

and for this and other reasons he regarded them as in the main algal accumulations. Lepsius also thought there were no sufficient stratigraphical grounds for regarding the dolomite rocks of South Tyrol as other than a marine deposit. But the coral-reef theory of origin had very numerous adherents, and became a popular explanation for isolated limestone occurrences; for example, Oswald Heer wrote of fossil atolls and barrier reefs in the Swiss Jura mountains, and Dupont described fossil atolls in Belgium preserved in Devonian rocks.

Recent researches in the Dolomites represent the occurrence of coral reefs only in insignificant thicknesses seldom exceeding 150 feet, sometimes intercalated in the marly volcanic rocks, and sometimes in the calcareo-dolomitic rocks.

Several zoologists contested Darwin's theory—Wilkes in 1849, Ross in 1855, the German geologist Semper in 1863, upon the evidence of his exploration of the Pelew or Palaos Islands. He found there all the varieties of reef-growth in immediate proximity to one another, and older coral rocks were present upon the dry land. Hence an explanation based upon subsidence seemed inapplicable. Semper formed the opinion that the tidal conditions, the breakers, and ocean-currents were the chief influences which determined the particular mode of growth of a coral reef.

Similarly, Louis Agassiz (1851) and a number of American geologists had studied the coral formations of Florida and Tortuga, and could find no evidence of subsidence of the sea bottom on which the reefs were growing. These reefs have now undergone thorough investigation by Professor Alexander Agassiz, the son of the famous glacialist and geologist, and the conclusion arrived at by him is that the reefs are growing upon a submarine plateau formed by the accumulation of mud, sand, and organic remains. The prevailing winds and marine currents constantly bring new material towards the plateau, and as the latter continues to increase the corals are enabled to keep within reach of fresh food-supplies. The whole thickness of the Florida reefs, including both the coral limestone and the submarine shelf of deposit, was determined by borings to be about 50 feet. Agassiz is of opinion that the reefs of Cuba, Bermuda, and Bahama, and also the Great Barrier Reef of North Australia, may be explained in the same way as the Florida reefs.

Rein published in 1870 the result of observations made on