

The Grand Canyon, Monument to an Ancient Earth: The Deceptions Continue

Terry Mortenson, Answers in Genesis, PO Box 510, Hebron, Kentucky 41048.

Abstract

In 2016, the book *The Grand Canyon, Monument to an Ancient Earth: Can Noah's Flood Explain the Grand Canyon?* was published by Kregel, a leading evangelical publisher. Written by eight professing Christians and three non-Christians (agnostics), it openly rejects the truth of Genesis regarding the Flood and the age of the earth and presents a seemingly water-tight refutation of the geological evidences cited by young-earth creationist geologists. This critique of the book is particularly warranted because the book has been endorsed by some of the most influential evangelical scholars of our time (including Wayne Grudem and C. John Collins) and has been regularly promoted at the annual meeting of the Evangelical Theological Society. This paper critiques the erroneous historical, philosophical, theological and biblical arguments in the book (leaving the geological claims for creation geologists to address later). The analysis begins with a discussion of the critical difference between experimental (operation) science and historical (origin) science and the role of philosophical assumptions in the interpretation of the geological evidence. Then a brief history of the development of the geological theory of millions of years of earth history and particularly the old-earth interpretation of Grand Canyon is presented. Following this important background information is a revealing investigation of the authorship, purpose, promotion, and funding of the book. The rest of the paper gives a thorough evaluation of the relevant non-geological sections of the book. The conclusion is that the book is deceiving many scholars, pastors, laypeople and students in the church as it attacks the truth and authority of Scripture.

Keywords: Grand Canyon, geology, age of the earth, Noah's Flood, dating methods, flood geology, uniformitarianism, catastrophism, naturalism, evolution, laws of nature, operation science, origin science, data, interpretations, assumptions

Introduction

In 2016, the book *The Grand Canyon, Monument to an Ancient Earth: Can Noah's Flood Explain the Grand Canyon?* was published by Kregel, a leading evangelical publisher. Edited by three Christians and a non-Christian (agnostic),¹ it includes contributions by seven additional authors, five of whom have written elsewhere on the issue of science and the Bible. It openly rejects the truth of Genesis regarding the Flood and the age of the earth and presents a seemingly water-tight refutation of the geological evidences cited by young-earth creationist geologists. The book (Hill et al. 2016) has been endorsed by some of the most influential evangelical scholars of our time (discussed below), as well as by several atheistic, evolution-based, anti-biblical,

anti-Christian groups such as the National Center for Science Education (Anonymous 2016) and the Americans United for Separation of Church and State (Boston 2016).²

This book is just one of a flurry of books published in recent years attacking what the Bible teaches about origins. Some of these books are written by atheists and agnostics and published by secular publishers. But a growing number are written by professing Christians and published by evangelical publishers such as Kregel, InterVarsity Press, Zondervan, Baker, etc. Many of these books are promoting not only the acceptance of the idea of billions of years of earth history and cosmic history but also the acceptance of biological evolution, including the evolution of man.

¹ Carol Hill, Gregg Davidson, Tim Helble, and the non-Christian Wayne Ranney.

² The Americans United for Separation of Church and State website (<https://www.au.org/who-we-are>, accessed 2020 April 28) describes them as, "We are lawyers and lobbyists, students and activists, religious leaders and impassioned Americans. We are people of faith and people who don't profess any particular faith. We are a community that includes and welcomes people of all genders, races, ethnicities, religions or beliefs, sexual orientations, ages, classes and abilities." Two of the four officers of Americans United are Rev. Dr. Neal Jones (Chairman and minister of a Unitarian Universalist Church) and Dr. Eugenie Scott (Treasurer, an open atheist, and founding Executive Director of the National Center for Science Education). It is obvious from this statement and the positions they hold that none of the so-called "people of faith" associated with this organization hold to historic, orthodox, Christianity as revealed and taught in the Bible.

For example, J.P. Moreland (philosophy professor, Biola University), C. John Collins (OT professor, Covenant Seminary), Kenneth Keathley (theology professor, Southeastern Baptist Theological Seminary), Daniel Akin (President of SEBTS), Justin Taylor (managing editor, ESV Study Bible), David Dockery (President, Trinity International University), Bruce Ware (theology professor, Southern Baptist Theological Seminary), Thomas Schreiner (NT professor, SBTS), Robert Plummer (NT professor, SBTS), and Paul Copan (philosophy professor, Palm Beach Atlantic University)

The year after Hill et al. (2016) appeared, 25 authors collaborated to produce the 1,000-page book, *Theistic Evolution: A Scientific, Philosophical, and Theological Critique* (Moreland et al. 2017). The majority of contributors to the 2017 book accept the millions of years and believe that the age of the earth is something over which Christians can agree to disagree. But some of the authors of that book enthusiastically endorsed Hill et al. in 2016, even though, as will be shown, all its authors are evolutionists and have sought to use the book to convince readers not only to accept millions of years but also indirectly to influence them to accept biological evolution.

The same year Theodore Cabal, professor at Southern Baptist Theological Seminary, published *Controversy of the Ages: Why Christians Should Not Divide over the Age of the Earth* (Cabal and Rasor 2017). His view is obvious from the title, and the book has been enthusiastically endorsed by many leading evangelical scholars.³

Young-earth creationists strongly disagree with these Christian authors who promote or tolerate the old-earth, millions-of-years dogma that is controlling the minds of most scientists today. We also do not agree that Christians should just “agree to disagree” about the age of the earth, as if it were a relatively insignificant side issue unrelated to the gospel. I hope this critique will help readers understand why we disagree and reject the millions of years and why Christians should carefully consider their own position on this issue.

The battle about origins, including the question of the age of the creation, is intense. We dare not settle for shallow, uncritical thinking that unquestioningly accepts what the scientific majority or the evangelical theological majority declares to be undeniable truth. We need to examine things carefully because the accusations against young-earth creationists are serious. Ken Wolgemuth, a co-author of (Hill et al. 2016), made condemning comments in an interchange on Ken Ham’s Facebook page (fig. 1) with a girl named Patty Powell Nosworthy (who in earlier comments claimed to be an apostate Baptist) almost a year after Hill et al. (2016) was published. Wolgemuth charges that Ken Ham and Answers in Genesis (AiG) have “conned the church,” that AiG is



Fig. 1. Ken Ham’s Facebook page, screen shot on March 22, 2017 at 6:59:46 am.

“a counterfeit science cult,” and that they “ignore a canyon full of evidence, make claims of wild speculation disconnected from reality, and misapply scientific methods—all to keep Ken Ham’s big business going to fool people.” Very serious charges indeed! In this critique, we will consider if the charges are accurate regarding not just AiG and Ken Ham, but all young-earth creationists.

