

ble intermixture of common salt; and masses of rock-salt occur in other parts of the island, imbedded in clay.* In these, and in some other instances, it is probable that subterranean fire, by evaporating the waters of salt lakes, or of countries recently emerged from the ocean, may have been an active agent in the formation of rock-salt.

The rapid formation of rock-salt in Syria, during one of those igneous eruptions which have, at times, overwhelmed certain portions of the globe, is, perhaps, obscurely alluded to by the sacred writer, who has narrated the early history of the human race. Gen. chap. xix.† The salt lakes existing in that country are well known.

Whether all the repositories of rock-salt above enumerated occur in the red marl, cannot, in the present state of our information, be accurately ascertained. The great formation of rock-salt and gypsum near Bex in Switzerland, constitutes two large and extensive beds. The lowest rests upon black limestone, argillaceous limestone and sandstone; and between the lower gypsum and the upper, there are thick beds of argillaceous limestone, and similar argillaceous limestone forms caps over the upper gypsum. The gypsum in the large beds is anhydrous, and contains particles of rock-salt and common gypsum disseminated through it. The prevailing fossils are ammonites and belemnites.—(*Travels in the Tarentaise.*)

The mineral characters of the strata at Bex, and the imbedded fossils, incline me rather to refer the argillaceous limestone, over and under the gypsum and salt beds, to the English lias, than to magnesian limestone. Many beds of the lias in England contains much muriate of soda and sulphate of magnesia.

The saliferous gypsum, in the Tarentaise, is anhydrous, and contains a considerable quantity of silex; it occurs interstratified with limestone which bears a nearer resemblance to the magnesian limestone than to lias. The tops of some of the mountains are covered with beds of common gypsum, intermixed with native sulphur. In one of the rocks associated with the gypsum formation, I discovered a fossil *Patella*. Though a branch of the *Ecole des Mines*, with able instructors from Paris, had been for some years established at Moutiers, close to the salt formations, a very erroneous opinion respecting the gypsum of the Tarentaise was maintained by the professors; namely, that the gypsum merely formed an unconformable covering over the adjacent mountains. I observed it in several parts of the valley of the Doron near Moutiers, as distinctly interstratified in the calcareous mountains, as the gypsum of Montmartre is interstratified between the tertiary formations near Paris. In one of the

* Travels in Sicily, by Lieut. Gen. Cockburn.

† Jerome, who resided in Syria, in the fourth century, informs us, that the rock of salt was existing in his time; and fancifully relates certain peculiarities respecting it, which equal in absurdity the legends of the darkest ages of papal superstition.