

theoretical prejudices in geology. No sooner do we study and endeavour to explain submarine appearances, than we feel, to use a common expression, out of our element; and unwilling to concede that our extreme ignorance of processes now continually going on can be the cause of our perplexity, we take refuge in a "pre-existent order of nature."

Recent formation of oolitic travertin in Lancerote. — Throughout a considerable part of Lancerote, the old lavas are covered by a thin stratum of limestone, from an inch to two feet in thickness. It is of a hard stalactitic nature, sometimes oolitic, like the Jura limestone, and contains fragments of lava and terrestrial shells, chiefly helices and spiral bulimi. It sometimes rises to the height of 800 feet above the level of the sea. Von Buch imagines that this remarkable super-stratum has been produced by the furious north-west storms, which in winter drive the spray of the sea in clouds over the whole island; from whence calcareous particles may be deposited stalactitically. Mr. Darwin informs me that he found a limestone in St. Helena, the harder parts of which correspond precisely to the stone of Lancerote. He attributes the origin of this rock in St. Helena not to the spray of the sea, but to drifting by violent winds of the finer particles of shells from the sea-beach. Some parts of this drift are subsequently dissolved by atmospheric moisture, and re-deposited, so as to convert calcareous sand into oolite.

Recent eruption in Lancerote. — From the year 1736 to 1815, when Von Buch visited Lancerote, there had been no eruption; but, in August, 1824, a crater opened near the port of Rescif, and formed by its ejections, in the space of twenty-four hours, a considerable hill. Violent earthquakes preceded and accompanied this eruption.*

Teneriffe. — The Peak of Teneriffe is about 12,000 feet high, and stands, says Von Buch, like a tower encircled by its fosse and bastion. The bastion consists, like the semicircular escarpment of Somma turned towards Vesuvius, of precipitous cliffs, composed of trachyte, basalt, coarse conglomerates, and tuffs, traversed by volcanic dikes, mostly vertical, and of basalt. These cliffs vary in height from 1000 to 1800 feet, and are supposed by Von Buch to have been heaved up into their present position by a force exerted from below, in accordance with the theory proposed by the same author for the origin of the cones of Vesuvius and Etna. According to the observations of M. Deville in 1839†, the trachytes are often granitoid in their aspect, and contain instead of glassy felspar the allied mineral called oligoclase, which had been previously considered as characteristic of more ancient igneous rocks. The same traveller supposes, although he found no limestone or trace of fossils in any of the rocks of Teneriffe, that the alternating trachytes and trachytic conglomerates originated beneath the sea. If this opinion be correct,

* Férussac, Bulletin des Sci. Nat. was written.
tome v. p. 45. 1825. The volcano was † Comptes Rendus Acad. Sci. Paris,
still burning when the account here cited Juin, 1846.