

the effects which I observed, and I was satisfied that the very appearance of the reefs was sufficient to contradict any such impression. The ingenious theory of Darwin, which has of late been promulgated, and which holds that an equal subsidence and growth are taking place, is alike at variance with the configuration, extent, and general construction of the reefs.

In all the reefs and islands of coral that I have examined, there are unequivocal signs that they are undergoing dissolution. Thus, it will be recollected, that in the first volume of this narrative, I gave various sketches of coral blocks now existing on the top of reefs, and also spoke of the various shelves, soundings, and longitudinal cracks that I had observed. All these phenomena have been since those first observations repeatedly met with. To account for the position of these blocks, it has been assumed that they had been thrown up by the sea; but their positions, weight, and situation, are such as to contradict such an idea. They are found in many cases standing erect on their smaller ends, and have evidently formed an upper shelf, of which they are now the sole remains. In every observed instance, they were at some distance from the outer edge of the reef on which they stand, and they were also seen covered with debris of the coral, that has been mentioned as forming the highest portion of the islands. It would be utterly impossible for any sea to toss so great a weight to such a distance; and if such masses were even broken off from a reef by the action of water, they would undoubtedly have obeyed the laws of gravity, and descended to the unfathomable depths beneath them.

The low coral islands, as far as they have been investigated, both by boring and sounding, have shown a foundation of sand, or what becomes so on being broken up.

The elevated coral islands which we have examined, exhibit a formation of conglomerate, composed of compact coral and dead shells, interspersed with various kinds of corals, which have evidently been deposited after life has become extinct. A particular instance of this was seen at the island of Metia, and the same formation was also observed at Oahu.

The abrading effects of the sea on all the islands and reefs, was evident, for they exhibited throughout a worn surface. Some living corals are indeed found at the surface, but a few inches beneath it the reef is invariably a collection of loose materials, and shows no regular coralline structure, as would have been the case if it had been the work of the lithophyte.

All the coral islands lie within an ocean subject to the effects of volcanic action, and we have no reason to doubt that they would be