

only the greatest diversities in the form of the ground, in organic products and physical phenomena, but it also exhibited mankind in all the various gradations from civilization to barbarism, and in the possession of ancient knowledge and long-practiced arts, no less than in the imperfectly-lighted dawn of intellectual awakening. Distant expeditions were prosecuted with various success to the north and south, to the amber lands, and under Ælius Gallus and Balbus, to Arabia, and to the territory of the Garamantes. Measurements of the whole empire were begun even under Augustus, by the Greek geometricians Zenodoxus and Polycletus, while itineraries and special topographies were prepared for the purpose of being distributed among the different governors of the provinces, as had already been done several hundred years before in the Chinese empire.* These were the first statistical labors instituted in Europe. Many of the prefectures were traversed by Roman roads, divided into miles, and Adrian even visited his extensive dominions from the Iberian Peninsula to Judea, Egypt, and Mauritania, in an eleven years' journey, which was not, however, prosecuted without frequent interruptions. Thus the large portion of the earth's surface, which was subject to the dominion of the Romans, was opened and rendered accessible, realizing the idea of the *pervius orbis* with more truth than we can attach to the prophecy in the chorus of the Medea as regards the whole earth.†

The enjoyment of a long peace might certainly have led us to expect that the union under one empire of extensive countries having the most varied climates, and the facility with which the officers of state, often accompanied by a numerous train of learned men, were able to traverse the provinces, would have been attended, to a remarkable extent, by an advance not only in geography, but in all branches of natural science, and by the acquisition of a more correct knowledge of the connection existing among the phenomena of nature: yet such high expectations were not fulfilled. In this long period of undivided Roman empire, embracing a term of almost four centuries, the names of Dioscorides the Cilician and Galen of Pergamus have alone been transmitted to us as those of observers of nature. The first of these, who increased so considerably the number of the described species of plants, is far

* Veget., *De Re Mil.*, iii., 6.

† Act ii., v. 371, in the celebrated prophecy which, from the time of the son of Columbus, was interpreted to relate to the discovery of America.