On Wolgemuth’s own Facebook page in early 2019 (fig. 2), he attacked three PhD scientists at the Institute for Creation Research.⁴ As you can see in the screen shot, he says, “they are very skillful at raising doubt among church people, just like the serpent raised doubt with Adam and Eve.” Careful

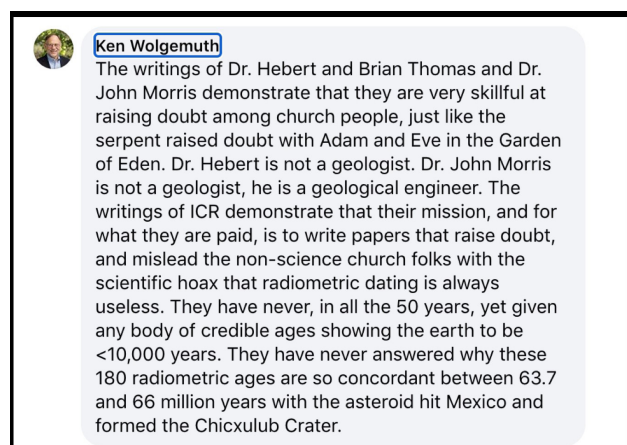


Fig. 2. Ken Wolgemuth’s Facebook page, regarding ICR, Jan 5, 2019, screen shot on June 17, 2020 at 11.12.15 am.

³ For example, J.P. Moreland (philosophy professor, Biola University), C. John Collins (OT professor, Covenant Seminary), Kenneth Keathley (theology professor, Southeastern Baptist Theological Seminary), Daniel Akin (President of SEBTS), Justin Taylor (managing editor, ESV Study Bible), David Dockery (President, Trinity International University), Bruce Ware (theology professor, Southern Baptist Theological Seminary), Thomas Schreiner (NT professor, SBTS), Robert Plummer (NT professor, SBTS), and Paul Copan (philosophy professor, Palm Beach Atlantic University).

⁴ Wolgemuth identifies Dr. Jake Hebert (PhD in physics, University of Texas at Dallas) and Dr. John Morris (PhD in geological engineering, University of Oklahoma) and Brian Thomas, who at the time of Wolgemuth’s post was technically not yet a PhD, but nearly so as he was awarded his PhD in paleo-biochemistry from the University of Liverpool, England on April 1, 2019. Wolgemuth says that John Morris is not a geologist, based presumably on his degree. But Wolgemuth’s PhD is in geochemistry, not geology *per se*. So that means that Wolgemuth is not a geologist either. Or if Wolgemuth’s PhD studies trained him to have competent knowledge in geology, then the same can be said of Morris.

Bible readers will note that Satan raised doubts about what God said as early as the Garden of Eden, whereas ICR staff give Christians reasons to believe God's Word and disbelieve what godless secular scientists (and Christian scientists who follow the secularists) say. Wolgemuth further claims that the ICR scientists are getting paid to "raise doubt and mislead the non-science church folks with the scientific hoax that radiometric dating is always useless."

I have no doubt that the other co-authors of Hill et al. (2016) share Wolgemuth's view of young-earth creationists. So, you are invited to read on to consider who *actually* is misleading, raising doubts, and conning and fooling church people.

Objective of This Study

In this analysis of the non-geological parts of *The Grand Canyon Monument to an Ancient Earth* (Hill et al. 2016), historical, philosophical, and biblical evidence will be presented to demonstrate the following.

- This book was written and funded by theistic and agnostic evolutionists who want to influence the church to accept evolution (not just millions of years) and who essentially hid those facts from the book's readers.
- It has been promoted to non-Christian geologists to help them know how to undermine the faith of Christians.
- It has denied the critical difference between operation science and origin science and the critical role of philosophical assumptions in the interpretation of "data," thereby confusing readers about the nature of science, scientific evidence, and the origins debate.
- It has distorted the history of the controversy about earth history.
- It has presented confusing and false statements about uniformitarianism.
- It has displayed a very shallow, and at times distorted, handling of Scripture and has ignored in-depth biblical arguments about
 - (1) the catastrophic and global nature of the Flood,
 - (2) there being no death or natural evil before Adam's sin, and
 - (3) the age of the earth.
- And it has frequently misrepresented the young-earth, flood-geology view.

Outline of This Critique

In this critique of Hill et al. (2016), I will analyze only the foreword, the first two chapters, two pages of chapter 7, and the concluding chapter 20, which deal with the history of the debate about the age of the earth, the worldview philosophical assumptions involved, what the Bible has to say, and why this issue

matters. The rest of the book discusses the geological evidence from the Grand Canyon. I will leave the critique of that to creation geologists. Nevertheless, I hope what is presented here will give Bible-believing Christian readers some substantial historical and biblical reasons to reject the old-earth geological arguments, even before they see an informed critique by young-earth creation geologists.

However, before critiquing the content of the foreword and chapters under consideration, we need to do some preliminary work in defining important terms and providing a historical context. First, we need to define what is meant by "science," since, as will be shown, the authors of Hill et al. (2016) say that their old-earth view is "science" and young-earth flood geology is "pseudoscience."

Second, as will be shown, these authors try to convince readers that young-earth flood geology is a novel twentieth-century idea rooted in the teachings of a Seventh-Day Adventist self-taught "geologist." Therefore, we need to look at the historical development of the idea that the geological history of the earth spans millions of years.

Third, we need to define the vague word "evolution."

Finally, in evaluating the truthfulness of Hill et al. (2016), it is important to know some facts about the authors of the book (facts that are not revealed in the book itself), who financed the project, what the authors' purpose was in writing the book, and who endorsed and promoted this book.

With this background information, we will have a context for analyzing the non-geological sections of the book in the chapters mentioned above.

So, first, let us consider what is meant by the word "science."

The Critical Difference Between Origin Science and Operation Science

One of the non-Christian authors of Hill et al. (2016), geologist Wayne Ranney, tells readers, "Though few people realize it, to deny an old age for the earth or the Grand Canyon, while embracing other aspects of science, is essentially a statement that science works only when we agree with the outcome" (Hill et al. 2016, 11). But do young-earth creationists (particularly flood geologists) reject some aspects of science while accepting other aspects? To answer that, we need to define the word "science" carefully. Everyone agrees that science is the study of the natural world, the physical creation. But is the science of geology the same kind of science as the sciences of chemistry or physics or engineering or medicine? Do they all use the same methods as they seek to discover truths about the world? No, there is a significant difference, and we need to understand that difference if we are going to think carefully about the question of origins, including earth history.

There are two broad categories of science, which I like to call “operation science” and “origin science.” They can also be called “experimental science” and “historical science.” Both are trying to learn truth about the world, and both involve observations about the world, but they have significantly different methods for discovering the truth.

