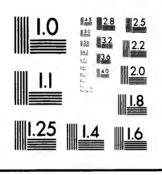


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No. 30.

## Strabo's Introduction to Geography

THE FIRST CHAPTER OF STRABO'S GEOGRAPHY.

r. If the scientific investigation of any subject be the proper avocation of the philosopher, Geography, the science of which we propose to treat, is certainly entitled to a high place; and this is evident from many considerations. They who first ventured to handle the matter were distinguished men. Homer, Anaximander the Milesian, and Hecatæus (his fellow-citizen according to Eratosthenes), Democritus, Eudoxus, Dicæarchus, Ephorus, with many others, and after these Eratosthenes, Po-

lybius, and Posidonius, all of them philosophers.

Nor is the great learning, through which alone this subject can be approached, possessed by any but a person acquainted with both human and divine things, and these attainments constitute what is called philosophy. In addition to its vast importance in regard to social life, and the art of government, Geography unfolds to us the celestial phenomena, acquaints us with the occupants of the land and ocean, and the vegetation, fruits, and peculiarities of the various quarters of the earth, a knowledge of which marks him who cultivates it as a man earnest in the great problem of life and happiness.

2. Admitting this, let us examine more in detail the points

we have advanced.

And, first [we maintain], that both we and our predecessors, amongst whom is Hipparchus, do justly regard Homer as the founder of geographical science, for he not only excelled all, ancient as well as modern, in the sublimity of his poetry, but also in his experience of social life. Thus it was that he not only exerted himself to become familiar with as many historic tacts as possible, and transmit them to posterity, but also with

the various regions of the inhabited land and sea, some intimately, others in a more general manner. For otherwise he would not have reached the utmost limits of the earth, travers-

ing it in his imagination.

3. First, he stated that the earth was entirely encompassed by the ocean, as in truth it is; afterwards he described the countries, specifying some by name, others more generally by various indications, explicitly defining Libya, Ethiopia, the Sidonians, and the Erembi (by which latter are probably intended the Troglodyte Arabians); and alluding to those farther east and west as the lands washed by the ocean, for in ocean he believed both the sun and constellations to rise and set.

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- "Now from the gently swelling flood profound The sun arising, with his earliest rays, In his ascent to heaven smote on the fields."
- "And now the radiant sun in ocean sank, Dragging night after him o'er all the earth."

The stars also he describes as bathed in the ocean.

4. He portrays the happiness of the people of the West, and the salubrity of their climate, having no doubt heard of the abundance of Iberia, which had attracted the arms of Hercules, afterwards of the Phœnicians, who acquired there an extended rule, and finally of the Romans. There the airs of Zephyr breathe, there the poet feigned the fields of Elysium, when he tells us Menelaus was sent thither by the gods;

"Thee the gods
Have destined to the blest Elysian isles,
Earth's utmost boundaries. Rhadamanthus there
Forever reigns, and there the human kind
Enjoy the easiest life: no snow is there,
No biting winter, and no drenching shower,
But Zephyr always gently from the sea
Breathes on them, to refresh the happy race."

5. The Isles of the Blest are on the extreme west of Maurusia, near where its shore runs parallel to the opposite coast of Spain; and it is clear he considered these regions also Blest, from their contiguity to the Islands.

6. He tells us, also, that the Ethiopians are far removed, and bounded by the ocean: far removed,—

"The Ethiopians, utmost of mankind, These eastward situate, those toward the west."

Nor was he mistaken in calling them separated into two divisions, as we shall presently show: and next to the ocean,—

"For to the banks of the Oceanus, Where Ethiopia holds a feast to Jove, He journey'd yesterday."

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Speaking of the Bear, he implies that the most northern part of the earth is bounded by the ocean:—

"Only star of these denied To slake his beams in Ocean's briny baths."

