

crater is an infallible indication of the proximity of a new eruption.

I might terminate these geological sketches by enquiring into the nature of the combustible which has fed for so many thousands of years the fire of the peak of Teneriffe;—I might examine whether it be sodium or potassium, the metallic basis of some earth, carburet of hydrogen, or pure sulphur combined with iron, that burns in the volcano;—but wishing to limit myself to what may be the object of direct observation, I shall not take upon me to solve a problem for which we have not yet sufficient data. We know not whether we may conclude, from the enormous quantity of sulphur contained in the crater of the Peak, that it is this substance which keeps up the heat of the volcano; or whether the fire, fed by some combustible of an unknown nature, effects merely the sublimation of the sulphur. What we learn from observation is, that in craters which are still burning, sulphur is very rare; while all the ancient volcanoes end in becoming sulphur-pits. We might presume that, in the former, the sulphur is combined with oxygen, while, in the latter, it is merely sublimated; for nothing hitherto authorises us to admit that it is formed in the interior of volcanoes, like ammonia and the neutral salts. When we were yet unacquainted with sulphur, except as disseminated in the muriatiferous gypsum and in the Alpine limestone, we were almost forced to the belief, that in every part of the globe the volcanic fire acted on rocks of secondary formation; but recent observations have proved that sulphur exists in great abundance in those primitive rocks which so many phenomena indicate as the centre of the volcanic action. Near Alausi, at the back of the Andes of Quito, I found an immense quantity in a bed of quartz, which formed a layer of mica-slate. This fact is the more important, as it is in strict conformity with the conclusions deduced from the observation of those fragments of ancient rocks which are thrown out intact by volcanoes.

We have just considered the island of Teneriffe merely in a geological point of view; we have seen the Peak towering amid fractured strata of basalt and mandelstein; let us examine how these fused masses have been gradually