

masses of native alum, with a conchoidal or imperfectly lamellar fracture. We were led to hope that we should find the mine of alum (*mina de alun*) in the slaty cordillera of Maniquarez, and so new a geological phenomenon was calculated to rivet our attention. The priest Juan Gonzales, and the treasurer, Don Manuel Navarete, who had been useful to us from our first arrival on this coast, accompanied us in our little excursion. We disembarked near Cape Caney, and again visited the ancient salt-pit (which is converted into a lake by the irruption of the sea), the fine ruins of the castle of Araya, and the calcareous mountain of the Barigon, which, from its steepness on the western side is somewhat difficult of access. Muriatiferous clay mixed with bitumen and lenticular gypsum, and sometimes passing to a darkish brown clay, devoid of salt, is a formation widely spread through this peninsula, in the island of Margareta, and on the opposite continent, near the castle of San Antonio de Cumana. Probably the existence of this formation has contributed to produce those ruptures and rents in the ground, which strike the eye of the geologist when he stands on one of the eminences of the peninsula of Araya. The cordillera of this peninsula, composed of mica-slate and clay-slate, is separated on the north from the chain of mountains of the island of Margareta, (which are of a similar composition,) by the channel of Cubagua; and on the south it is separated from the lofty calcareous chain of the continent, by the gulf of Cariaco. The whole intermediate space appears to have been heretofore filled with muriatiferous clay; and no doubt the continual erosions of the ocean have removed this formation, and converted the plain, first into lakes, then into gulfs, and finally into navigable channels. The account of what has passed in the most modern times at the foot of the castle of Araya, the irruption of the sea into the ancient salt-pit, the formation of the laguna de Chacopata, and a lake, four leagues in length, which cuts the island of Margareta nearly into two parts, afford evident proofs of these successive erosions. In the singular configuration of the coasts in the Morro of Chacopata; in the little islands of the Caribbees, the Lobos and Tunal; in the great island of Coche, and the capes of Carnero and Mangliers; there still seem to be apparent the remains of an