

these impediments, but in the attempts the pipes became choked, broke, and were thrown out of the perpendicular. When the impediments in one place were found to be too great to be overcome, it was abandoned, and the work begun anew. The greatest depth to which he succeeded in reaching was twenty-one feet: ten to eleven feet were generally accomplished without much difficulty; but after that depth was arrived at, they frequently did not succeed in getting down beyond one foot per day.

The coral shelf, composed of conglomerates and compact coral rock, seems to have afforded an impediment to further progress. After the breaking of pipes and augers, and the occurrence of various other accidents, principally from the impossibility of maintaining a perpendicular, Lieutenant Johnson began from his acquired experience to hope for success a day or two previous to the arrival of the brig, when the whole was abandoned by order of Lieutenant-Commandant Ringgold, and every thing embarked. I am well satisfied that there is no insuperable difficulty in boring into coral islands; but in the present case the season of the year was somewhat against them, as it caused them to encounter much more water in the soil than they would otherwise have met with. The proper season for such an attempt would be the dry one. Much rain fell during their stay; and although no serious sickness occurred, yet many felt unwell.

To the Geological Report I must leave the details of the boring. Agreeably to my instructions, a specimen of each foot reached was preserved.

These experiments turned out very much as I anticipated, viz: that we should find but little coral sand, and an occasional stratum of coral rock. Since my return, I have seen the results of a similar experiment made by Captain Belcher, on another island, (Hau or Bow Island,) in the same group. They are identical with ours.

Before I close the subject of coral islands, I cannot refrain from making a few remarks, derived from my own observations while I was engaged among them. My opportunities have been numerous, and I have had every facility for viewing to advantage, not only those exclusively of coral formation, but also the reefs that surround the high volcanic islands, which afford the most safe and convenient harbours of the Pacific.

After much inquiry and close examination, I was unable to believe that these great formations are or can possibly be the work of zoophytes; and the arguments by which it is endeavoured to maintain this theory, appear to me to be inconsistent with the facts. I cannot but view the labours of these animals as wholly inadequate to produce