

the seamount on which the atoll rests. Since it is well known that islands and peaks of land beneath the surface of the ocean often go through a slow sinking process, it is generally believed that the extinct volcanic bases upon which the larger atolls were built underwent a gradual subsidence.<sup>27</sup> In this way the corals, and the algae which live with them, could have a favorable water level for growth. Of course it would be unreasonable to suppose that the rate of subsidence was always equal to the rate of upward growth of the reef. Thus the reefs underwent periods when they either were too deeply submerged to allow coral growth, or were projecting up out of the water and being eroded by wind and waves. Such periods as these must have been responsible for at least most of the more radical unconformities.

Some of the alterations of sea level, and of the altitude of the volcanic bases on which the atolls rest, may have been caused by catastrophic events such as the Biblical Flood. Therefore, the Flood could have been responsible for one of the several unconformities in the atoll. However, it would be very difficult to confirm any hypothesis of such a connection. At any rate, catastrophic events can not be taken as the cause for the atolls, for these show every evidence of having been formed by an orderly series of biological growth processes. We also have every reason to believe that the lower (older) levels of these reefs grew and were fossilized long before the creation of man.

Now to summarize, we have a fairly accurate history of the slow formation of the atolls, through (a) a knowledge of the volcanic bases upon which they rest, (b) the natural laws of growth of the reef-forming organisms, (c) the animal and plant fossils found at various depths, and (d) the unconformities and erosion representing the physical changes which occurred in the ocean during the time of atoll formation. Thus a great deal of specific information is known about the past without even resorting to the use of radiometric dating or to the use of highly theoretical assumptions. The Bible student can be confident that here we have an accurate record of some of the long period of time which has elapsed since God created reef-forming animals and plants.

#### Fossilization of Marine Organisms in Coral Reefs

We have considered the growth processes of coral atolls, but we must realize that growth of lime-secreting animals and plants is very often followed by fossilization processes. This leaves a much more meaningful record for us, of both the immediate past, and of the distant past, than could growth alone.

To begin with, we should realize that fossilization processes do not, as is often assumed, belong only to the past. Fossilization in a reef is a constant process which can be regularly observed to modify the abandoned skeletons of many of the marine organisms, transforming them into a more permanent form. For example, when T. P. Scoffin recently made a series of studies of the reefs around the islands of Bermuda, he found that only a few years are required