

when we consider the unfavorable influence which it would doubtlessly have exercised on the direction of great maritime enterprises.

The discovery and navigation of the Pacific indicate an epoch which was so much the more important with respect to the recognition of great cosmical relations, since it was owing to these events, and therefore scarcely three centuries and a half ago, that not only the configuration of the western coast of the New, and the eastern coast of the Old Continent were determined; but also, what is far more important to meteorology, that the numerical relations of the area of land and water upon the surface of our planet first began to be freed from the highly erroneous views with which they had hitherto been regarded. The magnitude of these areas, and their relative distribution, exercise a powerful influence on the quantity of humidity contained in the atmosphere, the alternations in the pressure of the air, the force and vigor of vegetation, the greater or lesser distribution of certain species of animals, and on the action of many other general phenomena and physical processes. The larger area apportioned to the fluid over the solid parts of the earth's crust (in the ratio of $2\frac{1}{2}$ ths to 1), does certainly diminish the habitable surface for the settlements of the human race, and for the nourishment of the greater portion of mammalia, birds, and reptiles; but it is nevertheless, in accordance with the existing laws of organic life, a beneficent arrangement, and a necessary condition for the preservation of all living beings inhabiting continents.

When, at the close of the fifteenth century, a keen desire was awakened for discovering the shortest route to the Asiatic spice lands, and when the idea of reaching the east by sailing to the west simultaneously awoke in the minds of two intellectual men of Italy—the navigator Christopher Columbus, and the physician and astronomer Paul Toscanelli*—the opinion established in Ptolemy's *Almagest* still prevailed, that the Old Continent occupied a space extending over 180 equatorial degrees from the western shore of the Iberian peninsula to the meridian of Eastern Sinæ, or that it extended from east

* Paolo Toscanelli was so greatly distinguished as an astronomer, that Behaim's teacher, Regiomontanus, dedicated to him, in 1463, his work *De Quadratura Circuli*, directed against the Cardinal Nicolaus de Cusa. He constructed the great gnomon in the church of Santa Maria Novella at Florence, and died in 1482, at the age of 85, without having lived long enough to enjoy the pleasure of learning the discovery of the Cape of Good Hope by Diaz, and that of the tropical part of the New Continent by Columbus.