

occupy the remainder of the hill up to the cake of basalt which crowns the summit, and show how among the fine sediments of the ancient lake volcanic ejections were occasionally thrown down.

We intended to make a circuit of Gergovia, descending on the north-west side towards the strange isolated castle-crowned crag of Montrognon. But the rain, which had fallen with scarcely an intermission since we began the ascent, now came down in torrents. We took refuge in a little cave in the calcareous peperino, which looked eastward across the Limagne to the distant mountains of the Loire and southward to the volcanic heights of the Velay. But the landscape was blotted out in so thick a veil of falling water that we could hardly distinguish the form of the trees at a short distance down the slopes. It was an instructive lesson in denudation to sit at the mouth of the cave and watch the increase of the runnels. Over ground which in the morning was as dry and parched as a drought of some weeks' duration could make it, water now poured in hundreds of rivulets, acquiring a milky colour from the marl *débris* which it swept away in its descent. One could see how rapid must be the waste of these soft calcareous rocks. Baked and cracked by the fierce heat of summer, their surface crumbles down. Every shower loosens and removes portions of this disintegrated surface and prepares the way for the action of the shower that succeeds. It is by these means, joined with the undermining agency of rivers, that the deep and wide valleys of these districts have been excavated.

Sitting in the cave while the deluge continued outside, we had leisure to reflect on the geological history of the hill. Its strata were elaborated at the bottom of the lake that filled the broad valley of the Limagne. Leaf after