

On the morning of the 1st of December, the sea slowly calmed, and the breeze became steady from N.E. On the 2nd December we descried Cape Beata, in a spot where we had long observed the clouds gathered together. According to the observations of Acherner, which I obtained in the night, we were sixty-four miles distant. During the night there was a very curious optical phenomenon, which I shall not undertake to account for. At half-past midnight the wind blew feebly from the east; the thermometer rose to 23.2° , the whalebone hygrometer was at 57° . I had remained upon the deck to observe the culmination of some stars. The full-moon was high in the heavens. Suddenly, in the direction of the moon, 45° before its passage over the meridian, a great arch was formed tinged with the prismatic colours, though not of a bright hue. The arch appeared higher than the moon; this iris-band was near 2° broad, and its summit seemed to rise nearly from 80° to 85° above the horizon of the sea. The sky was singularly pure; there was no appearance of rain; and what struck me most was, that this phenomenon, which perfectly resembled a lunar rainbow, was not in the direction opposite to the moon. The arch remained stationary, or at least appeared to do so, during eight or ten minutes; and at the moment when I tried if it were possible to see it by reflection in the mirror of the sextant, it began to move and descend, crossing successively the Moon and Jupiter. It was $12^{\text{h}} 54^{\text{m}}$ (mean time) when the summit of the arch sank below the horizon. This movement of an arch, coloured like the rainbow, filled with astonishment the sailors who were on watch on the deck. They alleged, as they do on the appearance of every extraordinary meteor, that it denoted wind. M. Arago examined the sketch of this arch in my journal; and he is of opinion that the image of the moon reflected in the waters could not have given a halo of such great dimensions. The rapidity of the movement is no small obstacle in the way of explanation of a phenomenon well worthy of attention.

On the 3rd of December we felt some uneasiness on account of the proximity of a small vessel supposed to be a pirate, but which, as it drew near, we recognized to be the *Balandra del Frayle*, (the sloop of the Monk). I was at a loss to