

to the heat of the sun, evaporate at their surface; crusts of salt, formed in a saturated solution, fall to the bottom; and by the attraction between crystals of a similar nature and form, the crystallized masses daily augment. It is generally observed that the water is brackish wherever lagoons are formed in clayey ground. It is true, that for the new salt-work near the battery of Araya, the seawater is received into pits, as in the salt marshes of the south of France; but in the island of Margareta, near Pampatar, salt is manufactured by employing only fresh water, with which the muriatiferous clay has first been lixivated.

We must not confound the salt disseminated in these clayey soils with that contained in the sands of the seashore, on the coasts of Normandy. These phenomena, considered in a geognostical point of view, have scarcely any properties in common. I have seen muriatiferous clay at the level of the ocean at Punta Araya, and at two thousand toises' height in the Cordilleras of New Grenada. If in the former of these places it lies on very recent shelly breccia, it forms, on the contrary, in Austria near Ischel, a considerable stratum in the Alpine limestone, which, though equally posterior to the existence of organic life on the globe, is nevertheless of high antiquity, as is proved by the great number of rocks with which it is covered. We shall not question, that sal-gem, either pure or mixed with muriatiferous clay, may have been deposited by an ancient sea; but everything evinces that it was formed during an order of things bearing no resemblance to that in which the sea at present, by a slower operation, deposits a few particles of muriate of soda on the sands of our shores. In the same manner as sulphur and coal belong to periods of formation very remote from each other, the sal-gem is also found sometimes in transition gypsum,\* sometimes in the Alpine limestone†, sometimes in a muriatiferous clay lying on a very

\* Uebergangsgyps, in the transition slate of White Alley (l'Allée Blanche), and between the grauwacke and black transition limestone near Bex, below the Dent de Chamossaire, according to M. von Buch.

† At Halle in the Tyrol.