

heaped-up earth prevents the salt water from covering the whole plain, the emanations that rise during the heat of the day, when the thermometer stands between 28° and 32° are very pernicious to the health of the inhabitants. A small portion of hilly land separates the town of Carthagena and the islet of Manga from the Cienega de Tesca. Those hills, some of which are more than 500 feet high, command the town. The Castillo de San Lazaro is seen from afar rising like a great rocky pyramid; when examined nearer its fortifications are not very formidable. Layers of clay and sand, belonging to the tertiary formation of *nagelfluhe*, are covered with bricks, and furnish a kind of construction which has little stability. The Cerro de Santa Maria de la Popa, crowned by a convent and some batteries, rises above the fort of San Lazaro, and is worthy of more solid and extensive works. The image of the Virgin, preserved in the church of the convent, has been long revered by mariners. The hill itself forms a prolonged ridge from west to east. The calcareous rock, with cardites, meandrites, and petrified corals, somewhat resembles the tertiary limestone of the peninsula of Araya, near Cumana. It is split and decomposed in the steep parts of the rock, and the preservation of the convent on so unsolid a foundation is considered by the people as one of the miracles of the patron of the place. Near the Cerro de la Popa there appears, on several points, breccia with a limestone cement containing angular fragments of Lydian stone. Whether this formation of *nagelfluhe* is superposed on tertiary limestone of coral, and whether the fragments of the Lydian stone come from secondary limestone, analogous to that of Zacatecas and the Moro de Nueva Barcelona, are questions which I have not had leisure to investigate. The view from the Popa is extensive and varied, and the windings and rents of the coast give it a peculiar character. I was assured that sometimes from the windows of the convent, and even in the open sea, before the fort of Boca Chica, the snowy tops of the Sierra Nevada de Santa Marta are discernible. The distance of the Horqueta to the Popa is seventy-eight nautical miles. This group of colossal mountains is most frequently wrapped in thick clouds: and it is most veiled at the season when the gales blow with violence. Although only forty-