

toises high, and an ammonite seven inches in diameter, in the Montaña de Santa Maria, north-north-west of Caripe. I nowhere saw the limestone of Cumanacoa (of which I treat specially in this article) resting on the sandstone of the Llanos; if there be any such superposition, it must be found on descending the table-land of Cocollar towards the Mesa de Amana. On the southern coast of the gulf of Cariaco, the limestone formation probably covers, without the interposition of another rock, a mica-slate which passes to carburetted clay-slate. In the northern part of the gulf I distinctly saw this clayey formation at the depth of two or three fathoms in the sea. The submarine hot springs appeared to me to gush from mica-slate like the petroleum of Maniquarez. If any doubts remain as to the rock on which the limestone of Cumanacoa is immediately superposed, there is none respecting the rocks which cover it, such as (1) the tertiary limestone of Cumana, near Punta Delgada, and at Cerro de Meapire; (2) the sandstone of Quetepe and Turimiquiri, which, forming layers also in the limestone of Cumanaco, belongs properly to the latter soil; the limestone of Caripe, which we have often identified in the course of this work, with Jura limestone, and of which we shall speak in the following article.

VIII. FORMATION OF THE COMPACT LIMESTONE OF CARIPE.—Descending the Cuchillo de Guanaguana towards the convent of Caripe, we find another more recent formation, white, with a smooth or slightly conchoidal fracture, and divided in very thin layers, which succeeds to the bluish grey limestone formation of Cumanacoa. I call this in the first instance the limestone formation of Caripe, on account of the cavern of that name, inhabited by thousands of nocturnal birds. This limestone appeared to me identical (1) with the limestone of the Morro de Barcelona and the Chimanas Islands, which contains small layers of black kiesel-schiefer (slaty jasper) without veins of quartz, and breaking into fragments of parallelepiped form; (2) with the whitish grey limestone with smooth fracture, of Tisnao, which seems to cover the sandstone of the Llanos. We find the formation of Caripe in the island of Cuba (between the