

Spallanzani's experimental researches were published in several volumes in the same series as the more popular descriptive account of his travels (*Travels in Sicily and some parts of the Apennines*, 6 vols., Pavia, 1792-97). His descriptions and observations of volcanic regions surpass in scientific accuracy and completeness all previous contributions of the kind, and have secured a permanent place in the literature of scientific travel. Although Spallanzani's numerous experiments invariably produced vitreous rock-varieties, Hall succeeded shortly after in demonstrating that crystalline structure could be produced experimentally by the slow cooling of melted rock.

In 1801, Scipio Breislak (p. 78) published a descriptive and geological work on the Phlegræan fields, the extinct volcanoes near Rocca Monfino, on Monte Somma, Vesuvius, the Baiæ, Procida, and Ischia. This work comprises several maps, and is in many respects supplementary to Spallanzani's *Travels*. Breislak also contributed the first researches on the geology and stratigraphy of Rome, and of that part of the Apennines which surrounds the volcanic area of the Italian mainland.

Leopold von Buch was also a contributor to the geology of Rome. His study of the basalt of Capo di Bove and the Alban mountains aroused in his mind the first doubts of the correctness of Werner's Neptunian doctrine. The best feature in Von Buch's summary of the geology of Rome is his lucid exposition of the travertine and tuff deposits. He demonstrates that these are true aqueous sediments, although he recognises the volcanic origin of many of the contained mineral fragments.

In a paper "On the Formation of Leucite," Von Buch tried to prove that the crystals of leucite in the lava had separated out while the material was still in a fluid state. In his estimation the leucite crystals were original volcanic products; he discredited the hypothesis that they had been originally components of an aqueous sediment which had been partially melted in subterranean volcanic cisterns and poured forth as lavas. The anti-Neptunian attitude assumed by Von Buch in this paper was turned to good account at the time by the Volcanists. But Von Buch still held a somewhat contradictory position regarding basalt.

After he had visited Vesuvius and the Euganean Isles, in 1799, he wrote to Pictet that little difference could be distinguished between the lava flow from Torre del Greco