

24. Ibid., p. 1145-1159.

25. The fact that wind or water transport from distant points could not have accounted for such high pollen counts in the ancient sediments was illustrated in the tests made by Leopold, on modern sediments. The modern sediments in those tests were taken from the shores of Ponape, an island slightly to the west of the Marshalls where large numbers of mangrove trees grow, and from the surface of Eniwetok and other nearby atolls. The largest pollen count found in the modern sediments from the shores of Ponape was 34,000 per gram of sediment. These samples were taken from the shallow bottom only a few yards from large clumps of mangrove trees. Samples from farther out yielded much lower counts, and modern samples from Eniwetok and neighboring atolls, where there are comparatively few pollen-producing plants, showed only very low counts. (Leopold, 1969, p. 1152-1156.)

26. Johnson, Limestone Building Algae, p. 26.

27. K. O. Emery, "Bikini and Nearby Atolls, Marshall Islands: Part I, Geology," U. S. Geological Survey Professional Paper 260-A, 1954, p. 2, and 128-131.

28. T. P. Scoffin, "Fossilization of Bermuda Patch Reefs," Science, v. 178, Dec. 22, 1972, p. 1280-1282.

29. Ibid., p. 1281.

30. The process of cementation in marine sediments involves the formation of many small crystals of mineral which fill cavities in the shells and build a sort of "bridge" between the small skeletal parts, shells, and other grains of sediment.

31. J. W. Wells, "Bikini and Nearby Atolls, Marshall Islands, Fossil Corals From Bikini Atoll," U. S. Geological Survey Professional Paper 260-P, 1954, p. 609.

32. Calcite is a crystalline form of calcium carbonate, differing somewhat from the original form of calcium carbonate found in marine shells and corals. The process of replacing the original calcium carbonate of a skeleton with calcite is called "recrystallization." Cementation and recrystallization are very similar processes.