My distinguishing of these two kinds of science is neither novel nor idiosyncratic. The leading historian and philosopher of science of the early nineteenth century, William Whewell, made this distinction in a lengthy discussion in his book, *The Philosophy of the Inductive Sciences* (Whewell 1840).⁵ He coined the term “palaetiology” for what I call “origin science” and used the terms “phenomenology” and “aetiology” to refer to two tasks of what I call “operation science.” Phenomenology, he said, is “the systematic description of facts,” and aetiology is “the rigorous analysis of the causes” (Whewell 1840, 94–165). Palaetiology, on the other hand, attempts to identify the causes of past historical events whose effects we observe in the present, or, as Whewell put it, “to trace back the history and discover the origin of the present state of things” (Whewell 1840, 109). More recently, Norman Geisler and J. Kerby Anderson (1987) similarly argue for two branches of science (operation science and origin science) and define them similar to my descriptions below. They contend that fruitful discussions about the history and origin of the physical world will be inhibited unless this distinction in the sciences is taken into account.⁶

Operation Science

Consider first operation science (or experimental science). It can be defined this way:

The use of observable, repeatable experiments in a controlled environment (for example, a laboratory) to understand how things operate or function in the present physical universe in order to find cures for disease, produce new technology, or put a man on the moon, etc.

Scientists doing this kind of science are studying things (for example, living creatures, DNA, light, chemicals, hurricanes) in the *present* to understand how they *operate* or *function* today so that we can use that knowledge to solve problems and improve or protect our lives. Operation scientists want to find cures for cancer, develop better strains of wheat that resist pests and disease, invent better plastics, make faster computers, develop earthquake-tolerant buildings, or find better ways to harness the energy of the sun.

Most of biology as well as chemistry, physics, engineering research, and medical research are in this realm of operation/experimental science. These scientists are *repeatably observing and experimenting* on things in the present to use them to improve the world around us. They are trying to answer the question, “How does this work?” Young-earth creationists love this kind of science and the fruits of its research, which is why we use cell phones and computers and go to the doctor when we are sick.

But this kind of science will not answer these questions.

- How and when did the first dog or the first human being come into existence?
- How and when did the Grand Canyon and its rock layers form?
- How and when did Saturn and its rings form?

These are events in the unobservable and unrepeatable past for which we only see the results in the present. We cannot do any laboratory experiment to recreate those events or things. And we cannot travel back in time to watch their genesis as it happened. We are dealing here with historical questions.

Origin Science

For such questions we need origin science (or historical science), which is a significantly different kind of science trying to answer, “What happened in the past to produce what I see in the present?” It can be defined this way:

The use of reliable, eyewitness testimony (if any is available) and observable evidence to determine the past, unobservable, unrepeatable event(s), which produced the observable evidence we see in the present.

The fields of historical geology, paleontology, archeology, cosmology (also called cosmogony), and criminal investigation are examples of historical (origin) science. Scientists in these fields are looking at things in the present (e.g., DNA, dogs, rock layers, planets) that are the *result* of one or more events in the *unobservable, unrepeatable* past. Like a police detective, they are trying to reconstruct the past from the evidence in the present. But they potentially have two (not just one) sources of evidence: the observational material (physical) evidence in the present and demonstrably reliable oral or written eyewitness testimony about the past event or events that produced the evidence.

The question of evolution versus creation, or millions of years versus thousands of years of earth history, is in the realm of origin science, not in the

⁵ See my discussion of Whewell’s thinking and his inconsistencies in accepting old-earth geological theories in Mortenson (2004), 228–233.

⁶ Several others have also recently remarked on the importance of this distinction: Stephen C. Meyer (1994); Charles B. Thaxton, Walter L. Bradley, and Roger L. Olsen (1992, 200–208); J. P. Moreland (1989, 225–226).

realm of operation science. The question of origin, how things came to be in the past, is very different from the question of how things operate in the present. Someone may know everything about how a car operates, but that does not mean that he knows anything about how the car came into existence. The way the pistons or air-conditioner or headlights operate does not tell you anything about how the pistons or air-conditioner or headlights came into existence.

Of course, both operation science and origin science involve observations. But *operation* scientists (whether creationists or evolutionists) are observing repeatable things in the present (for example, cancer cells reproducing, coronavirus responses to certain treatments, reactions when mixing two chemicals to make a better plastic, etc.). *Origin* scientists (whether creationists or evolutionists) are observing things *resulting from* unrepeatable events in the past. Origin scientists might do some repeatable experiments with water and sediments in a laboratory flume (a long glass tank where they can watch moving water carrying and depositing sediments), but those experiments are only small-scale *analogies* of what *might* have happened in the past, if certain assumptions are made. The lab experiment is not observing the past event or process that produced the geological formation they are researching (for example, a layer of the Grand Canyon).

The difference between young-earth creationists and those scientists (and theologians) who oppose young-earth creation is not that creationists only have the Bible and their opponents have the scientific evidence. Rather, the difference is this: young-earth creationists believe that the Bible is God's inerrant eyewitness testimony about key events in the past and that God's historical truths in Scripture should guide our thinking in our efforts to correctly interpret the presently observable physical evidence as we try to reconstruct the history and past origin of things. In the origins debate, they believe Genesis 1–11 is a key part of that divine eyewitness testimony and that those chapters are literal inerrant history (that is, creation of the universe in six 24-hour days about 6,000 years ago and a global flood at the time of Noah).

Old-earth proponents (whether unbelievers or professing Christians) do not believe the Bible is God's inerrant eyewitness testimony, or do not believe Genesis 1–11 is literal history. Or if they believe those two statements, they believe only some of the details of that literal history in Genesis (regarding, for example, some or all of the details about the creation of man, the fall of man, and the Flood). Therefore,

old-earth advocates do not believe Genesis should be used to interpret the physical evidence to reconstruct the origin of the universe, stars, galaxies, the solar system, and the earth, or to reconstruct the history of the rock layers and fossils. The old-earth advocates who believe in biological evolution also believe the Bible should be excluded from our research as we seek to understand the origin and history of plants, animals, and man.

Now in the case of Grand Canyon, we obviously do not have any explicit biblical statements about its origin or history. It is never mentioned in the Bible. But God's Word does tell us important truths about the creation of the world, about Adam's fall in sin and God's subsequent judgment, and about a global catastrophic flood at the time of Noah. And if those chapters are accurate history, then we have very relevant eyewitness testimony from God that should guide our thinking and interpretation of the evidence we see in the Grand Canyon. The authors of *The Grand Canyon Monument to an Ancient Earth* Hill et al. (2016) obviously reject that view of God's Word, and I will later examine their attempt to silence God's testimony by arguing that Noah's Flood was just a big flood in the Middle East and is irrelevant to the task of geologists.

