

the first geologist who had ever made any detailed and exact observations in the country.¹

Nothing could be more explicit than Von Buch's testimony to the volcanic origin of the basalts of Auvergne. The marvellous cone and crater of the Puy de Pariou excited, as they well might, his astonishment and admiration. "Here," he says, "we find a veritable model of the form and degradation of a volcano, such as cannot be found so clearly either at Etna or Vesuvius. Here at a glance we see how the lava has opened a way for itself at the foot of the volcano, how with its rough surface it has rushed down to the lower grounds, how the cone has been built above it out of loose slags which the volcano has ejected from its large central crater. We *infer* all this also at Vesuvius, but we do not always *see* it there as we do at the Puy de Pariou."²

Perhaps the most interesting passages in Von Buch's brightly-written letters are to be found at the end. The obviously volcanic origin of the rocks in Auvergne, and their position immediately above a mass of granite through which the craters had been opened, had evidently powerfully impressed his mind. With all these recent vivid experiences, he reflects upon his earlier wanderings among the basalt hills of Germany, and, as if taking his readers into his inner confidence, he declares that "it is impossible to believe in a

¹ He refers indeed several times to Montlosier's *Essai sur les Volcans d'Auvergne*, which he calls an excellent work. In one passage he actually credits this author with some of the most important generalisations made by Desmarest. (*Geog. Beobacht.*, pp. 279, 280.)

² *Op. cit.* p. 240.