

Some Evidences for Great Age Summarized

There are many very observable evidences for great age in the sedimentary parts of the earth's crust, which are not at all dependent upon radiation dating. Some of these are large, biologically-formed limestone structures. Other such evidences include the great thicknesses of layered shale, claystone, sandstone, and common limestone. These types of rock layers (strata) usually alternate with each other in the vertical "stack of layers" which they form on the deeper rock of the earth's crust. Nearly all of the middle and eastern parts of the United States are covered with such sequences of rock--sometimes to a thickness of several miles. In most localities east of the Rocky Mountains this sedimentary cover is at least 3,000 feet thick. Some of the rock layers show evidence of having been deposited in a short period of time, but most of them are of types which could not have been formed rapidly by flood waters.

Our knowledge of the long time periods needed for forming the rock strata is thus not based on a vague "uniformitarian theory," but on careful field observations of the geologic processes which form various types of rock. For example, we can observe limestone in the process of formation in various parts of the ocean, and when shale and claystone are formed we observe that tranquil waters and a time period are required for the clay particles to settle out of the water. Also, it was necessary for a good amount of hardening (lithification) of each such shale deposit to take place before it could support the great weight of thousands more feet of layers above it. (Remember that both freshly-settled clay and finely-divided lime are soft like mud.)

The lithification processes for sedimentary rock are necessarily slow--not at all related to the baking of bricks. The primary lithification process of sandstones and limestones is called "cementation." This is the building in of tiny crystals of minerals between the particles of sand, and of the limestone. These crystals are composed of calcium and silicon compounds which precipitate out of the water little-by-little as the dissolved calcium and silicon become available. Thus the forming of the sedimentary rock cover of the earth required long periods for lithification in a favorable aquatic environment.³ And the fact that even the deepest sedimentary rock layers frequently contain large numbers of marine fossils tells us that these layers were not formed at the original creation. (God did not create dead fossils.)

The passage of very long periods of time in earth's history is evident from literally scores of conditions and types of structures which we can observe in the rock layers. One of the most vivid and reliable of these is the existence of many