The Difference Between Operation Science and Origin Science: Assumptions Are Critical

Most old-earth creationists and evolutionists deny there is any significant difference between origin science and operation science. But some evolutionists do see the difference. For example, Ernst Mayr (1904–2005), professor of zoology at Harvard University, is considered by many to be the greatest evolutionist of the twentieth century. He said:

For example, Darwin introduced historicity into science. Evolutionary biology, in contrast with physics and chemistry, is a historical science—the evolutionist attempts to explain events and processes that have already taken place. Laws and experiments are inappropriate techniques for the explication of such events and processes. Instead one constructs a historical narrative, consisting of a tentative reconstruction of the particular scenario that led to the events one is trying to explain.⁷

However, it wasn't Darwin who introduced historicity into science. It was the geologists who did this over 50 years before Darwin's famous book, *The Origin of Species* (1859). One of the leading historians of geology put it this way regarding the birth of the science of geology in the late eighteenth and early nineteenth centuries:

⁷ Ernst Mayr, "Darwin's Influence on Modern Thought," based on a lecture that Mayr delivered in Stockholm on receiving the Crafoord Prize from the Royal Swedish Academy of Science, 23 September 1999; published by *Scientific American* on 24 November 2009. <http://www.scientificamerican.com/article/darwins-influence-on-modern-thought/>.

Even at the opening of its 'heroic age,' geology was recognized as belonging to an altogether new kind of science, which posed problems of a kind that had never arisen before. It was the first science to be concerned with the reconstruction of the past development of the natural world, rather than the description and analysis of its present condition. The tools of the other sciences were therefore inadequate. The processes that shaped the world in the past were beyond either experiment or simple observation. Observation revealed only their end-products; experimental results could only be applied to them analogically. Somehow the past had to be interpreted in terms of the present. The main conceptual tool in that task was, and is, the principle of uniformity. (Rudwick 1962, 82)

But the principle of uniformity (processes and laws we see operative today have likewise worked in the past) soon gave way under the influence of Hutton and Lyell to the dogma of uniformitarianism (discussed below). As we shall see, the various reconstructions of the past development of the natural world are critically dependent on a scientist's worldview presuppositions. This is certainly true in geology.

In the late twentieth century, the great Harvard geologist and paleontologist, Stephen Gould informed us:

Our ways of learning about the world are strongly influenced by the social preconceptions and biased modes of thinking that each scientist must apply to any problem. The stereotype of a fully rational and objective "scientific method," with individual scientists as logical (and interchangeable) robots, is self-serving mythology. (Gould 1994)

Leading historian of geology, James Secord, echoes the same when he said:

Most significantly, recent work in cultural anthropology and the sociology of knowledge has shown that the conceptual framework that brings the natural world into a comprehensible form becomes especially evident when a scientist constructs a classification [of a rock formation]. Previous experience, early training, institutional loyalties, personal temperament, and theoretical outlook are all brought to bear in defining particular boundaries as "natural." (Secord 1986, 6)

But the most powerful influence on a scientist is his or her theoretical outlook (that is, his or her worldview, philosophical assumptions, or scientific paradigm). Every scientist has a biased mode of thinking. Scientists are not unbiased, objective pursuers of truth just "letting the facts speak for themselves." Every scientist has assumptions that affect his or her scientific research. Most scientists, whether unbelieving or Christian, have some or

many anti-biblical assumptions that contribute to their biased mode of thinking and theoretical outlook. Creation scientists are seeking to do their scientific work within a consciously biblical worldview (framework), which contributes to their biased mode of thinking and theoretical outlook.

Now, a person's religious worldview has very little influence on operation science. Whether a scientist who is researching to develop a vaccine for coronavirus is an atheist, Christian, Jew, Muslim, or a Hindu, his religious view will have no meaningful impact on his scientific research. His research is constrained by the method of observable, repeatable experiments on the active virus in the present.

But worldviews (especially religious assumptions) are critically important in origin science, as will be demonstrated in the next section. What a person believes about God, His interaction with the world, and the nature and information content of the Bible has a profound impact on what a person sees in the world (for example, in Grand Canyon) and how he interprets that evidence (rock layers, fossils, radioactive isotopes, erosional features, etc.) as he tries to reconstruct the unobservable and unrepeatable past to explain origins.

As the eyewitness testimony of God, Genesis gives us the "big picture," the key truths we need to correctly understand the origin and the early history of the world. Those key truths are like the lenses of a pair of glasses (fig. 3). If we are wearing the wrong lenses, we will not see things clearly and interpret them correctly. The more distorted our lenses are, the more distorted will be our understanding of what we observe. I have bifocals, and which lenses I use determine whether I have a clear or distorted view of physical reality.

Creationists look at the world through the lens of biblical history given in the Word of God. Secular scientists, and many professing Christian scientists,

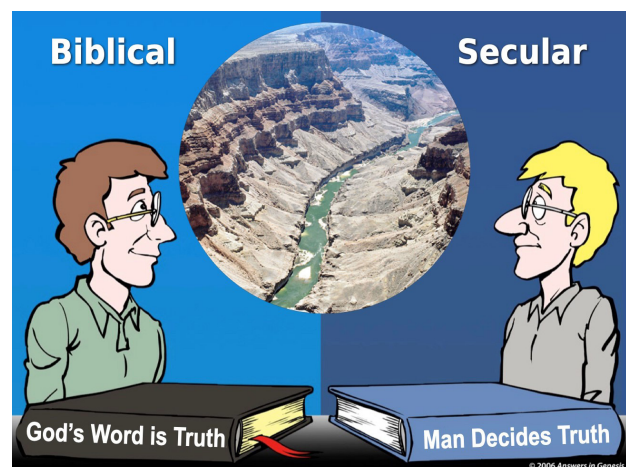


Fig. 3. Different worldview glasses used to look at (i.e., interpret) the same evidence.

wear a different pair of glasses. They look at the world through the lenses made from the ideas and words of men (often consciously anti-biblical, anti-Christian men), as will be soon shown. Without biblical glasses, we will get a distorted picture of reality and history. Now, the Bible does not answer all our questions. But it provides the truths we need to guide our thinking as we seek the answers through (in this case) the scientific study of rocks and fossils.

Summary on the Nature of Science and the Origins Debate

So, in summary, there is a significant difference between operation science and origin science. The debate about creation versus evolution and the age of the creation is in the realm of origin science. Both the old-earth evolutionist story and the young-earth creation (flood geology) story are attempts to reconstruct the unobservable and unrepeatable past. Both involve worldview assumptions about God and his relationship to the world and about the Bible (the eyewitness testimony of the Creator). The geological facts do *not* speak for themselves: they must be interpreted. And our observations and interpretations depend heavily on what worldview glasses we wear. No scientist is an unbiased, objective pursuer of truth.

