Assessing Creationist Stratigraphy with Evidence from the Gulf of Mexico

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Abstract

We believe that the thirty-eight years of creationist stratigraphy that have followed the publication of *The Genesis Flood* have demonstrated a fundamental incompatibility between the global uniformitarian stratigraphic column and biblical history (i.e., Flood-based stratigraphy). Whitcomb and Morris advocated a refashioning of stratigraphy starting with actual data. Unfortunately, their advice was not heeded and instead creationists have attempted to leverage limited resources and accommodate the global uniformitarian column in a biblical framework. None of these efforts have succeeded in unifying creationists. We evaluate several of these strategies by comparison to the Northern Gulf of Mexico Basin in an effort to consider an alternate conclusion: The absence of profit in continuing to follow the route of uniformitarian-based stratigraphy. We believe that future profitable efforts in creationist stratigraphy will require a different conceptual framework. Unfortunately, this conclusion forces creationists to pursue stratigraphy at a fundamental level; the reintegration of field data absent the "plug-and play" uniformitarian column. There is no denying that this redirection will require significant effort, and will not generate a global synthesis in a short time. But it is just as obvious to us that additional time and resources spent on any attempted synthesis with the uniformitarian column will be wasted.

Introduction: The State of Creationist Stratigraphy

Since the early nineteenth century historical geology has developed along lines defined by the presuppositions of naturalism and uniformitarianism. The revival of an alternative scheme, distinguished by the priority of supernatural revelation and a derivative catastrophism, was coherently launched by the publication of *The Genesis Flood* in 1961. The field of creationist geology has cohered and grown since then. The immensity of the task of constructing a viable Bible-based alternative to accepted geologic history has been little appreciated by many, and has proven even more difficult by the lack of workers willing to undertake such a job. And yet, over the past 38 years, some progress has been made by the dedicated efforts of the numerically-limited creationist community.

In keeping with making the most efficient use of limited resources, creationists have generally attempted to find as much common ground as possible between the demands of Biblical historical teaching and uniformitarian geology. The obvious advantage of this approach was the potential for a relatively quick and easy synthesis of Biblical history with the objective rock record. Many ideas have been proposed since this time in an attempt to bridge Flood geology to modern geology. Since modern historical geology is defined and summarized by the global uniformitarian stratigraphic column (GUC), the logical starting point has been the reinterpretation of the GUC within a catastrophic and short-term framework. The main focus of this effort has been the merging of the first eleven chapters of Genesis into the GUC (Figure 1). From a conceptual standpoint this approach appears reasonable. However, the experience of the past several decades has shown that integration is difficult, perhaps because the extrascientific presuppositions of naturalism and uniformitarianism are pervasively imbedded in the GUC. Thus the task of defining a consistent approach to creationist stratigraphy is more complex than was initially thought. Early warnings, sounded by Woodmorappe (1981), have not been widely heeded.

In the time-weighted framework of the GUC, identifying time periods in the rock record assumes great importance. Classical nineteenth century stratigraphy illustrated this concept with the great debates focusing on the

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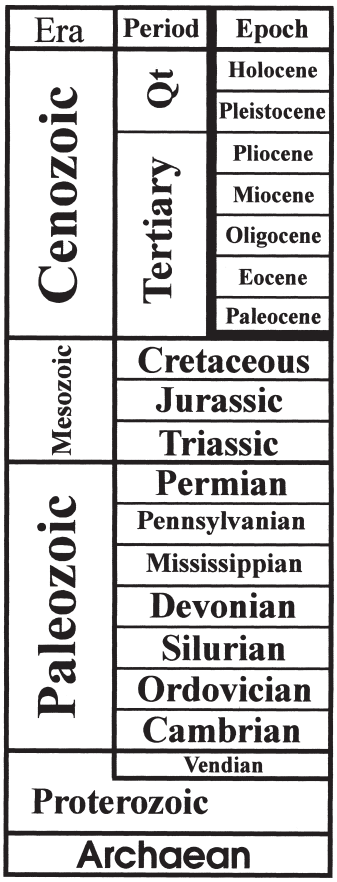

Figure 1. The global uniformitarian column (GUC) used to support the age of the earth and the evolution of life.

placement of the boundaries within the time/rock record. Today, many secular geologists are using event and environmental parameters to further refine their interpretation of earth history (Berggren and Van Couvering, 1984; Brett and Baird, 1997; Donovan,1989; Erwin, 1993; Hallam, 1992; Wilgus, Hastings, Kendall, Posamentier, Ross and Van Wagoner, 1988). However, as naturalists, they continue to operate within the framework of the GUC and its formal time/rock divisions. Unfortunately, many catastrophists, though advocates of a young Earth, have adopted the uniformitarian preoccupation with time *per se*. They have defined their syntheses of Flood geology and the GUC by the correlation of time boundaries in the GUC to those in Biblical history (Austin, 1994; Austin and Wise, 1994; Baumgardner, 1990; Snelling, Scheven, Garner, Ernst, Austin, Garton, Scheven, Wise, and Tyler, 1996). Many creationists have attempted to used a modified version of the GUC (i.e., shortening the timeframe of the basic system) to define both the pre-Flood/Flood and the Flood/post-Flood boundaries (Austin, 1994; Austin and Wise, 1994; Garton, 1996; Garner, 1996a, 1996b; Holt, 1996; Robinson, 1996; Snelling, 1996; Tyler, 1997).

