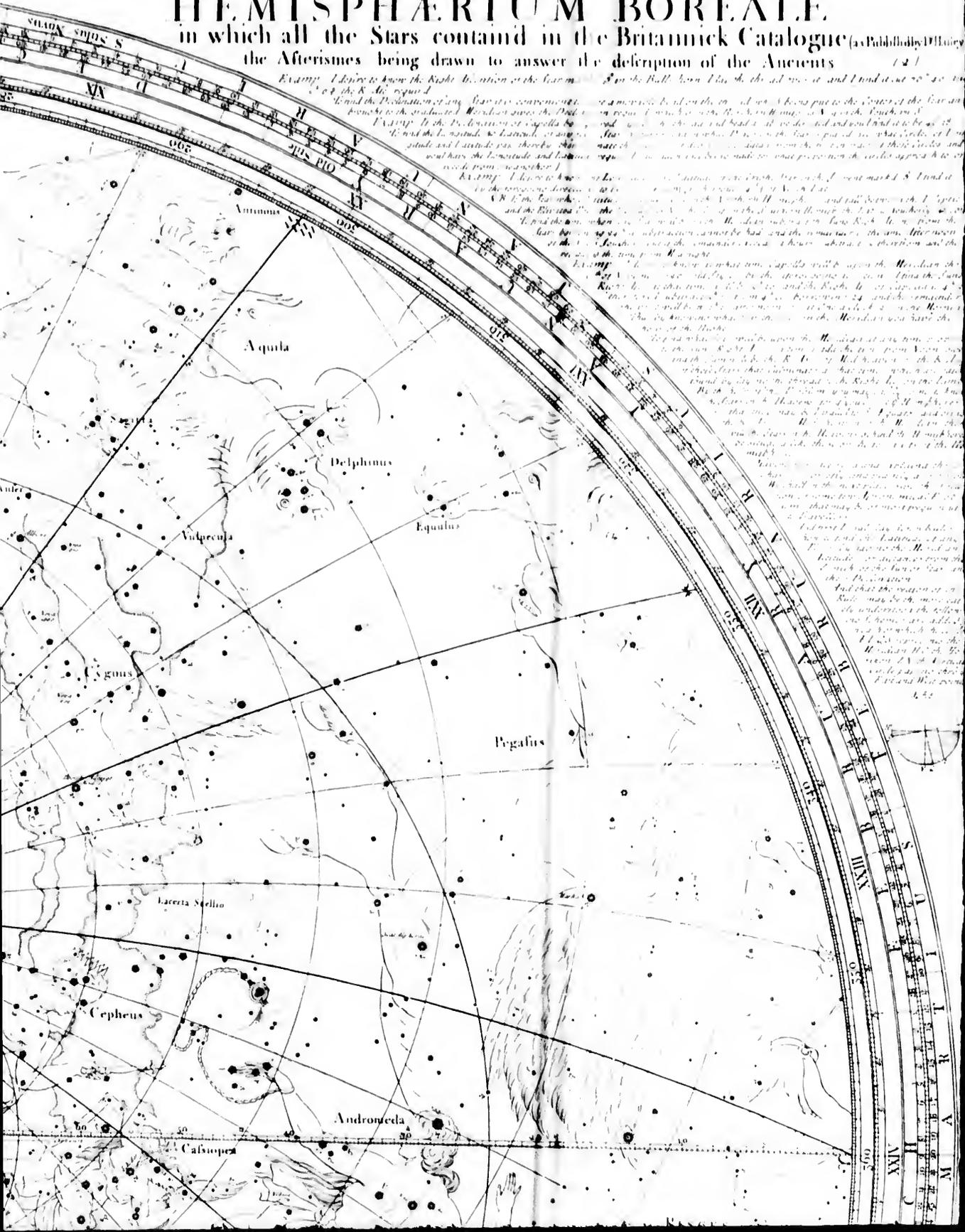
of the Aequator
ing of the Year 1600.

