

substance from zoophytic exuviæ. They form the basis of, or surround, the shores of most of the islands in the warm parts of the Pacific, and stretch for a thousand miles parallel to the north-east coast of Australia, in a narrow reef of several hundred miles' length. In like manner, about the Indian and West Indian islands, in the Red Sea, Persian Gulf, and Mediterranean, coral abounds, so as to constitute a considerable portion of the products of the sea.

It has long been the custom to compare the rapid and abundant growth of coral islands with the limited breadths of marine limestone which lie amidst the sedimentary sandstones and shales of the stratified rocks; and on the comparison conjectures have been founded that the stony crag of Orford, the coral rag of Wilts, the transition limestone of the Eifel and Plymouth, were, in effect, ancient coral reefs. It appears, on a first glance, a fatal objection to this view, that these ancient rocks are regularly stratified; the corals in them occupying particular (often thin) beds, not lying confusedly through the mass, nor growing one to another, so as to resemble in structure what is popularly understood by a coral reef. But this notion of a coral reef, exact enough in many instances, is incorrect when applied to the Bermudas, which grow up a mingled mass of coral, shells, comminuted calcareous substances, and sands drifted by the current of the gulf stream. Parts of this calcareous mass, raised above the sea in hills, are drifted by the wind and dispersed into beds.* In such accumulations, not far from land, under the influence of sea currents, we ought to find very different results from those which take place in the broad calm waters of the wider ocean.

In Mr. Stutchbury's excellent dissertation on the formation and growth of coral reefs and islands (*West of England Journal*), the construction of the principal part of the coral mass is ascribed to the genera *caryophyllia*, *meandrina*, *astræa*, *porites*, and *madrepora*; while the

* Neilson, *Geol. Soc. Proceedings*.