

that the solution of the problems presented by basalt was not to be sought in Ireland, but in the heart of his own country, and that it was reserved for him to find.

Before referring to the steps in Desmarest's progress towards the discovery of the origin of basalt, let me briefly sketch what was known on the subject at the time when he began his researches. Agricola had mentioned that this dark prismatic stone was to be seen in different parts of Germany, and in particular that it formed the eminence on which the old castle of Stolpen in Saxony had been built.<sup>1</sup> It was afterwards found to be abundantly distributed, not only in Saxony, but in Silesia, in Cassel, and in the valley of the Rhine above Cologne.<sup>2</sup> In these places it is generally to be seen in detached eminences, frequently capping hills, and presenting its vertical columns in rows along its edges. There is nothing about it which in those days was likely to suggest a volcanic origin. The exposures of it in Germany usually belong to an older geological period than the comparatively recent lava-streams of Auvergne, and in the course of time the cones and craters and scoriae, that no doubt originally marked these sites, have gradually disappeared.

The Giant's Causeway, too, though it displays on a far more colossal scale the characteristic structure and scenery of basalt, is equally silent in regard to

<sup>1</sup> *De Natura Fossilium*, lib. vii. p. 315. Folio, Basel, 1546.

<sup>2</sup> Various authors who had noticed the occurrence of basalt before the publication of his memoir are cited by Desmarest. *Mém. Acad. Roy. Sciences*, vol. for 1774, p. 726 *et seq.*