and, among them, some of the largest and heaviest of known species, contribute to augment the mass. In the South Pacific, great beds of oysters, muscles, *Pinnæ marinæ*, *Chamæ* (or *Tridacnæ*), and other shells, cover in profusion almost every reef; and on the beach of coral islands are seen the shells of echini and broken fragments of crustaceous animals. Large shoals of fish are also discernible through the clear blue water, and their teeth and hard palates cannot fail to be often preserved although their soft cartilaginous bones may decay.

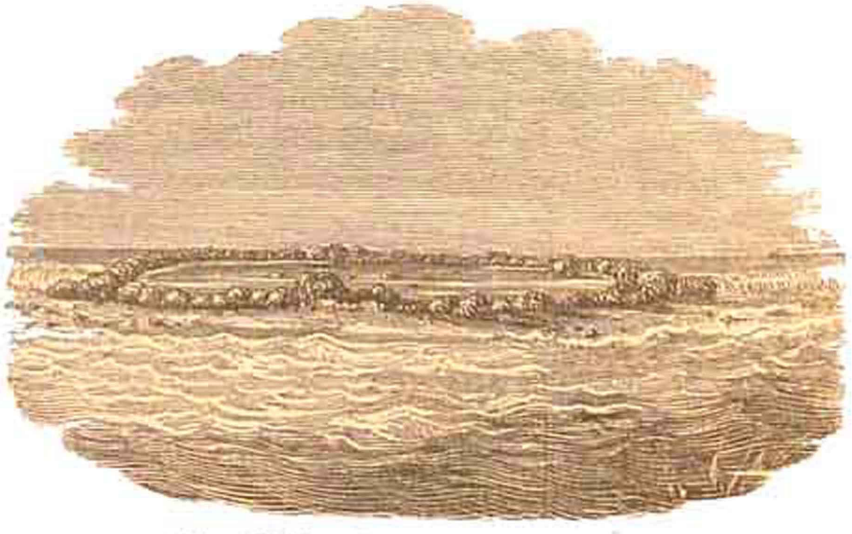
It was the opinion of the German naturalist Forster, in 1780, after his voyage round the world with Captain Cook, that coral animals had the power of building up steep and almost perpendicular walls from great depths in the sea, a notion afterwards adopted by Captain Flinders and others; but it is now very generally believed that these zoophytes cannot live in water of great depths.

Mr. Darwin has come to the conclusion, that those species which are most effective in the construction of reefs, rarely flourish at a greater depth than 20 fathoms, or 120 feet. In some lagoons, however, where the water is but little agitated, there are, according to Kotzebue, beds of living coral in 25 fathoms water, or 150 feet. There are also various species of zoophytes, and among them some which are provided with calcareous as well as horny stems, which live in much deeper water, even in some cases to a depth of 180 fathoms; but these do not appear to give origin to stony reefs.

There is every variety of form in coral reefs, but the most remarkable and numerous in the Pacific consist of circular or oval strips of dry land, enclosing a shallow lake or lagoon of still water, in which zoophytes and mollusca abound. These annular reefs just raise themselves above the level of the sea, and are surrounded by a deep and often unfathomable ocean.

In the annexed cut (fig. 91.), one of these circular islands is

Fig. 91.



View of Whitsunday Island. (Capt. Beechey.) *

* Voyage to the Pacific, &c. in 1825–28.