

CHAPTER I.

EARLIEST STAGES OF ASTRONOMY.

The Globular Form of the Earth.

THERE are parts of Plato's writings which have been adduced as bearing upon the subsequent progress of science; and especially upon the globular form of the earth, and the other views which led to the discovery of America. In the *Timæus* we read of a great continent lying in the Ocean west of the Pillars of Hercules, which Plato calls *Atlantis*. He makes the personage in his Dialogue who speaks of this put it forward as an Egyptian tradition. M. H. Martin, who has discussed what has been written respecting the Atlantis of Plato, and has given therein a dissertation rich in erudition and of the most lively interest, conceives that Plato's notions on this subject arose from his combining his conviction of the spherical form of the earth, with interpretations of Homer, and perhaps with traditions which were current in Egypt (*Etudes sur le Timée*, Note xiii. § ix.). He does not consider that the belief in Plato's Atlantis had any share in the discoveries of Columbus.

It may perhaps surprise modern readers who have a difficulty in getting rid of the persuasion that there is a natural direction *upwards* and a natural direction *downwards*, to learn that both Plato and Aristotle, and of course other philosophers also, had completely overcome this difficulty. They were quite ready to allow and to conceive that *down* meant nothing but towards some centre, and *up*, the opposite direction. (Aristotle has, besides, an ingenious notion that while heavy bodies, as earth and water, tend to the centre, and light bodies, as fire, tend from the centre, the fifth element, of which the heavenly bodies are composed, tends to move *round* the centre.)

Plato explains this in the most decided manner in the *Timæus* (62, c). "It is quite erroneous to suppose that there are two opposite regions in the universe, one *above* and the other *below*; and that heavy things naturally tend to the latter place. The heavens are spherical, and every thing tends to the centre; and thus *above* and *below* have no real meaning. If there be a solid globe in the middle,