All of these attempts have shared one important assumption—that the time-based stratigraphy of the GUC is compatible with the event-based stratigraphy strongly implied by the Bible. Because the time available for geologic work is so compressed by the Biblical record, any effort to understand the relationships between the rocks and time may be actually misdirecting workers away from more profitable investigations of geologic history. A major shortcoming for creationists attempting to utilize the conceptual framework of time-based stratigraphy occurs with the apparent disposition to add multiple high-energy events to the single global Flood event of the Bible to explain the rock record. In itself this does not necessarily violate the Bible, because Scripture does not address many things we find in geology (e.g., meteor impacts and their resulting craters, volcanoes, tsunamis, glaciers, sea-level changes, etc.). However the desire to accommodate the GUC has created difficulty in assigning all of the high-energy events to the Flood.

A study of the nineteenth century debate between uniformitarian geology and Christianity reveals a clear trend of compromise on the part of Christians that led to the abdication of Biblical authority in earth history. We are concerned that early steps along this same path appear to be attracting Christians in the twentieth century, too. This path follows the steps of starting with the biblical position of one universal Flood, and then gradually drifting toward uniformitarianism by attempting to reconcile the Flood and the GUC. Inference from the Scriptural account, absent consideration of the GUC would attribute the bulk of the rock record to the Genesis Flood. However, Christians that incorrectly assign an epistemological equity between natural history and the Bible begin to lean toward the dynamic accumulation of "facts" supporting the GUC. As the sophisticated complexity of the GUC became more attractive, other, less-catastrophic events were added to the Genesis Flood to harmonize "science" and Scripture. Finally, in total retreat, Christians developed the consensus that a universal Flood was no longer required, that it was not even wanted, and that it unacceptably interfered with Lyellian stratigraphy. Some Christians tried to preserve a degree of Scriptural integrity by relegating the Flood to the uppermost sections of the GUC, thus allowing an uneasy accommodation of the uniformitarian column, while keeping their belief in the Flood intact. However, this side path merely led to the conclusion that as the number of events increase, the energy requirements of each one diminish, to the logical end point where no significant energy event was required. At that point, the great biblical judgment of the Flood became an overflowing of the Euphrates River Valley (Sauer, 1996), the infilling of either the Mediterranean Sea (Morton, 1995) or Black Sea (McInnis, 1998; Ryan and Pitman, 1998), or even a tsunami associated with the eruption of Santorini (Myles, 1985). Fortunately, all are catastrophic events acceptable to uniformitarians (even though the uniformitarians are inconsistent at this point [Reed, 1998]). The essence of this misguided thought process was captured by Fields (1976, p. 184) where he lamented:

> There seems to be an assumption that if Christianity is to realize its full potential of impact on the scientific community, the message that no conflicts exist between the Bible and uniformitarian science must be heralded.

We fear that the first steps of this path may be taken anew in the twentieth century by seeking to harmonize the Bible with the GUC. It is our opinion that a viable creationist stratigraphy requires adherence to Scripture and eschews modification of a biblical worldview to accommodate uniformitarianism.

Introduction: The Current Divide Within Creationist Stratigraphy

We assert that the Bible teaches that the global Flood and its associated events produced the greatest levels of geologic energy (i.e., erosion, sediment transport, deposition, new sediment production, volcanism, tectonism, turbidites, extra-terrestrial impacts, sea-level changes, etc.) ever experienced by the planet, and resulted in the formation of most of the igneous, metamorphic, and sedimentary rocks found in the crust during and shortly after the Flood (Reed, Froede, and Bennett, 1996). These same crustal features have been reinterpreted by evolutionists as the GUC. A close examination of the naturalist worldview reveals that the basis for doing so is derived from non-scientific considerations, although presented as science. The evidence for the GUC is considered powerful by many creationists, and some continue to attempt reconciliation between the GUC and the biblical record. We believe that this approach causes confusion, and remains undefined and inconsistent in its use within creation geology.

The Biblical approach to understanding Earth's short history requires that the physical evidence (i.e., the rock record) fit within the context and constraints of Scripture. There are basically two different ways of looking at dividing the time/rock record stratigraphically: 1) Those who believe that an accommodation with the GUC is possible, and 2) those who reject the GUC for an alternate biblical framework. We fall into the latter category, which must be understood because it influences the manner in which we attempt to resolve Flood-based geology (Figure 2).

