

Ischia, whiten at the edge of the crater from the effect of the acid vapours; but internally they are not found to be colourless like that of the feldsparry lavas of the Solfatara at Naples, which perfectly resemble the trappean porphyries at the foot of Chimborazo. In the middle of the Malpays, at the height of the cavern of ice, we found among the vitreous lavas with pitch-stone and obsidian bases, blocks of real greenish-gray, or mountain-green phonolite, with a smooth fracture, and divided into thin laminæ, sonorous and keen edged. These masses were the same as the porphyrschiefer of the mountain of Bilin in Bohemia; we recognised in them small long crystals of vitreous feldspar.

This regular disposition of lithoid basaltic lava and feldsparry vitreous lava is analogous to the phenomena of all trappean mountains; it reminds us of those phonolites lying in very ancient basalts, those close mixtures of augite and feldspar which cover the hills of wacke or porous amygdaloids: but why are the porphyritic or feldsparry lavas of the Peak found only on the summit of the volcano? Should we conclude from this position that they are of more recent formation than the lithoid basaltic lava, which contains olivine and augite? I cannot admit this last hypothesis; for lateral eruptions may have covered the feldsparry nucleus, at a period when the crater had ceased its activity. At Vesuvius also, we perceive small crystals of vitreous feldspar only in the very ancient lavas of the Somma. These lavas, setting aside the leucite, very nearly resemble the phonolitic ejections of the Peak of Teneriffe. In general, the farther we go back from the period of modern eruptions, the more the currents increase both in size and extent, acquiring the character of rocks, by the regularity of their position, by their division into parallel strata, or by their independence of the present form of the ground.

The Peak of Teneriffe is, next to Lipari, the volcano that has produced most obsidian. This abundance is the more striking, as in other regions of the earth, in Iceland, in Hungary, in Mexico, and in the kingdom of Quito, we meet with obsidians only at great distances from burning volcanoes. Sometimes they are scattered over the fields in angular pieces; for instance, near Popayan, in South America; at other times they form isolated rocks, as at Quinche, near