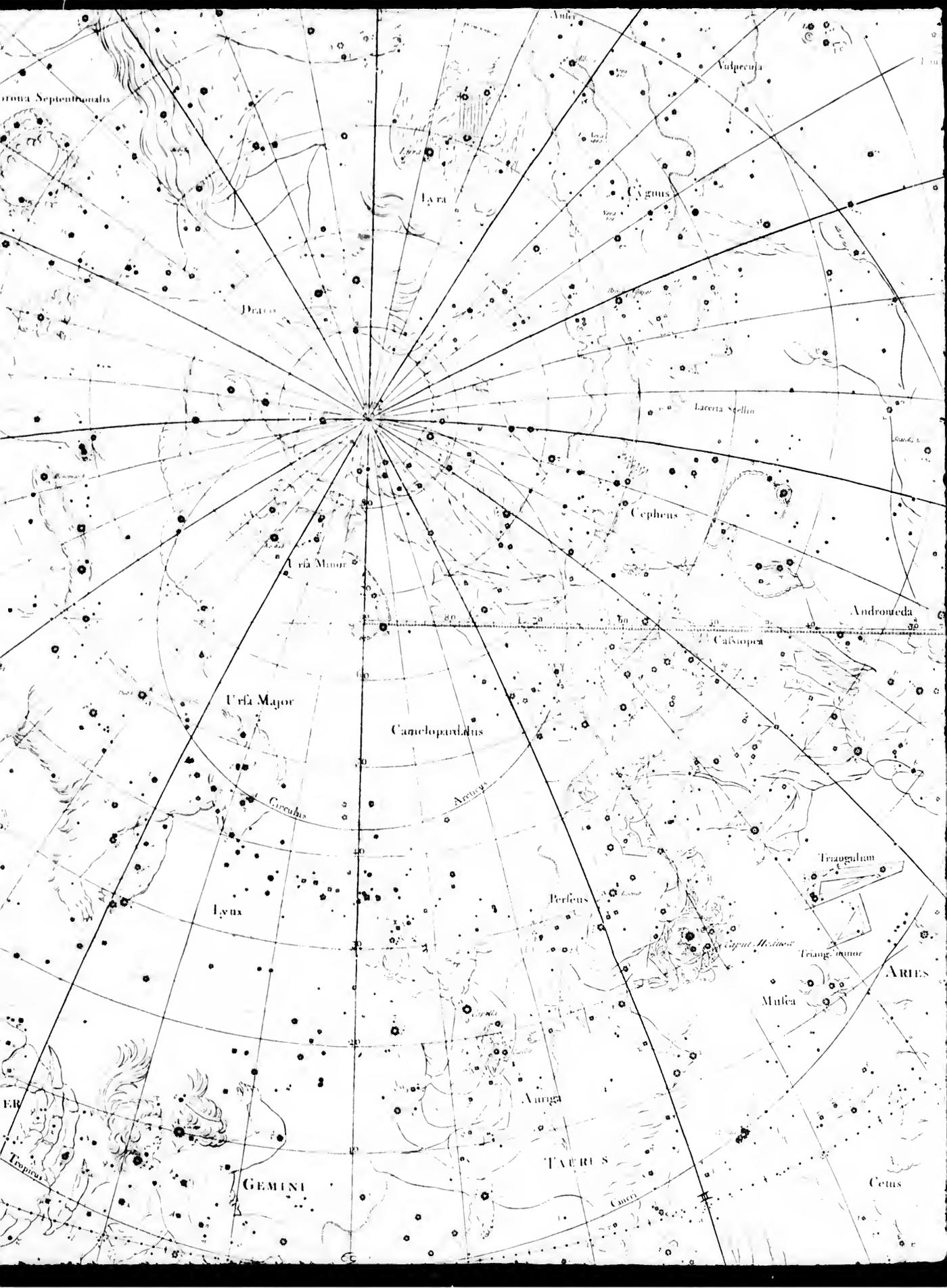
*Continued from the
preceding page.*



HEMISPHERIUM BOREALE

in which all the Stars contained in the Britannick Catalogue (as Published by Halley) the Aftertimes being drawn to answer the description of the Ancients





Ursa Septentrionalis

Andr

Vulpecula

Lyra

Cygnus

Draco

Lacerta Scellio

Cepheus

Ursa Minor

Andromeda

Cassiopeia

Ursa Major

Camelopardalis

Circulus

Arcturus

Triangulum

Lynx

Perseus

Triangulum

ARIES

Mulca

ER

Auriga

Taurus

Cetus

GEMINI

Cancer

24

STELLARUM FIXARUM

The Southern Hemisphere Projected on the Plane of the Aequator
 and those Observ'd by Dr. Edm. Halley at the Isl. of S. Helena,

When the true Declination is equal to the Complement of the Latitude, and the same demonstration, when the true Declination is below the Plane of the Aequator, and is equal above the Horizon, but below the Meridian. In determining when the happen, you have given the Longitude of the Latitude, equal to the true Declination at that time, together with the great Declination, and the true Declination, and the true Declination.

Prob III. Having the true Amplitude, and the true Declination of the Place, and the true Declination, find the true Amplitude, and Declination.

Prob IV. Given the true Declination, and the true Declination, find the true Amplitude, and Declination.

Prob V. Given the true Declination, and the true Declination, find the true Amplitude, and Declination.

Prob VI. The Lat. of the Place, and the true Declination, being given, find the true Amplitude, and Declination.

Prob VII. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob VIII. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob IX. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob X. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XI. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XII. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XIII. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XIV. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XV. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XVI. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XVII. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XVIII. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XIX. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XX. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XXI. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XXII. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XXIII. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XXIV. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XXV. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

