

is extremely small. Its diminutive size struck M. de Borda, and other travellers, who took little interest in geological investigations.

As to the nature of the rocks which compose the soil of Teneriffe, we must first distinguish between productions of the present volcano, and the range of basaltic mountains which surround the Peak, and which do not rise more than five or six hundred toises above the level of the ocean. Here, as well as in Italy, Mexico, and the Cordilleras of Quito, the rocks of trap-formation\* are at a distance from the recent currents of lava; everything shows that these two classes of substances, though they owe their origin to similar phenomena, date from very different periods. It is important to geology not to confound the modern currents of lava, the heaps of basalt, green-stone, and phonolite, dispersed over the primitive and secondary formations, with those porphyroid masses having bases of compact feldspar,† which perhaps have never been perfectly liquified, but which do not less belong to the domain of volcanoes.

In the island of Teneriffe, strata of tufa, puzzolana, and clay, separate the range of basaltic hills from the currents of recent lithoid lava, and from the eruptions of the present volcano. In the same manner as the eruptions of Epomeo in the island of Ischia, and those of Jorullo in Mexico, have taken place in countries covered with trappean porphyry, ancient basalt, and volcanic ashes, so the peak of Teyde has raised itself amidst the wrecks of submarine volcanoes. Notwithstanding the difference of composition in the recent lavas of the Peak, there is a certain regularity of position, which must strike the naturalist least skilled in geognosy. The great elevated plain of Retama separates the black, basaltic, and earthlike lava, from the vitreous and feldsparry

\* The trap-formation includes the basalts, green-stone (*grunstein*), the trappean porphyries, the phonolites or porphyrschiefer, &c.

† These petrosiliceous masses contain vitreous and often calcined crystals of feldspar, of amphibole, of pyroxene, a little of olivine, but scarcely any quartz. To this very ambiguous formation belong the trappean porphyries of Chimborazo and of Riobamba in America, of the Duganean mountains in Italy, and of the Siebengebirge in Germany; as well as the *domites* of the Great-Sarcouy, of Puy-de-Dôme, of the Little Cleirsou, and of one part of the Puy-Chopine in Auvergne.