

together like the pipes of an organ—Avicenniæ and mangroves in the tropics—and forests of Coniferæ and of birches in the plains of the Baltic and in Siberia. This mode of geographical distribution determines, together with the individual form of the vegetable world, the size and type of leaves and flowers, in fact, the principal physiognomy of the district,* its character being but little, if at all, influenced by the ever-moving forms of animal life, which, by their beauty and diversity, so powerfully affect the feelings of man, whether by exciting the sensations of admiration or horror. Agricultural nations increase artificially the predominance of social plants, and thus augment, in many parts of the temperate and northern zones, the natural aspect of uniformity; and while their labors tend to the extirpation of some wild plants, they likewise lead to the cultivation of others, which follow the colonist in his most distant migration. The luxuriant zone of the tropics offers the strongest resistance to these changes in the natural distribution of vegetable forms.

Observers who in short periods of time have passed over vast tracts of land, and ascended lofty mountains, in which climates were ranged, as it were, in strata one above another, must have been early impressed by the regularity with which vegetable forms are distributed. The results yielded by their observations furnished the rough materials for a science, to which no name had as yet been given. The same zones or regions of vegetation which, in the sixteenth century, Cardinal Bembo, when a youth,† described on the declivity of Ætna, were observed on Mount Ararat by Tournefort. He ingeniously compared the Alpine flora with the flora of plains situated in different latitudes, and was the first to observe the influence exercised in mountainous regions, on the distribution of plants by the elevation of the ground above the level of the sea, and by the distance from the poles in flat countries. Menzel, in an inedited work on the flora of Japan, accidentally made use of the term *geography of plants*; and the same expression occurs in the fanciful but graceful work of Bernardin de St. Pierre, *Etudes de la Nature*. A scientific treatment of the subject began, however, only when the geography of plants was intimately associated with the study of the dis-

* On the physiognomy of plants, see Humboldt, *Ansichten der Natur*, bd. ii., s. 1-125.

† *Ætna Dialogus. Opuscula*, Basil., 1556, p. 53, 54. A very beautiful geography of the plants of Mount Ætna has recently been published by Philippi. See *Linnæa*, 1832, s. 733.