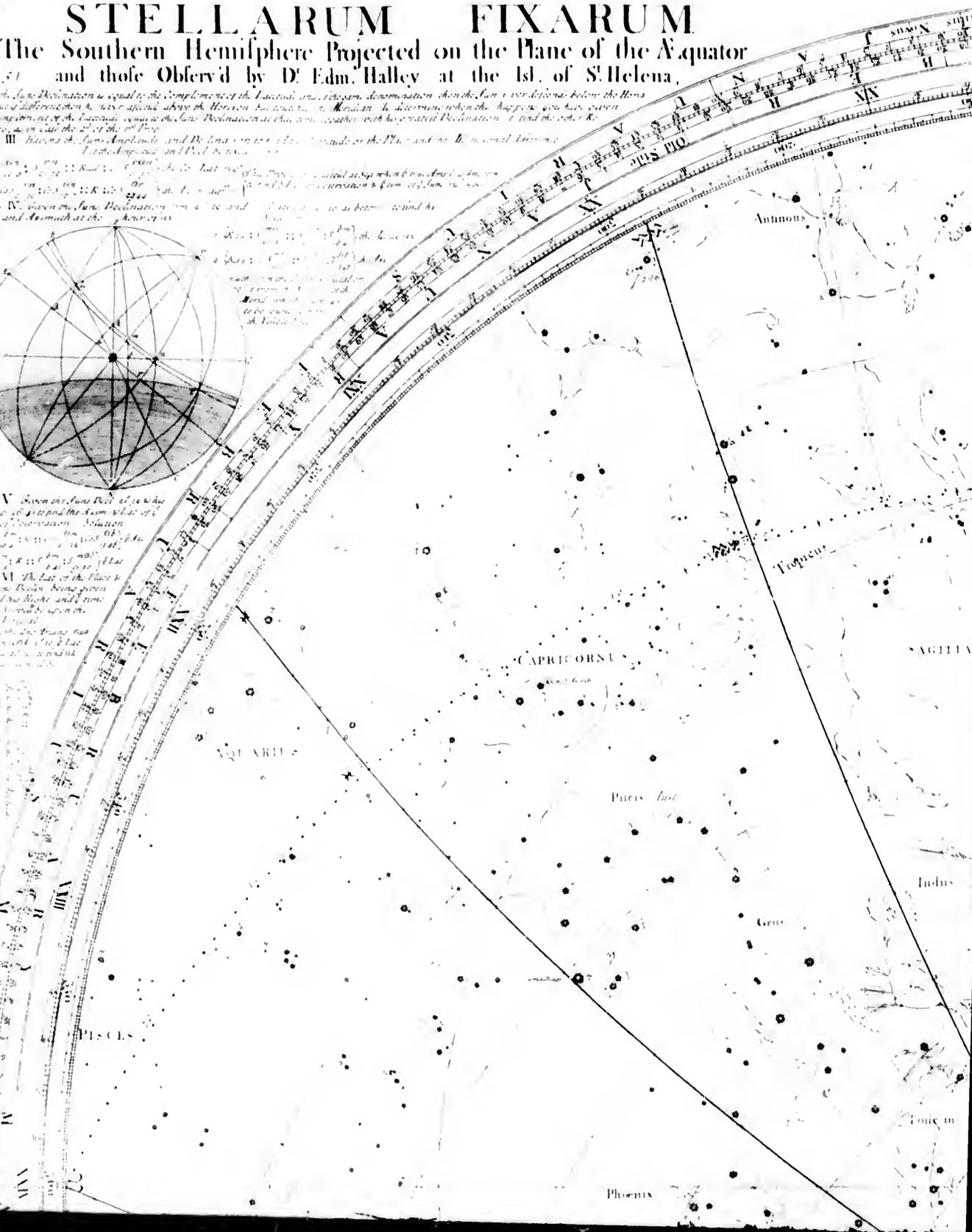
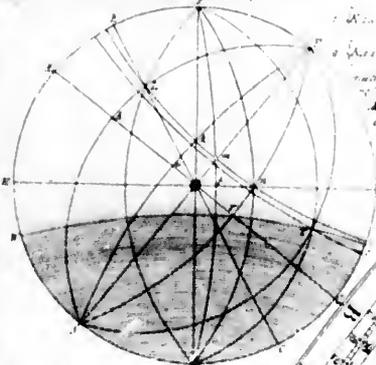
Prob XXVI. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XXVII. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XXVIII. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XXIX. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

Prob XXX. The true Amplitude, and the true Declination, being given, find the true Amplitude, and Declination.

