

directed. This portion of the surface of the globe affords in the smallest space the greatest possible variety of impressions from the contemplation of nature. Among the colossal mountains of Cundinamarca, of Quito, and of Peru, furrowed by deep ravines, man is enabled to contemplate alike all the families of plants, and all the stars of the firmament. There, at a single glance, the eye surveys majestic palms, humid forests of bambusa, and the varied species of Musaceæ, while above these forms of tropical vegetation appear oaks, medlars, the sweet-brier, and umbelliferous plants, as in our European homes. There, as the traveler turns his eyes to the vault of heaven, a single glance embraces the constellation of the Southern Cross, the Magellanic clouds, and the guiding stars of the constellation of the Bear, as they circle round the arctic pole. There the depths of the earth and the vaults of heaven display all the richness of their forms and the variety of their phenomena. There the different climates are ranged the one above the other, stage by stage, like the vegetable zones, whose succession they limit; and there the observer may readily trace the laws that regulate the diminution of heat, as they stand indelibly inscribed on the rocky walls and abrupt declivities of the Cordilleras.

Not to weary the reader with the details of the phenomena which I long since endeavored graphically to represent,\* I will here limit myself to the consideration of a few of the general results whose combination constitutes the *physical delineation of the torrid zone*. That which, in the vagueness of our

point of water (see theil 11, s. 155, and *Journal of Geog. Soc.*, vol. vi., p. 215). In this valley, where the atmosphere is scarcely ever agitated by storms, and in  $34^{\circ} 7'$  lat., snow is found, several feet in thickness, from December to March.

\* See, generally, my *Essai sur la Géographie des Plantes, et le Tableau physique des Régions Equinoxiales*, 1807, p. 80-88. On the diurnal and nocturnal variations of temperature, see Plate 9 of my *Atlas Géogr. et Phys. du Nouveau Continent*; and the Tables in my work, entitled *De distributione Geographica Plantarum, secundum cæli temperiem, et altitudinem Montium*, 1817, p. 90-116; the meteorological portion of my *Asie Centrale*, t. iii., p. 212, 224; and, finally, the more recent and far more exact exposition of the variations of temperature experienced in correspondence with the increase of altitude on the chain of the Andes, given in Boussingault's Memoir, *Sur la profondeur à laquelle on trouve, sous les Tropiques, la couche de Temperature Invariable*. (Ann. de Chimie et de Physique, 1833, t. liii., p. 225-247.) This treatise contains the elevations of 128 points, included between the level of the sea and the declivity of the Antisana (17,900 feet), as well as the mean temperature of the atmosphere, which varies with the height between  $81^{\circ}$  and  $35^{\circ}$  F.