Although the present creationist debate has apparently been drawn along the lines of selecting a specific uniformitarian column "golden spike" as a Flood boundary, it has become obvious as work progresses that the real issue is whether or not the GUC has any use within creationist stratigraphy. This issue has been addressed in an indirect manner by the failure of all creationists desiring application of the GUC to reach agreement on the placement of a single Flood-related boundary. It may be true that resolution of the boundaries dispute remains to be resolved in the context of the GUC; however, it is also possible that the inability to reach such a resolution is itself indicative that no resolution can be found within the current context of the debate.

We propose to test the compatibility of any harmonization of the Bible with the GUC by reference to the Northern Gulf of Mexico Basin (NGOMB) sedimentary wedge. This article will compare several proposals made by young-earth creationists for the location of the Flood/post-Flood boundary (based on applying the GUC) to the NGOMB stratigraphic column, widely considered relatively complete in the Mesozoic and Cenozoic erathems. We will show the insurmountable physical problems of each proposal. If a consistent Flood-related boundary cannot be identified in the GUC, then we believe that the argument to divorce creationist stratigraphy from the GUC and to develop an alternative synthesis of geologic data with Biblical history should be considered.

Timeframe	Division
Present Age	Upper
	Middle
	Lower
Ice Age	Upper
	Middle
	Lower
Flood Event	Upper
	Middle
	Lower
Antediluvian	
Creation Week	Day Seven
	Day Six
	Day Five
	Day Four
	Day Three
	Day Two
	Day One

Figure 2. A Young-Earth Creationist timescale based on Scripture and post-Flood sediments found across the Earth. No global synthesis of this approach has yet been established, because the Flood had different effects on various portions of the earth and the correlation of these event-driven sediments and strata has yet to be determined.

There is an additional benefit to this examination. We fear an epistemological imbalance between Scripture and uniformitarian geology. Contrary to modern positivism, we assert that biblical revelation is primary and superior to any naturalist interpretation of history. Thus, there can be no balanced comparison between the "truth of science" and the truth of Scripture in an attempt to reconcile the two. Rather, any interpretation of history that rejects biblical revelation should in turn be rejected and its interpretive results should be carefully examined for all hidden presuppositions implanted by the naturalist framework. A sound young-earth Flood geology should not fear careful examination of proposed historical models, since confidence in the truth of Scripture cannot depend in any way on natural history.

Testing GUC-Derived Boundaries in the Gulf of Mexico Basin

The NGOMB provides an excellent setting for testing various Flood/post-Flood boundaries because of its robust sedimentary representation of the Mesozoic/Cenozoic erathems. Three different proposals are tested using the NGOMB sedimentary sequence. Specifically, we will examine proposals for placing the Flood/post-Flood boundary at: 1) the boundary between the Paleozoic and Mesozoic, 2) the boundary between the Mesozoic and Cenozoic and, 3) the boundary somewhere in the Pliocene/Pleistocene. Estimated volumes of Mesozoic, Cenozoic, and Quaternary sediments are presented for comparison in Table I, along with the present day volume of the modern Mississippi River delta plain. Although these numbers are crude estimates, they provide additional information to support the diagrams presented in figures below. Any biblical model of Earth history must be able to explain field evidence (Reed and Froede, 1997). We believe that a careful examination of various young-earth Flood stratigraphic models will disqualify *any* of them that are built on any attempt to harmonize the Scriptures with the GUC.

Paleozoic/Mesozoic Boundary

Recent support for a Paleozoic/Mesozoic - Flood/post-Flood boundary was presented in a special symposium within the *Creation Ex Nihilo Technical Journal* (see Snelling 1996). Several articles proposed and defended the Paleozoic/Mesozoic boundary as marking the termination of the Genesis Flood. Numerous arguments were advanced to harmonize the GUC with the global Flood of Genesis. Woodmorappe (1996) and Froede (1997) took issue with this approach because of its perceived inherent support of evolution, and because it required multiple large-scale (i.e., global) extra-biblical catastrophes following the Flood to accommodate the uniformitarian column within a young-earth time frame.

How does this proposal explain the sedimentary section in the NGOMB? The Paleozoic/Mesozoic boundary within the NGOMB is presented in Figure 3. If the model proposing that the Paleozoic/Mesozoic boundary represents the end of the Genesis Flood, it must explain the following:

- The tremendous volume of sediment deposited after the Flood (the cross-section reflects a sediment wedge ranging up to 10 miles thick and extending some 720 miles out into the NGOMB along much of its lateral extent),
- The dramatic variations in mean sea level that appear to have ranged from the fall line during the Mesozoic to well offshore in the present Gulf of Mexico during recent times.
- The difficulty in justifying the high energy levels during post-Flood time required for this volume of sediment to be eroded and deposited in the NGOMB, and
- The difficulty in describing an adequate source for the sediments apart from Flood conditions.