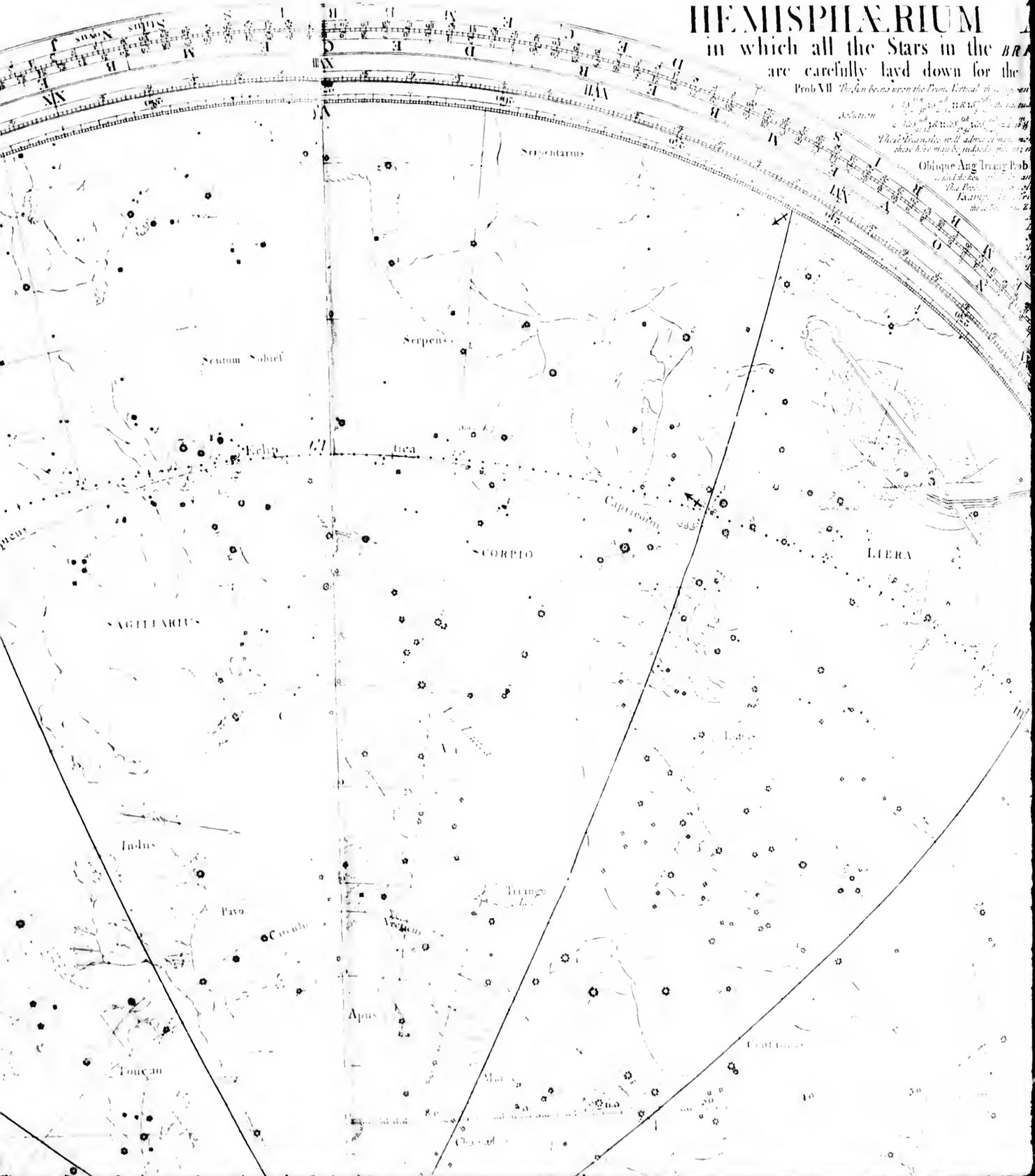


HEMISPÆRIUM

in which all the Stars in the BR
are carefully layd down for the

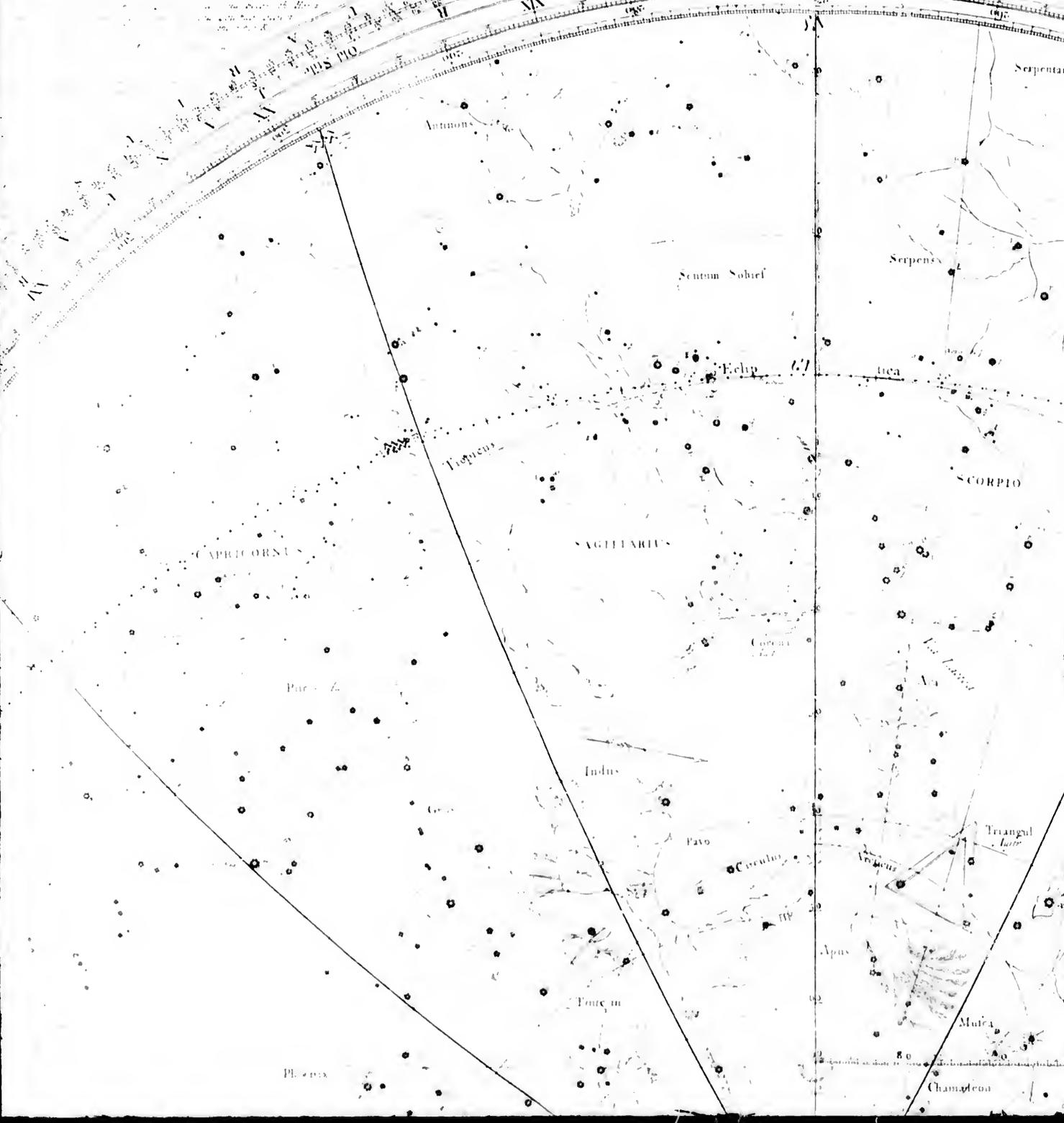
Prob VII The line being upon the Trop. Vertical the

