

appear still more isolated, more variable, more obscure, than we imagine them when consulting the narratives of travellers.

These reflections occurred to me on descending from the summit of the peak of Teneriffe, the first unextinct volcano I had yet visited. They returned anew whenever, in South America, or in Mexico, I had occasion to examine volcanic mountains. When we reflect how little the labours of mineralogists, and the discoveries in chemistry, have promoted the knowledge of the physical geology of mountains, we cannot help being affected with a painful sentiment; and this is felt still more strongly by those, who, studying nature in different climates, are more occupied by the problems they have not been able to solve, than with the few results they have obtained.

The peak of Ayadyrma, or of Echeyde,* is a conic and isolated mountain, which rises in an islet of very small circumference. Those who do not take into consideration the whole surface of the globe, believe, that these three circumstances are common to the greater part of volcanoes. They cite, in support of their opinion, Etna, the peak of the Azores, the Solfatara of Guadaloupe, the Trois-Salazes of the isle of Bourbon, and the clusters of volcanoes in the Indian Sea and in the Atlantic. In Europe and in Asia, as far as the interior of the latter continent is known, no burning volcano is situated in the chains of mountains; all being at a greater or less distance from those chains. In the New World, on the contrary, (and this fact deserves the greatest attention,) the volcanoes the most stupendous for their masses form a part of the Cordilleras themselves. The mountains of mica-slate and gneiss in Peru and New Grenada immediately touch the volcanic porphyries of the provinces of Quito and Pasto. To the south and north of these countries, in Chile and in the kingdom of Guatemala, the active volcanoes are grouped in rows. They are the continuation, as we may say, of the chains of primitive rocks; and if the volcanic fire has broken forth in some plain remote from the Cordilleras, as in mount Sangay and Jorullo,† we

* The word Echeyde, which signifies Hell in the language of the Guanches, has been corrupted by the Europeans into Teyde.

† Two volcanoes of the Provinces of Quixos and Mechoacan, the one in the southern; and the other in the northern hemisphere.