

fault had like to have prov'd fatal to Mr. *Dampier* and his Company: For when they stood off from the South-Sea to the *East-Indies*, they found the Voyage 500 Leagues longer than the Maps represented it, and themselves almost starv'd by trusting to 'em. But as by Astronomy, Geography was at first Corrected; so the Amendment of these Errors is owing to the great Improvement now made to that Science, and the exquisite Ingenuity and Industry of modern Astronomers; who by the assistance of excellent Telescopes and other Instruments of modern Invention, have made very considerable Discoveries in the Heavens, and thereby found out a way of ascertaining Longitude as well as Latitude at Land, and correcting the Maps to a perfect exactness.

This method is by Observation of Eclipses; whose beginning at *London* or *Paris* being exactly calculated, and thereby certainly Predicted, and the beginning of the same Eclipse being observ'd at any distant Place, the difference of Time is certainly known, and 15 Degrees being allow'd to an Hour, the distance may be fix'd to a few Miles. The Eclipses of the Sun and Moon only, were at first made use of to this purpose; but as those occur but seldom, and are visible in some certain Places only, the Observations could not be often made, and therefore this great Work would have been long a doing, if the discovery of the *Satellites* of *Jupiter* and their Eclipses had not afforded a new, and very considerable help to it; for these being four in number that make a continual Circuit round that Planet, there happens almost every day an Eclipse of one or other of them.

The *Satellites* of *Jupiter* were discover'd by *Galileo*, the Eclipses of them by *Huygens*, the Theory of them formed by the Academy of Sciences at *Paris*, and the Eclipses first calculated for a whole Year by Mr. *Flamsteed*, and together with the Method of computing Longitude thereby, communicated in the *Philosophical Transactions* of December, 1683. Since which Time an Ephemeris of them is annually calculated, and Observations for correcting Geography, are very commonly made abroad. Thus this great Work of discovering Longitude, which was thought impossible, is in a great measure perform'd; the Longitude any where on Land being certainly taken, and thereby the Coasts and Situation of Towns exactly laid down, and perhaps in Time the Art may be so improv'd as to be practicable at Sea too. At least if Ships were sent out to make these Observations, at all the Capes and Head-Lands round the Globe, the Seamen would be able to Correct their Reckonings very often in long Voyages.

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