Oblique Ang being Bob
The Prob VII
The Prob VII



CELESTIUM FIXARUM

Projected on the Plane of the Equator
Edm Halley at the Isl of S. Helena.



HEMISPHERIUM AUSTRALE

in which all the Stars in the *BRITANNICK CATALOGUE* are carefully layd down for the YEAR 1690 By *Josph Harris* (10)

Prob VII The Sun being upon the Prime Vertical, the *z* is upon his Equator, and Declination is find the Sun's Place, and the Hour of the Day

Resolution

When the Sun is upon the Prime Vertical, the *z* is upon his Equator, and Declination is find the Sun's Place, and the Hour of the Day

When the Sun is upon the Prime Vertical, the *z* is upon his Equator, and Declination is find the Sun's Place, and the Hour of the Day

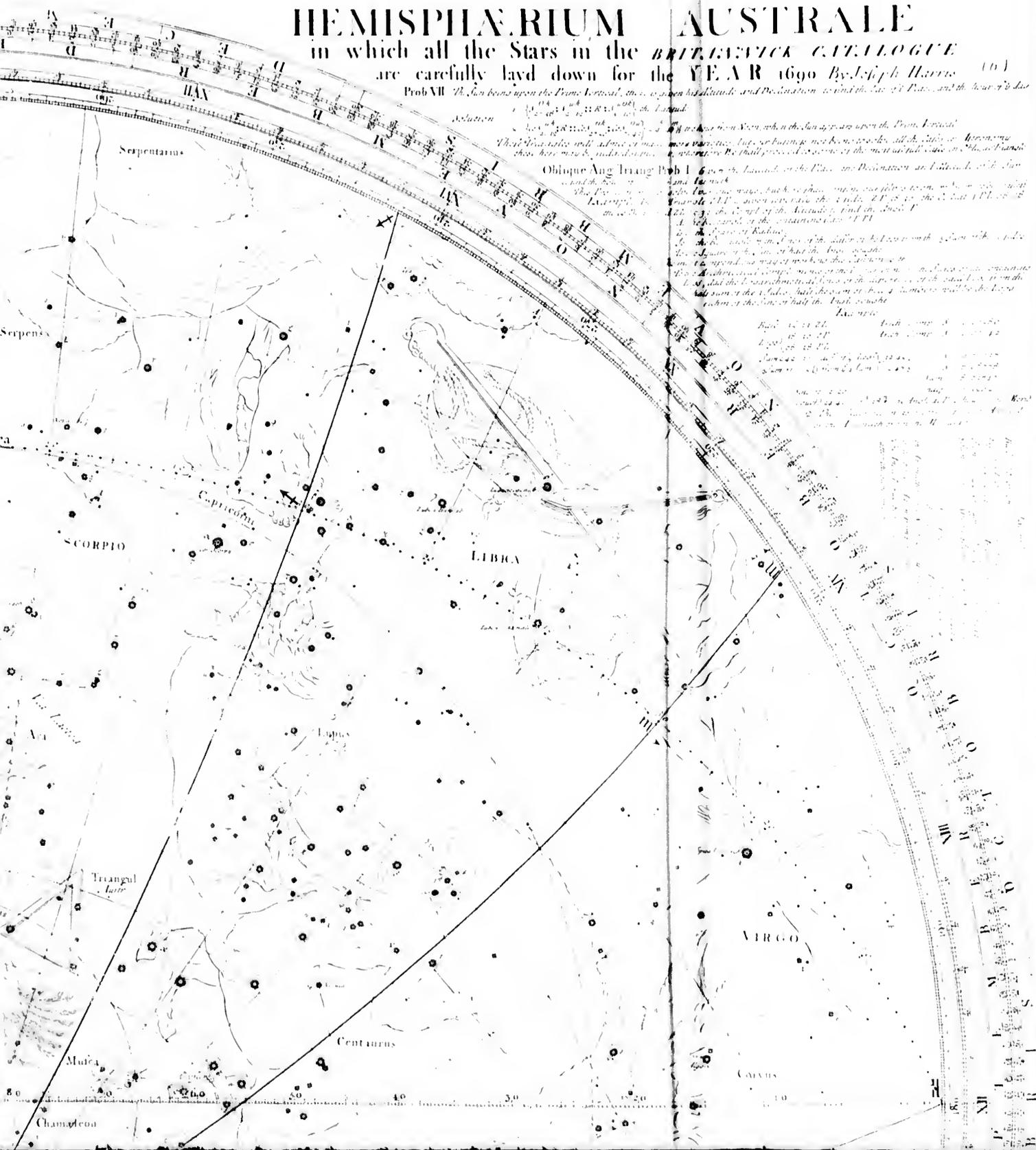
Oblique Ang Intrag Prob I

When the Sun is upon the Prime Vertical, the *z* is upon his Equator, and Declination is find the Sun's Place, and the Hour of the Day

When the Sun is upon the Prime Vertical, the *z* is upon his Equator, and Declination is find the Sun's Place, and the Hour of the Day

When the Sun is upon the Prime Vertical, the *z* is upon his Equator, and Declination is find the Sun's Place, and the Hour of the Day

When the Sun is upon the Prime Vertical, the *z* is upon his Equator, and Declination is find the Sun's Place, and the Hour of the Day



