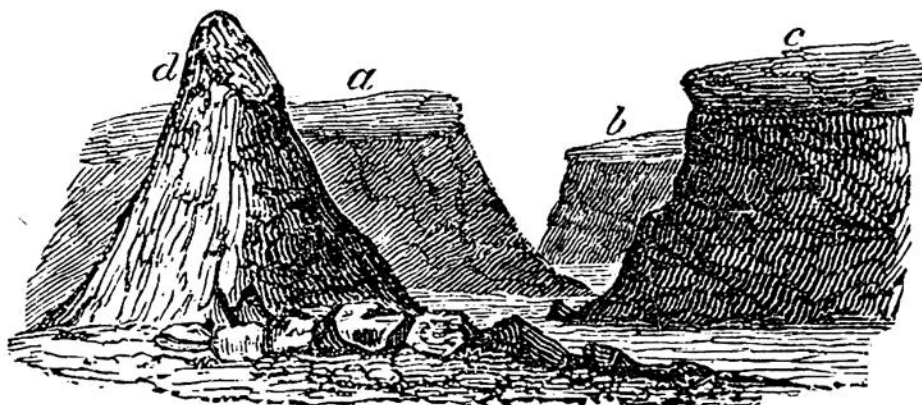


in supposing that the lava was ejected after the valley was excavated, and, on the other hand, when it occurs as an outlier, and caps the hills which surround the valleys, he may then conclude that the valley was formed after the ejection of the lava, as its excavation has destroyed the continuity of the bed. Now, it is generally acknowledged that these valleys were formed by the last diluvian forces; we have, therefore, a convenient and natural division of extinct volcanoes, into ante and post diluvian.

Let us suppose, for the sake of illustration, that the outliers, *a b c*, are composed of a volcanic rock, having the



characters necessary to identify them as parts of the same mass. It is evident, from their situation and dip, that they were once continuous, and that the catastrophe which excavated the valley destroyed the intermediate portion of the bed; the volcanic rock is therefore antediluvian. But if the cone *d*, and a contiguous valley should be covered with a bed of lava, it would be spoken of as a postdiluvian formation.

There is one district which, above all others, would repay investigation, and probably lead to some important results: we refer to the country around the Dead Sea. From the Sacred Writings we learn, that the spot now called the Dead Sea was the well-watered and fertile plain of Jordan, in which Lot resided when the cities were overthrown. From the character and distribution of the ancient lavas, pumice, and other volcanic productions found in this district, we may deduce that the overthrow of the cities, and the formation of the sea or lake, were produced by a now extinct volcano situated to the southeast of the lake. The wells of naphtha, and the hills of sulphur, are spoken of by all travellers who have visited this desolate country, and in some