

district, that he found it unnecessary for his immediate purpose to examine the rest of the puy. Their Clermont guide, though he had previously wandered over the hills, had never suspected their volcanic origin; but he seems to have learnt his lesson promptly, for he soon afterwards, at Guettard's request, sent some details, and wrote about eruptions and explosions as if he had been long familiar with their effects.

Not only did Guettard detect some sixteen or seventeen cones, but he observed that their craters looked in different directions, and he thought that they probably belonged to different periods of eruption. The travellers pushed on to the great volcanic centre of Mont Dore. But Guettard was there less successful. He was unaware of the influence of long-continued denudation in altering the external forms of volcanic hills, and was disposed to regard his ill success as probably due to the mantle of vegetation by which so much of the ground was concealed.

The journey in Auvergne was too brief and hurried to admit of any single point being fully worked out. But Guettard believed that he had amassed material enough to prove the main question which interested him—that there had formerly been a series of active volcanoes in the heart of France. So he prepared an account of his observations, and read it to the Academy of Sciences on 10th May, 1752.

This early memoir on the extinct volcanoes of Europe must not be tried by the standard which has now been attained in the elucidation of volcanic rocks and the phenomena of ancient eruptions. We should be unjust if we judged it by the fuller knowledge