

IV. PERIOD OF THE SUBSIDENCE.

The period during which these changes were in progress extends back to the Tertiary era, and perhaps still farther. In the island of Metia, elevated two hundred and fifty feet, the corals below were the same as those now existing, as far as we could judge from the fossilized specimens. At the inner margin of shore reefs there is the same identity with existing genera. We do not claim to have examined the basement of the coral islands, and offer these facts as the only evidence on this point that is within reach. We cannot know with absolute certainty that the present races of zoöphytes may not be the successors of others that flourished, on the same sites, even before the Tertiary era in Cretaceous and Jurassic times ; but as yet have little reason, in facts observed, for such a conclusion. For a long time volcanic action may have been too general and constant over the Pacific for the growth of corals ; and this may have continued to interfere till a comparatively late period, if we may judge from the appearance of the rocks, even on Tahiti. The subsidence has probably for a considerable period ceased in most, if not all, parts of the ocean, and subsequent elevations of many islands and groups have taken place.

V. ELEVATIONS OF MODERN ERAS IN THE PACIFIC.

Since the period of subsidence discussed in the preceding pages, there has been no equally general elevation. Yet various parts of the ocean bear evidence of changes confined to particular islands, or groups of islands. While the former exemplify one of the grander events in the earth's history, in which a large segment of the globe was concerned, the latter exhibit its minor changes over limited areas. The instances of these changes are so numerous and so widely scattered, that they afford convincing evidence of a cessation in the previous general subsidence.