We do not believe that any reasonable explanation can be offered for these conditions in the NGOMB. Thus, either the boundary is incorrectly placed in this proposal relative to the GUC, or the difference between plausibly setting the boundary at the base of the Mesozoic in selected locales but not in the NGOMB suggests that the GUC cannot be harmonized with biblical history. Similar examples of immense volumes of post-Paleozoic sediment can be found in North Africa, the North Sea, Indonesia, etc. In-depth discussion of these areas is beyond the scope of this paper, but offer avenues of further research for any interested creationist. Although examples could be multiplied to demonstrate the difficulties of depositing the combined global Mesozoic and Cenozoic erathems in a youthful, post-Flood world, only one is needed to demonstrate the failure of the proposed global model. We find this proposed Flood/post-Flood boundary inadequate in explaining the Mesozoic and Cenozoic sediment sequences in the NGOMB, and unacceptable within the framework of the young-earth Flood model.

Table I. Rough estimates of sediment volumes for the Mesozoic Era, the Cenozoic Era, the Quaternary Period, and the modern Mississippi River delta plain. Estimates for the first three were derived from cross sections shown in Figure 3 of Jackson and Galloway (1984). The estimate of the modern Mississippi River delta plain was derived from an areal extent of 13,300 square miles from Figure 2 of Kolb and Dornbusch (1975) and a maximum thickness of 1000 feet from Gould (1970). The maximum thickness was used to partially offset deltaic sediments transported offshore by distal sediment distribution processes. These estimates, however crude, reinforce the intuitive intent of the figures regarding the rate of sedimentation needed in the post-Flood era to accommodate the various boundary proposals.

Reference Unit	Estimated volume of sediment (km^3)
Mesozoic Era	24,000,000
Cenozoic Era	6,000,000
Quaternary Period	1,500,000
Modern Mississippi delta plain (6000 years estimated)	100,000

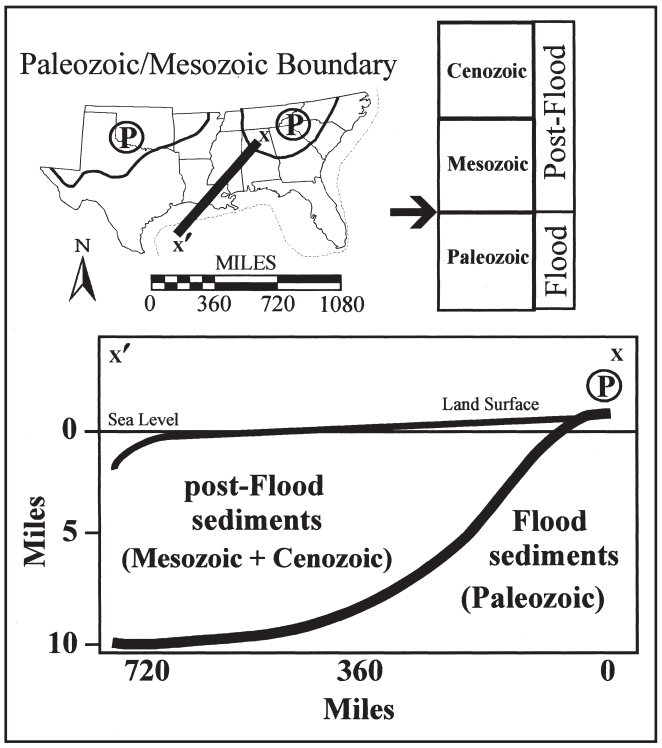

Figure 3. A map showing the United States Southeastern Gulf Coast. The black line across the northern section of the map represents the surface boundary separating the Paleozoic deposits from the overlying younger deposits (Mesozoic and Cenozoic). A cross-sectional line (shown as X to X') extends from the Paleozoic outcrops in northern Alabama to just beyond the shelf edge off of Louisiana, in the Gulf of Mexico. This cross-section shows the extent of the sedimentary sequence required to be deposited under post-Flood conditions if the Paleozoic/Mesozoic boundary represents the Flood/post-Flood boundary.

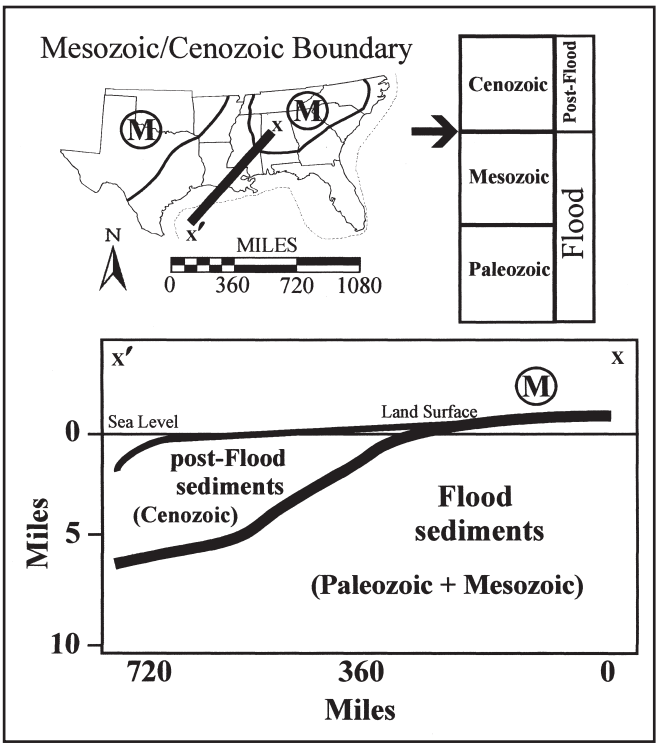

Figure 4. The United States Southeastern Gulf Coast with the black line representing the surface boundary separating the Mesozoic (and underlying Paleozoic) strata from the overlying Cenozoic sediments. The cross-section (shown as X to X') which begins in central Alabama and extends just beyond the continental shelf edge off Louisiana. This cross-section shows the extent of the sedimentary sequence required to be deposited under post-Flood conditions if the Mesozoic/Cenozoic boundary represents the Flood/post-Flood boundary.