This will become clearer as we next consider how the idea of millions of years of earth history developed historically. As we do, we should bear in mind two relevant passages of Scripture. In 2 Corinthians 10:3–5 Paul describes the spiritual battle that we are engaged in. It is a battle of ideas. Paul says:

For though we walk in the flesh, we are not waging war according to the flesh. For the weapons of our warfare are not of the flesh but have divine power to destroy strongholds. We destroy arguments and every lofty opinion raised against the knowledge of God, and take every thought captive to obey Christ, (ESV)

The NASB translation says, “we are destroying speculations.” The KJV translation renders the same Greek Words as “casting down imaginations.” These are high and lofty ideas raised up against the knowledge of God, and therefore against God’s Word, which is where we get the true knowledge of God.

Paul warns in Colossians 2:8, “See to it that no one takes you captive by philosophy and empty deceit, according to human tradition, according to the elemental spirits of the world, and not according to Christ” (ESV). The NASB says “elementary principles” and the KJV translates the Greek as “rudiments of the world.” Christians need to be

careful that they are not deceived by the philosophies and traditions and basic principles of men and women who reject Christ. We need to build our thinking on Christ, which means on His Word.

As we examine this history of geology and the theories about earth history, including the formation of the Grand Canyon, we need to be alert for philosophies, speculations, imaginations, principles and traditions that are contrary to Christ and His Word.

The Historical Development of the Old-Earth View in Geology⁸

A few men studied rocks and fossils in the 1600s and 1700s. Many of them attributed the rocks and fossils to Noah’s Flood. But geology really became a branch of science only in the early decades of the nineteenth century, though it was in its infancy. There were no professional geologists (who made a living by studying rocks) and no university degrees in geology until about 1840, though there were university lectures on the subject in previous decades. Prior to 1800, very little of the geology of Europe had been studied, to say nothing of the rest of the world.

The first geological organization was the Geological Society of London, founded in 1807, which met monthly for many years in Freemason Tavern in London. The 13 founding members were wealthy, cultured gentlemen, who lacked much in geological knowledge but made up for it by their enthusiasm to learn. From the start they all were committed to the idea that the earth was much older than the Bible taught, though they had different views about how and when the rock layers and fossils were formed and how and when the topography of the earth was carved.

So, we need to dispel from our minds the concept that the idea of millions of years of earth history was a conclusion after careful scientific research by highly trained geologists gathering massive amounts of data for decades. Nothing could be further from the truth. The idea of millions of years was also not a result of radiometric dating methods applied to the rocks, a point to which we will return later. To understand this issue, it is imperative to look at three of the most influential men in the development of the old-earth view.

Uniformitarian Naturalism Takes Control of Science

James Hutton (1726–1797) lived in Scotland in the eighteenth century. He studied medicine at

⁸ This section is based on my PhD thesis on this topic. Interested readers can examine the subject further in my book (Mortenson 2004), which is a shortened version of my PhD thesis. My chapter-length discussion of the same subject is Mortenson (2006), online at <https://answersingenesis.org/age-of-the-earth/the-historical-development-of-the-old-earth-geological-time-scale/>. My video-lecture summary of this topic is “Millions of Years: It’s Unscientific Origin and Catastrophic Consequences.” <https://www.youtube.com/watch?v=ntAfVQaodbM>.

the university in Edinburgh, but his real love was geology. He is considered by many to be the father of modern geology. In 1785, Hutton laid down a law of geological reasoning, that is, the paradigm or model that must control our thinking as we observe and attempt to interpret the rocks to reconstruct the unobservable, unrepeatable past. He wrote:

The past history of our globe must be explained by what can be seen to be happening now...No powers are to be employed that are not natural to the globe, no action to be admitted except those of which we know the principle.⁹

So, Hutton insisted that in reconstructing earth history, we must limit ourselves to *presently observable* and *natural* processes. But the rocks and fossils did not teach him this “law” of reasoning, nor did he perform any scientific laboratory experiments to arrive at this principle. It derives from and reflects a religious or philosophical worldview. Furthermore, neither Creation nor the Flood was happening when he made these statements, and neither Creation nor the Flood was a purely natural event. So, he ruled out Creation and the Flood in his mind, as an explanation for what he observed, before he examined the geological evidence.

From this law of geological thinking, Hutton developed a theory that the continents were slowly eroded a particle at a time by wind and water. The sediments were transported by the streams and rivers and eventually deposited on the ocean floor. Then eventually part of the ocean floor was lifted up to become a new continent, where the cycle continued. Thus, Hutton said he could find no evidence of a beginning in the rock record. But of course, he never observed a single continent erode away, nor did he see a single continent arise from the ocean. He certainly did no scientific laboratory experiments to confirm this story of the past.

Rather, he was speculating or imagining about the unobserved past to explain the geological features of the earth that he saw in the present, based on his anti-biblical worldview. Scholars are not sure if he was a deist or a secret atheist. But in any case, he was insisting on a naturalistic worldview for interpreting the rocks to reconstruct the unobservable, unrepeatable past. That is, everything must be explained by *time+chance+laws of nature*. Nature is all there is. There was no supernatural beginning to the world, and there were no supernatural interruptions to the normal course of nature in history. And the hero of this anti-biblical story of earth history is time, millions and billions of years of time.

Elsewhere in 1795 he insisted, “But, surely, general deluges form no part of the theory of the earth; for,

the purpose of this earth is evidently to maintain vegetable and animal life, and not to destroy them” (Hutton 1796, 273). In other words, look at the world. It is obviously designed to support plant and animal life. Therefore, we cannot allow a global flood in our reconstruction of earth history because that would destroy all life.

What was he doing? He was reasoning that *the present is the key to the past*. But the rocks and fossils did not teach him this principle. Rather, it was derived from his anti-Christian, anti-biblical worldview. He was rejecting the eyewitness testimony of the Creator. Hutton’s dictum is a fundamental error.

The truth is that the present is *NOT* the key to the past. Rather, God’s eyewitness testimony in the Bible is the key to understanding both the present and the past. We need His inerrant Word to correctly interpret the evidence as we try to reconstruct the geological history of the earth. The Bible says very little related to geology. But just as a good detective should and would carefully consider any demonstrably truthful eyewitness testimony as he examined the physical evidence related to a crime, so the historical truths about geologically relevant events revealed in God’s eyewitness testimony (the Bible) should guide the geologist’s work as he tries to reconstruct the unobservable and unrepeatable events that produced the geological evidence he is examining. Those biblical truths are the glasses that enable us to see things clearly and correctly.