Now, by the "Bear" and the "Wain" he means the Arctic Circle; otherwise he would never have said, "It alone is deprived of the baths of the ocean," when such an infinity of stars is to be seen continually revolving in that part of the hemisphere. Let no one any longer blame his ignorance for being merely acquainted with one Bear, when there are two. It is probable that the second was not considered a constellation until, on the Phænicians specially designating it, and employing it in navigation, it became known as one to the Greeks. Such is the case with the Hair of Berenice, and Canopus, whose names are but of yesterday; and, as Aratus remarks, there are numbers which have not yet received any designation. Crates, therefore, is mistaken when, endeavoring to amend what is correct, he reads the verse thus:

#### Οίος δ' ἄμμορός ἐστι λοετρων,

replacing oin by oios, with a view to make the adjective agree with the Arctic Circle, which is masculine; instead of the Arctic Constellation, which is feminine. The expression of Heraclitus is far more preferable and Homeric, who thus figuratively describes the Arctic Circle as the Bear,—"The Bear is the limit of the dawn and of the evening, and from the region of the Bear we have fine weather." Now it is not the constellation of the Bear, but the Arctic Circle, which is the limit of the rising and the setting stars.

By the Bear, then, which he elsewhere calls the Wain, and describes as pursuing Orion, Homer means us to understand the Arctic Circle; and by the ocean, that horizon into which, and out of which, the stars rise and set. When he says that the Bear turns round and is deprived of the ocean, he was aware that the Arctic Circle [always] extended to the sign opposite the most northern point of the horizon. Adapting the words of the poet to this view, by that part of the earth nearest to the ocean we must understand the horizon, and by the Arctic Circle that which extends to the signs which seem to our senses to touch in succession the most northern point of the horizon. Thus, according to him, this portion of the earth is washed by

the ocean. With the nations of the North he was well acquainted, although he does not mention them by name, and indeed at the present day there is no regular title by which they are all distinguished. He informs us of their mode of life, describing them as "wanderers," "noble milkers of mares," "living on cheese," and "without wealth."

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7. In the following speech of Juno, he states that the ocean

surrounds the earth: -

"For to the green earth's utmost bounds I go To visit there the parent of the gods, Oceanus."

Does he not here assert that ocean bounds all its extremities, and does it not surround these extremities? Again, in the Hoplopæia, he places the ocean in a circle round the border of Achilles' shield. Another proof of the extent of his knowledge is his acquaintance with the ebb and flow of the sea, calling it "the ebbing ocean." Again,

"Each day she thrice disgorges, and again Thrice drinks, insatiate, the deluge down."

The assertion of thrice, instead of twice, is either an error of the author or a blunder of the scribe, but the phenomenon is the same, and the expression soft-flowing has reference to the flood-tide, which has a gentle swell, and does not flow with a full rush. Posidonius believes that where Homer describes the rocks as at one time covered with the waves, and at another left bare, and when he compares the ocean to a river, he alludes to the flow of the ocean. The first supposition is correct, but for the second there is no ground, inasmuch as there can be no comparison between the flow, much less the ebb, of the sea and the current of a river. There is more probability in the explanation of Crates, that Homer describes the whole ocean as deep-flowing, ebbing, and also calls it a river, and that he also describes a part of the ocean as a river, and the flow of a river; and that he is speaking of a part, and not the whole, when he thus writes: -

> "When down the smooth Oceanus impelled By prosperous gales, my galley, once again, Cleaving the billows of the spacious deep, Had reach'd the Ææan isle."

He does not, however, mean the whole, but the flow of the river in the ocean, which forms but a part of the ocean. Crates says he speaks of an estuary or gulf, extending from the winter tropic toward the south pole. Now, any one quitting this might

still be in the ocean; but for a person to leave the whole, and still to be in the whole, is an impossibility. But Homer says that, leaving the flow of the river, the ship entered on the waves of the sea, which is the same as the ocean. If you take it otherwise, you make him say that, departing from the ocean, he came

to the ocean. But this requires further discussion.

8. Perception and experience alike inform us that the earth we inhabit is an island, since, wherever men have approached the termination of the land, the sea, which we designate ocean, has been met with; and reason assures us of the similarity of those places which our senses have not been permitted to sur-For in the east the land occupied by the Indians, and in the west by the Iberians and Maurusians, is wholly encompassed [by water], and so is the greater part on the south and And as to what remains as yet unexplored by us, because navigators, sailing from opposite points, have not hitherto fallen in with each other, it is not much, as any one may see who will compare the distances between those places with which we are already acquainted. Nor is it likely that the Atlantic Ocean is divided into two seas by narrow isthmuses so placed as to prevent circumnavigation: how much more probable that it is confluent and uninterrupted! Those who have returned from an attempt to circumnavigate the earth do not say they have been prevented from continuing their voyage by any opposing continent,—for the sea remained perfectly open,—but through want of resolution and the scarcity of provision. This theory, too, accords better with the ebb and flow of the ocean; for the phenomenon, both in the increase and diminution, is everywhere identical, or at all events has but little difference, as if produced by the agitation of one sea and resulting from one cause.

