

that he thus became the originator of the Vulcanist party in the famous warfare at the end of last century, in no way diminishes the claim of Desmarest to occupy the foremost place among the Vulcanists, and to be ranked as the real founder of volcanic geology. I shall have occasion to dwell at some length on Desmarest's work, which for accuracy and breadth has never been surpassed.

Guettard, having never seen a volcano, was guided in his observations and inferences by what he had read of volcanic countries, and what he had learnt about lavas by familiarity with specimens of these rocks brought from Vesuvius and other modern volcanoes. He noted the close resemblance between the rocks of Auvergne and the Italian lavas, not only in appearance, density and other characters, but in their position on the ground, the specimens which he had gathered from the bottom, sides and crests of the puys having each their own distinctive peculiarities, as in existing volcanoes. He compared the curved lines on some of the rocks of Mont Dore and the Puy de Dôme with the ropy crusts of certain Vesuvian lavas.

When this distinguished man stepped from the observation of fact into the region of theory, he at once fell into error, but the error was one which, as we have seen, had passed current as obvious truth for more than 2000 years. "For the production of volcanoes," he remarks, "it is enough that there should be within these mountains substances that can burn, such as petroleum, coal or bitumen, and that from some cause these materials should take fire. Thereupon the mountain will become a furnace, and