

is mostly thrown inward by the sea. The lagoon will consequently become smaller and shallower, and the outline of the island in general more nearly circular. Finally, the reefs of the different sides may so far approximate by this process, that the lagoon is gradually obliterated, and the large atoll is thus reduced to a small level islet, with only traces of a former depression about the centre. Thus subsidence aids detritus accumulations in filling up the lagoon; and as filled lagoons are found only in the smallest islands, such as Swain's and Jarvis's, the two agencies have beyond doubt been generally united.

This subsidence, if more rapid than the increase of the coral reef, would become fatal to the atoll, by gradually sinking it beneath the sea. Such a fate has actually befallen two atoll-formed reefs of the Chagos Group, in the Indian Ocean (p. 156), as stated by Darwin; a third had only "two or three very small pieces of living reef rising to the surface," and the fourth has a portion nine miles long, dead and submerged. Darwin calls such reefs *dead reefs*. The southern Maldives have deeper lagoons than the northern, fifty or sixty fathoms being found in them. This fact indicates that subsidence was probably most extensive to the south, and perhaps also most rapid. The sinking of the Chagos Bank, which lies farther to the south, in nearly the same line, may therefore have had some connection with the subsidence of the Maldives.

In view of the facts which have been presented, it appears that each coral atoll once formed a fringing reef around a high island. The fringing reef, as the island subsided, became a barrier reef, which continued its growth while the land was slowly disappearing. The area of waters within finally contained the last sinking peak. Another period, and this had gone—the island had sunk, leaving only the barrier at the surface and an islet or two of coral in the inclosed lagoon. Thus the coral wreath thrown around the lofty island to beautify and protect becomes afterward its monument, and the only record of its past existence. The Paumotu Archipelago is a vast