9. We must not credit Hipparchus, who combats this opinion, denying that the ocean is everywhere similarly affected; or that, even if it were, it would not follow that the Atlantic flowed in a circle, and thus continually returned into itself. Seleucus, the Babylonian, is his authority for this assertion. For a further investigation of the ocean and its tides we refer to Posidonius and Athenodorus, who have fully discussed this subject: we will now only remark that this view agrees better with the uniformity of the phenomenon; and that the greater the amount of moisture surrounding the earth, the easier would the heavenly bodies be supplied with vapors from thence.

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10. Homer, besides the boundaries of the earth, which he fully describes, was likewise well acquainted with the Mediterranean.

Starting from the Pillars, this sea is encompassed by Libya, Egypt, and Phœnicia, then by the coasts opposite Cyprus, the Solymi, Lycia, and Caria, and then by the shore which stretches between Mycale and Troas, and the adjacent islands, every one of which he mentions, as well as those of the Propontis and the Euxine, as far as Colchis, and the locality of Jason's expedition. Furthermore, he was acquainted with the Cimmerian Bosphorus, having known the Cimmerians, and that not merely by name, but as being familiar with themselves. About this time, or a little before, they had ravaged the whole country, from the Bosphorus to Ionia. Their climate he characterizes as dismal, in the following lines:—

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"With clouds and darkness veiled, on whom the sun Deigns not to look with his beam-darting eye,

But sad night canopies the woful race."

He must also have been acquainted with the Ister, since he speaks of the Mysians, a Thracian race, dwelling on the banks of the Ister. He knew also the whole Thracian coast adjacent thereto, as far as the Peneus; for he mentions individually the Paronians, Athos, the Axius, and the neighboring islands. From hence to Thesprotis is the Grecian shore, with the whole of which he was acquainted. He was besides familiar with the whole of Italy, and speaks of Temese and the Sicilians, as well as the whole of Spain and its fertility, as we have said before. If he omits various intermediate places, this must be pardoned; for even the compiler of a Geography overlooks numerous details. We must forgive him, too, for intermingling fabulous narrative with his historical and instructive work. This should not be complained of: nevertheless, what Eratosthenes says is false, that the poets aim at amusement, not instruction, since those who have treated upon the subject most profoundly regard poesy in the light of a primitive philosophy. But we shall refute Eratosthenes more at length, when we have occasion again to speak of Homer.

that we have already advanced is sufficient to prove that poet the father of geography. Those who followed in his track are also well known as great men and true philosophers. The two immediately succeeding Homer, according to Eratosthenes, were Anaximander, the disciple and fellow-citizen of Thales, and Hecatæus the Milesian. Anaximander was the first to publish a geographical chart. Hecatæus left a work [on the same subject], which we can identify as his by means of his

other writings.

this subject requires; and Hipparchus, in his Strictures on Eratosthenes, well observes "that no one can become really proficient in geography, either as a private individual or as a professor, without an acquaintance with astronomy, and a knowledge of eclipses. For instance, no one could tell whether Alexandria in Egypt were north or south of Babylon, nor yet the intervening distance, without observing the latitudes. Again, the only means we possess of becoming acquainted with the longitudes of different places is afforded by the eclipses of the sun and moon." Such are the very words of Hipparchus.

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13. Every one who undertakes to give an accurate description of a place should be particular to add its astronomical and geometrical relations, explaining carefully its extent, distance, degrees of latitude, and "climate." Even a builder before constructing a house, or an architect before laying out a city, would take these things into consideration: much more should he who examines the whole earth; for such things in a peculiar manner belong to him. In small distances a little deviation north or south does not signify, but when it is the whole circle of the earth, the north extends to the furthest confines of Scythia, or Keltica, and the south to the extremities of Ethiopia: there is a wide difference here. The case is the same, should we inhabit India or Spain, one in the east, the other far west, and, as we are aware, the antipodes to each other.