Mesozoic/Cenozoic Boundary

Other creationists support a Flood/post-Flood boundary at the Mesozoic/Cenozoic boundary. Dr. Kurt Wise, a young-earth creationist, has stated that "virtually all creation geologists accept the entire Cenozoic as post-Flood" (BSN, 1995, p. 18). Dr. Wise's position appears to establish the Flood/post-Flood boundary at the Mesozoic/Cenozoic contact. This boundary is also proposed in Dr. Steve Austin's book on the Grand Canyon (1994, p. 58, Figure 4.1). An evaluation similar to that performed above forces us to the conclusion that we do not understand how this proposed boundary can explain the sedimentary sequence found in the NGOMB. We welcome any forthcoming explanation from either Dr. Wise or Dr. Austin.

How does this proposal explain the sedimentary section in the NGOMB? The Mesozoic/Cenozoic boundary for the NGOMB is presented in Figure 4. This proposal also requires tremendous volumes of sediment to have been eroded and deposited into the NGOMB following the Flood. If the model proposing that the Paleozoic/Mesozoic boundary represents the end of the Genesis Flood, it must explain the following:

- The tremendous volume of sediment deposited after the Flood (the cross-section reflects a sediment wedge ranging up to 6 miles thick and extending some 360 miles out into the NGOMB along much of its lateral extent),
- The dramatic variations in mean sea level that appear to have ranged from near the fall line during the Cenozoic to well offshore in the present Gulf of Mexico during recent times.

- The difficulty in justifying the high energy levels during post-Flood time required for this volume of sediment to be eroded and deposited in the NGOMB, and
- The difficulty in describing an adequate source for the sediments apart from Flood conditions.

Like the Paleozoic/Mesozoic boundary proposal, we do not believe that any reasonable explanation can be offered for these conditions in the NGOMB. Again, either the boundary is incorrectly placed in this proposal relative to the GUC, or the difference between plausibly setting the boundary at the base of the Cenozoic in selected locales but not in the NGOMB suggests that the GUC cannot be harmonized with biblical history. We find this proposed Flood/post-Flood boundary inadequate in explaining the Cenozoic sedimentary sequence in the NGOMB, and therefore unacceptable as a viable young-earth Flood model.

Pliocene/Pleistocene Boundary

Many young-earth geoscientists support moving the Flood/post-Flood boundary well up the global uniformitarian stratigraphic column toward the Pliocene/Pleistocene boundary. Of the choices that would harmonize the GUC and the biblical record, this approach appears to be the most reasonable when looking at the changing geologic-energy levels implied by the strata. However, if some parameter other than time (such as changing energy levels) is the basis for judging the goodness of fit between a Flood model and the GUC, then why not abandon the time-centered methodology of the GUC. For many young-earth geoscientists the location of the boundary at the Pliocene/Pleistocene boundary is believed to satisfy the transition from the Flood into the Ice Age. However, problems with this approach occur when moving offshore in a clastic setting and/or with biogenic carbonates of this "age" in areas such as the Bahamas, Florida Keys (see Froede, 1999), and the Great Barrier Reef.

How does this proposal explain the sedimentary section in the NGOMB? The Pliocene/Pleistocene boundary of the NGOMB is presented in Figure 5. This proposed Flood/post-Flood division is placed near the "top" of the NGOMB uniformitarian stratigraphic column. This approach correctly suggests that most stratigraphic deposition occurred during the high-energy period of the Flood. The post-Flood continental and nearshore deposits are relatively minor and reflect lower energy levels. However, in offshore settings the Pleistocene deposits can be many thousands of feet thick (both clastics and carbonates). What processes eroded and then deposited the thick blanket of Pleistocene clastic deposits far offshore, and could this have formed within the short time

