

as the volcanic phenomena themselves; and in order to raise ourselves to geological conceptions worthy of the greatness of nature, we must set aside the idea that all volcanoes are formed after the model of Vesuvius, Stromboli, and Etna.

The external edges of the Caldera are almost perpendicular. Their appearance is somewhat like the Somma, seen from the Atrio dei Cavalli. We descended to the bottom of the crater on a train of broken lava, from the eastern breach of the enclosure. The heat was perceptible only in a few crevices, which gave vent to aqueous vapours with a peculiar buzzing noise. Some of these funnels or crevices are on the outside of the enclosure, on the external brink of the parapet that surrounds the crater. We plunged the thermometer into them, and saw it rise rapidly to 68 and 75 degrees. It no doubt indicated a higher temperature, but we could not observe the instrument till we had drawn it up, lest we should burn our hands. M. Cordier found several crevices, the heat of which was that of boiling water. It might be thought that these vapours, which are emitted in gusts, contain muriatic or sulphurous acid; but when condensed, they have no particular taste; and experiments, which have been made with re-agents, prove that the chimneys of the peak exhale only pure water. This phenomenon, analogous to that which I observed in the crater of Jorullo, deserves the more attention, as muriatic acid abounds in the greater part of volcanoes, and as M. Vauquelin has discovered it even in the porphyritic lavas of Sarcouy in Auvergne.

I sketched on the spot a view of the interior edge of the crater, as it presented itself in the descent by the eastern break. Nothing is more striking than the manner in which these strata of lava are piled on one another, exhibiting the sinuosities of the calcareous rock of the higher Alps. These enormous ledges, sometimes horizontal, sometimes inclined and undulating, are indicative of the ancient fluidity of the whole mass, and of the combination of several deranging causes, which have determined the direction of each flow. The top of the circular wall exhibits those curious ramifications which we find in coke. The northern edge is most elevated. Towards the south-west the enclosure is considerably sunk, and an enormous mass of scorious lava seems