14. The [motions] of the sun and stars and the centripetal force meet us on the very threshold of such subjects, and compel us to the study of astronomy, and the observation of such phenomena as each of us may notice; in which, too, very considerable differences appear, according to the various points of observation. How could any one undertake to write accurately and with propriety on the differences of the various parts of the earth, who was ignorant of these matters? and although, if the undertaking were of a popular character, it might not be advisable to enter thoroughly into detail, still we should endeavor to include everything which could be comprehended by the general reader.

15. He who has thus elevated his mind, will he be satisfied with anything less than the whole world? If, in his anxiety accurately to portray the inhabited earth, he has dared to survey heaven, and make use thereof for purposes of instruction, would it not seem childish, were he to refrain from examining the whole earth, of which the inhabited is but a part,—its

size, its features, and its position in the universe: whether other portions are inhabited besides those on which we dwell, and, if so, their amount? What is the extent of the regions not peopled? what their peculiarities, and the cause of their remaining as they are? Thus it appears that the knowledge of geography is connected with meteorology and geometry, that it unites the things of earth to the things of heaven, as though they were nearly allied and not separated.

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16. To the various subjects which it embraces let us add natural history, or the history of the animals, plants, and other different productions of the earth and sea, whether serviceable or useless, and my original statement will, I think, carry perfect conviction with it.

That he who should undertake this work would be a benefactor to mankind, reason and the voice of antiquity agree. The poets feign that they were the wisest heroes who travelled and wandered most in foreign climes, and to be familiar with many countries, and the disposition of the inhabitants, is, according to them, of vast importance. Nestor prides himself on having associated with the Lapithæ, to whom he went, "having been invited thither from the Apian land afar."

So does Menelaus: -

"Cyprus, Phænicia, Sidon, and the shores Of Egypt, roaming without hope I reach'd; In distant Ethiopia thence arrived, And Libya, where the lambs their foreheads show With budding horns defended soon as yean'd."

Adding as a peculiarity of the country,

"There thrice within the year the flocks produce."

And of Egypt: "Where the sustaining earth is most prolific." And Thebes,

"The city with an hundred gates, Whence twenty thousand chariots rush to war."

Such information greatly enlarges our sphere of knowledge, by informing us of the nature of the country, its botanical and zoölogical peculiarities. To these should be added its marine history; for we are in a certain sense amphibious, not exclusively connected with the land, but with the sea as well. Hercules, on account of his vast experience and observation, was described as "skilled in mighty works."

All that we have previously stated is confirmed both by the

testimony of antiquity and by reason. One consideration, however, appears to bear in a peculiar manner on the case in point; viz., the importance of geography in a political view. For the sea and the earth in which we dwell furnish theatres for action; limited, for limited actions; vast, for grander deeds, but that which contains them all, and is the scene of the greatest undertakings, constitutes what we term the habitable earth; and they are the greatest generals who, subduing nations and kingdoms under one sceptre, and one political administration, have acquired dominion over land and sea. It is clear, then, that geography is essential to all the transactions of the statesman, informing us, as it does, of the position of the continents, seas, and oceans of the whole habitable earth. Information of especial interest to those who are concerned to know the exact truth of such particulars, and whether the places have been explored or not; for government will certainly be better administered where the size and position of the country, its own peculiarities, and those of the surrounding districts, are understood. Forasmuch as there are many sovereigns who rule in different regions, and some stretch their dominion over others' territories, and undertake the government of different nations and kingdon.s, and thus enlarge the extent of their dominion, it is not possible that either themselves, nor yet writers on geography, should be equally acquainted with the whole, but to both there is a great deal more or less known. Indeed, were the whole earth under one government and one administration, it is hardly possible that we should be informed of every locality in an equal degree; for even then we should be most acquainted with the places nearest us: and, after all, it is better that we should have a more perfect description of these, since, on account of their proximity, there is greater need for it. We see there is no reason to be surprised that there should be one chorographer for the Indians, another for the Ethiopians, and a third for the Greeks and Romans. What use would it be to the Indians if a geographer should thus describe Bœotia to them, in the words of Homer?—

"The dwellers on the rocks Of Aulis follow'd, with the hardy clans Of Hyria, Schenus, Scolus."

