

cime.* In like manner the lava of Scala, with which the city of Naples is paved, contains a close mixture of basalt, nepheline, and leucite. With respect to this last substance, which has hitherto been observed only at Vesuvius and in the environs of Rome, it exists perhaps at the peak of Teneriffe, in the old currents of lava now covered by more recent ejections. Vesuvius, during a long series of years, has also thrown out lavas without leucites: and if it be true, as M. von Buch has rendered very probable, that these crystals are formed only in the currents which flow either from the crater itself, or very near its brink, we must not be surprised at not finding them in the lavas of the peak. The latter almost all proceed from lateral eruptions, and consequently have been exposed to an enormous pressure in the interior of the volcano.

In the plain of Retama, the basaltic lavas disappear under heaps of ashes, and pumice-stone reduced to powder. Thence to the summit, from 1,500 to 1,900 toises in height, the volcano exhibits only vitreous lava with bases of pitch-stone† and obsidian. These lavas, destitute of amphibole and mica, are of a blackish brown, often varying to the deepest olive green. They contain large crystals of feldspar, which are not fissured, and seldom vitreous. The analogy of those decidedly volcanic masses with the resinite porphyries‡ of the valley of Tribisch in Saxony is very remarkable; but the latter, which belong to an extended and metalliferous formation of porphyry, often contain quartz, which is wanting in the modern lavas. When the basis of the lavas of the Malpays changes from pitchstone to obsidian, its colour is paler, and is mixed with gray; in this case, the feldspar passes by imperceptible gradations from the common to the vitreous. Sometimes both varieties meet in the same fragment, as we observed also in the trappean porphyries of the valley of Mexico. The feldsparry lavas of the Peak, of a much less black tinge than those of Arso in the island of

* This substance, which M. Dolomieu discovered in the amygdaloids of Catania in Sicily, and which accompanies the stilbites of Fassa in Tyrol, forms, with the chabasie of Haüy, the genus Cubicit of Werner. M. Cordier found at Teneriffe xeolite in an amygdaloid which covers the basalts of La Punta di Naga.

† Petrosilex resinite. Haüy.

‡ Pechstein-porphyr. Werner.