

any active igneous action, nor is there any well-defined crater to be seen. Coral reefs, with occasional openings, are attached to the shores, and the larger island (Tahiti) has also a sea reef. Between the two reefs is an almost continuous channel for boat navigation, and on the northern side they enclose many safe and commodious harbours for shipping. On this side also vessels may pass from harbour to harbour, within the outer reef. This reef varies in breadth from a few yards to fifty, or even a hundred. The shore that adjoins the coral reef is formed of black volcanic sand, occasionally mixed with comminuted shells, which give it a grayish hue. Basaltic ridges reach the sea at intervals, and form projecting points of moderate elevation.

We began without delay to overhaul the vessels, and the few sick persons we had on board were sent on shore to a shed hired for the purpose on Point Venus.

An observatory was established at the same place, and furnished with both astronomic and magnetic instruments; and as soon as the repairs of the vessels had made such progress as to permit it, parties were formed for the survey of the four principal harbours and the channels between them. These harbours, Matavai, Papaoa, Toanoa, and Papieti, are so important to the many whale-ships which visit this island, that I felt it an imperative duty to obtain accurate charts of them all. At the same time, a large party of officers and naturalists was ordered to cross the island, to reach, if possible, Orohena, one of the highest peaks, and to visit Lake Waiherea.

I had been in hopes of obtaining a full series of moon culminating stars on Point Venus; but I was disappointed, for it rained almost every night. I was, therefore, compelled to rely for the longitude on the chronometers alone, and restricted even in that method to observations of the sun. I was, however, well pleased to find that my results differed from the best preceding authorities no more than 1' 33" of space. These authorities give $149^{\circ} 29' 43''$ W., for the longitude of Point Venus.

The mountains were obscured by clouds during the whole time of my stay, and no angles could be taken for the measurement of their heights, nor could the party I detached for the purpose reach their summits; but the Peacock remained for some days after my departure, and Captain Hudson, with his officers, succeeded in measuring the height of Aorai, the peak which is next in height to Orohena. This he found to be six thousand nine hundred and seventy-nine feet; and as Orohena appeared to be about one thousand five hundred feet higher, the height of the latter peak may be set down as about eight