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To us this is of value, while to be acquainted with the Indies and their various territorial divisions would be useless, as it could lead to no advantage, which is the only criterion of the worth of such knowledge.

17. Even if we descend to the consideration of such trivial

matters as hunting, the case is still the same; for he will be most successful in the chase who is acquainted with the size and nature of the wood, and one familiar with the locality will be the most competent to superintend an encampment, an ambush, or a march. But it is in great undertakings that the truth shines out in all its brilliancy; for here, while the success resulting from knowledge is grand, the consequences of ignorance are disastrous. The fleet of Agamemnon, for instance, ravaging Mysia, as if it had been the Trojan territory, was compelled to a shameful retreat. Likewise the Persians and Libyans, supposing certain straits to be impassable, were very near falling into great perils, and have left behind them memorials of their ignorance; the former a monument to Salganeus on the Euripus, near Chalcis, whom the Persians slew, for, as they thought, falsely conducting their fleet from the Gulf of Malea to the Euripus; and the latter to the memory of Pelorus, who was executed on a like occasion. At the time of the expedition of Xerxes the coasts of Greece were covered with wrecks, and the emigrations from Æolia and Ionia furnish numerous instances of the same calamity. On the other hand, matters have come to a prosperous termination, when judiciously directed by a knowledge of the locality. Thus it was at the pass of Thermopylæ that Ephialtes is reported to have pointed out to the Persians a pathway over the mountains, and so placed the band of Leonidas at their mercy, and opened to the Barbarians a passage into Pylæ. But, passing over ancient occurrences, we think that the late expeditions of the Romans against the Parthians furnish an excellent example, where, as in those against the Germans and Kelts, the Barbarians, taking . advantage of their situation, [carried on the war] in marshes, woods, and pathless deserts, deceiving the ignorant enemy as to the position of different places, and concealing the roads and the means of obtaining food and necessaries.

18. As we have said, this science has an especial reference to the occupations and requirements of statesmen, with whom also political and ethical philosophy is mainly concerned; and here is an evidence. We distinguish the different kinds of civil government by the office of their chief men, denominating one government a monarchy, or kingdom, another an aristocracy, a third a democracy; for so many we consider are the forms of government, and we designate them by these names, because from them they derive their primary characteristic. For the laws which emanate from the sovereign, from the aristocracy, and from the people, all are different. The law is, in fact, a type

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of the form of government. It is on this account that some define right to be the interest of the strongest. If, therefore, political philosophy is advantageous to the ruler, and geography in the actual government of the country, this latter seems to possess some little superiority. This superiority is most observable in real service.

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19. But even the theoretical portion of geography is by no means contemptible. On the one hand, it embraces the arts, mathematics, and natural science; on the other, history and fable. Not that this latter can have any distinct advantage: for instance, if any one should relate to us the wanderings of Ulysses, Menelaus, and Jason, he would not seem to have added directly to our fund of practical knowledge thereby (which is the only thing men of the world are interested in) unless he should convey useful examples of what those wanderers were compelled to suffer, and at the same time afford matter of rational amusement to those who interest themselves in the places which gave birth to such fables. Practical men interest themselves in these pursuits, since they are at once commendable, and afford them pleasure, but yet not to any great extent. In this class, too, will be found those whose main object in life is pleasure and respectability; but these by no means constitute the majority of mankind, who naturally prefer that which holds out some direct advantage. The geog rapher should therefore chiefly devote himself to what is practically important. He should follow the same rule in regard to history and the mathematics, selecting always that which is most useful, most intelligible, and most authentic.

20. Geometry and astronomy, as we before remarked, seem absolutely indispensable in this science. This, in fact, is evident, that without some such assistance it would be impossible to be accurately acquainted with the configuration of the earth,

its climata, dimensions, and the like information.

As the size of the earth has been demonstrated by other writers, we shall here take for granted and receive as accurate what they have advanced. We shall also assume that the earth is spheroidal, that its surface is likewise spheroidal, and, above all, that bodies have a tendency towards its centre, which latter point is clear to the perception of the most average understanding. However, we may show summarily that the earth is spheroidal from the consideration that all things however distant tend to its centre, and that every body is attracted towards its centre of gravity: this is more distinctly proved from observations of the sea and sky, for here the evidence of the senses,

and common observation, is alone requisite. The convexity of the sea is a further proof of this to those who have sailed; for they cannot perceive lights at a distance when placed at the same level as their eyes, but, if raised on high, they at once become perceptible to vision, though at the same time further removed. So, when the eye is raised, it sees what before was utterly imperceptible. Homer speaks of this when he says,

"Lifted up on the vast wave, he quickly beheld afar."