CAPRICORNUS

SAGITTARI

QUARTUS

Piscis Auct

Indus

Gru

PISCES

Toucan

Phoenix

Nip

Eridanus

Colo
No

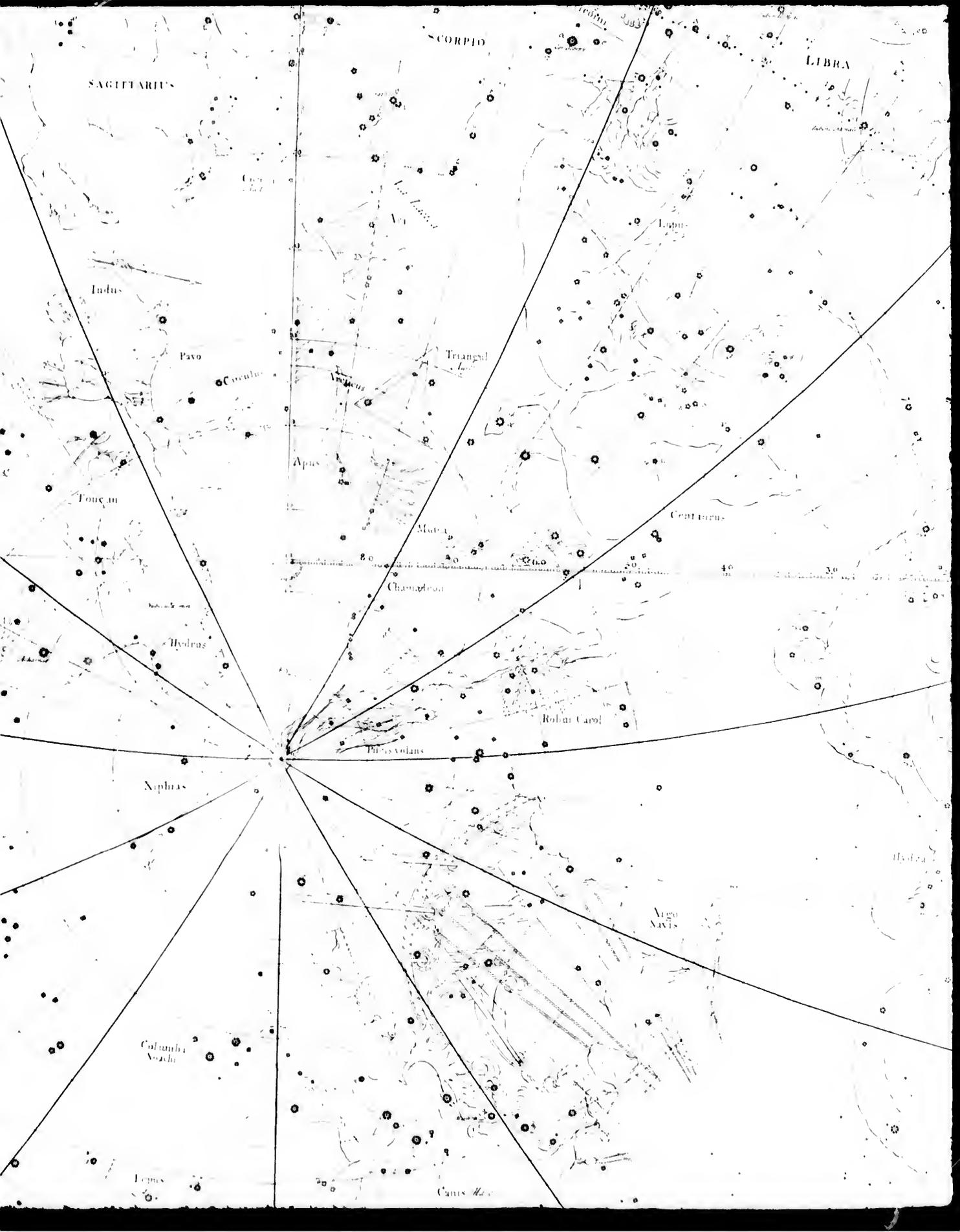
Lepu

Handwritten notes in the bottom left corner, likely describing the map's construction or astronomical data.

The first paragraph discusses the use of the ecliptic as a reference line, mentioning the zodiac signs and the positions of the sun and planets. It notes that the ecliptic is inclined to the celestial equator and that the zodiac signs are marked along it.

The second paragraph describes the construction of the map, mentioning the use of a gnomon and the measurement of the sun's altitude. It notes that the map is a projection of the celestial sphere and that the stars are plotted according to their positions in the sky.

The third paragraph discusses the accuracy of the map, mentioning that it is based on observations made in the year 1687. It notes that the positions of the stars are given to the nearest minute of arc and that the map is a very accurate representation of the celestial sphere.



