

must consider this phenomenon as an exception to the law, which nature seems to have imposed on these regions. I may here repeat these geological facts, because this presumed isolated situation of every volcano has been cited in opposition to the idea that the peak of Teneriffe, and the other volcanic summits of the Canary Islands, are the remains of a submerged chain of mountains. The observations which have been made on the grouping of volcanoes in America, prove that the ancient state of things represented in the conjectural map of the Atlantic by M. Bory de St. Vincent\* is by no means contradictory to the acknowledged laws of nature; and that nothing opposes the supposition that the summits of Porto Santo, Madeira, and the Fortunate Islands, may heretofore have formed, either a distinct range of primitive mountains, or the western extremity of the chain of the Atlas.

The peak of Teyde forms a pyramidal mass like Etna, Tungurahua, and Popocatepetl. This physiognomic character is very far from being common to all volcanoes. We have seen some in the southern hemisphere, which, instead of having the form of a cone or a bell, are lengthened in one direction, having the ridge sometimes smooth, and at others bristled with small pointed rocks. This structure is peculiar to Antisana and Pichincha, two burning mountains of the province of Quito; and the absence of the conic form ought never to be considered as a reason excluding the idea of a volcanic origin. I shall develope, in the progress of this work, some of the analogies, which I think I have perceived between the physiognomy of volcanoes and the antiquity of their rocks. It is sufficient to state, generally speaking, that the summits, which are still subject to eruptions of the greatest violence, and at the nearest periods to each other, are *slender peaks* of a conic form; that the mountains with *lengthened summits*, and rugged with small stony

\* Whether the traditions of the ancients respecting the Atlantis are founded on historical facts, is a matter totally distinct from the question whether the archipelago of the Canaries and the adjacent islands are the vestiges of a chain of mountains, rent and sunk in the sea during one of the great convulsions of our globe. I do not pretend to form any opinion in favour of the existence of the Atlantis; but I endeavour to prove, that the Canaries have no more been created by volcanoes, than the whole body of the smaller Antilles has been formed by madrepores.