In contrast, Hutton was using an anti-biblical, *naturalistic* worldview to interpret the rocks, and his ideas would be built upon by Charles Lyell to develop and naturalistic *uniformitarian* worldview story of earth history (as discussed below). But first, we will consider a different old-earth story of earth history, which became known as *catastrophism*.

Old-Earth Catastrophism

In the late 1700s and early 1800s, there were a number of authors who argued for what became known as “catastrophism.” The French paleontologist, Georges Cuvier, was one of the most well-known. Some of these authors initially believed that Noah’s Flood deposited the loose gravels and sands on the surface and carved the topography (though most abandoned that idea by the early 1830s). But they believed the sedimentary rock layers, like those we see in the Grand Canyon, the white cliffs of Dover (England), and on every other continent, were the result of a series of catastrophic continental or global floods, each one separated by long periods of “untold ages.” They were clearly thinking of millions of years.

⁹ James Hutton (1785) “Theory of the Earth,” *Transactions of the Royal Society of Edinburgh*; quoted in Holmes (1965, 43–44).

According to this view of earth history, most or all of the creatures living at the time of each catastrophe perished, and many of them were buried in the sediments and eventually became fossils. Because these catastrophists believed in God (although Cuvier and William Smith, a prominent catastrophist in England, were not Bible-believing Christians¹⁰), these catastrophists believed that God created living creatures, thereby rejecting the pre-Darwinian evolutionary theories of their day. After each catastrophe, they believed that God created new creatures (similar to what had perished) or survivors repopulated the earth. This view did not last long because of the influence of Charles Lyell.

But it should be noted that just as Hutton never saw a single continent disappear or appear by natural processes, neither did Cuvier or any other catastrophist see a single one of those major floods or a single fossiliferous rock layer form. They too were speculating and imagining (on the basis of religious and philosophical assumptions) about the unobservable, unrepeatable past in their attempts to explain what they saw in the present. And like Hutton, they rejected the eyewitness testimony of the Creator about Creation, the Flood, and the age of the earth.

Charles Lyell: The Pope of Uniformitarianism

Another very important geologist at this time, Charles Lyell (1797–1875), was born the year Hutton died and built on Hutton's ideas. He studied law at Oxford University, but his real love was geology. And being independently wealthy, he had the time and money to study the rocks.

In 1830 he published his first of three volumes of *Principles of Geology* (1830–1833). In it he made his case for what became known as uniformitarianism.¹¹ Like Hutton and contrary to the catastrophists, he argued that there had never been any continental or global floods. Rather, all the processes of geological change (for example, erosion, sedimentation, volcanism, earthquakes) have always operated in the past at the same rate, frequency and power as we observe on average per year today. Uniform (and primarily slow, gradual) processes over long ages produced the geological features of the earth.

Lyell also consciously severed the Bible from the study of geology. In a lecture in King's College London in 1832 he said:

I have always been strongly impressed with the weight of an observation of an excellent writer and skillful geologist who said that “for the sake of revelation [the Bible] as well as of science—of truth in every form—the physical part of geological inquiry ought to be conducted as if the Scriptures were not in existence. (Rudwick 1976, 150).¹²

I would not object to this if the Bible did not speak about any geologically significant global events. But it speaks of two.

First, on the third day of Creation Week, when God made dry land appear, God evidently raised part of the crust of the earth above sea level. This would produce considerable erosion and sedimentation, but no fossils would form in those sediments because God had not yet created plants, animals, or people.

The second global, geologically significant event was Noah's Flood, which as described in the Bible, would have destroyed the surface of the pre-Flood earth, eroded rocks and deposited vast amounts of sediment, and buried billions of plants and animals in those sediments.

As a deist or Unitarian (Russell 1985, 136), Lyell rejected these biblical accounts of history for religious and philosophical reasons and insisted on a naturalistic uniformitarian approach to the interpretation of the geological record. In fact, in a private letter to another uniformitarian geologist, Lyell wrote that he wanted to “free the science [of geology] from Moses” (Lyell 1881, 268).¹³ In other words, he wanted to silence God's eyewitness testimony.

By about 1840 Hutton and Lyell's writings had convinced most geologists to completely abandon the Flood as being geologically irrelevant. As a result, naturalistic uniformitarianism became the ruling paradigm in geology. Through his leadership of the Geological Society of London and his influence in the British Association for the Advancement of Science, Lyell made it difficult for catastrophists (both old-earthers and young-earthers) to get their research published.¹⁴ The geological societies in various countries were controlled by naturalistic

¹⁰ Cuvier was a nominal Lutheran. But recent research has revealed him to be an irreverent deist. On his religious beliefs, see Brooke (1991, 247–248). Considered the “Father of Modern Stratigraphy,” William Smith's own writings reveal his vague theism, as do comments by geologist John Phillips, Smith's nephew and geology student (Phillips 1844, 25).

¹¹ The terms “catastrophism” and “uniformitarianism” were coined in 1832 by the famous British philosopher and historian of science, William Whewell (Whewell 1832, 126).

¹² Rudwick quoted from Charles Lyell's Lecture II at King's College London on 4 May, 1832.

¹³ The quote is from Lyell's letter on 14 June, 1830 to fellow uniformitarian geologist, George Poulett Scrope (also a member of Parliament), whom Lyell was encouraging and instructing on how to write his article for the *Quarterly Review* to accomplish what Lyell prescribed above so that the British church leaders would accept the millions of years and reject Genesis.

¹⁴ One historian of geology summarized the historical evidence this way: “Lyell, like Scrope before him, simply suppressed the evidence which did not fit in with his [uniformitarian] doctrines, and once he was voted into power [as president of the Geological Society of London], the catastrophists found it increasingly difficult to publish their research.” (Grinnell 1976). Lyell was president of the Geological Society of London in 1835–1837 and again in 1849–1851.

uniformitarianism. And everyone who studied geology in the university was trained to think, “Slow gradual processes of geologic change will explain nearly everything you see.”

When Charles Darwin went on his famous five-year voyage around the world beginning in 1831, he took on the HMS Beagle a copy of Lyell’s first volume of *Principles of Geology*. As he traveled, he applied Lyell’s uniformitarianism to biology. In an 1844 letter to a friend he expressed Lyell’s influence on his thinking this way:

I always feel as if my books came half out of Lyell’s brains and that I never acknowledge this sufficiently, nor do I know how I can, without saying so in so many words—for I have always thought that the great merit of the *Principles [of Geology]*, was that it altered the whole tone of one’s mind & therefore that when seeing a thing never seen by Lyell, one yet saw it partially through his eyes. (Darwin 1987, 55)

Like Lyell, Darwin was not an unbiased, objective observer of nature, just “letting the facts speak for themselves.”

