

methods which were the mainstay of earth-science studies before the development of radiometric methods. But it should be remembered that most of these principles are still in use, and their meaning has been greatly extended by the discoveries of sedimentologists during the past 15 or 20 years. Therefore we have a number of good methods with which to investigate the record of God's works in nature, from a Christian point of view.²

Local Stratigraphic Columns

The most common type of natural record of life in the past which we find in the U. S. and Canada is a local stratigraphic column composed of sedimentary rocks which have been formed by water. This type of stratigraphic column is really just a sequence of layers of different kinds of sedimentary rocks lying one above the other at one specific location. Such a series of course always lies on a non-sedimentary base of igneous or metamorphic rock, which is easily identified when drilling operations reach to that depth. We speak of such a sequence of layers of rocks as a "column" because we see it as such when looking at the drilling cores which are removed while drilling through the layers, and also because it is convenient to picture it as a narrow column in books and journals, thus saving space. (See Figure 11 for an example of a part of a sedimentary column.) The reason we use the term "local" in describing such a column is to keep it from being confused with a "composite" column. Composite columns are often pictured in textbooks for the purpose of showing, in a rather general way, all the types and ages of strata found in the earth.

One of the reasons we can know that the rock layers of the sedimentary columns of the world were formed by water is that so many of these layers contain fossils of aquatic animals and (or) plants. It is the rule, rather than the exception, that sedimentary rocks contain recognizable fossils which belong to the same groups (phyla and classes) as the animals and plants of our time. Some of these are microfossils, but very often they are almost perfectly preserved, and are relatives of modern living microorganisms. (As mentioned in the previous chapter, some microorganisms produce hard shells or other skeletal parts for themselves, and thus are easily fossilized.)

Whenever we find fossils we can be sure that the sedimentary rocks in which they are located were formed after life was created on the earth. Christians usually agree that God did not create ready-made, buried fossils; for this would not be characteristic of the God we know. Because of the presence of these fossils one can not regard the sedimentary rock deposits as having been created "with appearance of age." It is possible that the doctrine of creation with appearance of age could be applied to some igneous rock deposits, but wherever we have a record of life mixed in with the rock layers, we know that this was formed after living things had become abundant in the earth. This is a fact which Leonardo da Vinci began to point out about the beginning of the 16th century, and which was then picked up in the 17th century by Robert Hook and Nils Steensen. (Steno, the latinized form of the latter name is