

quoted and illustrated in proof of Von Buch's speculation, by MM. De Beaumont and Dufrenoy. Distinguishing clearly, in their prefatory remarks, between the enveloping of a mountain slope by many streams of lava, and the elevation, with fractures, of broad floors of rock, into a conical mass, they attempt, by a consideration of the structure, form, and fissures of these mountains, to determine rigorously to which of the two cases they belong. In this argument the fissures yet existing in a volcanic mountain are an important part of the data;—it requires no great exercise of calculation to see plainly that, on the supposition of a conical elevation, the fissures will grow wider and wider, till they meet in a large subcentral hollow; and the sum of their breadth will vary as the inclination of the cone; and it depends upon a careful examination of the district whether these conditions be fulfilled. In the opinion of the able geologists quoted, the state and appearance of the sheets of rock which concentrically form the Plomb du Cantal, is such as to agree with the hypothesis, which, besides, is supported by an examination of the nature of the rocks. The Plomb du Cantal, they observe, is in no manner assimilated to a denuded cone of eruption: this supposition of its origin is, on several accounts, inadmissible; it is, on the contrary, by all its characters, the *result of elevation* operated on a great basaltic plateau, resting on trachyte. The group of Mont Dor requires, on this hypothesis, several centres of elevation; on Mr. Lyell's view, as many points of eruption.

The conclusion of Dufrenoy and De Beaumont has been objected to by Mr. Lyell on various grounds, principally the unequal thickness of the presumed plateaux of volcanic rock now found sloping from the Plomb du Cantal; for these, according to Prevost, are thickest toward the centre. It is satisfactory to refer to an independent inquirer, very competent to deliver a just decision on all the bearings of this subject. Professor Forbes, visiting Auvergne in 1835, directed his