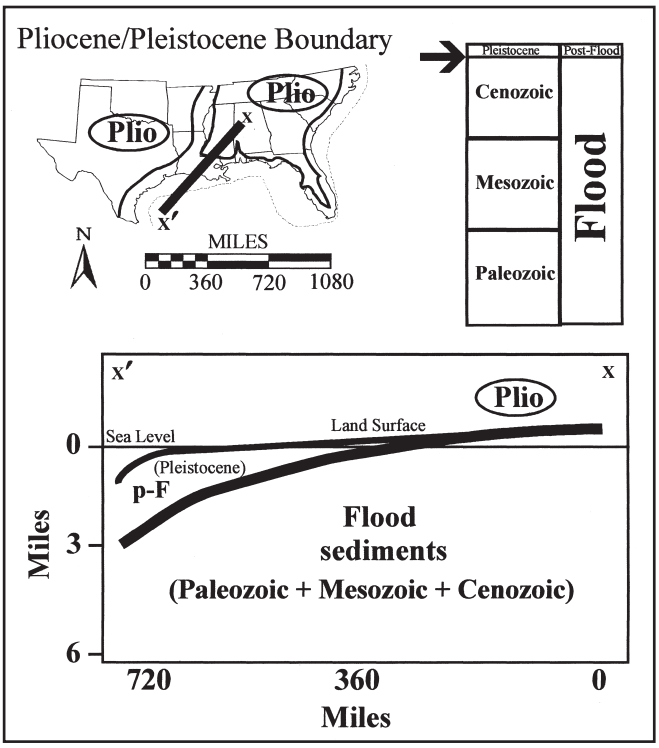

Figure 5. The United States Southeastern Gulf Coast with the black line on the surface representing the contact between Pliocene (and older) deposits and the overlying Pleistocene (and Holocene) strata. The more restricted area of post-Flood sedimentation implied by this boundary is much closer to predicted decreasing geologic-energy levels. However, this boundary still requires large volumes of offshore clastic or biogenic carbonate sediments to have been deposited or formed in very short time following the Flood.

constraints of the post-Flood world? Likewise, how do creationists account for the hundreds of feet of Pleistocene carbonate strata in a post-Flood setting? We believe that the volume and location of these offshore Pleistocene deposits present similar, though less dramatic, problems for this boundary proposal relative to the preceding two.

Another important issue related to the proposed Pliocene/Pleistocene boundary is the method whereby these offshore deposits are stratigraphically defined. It is typically done by the transition of microfossil assemblages. The old problem of dating sediments by the evolution of biota once again is an issue here. Presently, young-earth creationists have not devised an environmental means of using microfossils to explain sedimentary units within the Biblical framework. Hence, we recommend that the basis for harmonizing the GUC boundary with the Flood boundary be rejected until creationists can show that there is a stratigraphically significant, but non-evolutionary explanation for the microfossil assemblages.

Implications of the Gulf of Mexico Record

The publication of *The Genesis Flood* in 1961 will be remembered as a revolutionary event in creationist hydrology and geology. The dominant naturalist-uniformitarian paradigm was challenged on the most fundamental levels, and even today the implications of that challenge have not yet been fully realized. Since 1961, even geologists who continue to claim the naturalist-uniformitarian worldview have been affected by creationist challenges. The movement away from the strict nineteenth century uniformitarianism of Lyell can be partly attributed to Whitcomb and Morris' work.

Advances in creationist stratigraphy have been frustratingly slow in the last four decades. There has been no direct impact in the secular geologic community. This is because the naturalists have been quick to realize the fundamental nature of the challenge of creationism not just to their historical scenarios, but to their very worldview. With few workers, creationist geology has been both slow to develop alternate interpretations and confusing to those workers who have insisted on the priority of following the GUC in their work. Some researchers have discovered that the gulf between the GUC and the Bible is wider than first hoped. Some have not been able to shift their assumptions toward the Scriptures, and have become advocates of a theistic version of uniformitarianism that does no justice to Genesis. Others have not vigorously pursued their models to logical conclusions, and thus work with inconsistencies in their framework.

The stratigraphy comprising the NGOMB provides a setting where we can compare the GUC to several creationist Flood/post-Flood boundary proposals. This area provides an excellent test of the various theories because it represents a relatively complete uniformitarian rock section spanning the Mesozoic and Cenozoic. We consider this not only a test of the boundary proposals *per se*, but also of the entire strategic approach of reconciling the GUC to the Bible. As expected, each of the creationist models tied to the GUC fail to explain the observed stratigraphic sequence in a logical and defensible manner. This is because the uniformitarian rock column emphasis is on evolutionary biology and "time" and not on the tremendous geologic forces experienced during and following the global Flood.

Assessment of Previous Work

We are not condemning the work of the last forty years. The road to progress in knowledge does not always proceed in a straight path. Glover (1984) called Scholasticism the most fruitful failure in the history of ideas because the process of critically comparing the Aristotelian and biblical worldviews was a necessary step in modern western thought. If the comparison of current creationist proposals that seek reconciliation between Scripture and the GUC to the NGOMB stratigraphic section is an adequate test, then the failure of creationists to reconcile the GUC and the young-earth Flood-dominated geologic history of the planet should be acknowledged, recognized as progress, and another strategy pursued. Ironically, Whitcomb and Morris (1961) described another strategy. They realized that their work would require a vast reassessment of geology; not on a shallow level of readjusting interpretation, but on the more fundamental level of replacing governing assumptions and following the implications of the new structure to a logical conclusion. They advocated the reinterpretation of geologic data within a biblical framework, rather than the reinterpretation of the uniformitarian framework within the biblical framework. Human beings naturally search for the most efficient manner to achieve goals. However, the goal of refashioning geology in a biblical worldview cannot be done in a cursory fashion. It will require exhaustive research to reinterpret that data, not simply to reinterpret the interpretations.

