

CHAPTER 4

RECOGNIZING TIME IN NATURE'S RECORD

In Chapter 3 we began to examine a few types of time-indicating sedimentary strata as found in a coral reef. Now let us stop to consider the recognition of time in the stratigraphic record in somewhat more detail. Various types of limestone, as well as the great underground formations of rock layers in the oil fields, mountains, and ocean floors of the world, have a thrilling story to reveal to the inquiring Christian.

There are some Bible students who have the idea that there is practically no significant order in the sedimentary rock layers of the earth. They believe that during the Biblical Flood nearly all of the sediments were washed loose from their natural environment, tossed to-and-fro by huge, convulsive waves, and finally spread out in disorderly fashion over the face of the earth. But, though sincere in their beliefs, these persons are unaware of the marvelous and unmistakable, orderly characteristics of the sedimentary layers. They are also unaware of the development, since about 1955, of a whole new phase of geologic studies which identify and elucidate these orderly features much better than any previous studies have. This phase of study is what we call "carbonate sedimentology," the branch of geology which studies calcium carbonate and other limestone-type sediments. Advances in this discipline have been spectacular, enabling sedimentary geologists to identify a large proportion of the biological components of carbonate deposits and to understand the natural processes by which these deposits were so beautifully arranged. Many hundreds of excellent journal articles and books which describe and explain the carbonate sediments of the earth are now available.¹ In the chapters which follow, we will frequently refer to examples of the orderliness of great, thick series of these layers which show that they accumulated gradually as a result of biological growth, rather than by sudden, catastrophic processes. These layers, as well as other types of strata, are useful in learning the ages of geologic formations.

To find methods for assigning precise ages to various levels of the stratigraphic record is very difficult. Accuracy may not be so important for the average person; however, we do have a responsibility as citizens of God's kingdom, not to be arbitrary or careless in such matters. As seen in the previous chapter, we will not be doing justice to God's works if we fail to recognize enough time for the coral reefs and other natural structures to be formed.

Is there then any guide which we can use for learning the minimum amount of time needed for the formation of a particular stratigraphic record or column? The radiometric methods which have been worked out by professional geologists and paleontologists may be valid and useful. However, for practical everyday purposes, so that we can understand the stratigraphic and fossil records in relation to the Bible, we can use simpler methods for establishing some minimum ages. In a sense this is a return to some of the