CAPRICORNUS

SAGITTARIUS

SCORPIO

Piscis *Aut.*

Grus

Indus

Corona *Aur.*

Pavo

Circinus

Antares

Triangulum *Aur.*

Phoenix

Toucan

Mutina

Chamaeleon

Hydrus

Piscis volans

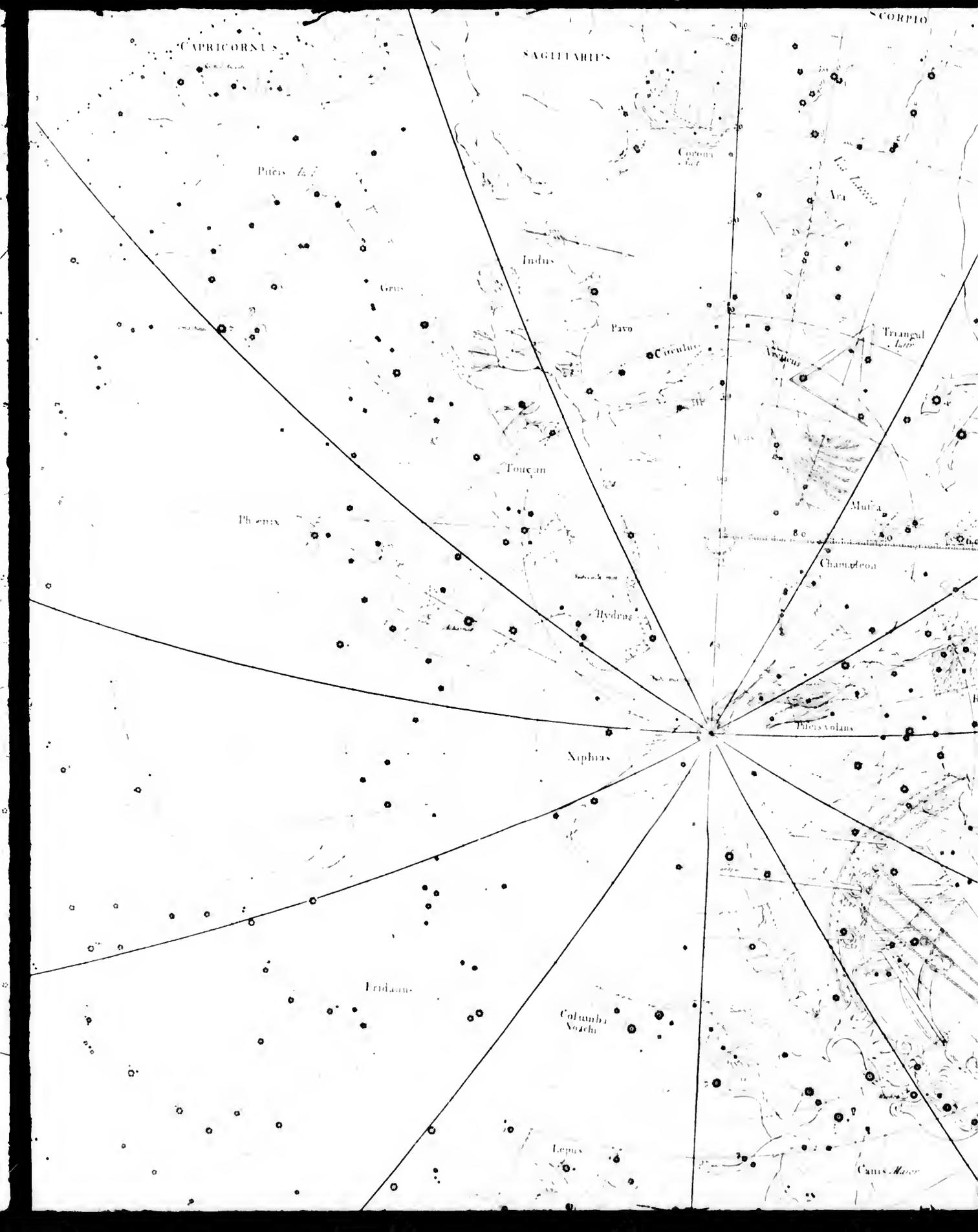
Aphras

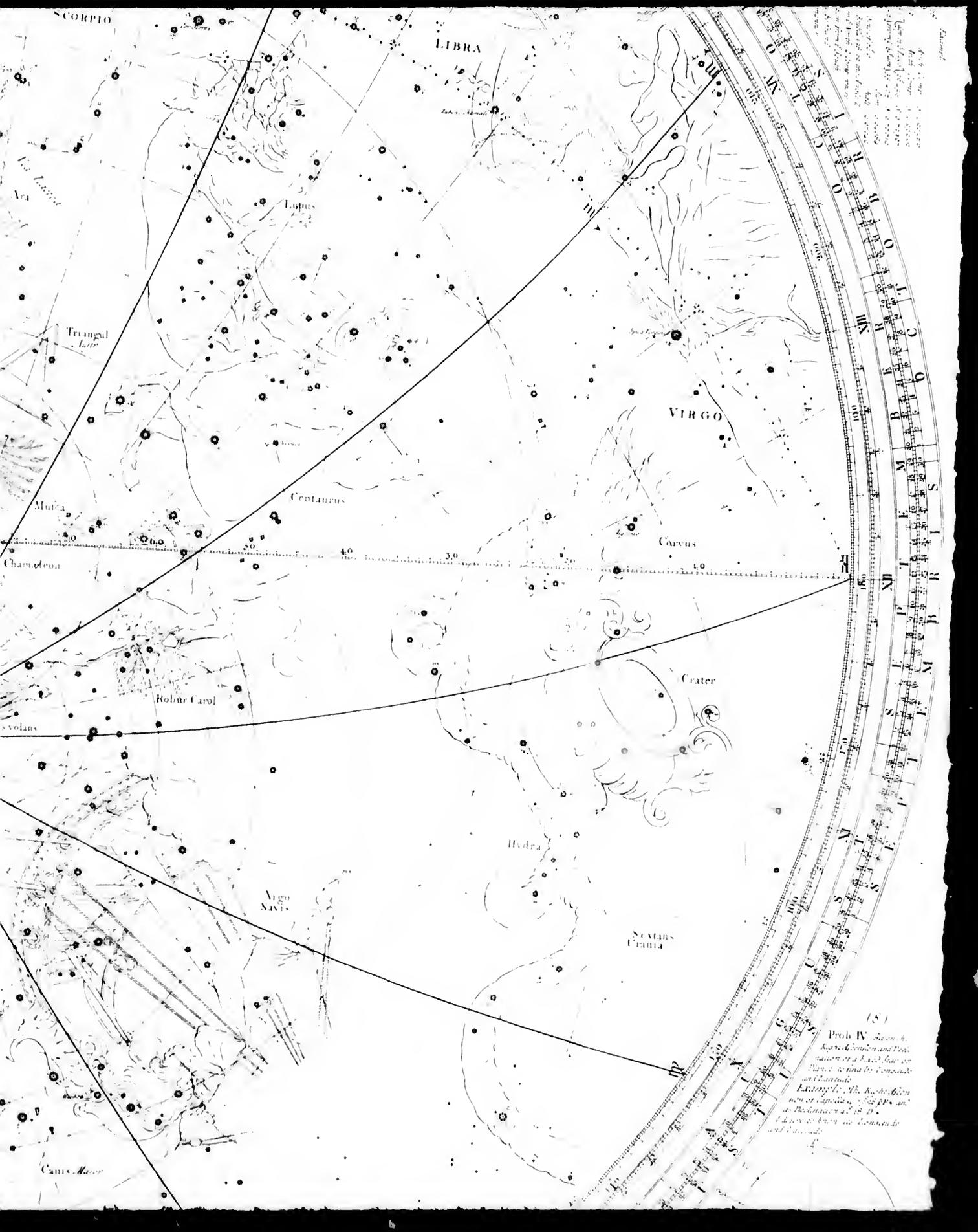
Eridanus

Columba *Vocti.*

Lepus

Canis *Major*





Prob IV. Section 4.
 A new method of determining the
 position of a fixed star, or
 planet, or moon, by the longitude
 and latitude.
 Edited by J. M. Wright, Esq.
 and published by J. P. and
 Co. Boston, 1794.
 (S)