An Alternate Strategy

Several authors have pointed out the incompatibility of pursuing a reconciliation of the GUC and the Bible (Froede, 1995, 1998; Reed, 1996a, 1996b, 1998; Reed and Froede, 1997; Walker, 1994; Woodmorappe, 1981 - to cite the most recent). A new alternative rejects the GUC because it rejects the use of time as the primary parameter in interpreting geologic history. The emphasis in this method is on events and their associated energy requirements (Froede, 1998; Reed, Froede, and Bennett, 1996). As with any proposal seeking to match the stratigraphic record with the Bible, it must also be able to successfully explain the physical rock record in order for it to be used in young-earth Flood studies. Regardless of whether or not this particular energy approach is successful, we believe that only in a move away from the GUC will we be capable of defining creationist geology.

Our approach to understanding Biblical geologic history is presented in Figure 6. It examines the changing geologic-energy levels as they affected Antediluvian sediments, flora, and fauna (and new materials added during and following the global Flood). It does not use traditional evolution-based methods (i.e., biostratigraphy) to define time. It instead infers the energy required for materials to be eroded, transported, and deposited, and compares those relative levels to Scripture. Note that our energy-based stratigraphic col-

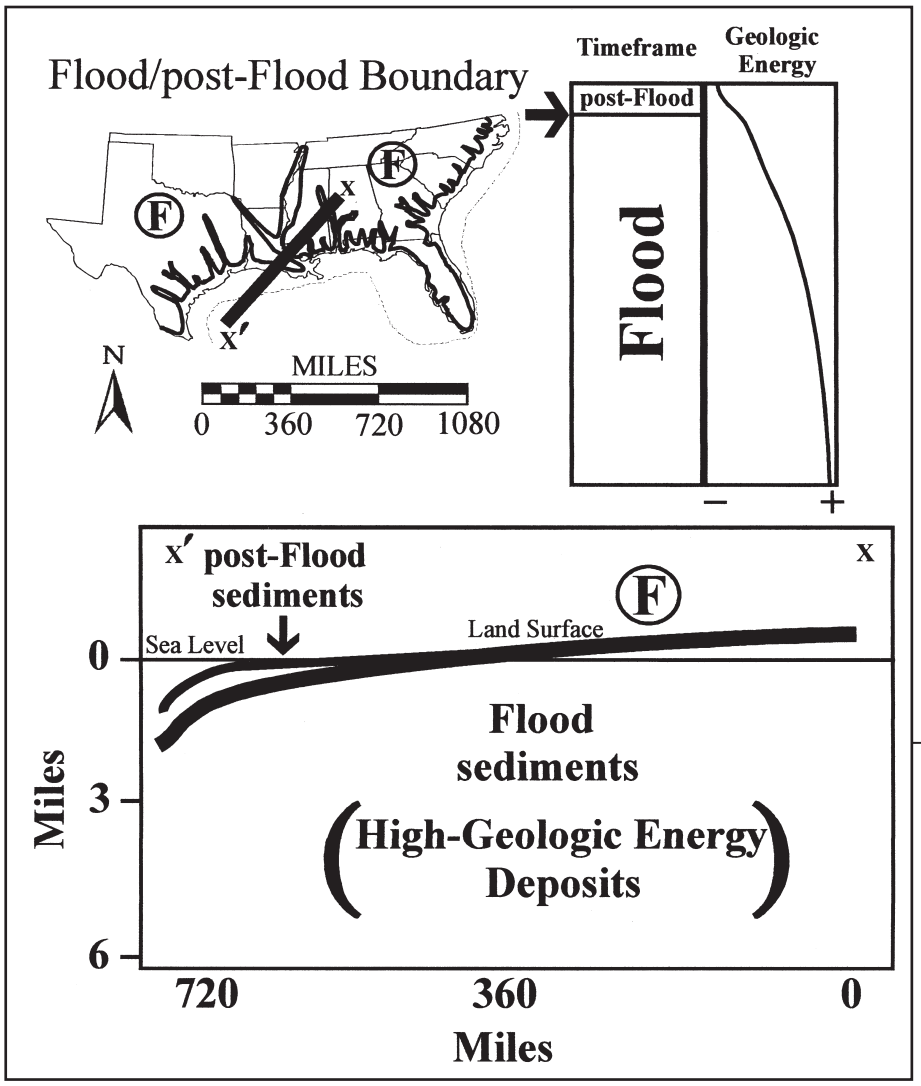

Figure 6 - The United States Southeastern Gulf Coast with our proposed Flood/post-Flood surface boundary (i.e., black line) running parallel to the present shoreline and moving landward in some instances following the major river courses upstream. Floodwater withdrawal and wet weather conditions associated with the single ice age first carved out and later filled these river channels with post-Flood sediments. Biogenic carbonate regions likely developed during the Flood and continued until Floodwater retreated and sea-level dropped enough to prohibit further growth (see Froede, 1999). Rapid sea-level changes associated with the waxing and waning of the continental glaciers during the Ice Age deposited clastic sediments (both freshwater and marine) out on the continental shelf.

