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Lesson and Garnot. The English navigator, Captain Beechey, took a number of soundings round the edges of coral reefs, and also arrived at the conviction that they were based upon submarine mountains, whose summits were never covered by more than 400-500 feet of water.

The considerable size of many atolls made it seem somewhat improbable that they had been erected upon isolated volcanoes, and this theory was opposed by Ainsworth in 1831. He thought that, in addition to the coral polyps in shallow waters, there might be certain species whose habitat was at greater depths. In explanation of the higher edge on the windward side of an atoll, he called oceanic currents to his assistance, and thought they compelled the polyps to build vertically, whereas on the leeward side nothing prevented them from extending the reef in horizontal direction. Charles Lyell was favourably inclined to the theory of a volcanic basis, but also stated in the first edition of the *Principles* that the inequality in the height of the atoll edges might be due to local variation of level, more particularly to local subsidences after earthquakes.

The famous memoir by Ehrenberg, "On the Structure and Form of the Coral Growths in the Red Sea," published in 1834 in the Abhandlungen of the Berlin Academy, represented the result of eighteen months' study in the particular localities. The treatise begins with an exhaustive historical account of the previous literature on reef-building corals and reef-forms. Ehrenberg then describes the form of the reefs in the Red Sea as ribbon-like submarine banks extending parallel with the coast-line, based upon gentle beach-slopes, and having their water surfaces about $\frac{1}{2}$ -2 fathoms below the water-level at high tide. There are no exposed reef-surfaces in the Red Sea, and the outer side of the reef has a steep cliff edge descending rapidly into greater depths. The rock underlying the reefs is either a porous limestone or volcanic material; the coral limestone itself forms only a thin surface layer about 11 fathoms thick upon the basal rock. Hence Ehrenberg regards the corals not as the builders of new islands, but only as the preservers of islands already existing.

The German zoologist agrees with Quoy and Gaimard on one of the leading points of controversy, namely, the small thickness of coral structures, and confirms their conclusion that the polyps can only exist in warm water not more than six