

Desmarest. The first attempt to trace back the history of a landscape, to show its successive phases, and to connect them all with the continuous operation of the same causes which are still producing like effects, was made by this illustrious native of France.

So satisfied was Desmarest with the proofs furnished by Auvergne regarding the volcanic origin of basalt, that he coined the term "basalt-lava," with an apology to the mineralogists, and remarked that when once the characters of this rock have been appreciated, it may be recognised everywhere, in spite of the most stupendous degradation. Casting his eye over the map of Europe, and noting the localities from which the occurrence of basalt had been reported, he saw two great regions of ancient volcanic activity in the heart of the continent. One of these lay to the east, along the confines of Saxony and Bohemia into Silesia, from Freiberg to Lignitz; the other stretched from the Rhine above Cologne, through Nassau, Hesse-Darmstadt, and Cassel.

The map which has been already referred to as accompanying this remarkable memoir, depicts with great clearness the grouping of the volcanoes over a large part of Auvergne. It represents them by distinct kinds of engraving, so as to show four classes differing from each other in age and other characters. The first of these classes includes the younger lava-streams, not yet cut through by running water, and still connected with their parent cones. The second embraces those lavas which bear decomposed earthy materials on their surface, and from which their original craters have disappeared. In the third class are ranged those