

the disc there was a shadow, like a round cloud, the movement of which was from east to west. The part where the immersion was to take place was consequently, a few minutes prior to the immersion, much more brightly illumined than the western edges. Is this phenomenon to be attributed to an inequality of our atmosphere; to a partial accumulation of vapour, which, by absorbing a considerable part of the solar light, inflects less on one side the cone of the shadow of the earth? If a similar cause, in the perigee of central eclipses, sometimes renders the disc invisible, may it not happen also that only a small portion of the moon is seen; a disc, irregularly formed, and of which different parts were successively enlightened?

On the morning of the 30th of March we doubled Punta Gigantes, and made for the Boca Chica, the present entrance of the port of Carthagena. From thence the distance is seven or eight miles to the anchorage near the town; and although we took a *practico* to pilot us, we repeatedly touched on the sandbanks. On landing, I learned, with great satisfaction, that the expedition appointed to take the survey of the coast, under the direction of M. Fidalgo, had not yet put to sea. This circumstance not only enabled me to ascertain the astronomical position of several towns on the shore, which had served me as points of departure in fixing chronometrically the longitude of the Llanos and the Orinoco, but also served to guide me with respect to the future direction of my journey to Peru. The passage from Carthagena to Porto Bello, and that of the isthmus by the Rio Chagres and Cruces, are alike short and easy; but it was to be feared, that we might stay long at Panama before we found an opportunity of proceeding to Guayaquil, and in that case the voyage on the Pacific would be extremely lingering, as we should have to sail against contrary winds and currents. I relinquished with regret the hope of levelling by the barometer, the mountains of the isthmus, though it would then have been difficult to foresee that at the present time (1827), while measurements have been effected on so many other points of Mexico and Columbia, we should remain in ignorance of the height of the ridge which divides the waters in the isthmus. The persons we consulted all agreed that the journey by land