

S. Copy of paper on model restructure involving explanation for rapid deposition of sedimentary layering which includes formation of coal and polystrate fossils, by M.E.

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Resonance and Sedimentary Layering in the Context of a Global Flood

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Introduction

Sedimentary structures cover the earth in profusion. While some of these structures are due to deposition by the wind, the vast majority have been deposited by water. Many of these structures are characterized by their enormous lateral extent, reaching over vast areas of the earth's surface, requiring the label "persistent facies". Another distinct characteristic is the parallelism (if not the horizontality) of the sedimentary layers. Logic requires that the watery depositional medium was as extensive as the facies and that it was an active agent in the sedimentary layering process. The thought vector points to a global flood and to a flood geology. Such was the prevalent view prior to the Darwin revolution and it was held by the vast majority of the scientists of the day, some of whom were responsible for the invention of the so-called geologic column. With gradualism a firm requirement in the evolutionary process, it was necessary to have a concomitant uniformitarian interpretation of the geologic record. But this interpretation that the sedimentary structures were developed slowly, with ancient sea-floor subsidence equalling the "gentle rain" of sediment from above, proved to be no more satisfactory than was Darwin's interpretation in the biological sphere. Accordingly, non-creationists are presently espousing saltational advances in biology and catastrophic mechanisms in geology. The latter explanations, however, do not involve the one vehicle which lends credence to the catastrophic viewpoint, the global flood. To attempt to explain the development of the layered column of sedimentary structures without a body of water as extensive as the persistent facies is illogical. Of necessity, a body of water that large would undoubtedly extend to the ends of the earth by hydro-mechanic principles. Thus, the global ocean had to be a reality in the history of the earth. The sedimentary layers on top of all the principle mountain ranges today witness to the conclusion as well.

The need exists among young-earth creationists to explain the events associated with the rapid formation of the sedimentary column on top of the basement rocks of the original creation and above the sedimentary layers of the original runoff associated with the uplifts of Genesis 1. Once the concept of a global ocean is accepted, it is possible to develop rational fluid-mechanic mechanisms capable of producing sequences of sedimentary layers. The amount of sedimentary material is huge but an ample source of mineral material can be postulated as coming from the opening of "the fountains of the great deep (Gen. 6:10)" if these events can be interpreted as tectonic activity similar to that occurring today with the eruption of volcanoes. If one Mt. St. Helens can scatter millions of tons of debris over the northwest United States, what would be the case of a thousand such occurrences in a few months of time? The lush antediluvian vegetative and animal environments would have provided sufficient material for the coal and oil deposits found in the column. What remains to be explained are the mechanisms which can take these materials and lay them down in horizontal (or nearly-horizontal parallel) layers of great lateral extent in a relatively short period of time, in a miniscule amount of geologic time. Many evolutionary geologists are now ready to invoke catastrophism as the prominent mechanism for generating sedimentary structures, however, they want nothing to do with the young-earth concepts of limiting this generation to one catastrophe with its limited time-span of one year. So there is still a dichotomy between evolutionary and creationary explanations of the geologic record even though both use the catastrophic approach.

The thrust of this paper is to offer a modern interpretation of a mechanism of long standing, dating back possibly as far as Sir Isaac Newton, for the development of a major part of the whole sequence of conformable layers. Newton is, at the least, responsible for the development of the basic principle involved, that is his law of gravitational attraction. Whether the impetus for this development was inspired by the Scriptural account of Noah's flood has not been confirmed in the literature. Since he was a firm believer in the exactitude of the Bible, his work on the tides could have been fostered by his Biblical studies. This gravitational attraction principle as manifested in the lunar and solar tides is the one fluid-mechanic mechanism possessing sufficient power and world-wide scope that could accomplish the buildup of the sedimentary column in the allotted time. Present-day tides have amplitudes too small to produce velocity fields sufficiently large so as to be able to move the required amount of sediments at the bottom boundaries of a global ocean. However, present-day tides move in oceans of limited extent where the tidal mechanism is frequently interrupted in its development by land masses. Hence, the build-up of amplitude of these tidal waves is hindered. During the flood year, when the waters completely covered the globe, these hindrances would have vanished and then the repetitive cyclic activity of the tides would have had the possibility of moving towards resonance with the accompanying build-up of tidal amplitude and the accompanying ability of the tidal waves to move the sediment at the bottom of the ocean. As is evident from the foregoing, we are intent on correlating the geologic record with the Biblical record. Since no incontrovertible time marks are stamped on the former and since the latter speaks directly in terms of days, we feel justified in seeking out a method that would rapidly manufacture the sedimentary column.

Time and Sedimentary Layering.

Since the evolutionary and creationary catastrophic explanations of the build-up of the geologic column differ primarily on the matter of the time necessary to do the building, the following points of discussion deal with the characteristics of the column that require or demand rapid build-up.

1. The fact that the layers are conformable and follow in unbroken sequence one on top of the other requires a rapid (within hours) deposition rate. Conformable means that the layer above lies directly on top of the layer below with only a fine line of demarcation between. Because of the water deposition, undisturbed layers would be horizontal; if tilted, at least they would be parallel. If the lower layer was not quickly covered and weeks, months, or years passed instead, the top surface would have been cut by erosional features, especially since the watery medium which laid the material down would still be present to cut it up. With long periods between layers, root systems of plants and trees would also have been developed. Since the demarcation line is fine, it means that none of these events occurred because there was not enough time for them to eventuate.

2. Since there are no world-wide unconformities, each of the conformable layers can be traced around the intruding features. Since each of the conformable layers was produced rapidly, the sequence of layers must have been also.

3. The fact that so many fossils are found in the layers requires their rapid deposition. The fossilization process requires rapid burial, otherwise, the animal remains will decay, will be taken by predators, or will be mechanically destroyed by the elements. The fossilized tracks of animals are all the more susceptible to destruction unless covered almost immediately by a