

and of Monte Nuovo in the sixteenth : but the eighteenth has formed an exception to this rule, and this seems accounted for by the unprecedented number of eruptions of Vesuvius during that period ; whereas, when the new vents opened, there had always been, as we have seen, a long intermittance of activity in the principal volcano.

CHAPTER XXV.]

VOLCANIC DISTRICT OF NAPLES — *continued.*

Dimensions and structure of the cone of Vesuvius — Dikes — Lavas and minerals — Alluviums called “aqueous lavas” — Origin and composition of the matter enveloping Herculaneum and Pompeii — Condition and contents of the buried cities — Small number of skeletons — State of preservation of animal and vegetable substances — Rolls of papyrus — Stabiæ — Torre del Greco — Concluding remarks on the Campanian volcanos.

Structure of the cone of Vesuvius. — BETWEEN the end of the eighteenth century and the year 1822, the great crater of Vesuvius had been gradually filled by lava boiling up from below, and by scoriæ falling from the explosions of minor mouths which were formed at intervals on its bottom and sides. In place of a regular cavity, therefore, there was a rough and rocky plain, covered with blocks of lava and scoriæ, and cut by numerous fissures, from which clouds of vapour were evolved. But this state of things was totally changed by the eruption of October, 1822, when violent explosions, during the space of more than twenty days, broke up and threw out all this accumulated mass, so as to leave an immense gulf or chasm, of an irregular, but somewhat elliptical shape, about three miles in circumference when measured along the very sinuous and irregular line of its extreme margin, but somewhat less than three quarters of a mile in its longest diameter, which was directed from N. E. to S. W.* The depth of this tremendous abyss has been variously estimated ; for from the hour of its formation it decreased daily by the dilapidation of its sides. It measured, at first, according to the account of some authors, two thousand feet in depth from the extreme part of the existing summit † ; but Mr. Scrope, when he saw it, soon after the eruption, estimated its depth at less than half that amount. More than eight hundred feet of the cone was carried away by the explosions, so that the mountain was reduced in height from about 4200 to 3400 feet.‡

* Account of the Eruption of Vesuvius in October, 1822, by G. P. Scrope, Esq., Journ. of Sci., &c. vol. xv. p. 175.

† Mr. Forbes, Account of Mount Vesuvius, Edin. Journ. of Sci., No. xviii. p. 195. Oct. 1828.

‡ Ibid. p. 194.