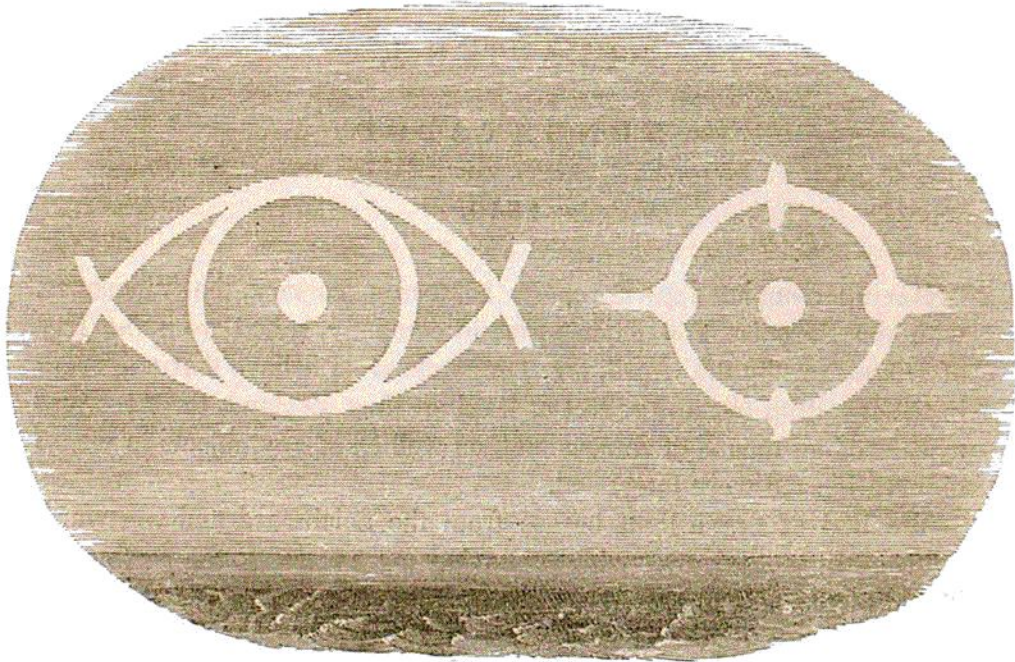


I was desirous to pass over the positions of some of the doubtful shoals, and to verify the longitude assigned to Sunday Island, (the Raoul of D'Entrecasteaux.) Had this not been my design, I should have preferred pursuing a more eastern route than I did, which I am satisfied would have shortened our passage to Tongataboo. I do not conceive, however, that there is any difficulty in reaching that island, or any risk of falling to the leeward of it at this season of the year, for westerly winds prevail in its neighbourhood. We had a light wind from northeast to east-northeast.

On the 11th April, we had reached latitude 29° S., longitude 178° W., and had on that day a most beautiful halo. It was formed at first of the segments of two great circles, the chords of which subtended an angle of 54° . These gradually united, and formed a circle around the sun, whose diameter measured 42° . Its appearances, at $2^{\text{h}} 40^{\text{m}}$ and at 3 P. M. , are represented in the figure.



PARHELIA.

The parhelia were very distinct, and had spurs on their outer sides; two points in the vertical plane intersecting the sun, were very bright, but did not form parhelia; the sun's altitude was $29^{\circ} 20'$: no decided clouds were to be seen, but the whole sky was hazy, and the wind fresh from the northeast. About two hours after this phenomenon, much lightning occurred, with torrents of rain, but no thunder, and this continued throughout the night. The barometer stood at 29.99 in;