

is recollected that farther eastward, near Cariaco, the hot and submarine waters are sufficiently abundant to change the temperature of the gulf at its surface, we cannot doubt that the petroleum is the effect of distillation at an immense depth, issuing from those primitive rocks, beneath which lies the focus of all volcanic commotion.

The Laguna Chica is a cove surrounded by perpendicular mountains, and connected with the gulf of Cariaco only by a narrow channel twenty-five fathoms deep. It seems, like the fine port of Acapulco, to owe its existence to the effect of an earthquake. A beach shows that the sea is here receding from the land, as on the opposite coast of Cumana. The peninsula of Araya, which narrows between Cape Mero and Cape las Minas to one thousand four hundred toises, is little more than four thousand toises in breadth near the Laguna Chica, reckoning from one sea to the other. We had to cross this distance in order to find the native alum, and to reach the cape called the Punta de Chuparuparu. The road is difficult only because no path is traced; and between precipices of some depth we were obliged to step over ridges of bare rock, the strata of which are much inclined. The principal point is nearly two hundred and twenty toises high; but the mountains, as it often happens in a rocky isthmus, display very singular forms. The Paps (tetas) of Chacopata and Cariaco, midway between the Laguna Chica and the town of Cariaco, are peaks, which appear isolated when viewed from the platform of the castle of Cumana. The vegetable earth in this country is only thirty toises above sea-level. Sometimes there is no rain for the space of fifteen months; if, however, a few drops fall immediately after the flowering of the melons and gourds, they yield fruit weighing from sixty to seventy pounds, notwithstanding the apparent dryness of the air. I say apparent dryness, for my hygrometric observations prove that the atmosphere of Cumana and Araya contains nearly nine-tenths of the quantity of watery vapour necessary to its perfect saturation. It is this air, at once hot and humid, that nourishes those vegetable reservoirs, the cucurbitaceous plants, the agaves and melocactuses half-buried in the sand. When we visited the peninsula the preceding year, there was a great scarcity