

value of his opinion; it may have been no better founded than a different opinion ascribed to him by Laertius, that the earth had the shape of a pillar. Probably, the authors of the doctrine of the globular form of the earth were led to it, as we have said, by observing the different height of the pole at different places. They would find that the space which they passed over from north to south on the earth, was proportional to the change of place of the horizon in the celestial sphere; and as the horizon is, at every place, in the direction of the earth's apparently level surface, this observation would naturally suggest to them the opinion that the earth is placed within the celestial sphere, as a small globe in the middle of a much larger one.

We find this doctrine so distinctly insisted on by Aristotle, that we may almost look on him as the establisher of it.⁴⁹ "As to the figure of the earth, it must necessarily be spherical." This he proves, first by the tendency of things, in all places, downwards. He then adds,⁵⁰ "And, moreover, from the phenomena according to the sense: for if it were not so, the eclipses of the moon would not have such sections as they have. For in the configurations in the course of a month, the deficient part takes all different shapes; it is straight, and concave, and convex; but in eclipses it always has the line of division convex; wherefore, since the moon is eclipsed in consequence of the interposition of the earth, the periphery of the earth must be the cause of this by having a spherical form. And again, from the appearances of the stars, it is clear, not only that the earth is round, but that its size is not very large: for when we make a small removal to the south or the north, the circle of the horizon becomes palpably different, so that the stars overhead undergo a great change, and are not the same to those that travel to the north and to the south. For some stars are seen in Egypt or at Cyprus, but are not seen in the countries to the north of these; and the stars that in the north are visible while they make a complete circuit, there undergo a setting. So that from this it is manifest, not only that the form of the earth is round, but also that it is a part of not a very large sphere: for otherwise the difference would not be so obvious to persons making so small a change of place. Wherefore we may judge that those persons *who connect the region in the neighborhood of the pillars of Hercules with that towards India, and who assert that in this way the sea is ONE*, do not assert things very improbable. They confirm this conjecture moreover by the

⁴⁹ Arist. *de Cælo*, lib. ii. cap. xiv. ed. Casaub. p. 290.

⁵⁰ p. 291 C.