Scriptural Geologists: Opposing Old-Earth Theories

In the first half of the nineteenth century, some Christians wrote against these old-earth geological theories of the catastrophists and uniformitarians. They collectively became known as the “scriptural geologists.” As thoroughly documented in my book, *The Great Turning Point: The Church’s Catastrophic Mistake on Geology—Before Darwin* (Mortenson 2004), some of them were very knowledgeable in geology by the standards of their day, both from reading the contemporary geological literature and from their own examination of the geological evidence in Britain and Europe. Others were not geologically competent but critiqued the old-earth views by accepting what the old-earth geologists stated as observational facts but arguing that their old-earth reasoning (that is, their interpretations) from the stated facts was faulty and contradicted by other old-earth geologists. The scriptural geologists raised biblical, philosophical and geological arguments against these old-earth theories.¹⁵ None of the scriptural geologists (even the ones without geological competence) were anti-science or anti-geology. What they opposed was the anti-biblical, naturalistic uniformitarian and catastrophist old-earth *interpretations* of the geological evidence.

So, in the early nineteenth century there were three competing views of earth history (fig. 4). Both the catastrophists and the uniformitarians reasoned that *the present is the key to understanding the*

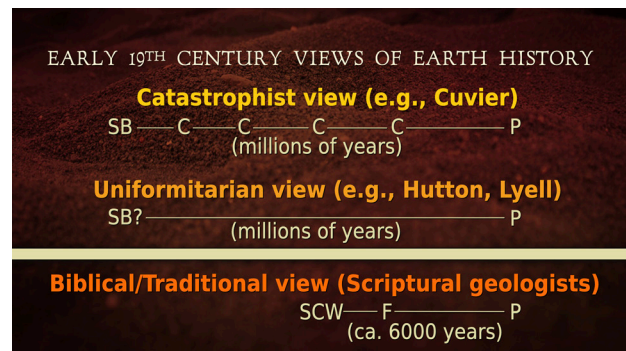


Fig. 4. Early nineteenth century views of earth history. SB=Supernatural Beginning, C=Catastrophic (flood), P=Present, SCW=Supernatural Creation Week, and F=Flood (Noah’s).

past. The catastrophists reasoned that the present catastrophic events (for example, floods, earthquakes, etc.) were the key to the past. The uniformitarians reasoned that the present, slow, gradual processes of erosion and sedimentation were the key to the past. While catastrophes have happened in the past, they have not been any more frequent or energetic or geographically extensive than the catastrophes of recent history. The primary processes of geological change have been particle-at-a-time change over long ages. By contrast, the scriptural geologists insisted that *biblical revelation was the key to understanding the past and the present* since God’s Word provides the inerrant glasses to interpret correctly what we see in the world. The supernatural Creation Week and Noah’s Flood were the key events and categorically different from the presently observed gradual or catastrophic processes we observe.

The scriptural geologists were not unusual in their view of earth history. Young-earth creation (including a global flood at the time of Noah) was the almost universal belief in the church up to the nineteenth century. In fact, Bible commentaries did not abandon that view until the 1840s.¹⁶ The theistic evolutionary geologist, Davis Young, concurs (though he is off by a century):

“It cannot be denied, in spite of frequent interpretations of Genesis 1 that departed from the rigidly literal, that the almost universal view of the Christian world until the eighteenth century was that the earth was only a few thousand years old. Not until the development of modern scientific investigation of the earth itself would this view be called into question within the church.” (Young 1982, 25)

But by 1859, when Darwin published *Origins of the Species*, as far as I can tell from my research, nearly the whole church had given up the traditional view of a 6,000-year-old earth and the global Flood.¹⁷

¹⁵ Mortenson (2004) has a chapter on each of seven of the scriptural geologists, quoting extensively from their own writings.

¹⁶ See Mortenson (2008, 40–47). The same documentation is in the section headed “Biblical Interpretation” in Mortenson (1997). <http://www.answersingenesis.org/articles/tj/v11/n2/geology>. See also the first two chapters in Mortenson and Ury (2008).

¹⁷ Undoubtedly, there were some Christians who still held to young-earth creation, but virtually all the conservative Bible scholars and Christian leaders had abandoned the view and embraced the day-age or gap theory.

The Bible commentaries reflected the claims of old-earth geology by the 1840s (Cameron 1983, 72–83). Undoubtedly, there were some Christians who still held to young-earth creation, but virtually all the conservative Bible scholars and Christian leaders had abandoned the view and embraced the day-age or gap theory. Historian Ronald Numbers reports,

As early as 1880 the editor of one American religious weekly estimated that ‘perhaps a quarter, perhaps a half of the educated ministers in our leading Evangelical denominations’ believed ‘that the story of the creation and fall of man, told in Genesis, is no more the record of actual occurrences than is the parable of the Prodigal Son’. (Numbers 1992, 3)

By the early twentieth century, the greatest defenders of Christian orthodoxy were compromised with millions of years (Mortenson 2010). So, uniformitarian naturalism first took control of geology and then captured biology. By the end of the nineteenth century these philosophical assumptions had infected all the other sciences and most of the church, as it is today.

Regarding geologic time, at the beginning of the nineteenth century, old-earth proponents were talking about “untold ages” or “millions of years.” The so-called “Geological Column,” which labels the various rocks layers (for example, Cambrian, Silurian, Devonian, Jurassic), was reasonably set in concrete by the middle of the century. By the end of the century the consensus was that the earth was about 300 million years old. Radioactive elements were discovered in the late 1890s and by about 1905 the radiometric dating method (based on naturalistic uniformitarian assumptions) had been developed to obtain a supposedly more precise age of rock layers and earth. As the dating method was refined, the age of the earth rapidly increased so that by the 1940s the earth’s age was settled in the minds of most geologists (indeed most scientists) at about 4.5 billion years.

Richard Lewontin, the famous Harvard geneticist and atheist Jew, describes the science-controlling naturalistic worldview this way:

Our willingness to accept scientific claims that are against common sense is the key to an understanding of the real struggle between science and the supernatural. We take the side of science *in spite* of the patent absurdity of some of its constructs, *in spite* of its failure to fulfill many of its extravagant promises of health and life, *in spite* of the tolerance of the scientific community for unsubstantiated just-so stories, because we have a prior commitment, a commitment to materialism. It is not that the methods and institutions of science somehow compel us to accept a material explanation of the phenomenal

world, but, on the contrary, that we are forced by our *a priori* adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counter-intuitive, no matter how mystifying to the uninitiated. Moreover, that materialism is absolute, for we cannot allow a Divine Foot in the door.¹⁸

In other words, Lewontin says, we cannot allow God into our thinking as scientists. And we most certainly cannot allow the truth of His eyewitness testimony about the origin and history of the world to influence our scientific research. He is insisting on reasoning like an atheist. But he is clear that this is an *a priori* (that is, based on theoretical deduction rather than empirical observation) philosophical commitment to materialism (that is, atheism). Of course, not all scientists are atheists. But most scientists in the leadership of the scientific world are atheists or agnostics (Larson and Witham 1998). And most scientists (including most Christian scientists) are doing their scientific work, *as if* atheism were true. They may believe in God in their private life, but in their scientific work they reason like an atheist, and they ignore God’s eyewitness testimony in Genesis 1–11.

