

extended atmosphere, overloaded with vapors. The vast fissures which were formerly open in the solid crust of the earth have since been filled up or closed by the protrusion of elevated mountain chains, or by the penetration of veins of rocks of eruption (granite, porphyry, basalt, and melaphyre); and while, on a superficial area equal to that of Europe, there are now scarcely more than four volcanoes remaining through which fire and stones are erupted, the thinner, more fissured, and unstable crust of the earth was anciently almost every where covered by channels of communication between the fused interior and the external atmosphere. Gaseous emanations, rising from very unequal depths, and therefore conveying substances differing in their chemical nature, imparted greater activity to the Plutonic processes of formation and transformation. The sedimentary formations, the deposits of liquid fluids from cold and hot springs, which we daily see producing the travertine strata near Rome, and near Hobart Town in Van Diemen's Land, afford but a faint idea of the flötz formation. In our seas, small banks of limestone, almost equal in hardness at some parts to Carrara marble,* are in the course of formation, by gradual precipitation, accumulation, and cementation—processes whose mode of action has not been sufficiently well investigated. The Sicilian coast, the island of Ascension, and King George's Sound in Australia, are instances of this mode of formation. On the coasts of the Antilles, these formations of the present ocean contain articles of pottery, and other objects of human industry, and in Guadaloupe even human skeletons of the Carib tribes.† The negroes of the French colonies designate these formations by the name of *Maconne-bon-Dieu*.‡ A small oolitic bed, formed in Lancerote, one of the Canary Islands, and which, notwithstand-

* Darwin, *Volcanic Islands*, 1844, p. 49 and 154.

† [In most instances the bones are dispersed; but a large-slab of rock, in which a considerable portion of the skeleton of a female is imbedded, is preserved in the British Museum. The presence of these bones has been explained by the circumstance of a battle, and the massacre of a tribe of Gallibis by the Caribs, which took place near the spot in which they are found, about 120 years ago; for, as the bodies of the slain were interred on the sea-shore, their skeletons may have been subsequently covered by sand-drift, which has since consolidated into limestone. Dr. Moultrie, of the Medical College, Charleston, South Carolina, U. S., is, however, of opinion that these bones did not belong to individuals of the Carib tribe, but of the Peruvian race, or of a tribe possessing a similar craniological development.]—*Tr.*

‡ Moreau de Jonnés, *Hist. Phys. des Antilles*, t. i., p. 136, 138, and 543; Humboldt, *Relation Historique*, t. iii., p. 367.