Sailors, as they approach their destination, behold the shore continually raising itself to their view; and objects which had at first seemed low begin to elevate themselves. Our gnomons, also, are, among other things, evidence of the revolution of the heavenly bodies; and common sense at once shows us that, if the depth of the earth were infinite, such a revolution could not take place.

Every information respecting the climata is contained in the

"Treatises on Positions."

21. Now there are some facts which we take to be established; namely, those with which every politician and general should be familiar. For on no account should they be so uninformed as to the heavens and the position of the earth that when they are in strange countries, where some of the heavenly phenomena wear a different aspect to what they have been accustomed, they should be in a consternation, and exclaim,

"Neither west Know we, nor east, where rises or where sets The all-enlightening sun."

Still, we do not expect that they should be such thorough masters of the subject as to know what stars rise and set together for the different quarters of the earth; those which have the same meridian line, the elevation of the poles, the signs which are in the zenith, with all the various phenomena which differ as well in appearance as reality with the variations of the horizon and arctic circle. With some of these matters, unless as philosophical pursuits, they should not burden themselves at all; others they must take for granted without searching into their causes. This must be left to the care of the philosopher; the statesman can have no leisure, or very little, for such pursuits. Those who, through carelessness and ignorance, are not familiar with the globe and the circles traced upon it, some parallel to each other, some at right angles to the former, others, again, in an oblique direction; nor yet with the position of the tropics, equator, and zodiac (that circle through which

the sun travels in his course, and by which we reckon the changes of season and the winds),—such persons we caution against the perusal of our work. For if a man is neither properly acquainted with these things, nor with the variations of the horizon and arctic circle, and such similar elements of mathematics, how can he comprehend the matters treated of here? So for one who does not know a right line from a curve, nor yet a circle, nor a plane or spherical surface, nor the seven stars in the firmament composing the Great Bear, and such like, our work is entirely useless, at least for the present. Unless he first acquires such information, he is utterly incompetent to the study of geography. So those who have written the works entitled "On Ports," "Voyages round the World," have performed their task imperfectly, since they have omitted to supply the requisite information from mathematics and astronomy.

22. The present undertaking is composed in a lucid style, suitable alike to the statesman and the general reader, after the fashion of my History. By a statesman we do not intend an illiterate person, but one who has gone through the course of a liberal and philosophical education. For a man who has bestowed no attention on virtue or intelligence, nor what constitutes them, must be incompetent either to blame or praise, still less to decide what actions are worthy to be placed on

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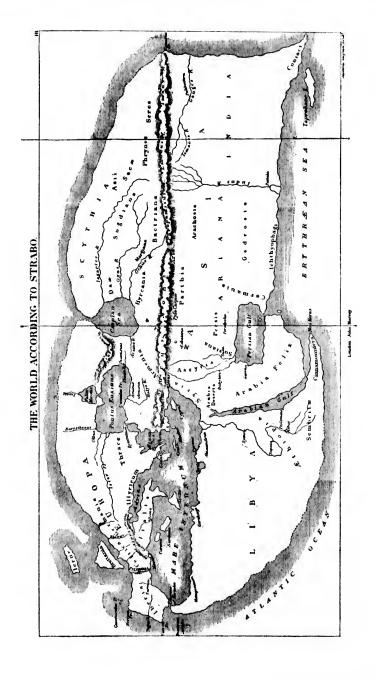
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23. Having already compiled our Historical Memoirs, which, as we conceive, are a valuable addition both to political and moral philosophy, we have now determined to follow it up with the present work, which has been prepared on the same system as the former, and for the same class of readers, but more particularly for those who are in high stations of life. And as our former production contains only the most striking events in the lives of distinguished men, omitting trifling and unimportant incidents, so here it will be proper to dismiss small and doubtful particulars, and merely call attention to great and remarkable transactions, such in fact as are useful, memorable, and entertaining. In the colossal works of the sculptor we do not descend into a minute examination of particulars, but look principally for perfection in the general ensemble. This is the only method of criticism applicable to the present work. Its proportions, so to speak, are colossal; it deals in the generalities and main outlines of things, except now and then, when some minor detail can be selected, calculated to be serviceable to the seeker after knowledge or the man of business.

