

the actual cone and crater from which the molten flood had issued.

We can follow the enthusiastic explorer with warm sympathy as he eagerly and joyously sees at each onward step some fresh evidence of the true volcanic nature of the rocks around him. Though he had never beheld a volcano, he was familiar with their outlines, from the available engravings of the time. Ascending a hill beyond the quarries, he perceives its conical form to be that of a typical volcano.¹ As he climbs the rough slopes, he identifies the crumbling debris of black and red pumice, together with the blocks of rugged spongy slags and scoriae, as manifestly the products of a once active volcanic vent. When he reached the truncated summit of the hill, what must have been his delight to behold below him the smooth-sloped hollow of the crater, not now belching forth hot vapours and ashes, but silent and carpeted with grass! For centuries the shepherds had pastured their flocks on these slopes, and the quarrymen had been busy cutting and sending off the lava for roads and buildings, but no one had ever suspected that this quiet and lonely spot retained such striking monuments of subterranean commotion.

Descending to the great lava-stream, Guettard scrutinized its structure as laid open in the quarries, and at once noticed how different in character it was from any other rock he had ever seen in France. He observed

¹ Desmarest affirms that it was not the Puy de la Nugère, the source of the Volvic lava, which Guettard ascended, but the Puy de la Bannière, and that the former hill was unknown to him. *Encyclopédie Méthodique, Géographie Physique*, vol. i. p. 187.