

have seen, proved useful to Von Buch in Auvergne. Montlosier, being an Auvergnat proprietor, had from his boyhood been familiar with the physical features of that interesting region. His *Essai* gives a lively account of the volcanic district from his own personal rambles, but it contains nothing of importance that is not to be found in the earlier writings of Desmarest, whose views he adopts, but without citing him as his authority. The last chapter of the *Essai* is devoted to a discussion of the nature of volcanic force, which the author regarded as something distinct from the "fire," and perhaps of the nature of electricity, "the energy whereof is increased under ground by chance encounter with certain antagonistic materials." He was at all events convinced that "neither coal, nor bitumen, nor any of the other substances known to us can possibly be the principle of volcanic force, which acts indifferently upon everything it meets with."

So long as the crude conception prevailed that volcanic action was due to the combustion of beds of coal or other inflammable materials, it was an obvious consequence that the production of volcanoes should be regarded as a comparatively modern feature in the history of our planet. Not until thick forests had flourished on the earth's surface, and had been buried deep under accumulations of sediment, could any subterranean conflagrations be expected to arise. But there was yet another influence which could not but retard the recognition of evidence of ancient volcanic eruptions preserved among the strata of the earth's crust. Hutton and his school, whose contributions to geological progress will be described in