umn is completely independent of the GUC. The Flood/post-Flood boundary is defined environmentally by the subsidence of high-energy Flood events and the transition into more "uniformitarian" depositional patterns, rather than by correlation to a uniformitarian boundary "golden spike." Although high-energy events occurring after the Flood may blur the boundary, these Ice Age and Present Age Timeframe deposits could be diagnosed by being more local in their aerial extent. We propose that this manner of interpreting the stratigraphic record can be rewarding in revealing the tremendous power of the Flood. At a minimum, it meets the necessary criterion of divorcing creationist stratigraphy from the GUC, and shifts the interpretation of Earth's history back to a Biblical approach and away from naturalism.

Conclusion

Concepts, models, and interpretive theories depend on the physical supporting data. The GUC is an illustration of the reliance on non-scientific presuppositions that may or may not be readily apparent to the user. Scientists are trained to develop models using available physical data. However, difficulty occurs when attempting to evaluate the non-scientific components of these models. Examining the GUC "model" against the Bible's presentation of earth history demonstrates the complete failure in unifying these two worldviews. Over the past four decades various strategies for using the GUC as a framework for biblical history have been proposed by creationists. We have examined three of these proposals against the strata found within the NGOMB. All of these approaches fail either because of the time/energy demands of the sedimentary record relative to a short post-Flood history. While the Pliocene/Pleistocene boundary comes the closest to what we expect with ever-decreasing geologic-energy levels, it too falls short when examining offshore clastic and carbonate accumulations. There appears to be too great a volume of Pleistocene sediments offshore requiring too much energy for too short a period of time to define all of these strata as post-Flood deposits. Many of the Pleistocene sediments were deposited under high-energy conditions that could only have occurred with the closing stages of the Flood. Hence, we propose that creationists examine the various sediments with some understanding about the energy necessary to precipitate or grow them (as in the case of carbonates), or erode, transport, and deposit them (for clastics).

Any ongoing effort to join the GUC to creationist geology must by definition explain how it can be harmonized globally. If a given model fails at the NGOMB, it has failed. If these efforts fail (and we believe they have) the model(s) must be abandoned or modified! Failure to discard bad ideas will only lead to greater confusion in creation science. Both creationist and secular scientists require internal corrections to their models and ideas. We believe a new approach to creationist stratigraphy is required. We hope that other creationists will focus their efforts developing concepts and models that eschew the GUC. By changing this conceptual framework, we can open new doors to understanding geology and the Bible, we can focus our studies on understanding the Flood's impact on the Antediluvian world, and we can jettison the evolutionary baggage that permeates the GUC. We hope this will lead to greater productivity as we base our investigations more consciously on Scripture instead of worrying about how to make the Bible work within a system based on evolution.

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Book Review

C.S. Lewis & Francis Schaefer:
Lessons for a New Century from the Most Influential Apologists of Our Time
by Scott R. Burson and Jerry L. Walls
InterVarsity Books, Downers Grove, IL. 1998, 308 pages, $14.99
Reviewed by Donald Ensign

This is an elegantly and lucidly written book by the director of communications (Burson) and professor of philosophy of religion(Walls) at Asbury Theological Seminary. Undoubtedly the perspectives set forth in this volume are influenced by the theological distinctives (Wesleyan holiness) of the authors' academic home. This volume is an exploration of the significant apologetic contributions of the 20th century's two foremost Protestant apologists, C.S. Lewis and Francis Schaeffer. Not only is there an exploration of the apologetic writings of Lewis and Schaeffer, but also a comparison of their views on specific areas of theological import. After an introduction stressing the importance of Lewis and Schaeffer to our emerging Post-modernist era comes brief biographical sketches of both apologists. Following this are a series of extended essays tackling such weighty matters as the "Nature of Salvation," "God's Sovereignty and Human Significance," "Mystery," "Biblical Authority and Divine Inspiration" and various aspects of Apologetics. Burson and Walls perform a commendable service in sifting out the positions of Lewis and Schaeffer on these issues, comparing and contrasting the strengths and weaknesses of each thinker's apologetics. This review will leave the evaluation of most of these theological issues (which there are many) to others. However, Burson and Walls clearly seem to favor Lewis' overall positions, over Schaeffer's, despite the Briton's lack of formal theological training.

For the Biblical creationist the most important part of this book is chapter 8—"Defensive Apologetics." In this chapter Burson and Walls describe two theodicies ("the attempt to demonstrate the justice of God in the face of evil" p. 201). The first is the Augustinian theodicy which is the dominant position of both the Roman Catholic and Protestant churches. This view is characterized thus:

> ...Adam and Eve were created morally and spiritually perfect in a world that was also fully perfect...