

weeds and living polypi, we find enormous masses of madrepores and other lithophyte corals set in the texture of those shelves. We are at first tempted to admit, that the whole of this limestone rock, which constitutes the principal portion of the island of Cuba, may be traced to an uninterrupted operation of nature,—to the action of productive organic forces—an action which continues in our days in the bosom of the ocean; but this apparent novelty of limestone formations soon vanishes when we quit the shore, and recollect the series of coral rocks which contain the formations of different ages, the muschelkalk, the Jura limestone, and coarse limestone. The same coral rocks as those of the Castillo and La Punta are found in the lofty inland mountains, accompanied with petrifications of bivalve shells, very different from those now seen on the coasts of the Antilles. Without positively assigning a determinate place in the table of formations to the limestone of Guines, which is that of the Castillo and La Punta, I have no doubt of the relative antiquity of that rock with respect to the calcareous agglomerate of the Cayos, situated south of Batabano, and east of the island of Pinos. The globe has undergone great revolutions between the periods when these two soils were formed; the one containing the great caverns of Matanzas, the other daily augmenting by the agglutination of fragments of coral and quartzose sand. On the south of the island of Cuba, the latter soil seems to repose sometimes on the Jura limestone of Guines, as in the Jardinillos, and sometimes (towards Cape Cruz) immediately over primitive rocks. In the lesser Antilles, the corals are covered with volcanic productions. Several of the Cayos of the island of Cuba contain fresh water; and I found this water very good in the middle of the Cayo de Piedras. When we reflect on the extreme smallness of these islands, we can scarcely believe that the fresh-water wells are filled with rain-water not evaporated.

to the manganese which we recognize by some dendrites? The sea, entering into the clefts of the rocks, and in a cavern at the foot of the Castillo del Morro, compresses the air, and makes it issue with a tremendous noise. This noise explains the phenomena of the “baxos roncadores,” (snoring bocabecos), so well known to navigators who cross from Jamaica to the mouth of Rio San Juan of Nicaragua, or to the island of San Andrés.