We now think we have demonstrated that our present under-



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taking is one that requires great care, and is well worthy of a philosopher.

Strabo, the most famous geographer of ancient times, lived just at the beginning of our era. He was born at Amasea in Pontus, about sixty years before the birth of Christ, and died, probably at Rome, about twenty-five years after the birth of Christ,—that is, just as Christ was beginning his public ministry. He lived, therefore, during the reign at Rome of Julius Cæsar, Augustus, and Tiberins. His earliest writings were two historical works now lost. Plutarch calls him "the philosopher," and quotes his Memoirs. But his great work is his Geography. There had been Greek geographers before Strabo, and Eratosthenes is considered by some scholars an even greater geographer than Strabo; but Strabo's work is the most comprehensive that had been attempted up to his time, giving a survey of the whole world as then known. His work, as Humboldt remarked, "surpasses all the geographical writings of antiquity, both in grandeur of plan and in the abundance and variety of its materials." Strabo was a great traveller, although he had of course seen but a comparatively small portion of the regions he describes, and necessarily relies on other travellers and writers. He had a passionate love for Homer, as appears from the passage given in the present leadet, and accepted fully the Homeric geography. Towards Herodotus, on the other hand, he is very unjust, and his slight regard for the accounts of Herodotus betrays him into mistakes. He refers to Cæsar's Commentaries once, and evidently made further use of them. He designed his work, he tells us, largely for the statesman; and his observations upon the people, productions, and political conditions of the different countries are therefore especially full.

Strabo's Geography consists of seventeen books. The first two form a general introduction, the next ten deal with Europe, the four following with Asia, and the last with Africa. His discussions, in his introduction, of the changes in the earth's surface effected by earthquakes and otherwise are praised by Sir Charles Lyell and others for the soundness of their geological theories. He denies the existence of Thule, making Ireland (Ierne), which he places north of Britain, the farthest land in that direction. He regards the Caspian Sea as opening into the Northern Ocean, here following Patrocles. Of Eastern Asia and Northern Africa of course he knows but little. He held the earth to be spherical, and placed in the centre of the universe. His illustrations of the spheroidal form of the earth are the same as in our own school geographies. The earth's circumference he makes 25,200 geographical miles. He gives directions for making a plane map of the world, as a globe of sufficient size is so cumbrous. The most famous passage in his book is that (Book I., chap. iv., § 6) in which he conjectures that, as the inhabited world was only one-third of the globe's circumference, there might be two or more continents besides that then known. "It is quite possible," are his words, "that in the temperate zone there may be two or even more habitable earths, especially near the circle of latitude

which is drawn through Athens and the Atlantic Ocean."

There is an English translation of Strabo's Geography, in three volumes, in Bohn's Library. The student should also read the article on Strabo in the Encyclopædia Britannica. The more thorough student will consult Bunbury's great History of Ancient Geography: the account of Strabo and his work is in the second volume of this work. The work is full of most valuable maps of the world, according to Eratosthenes, Ptolemy, and others, including the map reproduced in the present leaflet.

In the Narrative and Critical History of America, vol. i., there is a valuable chapter on "The Geographical Knowledge of the Ancients considered in Relation to the Discovery of America," by William H. Tillinghast,

which should have special attention.

On the whole, it is remarkable how little geographical science was extended between the time of Strabo and the time of Columbus, although the travels of Marco Polo and the explorations of the Portuguese navigators were, of course, most important. The name of Ptolemy, who lived about one hundred and fifty years after Christ, was still the dominant name in geography in the fifteenth century. The student is referred to the allusions to Ptolemy and the other early geographers down to Toscanelli, who corresponded with Columbus and furnished him with the map of the world which he carried with him on his voyage, in the first volume of Fiske's Discovery of America, pp. 263, etc. This work of Mr. Fiske's covers the whole period treated in the Old South lectures for 1892, in a most interesting and thorough manner; and it is especially commended for reading in connection with the subject.

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