However, this is historically and philosophically wrong headed, because it is an indisputable fact that modern science was born in the womb of the biblical, Christian worldview. The biblical worldview provides the philosophical basis for doing scientific research (Hooykaas 1972; Klaaren 1977; Reed 2001).

The Laws of Nature versus Process Rates of Nature: A Critical Difference

Now we need to think very carefully here. Both the old-earth catastrophists and the uniformitarians believed that the *laws* of nature have never changed, even though the doctrine of uniformitarianism does not specifically say as much. They assumed the fixity of the laws of nature from the beginning. Their young-earth opponents, the scriptural geologists, also believed the same, that the laws of nature have been constant since they were instituted during Creation Week. Young-earth creationists today likewise affirm the fixity of the laws of nature, except in the rare, localized cases of divine miracles (for example, the parting of the Red Sea, Joshua’s long day, the conception and resurrection of Jesus, the turning of water into wine, or Jesus and Peter walking on water).

The basic laws of physics and chemistry were likely established from the first day of creation, though obviously the law of biogenesis (that life

¹⁸ Lewontin (1997), italics in the original. The review is of Sagan (1997). Both Sagan and Lewontin are atheistic Jews. The full text is at http://www.drjbloom.com/Public%20files/Lewontin_Review.htm.

comes from life) did not function until God made plants, animals and people, beginning on Day 3 of Creation Week. And the laws of planetary motion did not become operative until God made the Sun, Moon, planets, and stars on Day 4. So, everyone in this controversy over the last 200 years agrees that the laws of nature do not change.

But, Lyell and the other uniformitarians were not arguing simply for the consistency or fixity of the *laws* of nature. They were insisting on the fixity or uniformity of the *rates, frequency, and power of geological processes* throughout past time. Yes, there have been volcanoes, earthquakes, and floods in the past. But, contended the uniformitarians, the frequency, geographical extent, and energy of these catastrophes have not been any greater on average per year than what we have observed in recent times. They denied that there ever were any continental-scale or global floods in the past (as old-earth catastrophists believed). And they insisted that while relatively small catastrophic events involving erosion, sedimentation, and movement of rocks have produced geological effects, the *primary* cause of the geological record of rock layers and fossils has been slow and gradual processes.

The laws of nature are categorically different from the rates, frequency and power of processes of change. For example, when a river floods as a result of heavy rains, the laws of nature are not different from when the river is not flooding over its banks. The law of gravity still applies, water still flows downhill, and the forces that hold two hydrogen atoms and one oxygen atom together still make a water molecule. But the flooding river erodes and transports more sediment and does considerably more damage than a river flowing gently within its banks under normal weather conditions.

As another example, when creationists argue that the rate of radioactive decay was faster in the past and that this is one of several reasons dating methods give grossly inflated and inaccurate ages for rocks, they are not saying that the laws of physics changed in the past (for example, at the time of the Flood), but that the rate of decay was faster (Snelling 2009b). Therefore, the ages of rocks are orders of magnitude less than evolutionists claim. In the past, uranium decayed into lead through the 14 steps that we observe today. But, creationists contend (with theoretical reasoning and observational evidence), the rate of decay was greatly accelerated in the past (presumably at the time of the Flood).

Again, the laws of nature have been both uniform and constant since creation. But *rates* of change in nature have not been uniform and constant. Noah's Flood did not involve the suspension or change of the laws of nature. It involved a change in the rates,

frequency and power of the processes of change. Never before or since the Flood had waters of such great violence erupted from the fountains of the great deep, covering the earth. Nor had global, torrential rains fallen for 40 days and nights and continued for another 110 days. Earthquakes, tsunamis, and volcanoes were unleashed globally (because of the breaking up of the fountains of the deep), but with unimaginably greater frequency and power than man has ever experienced or witnessed since Noah's Flood. This caused flooding, erosion, and sedimentation on a scale of intensity, speed, and geographical extent that by comparison make modern catastrophic erosion and sedimentation events look like Sunday school picnics on a sunny day.

Lyell and other uniformitarians denied all this. They believed the primary processes of change through earth history were slow and gradual. In simple layman's terms, the Apostle Peter perfectly described the philosophy of uniformitarian naturalism, when he wrote under the inerrant guidance of the Holy Spirit about those who deny the second coming of Jesus Christ (as did Hutton, Lyell, and most of the other old-earth proponents then and since). Following their own sinful desires, they scoffed at the second coming because they denied the supernatural Creation and the global Flood. Peter wrote:

They will say, "Where is the promise of his coming? For ever since the fathers fell asleep, all things are continuing as they were from the beginning of creation." For they deliberately overlook this fact, that the heavens existed long ago, and the earth was formed out of water and through water by the word of God, and that by means of these the world that then existed was deluged with water and perished. (2 Pet. 3:4–6).

Are Young-Earth Creationists "Misrepresenting Uniformitarianism"?

At the beginning of chapter 7 of Hill et al. (2016), geologists Stephen Moshier and Gregg Davidson accuse young-earth creationists of misrepresenting the doctrine of uniformitarianism. They state, "Unveiling the past starts with an observation that processes at work today are producing rock and sediment formations with characteristics that are readily seen in ancient rocks" (Hill et al. 2016, 73).

That is true, but this does not adjudicate between catastrophism versus uniformitarianism or young-earth versus old-earth thinking. Furthermore, uniformitarians often *assume* what they are observing could not possibly have been formed by catastrophic processes but must be the product of gradual processes over millions of years. As a result of that assumption, they have not looked carefully enough at

the geological formations under investigation. One of the many examples that the neocatastrophist Derek Ager gave in his 1993 book, *The New Catastrophism*, was an “Early Jurassic” conglomerate called “Sutton Stone” in Wales near his home. After careful study he concluded:

This has usually been interpreted as the basal conglomerate of a diachronous transgressive sea. It has been suggested, *with very little fossil evidence*, that this conglomerate spans three to five ammonite zones and therefore up to five million years in time. I think it was deposited in a matter of hours or minutes. (Ager 1993, 120; emphasis added)¹⁹

What changed? The rocks had not changed since earlier geologists had observed them. The *interpretation* changed because Ager was no longer locked into uniformitarianism and observed the evidence more carefully. As a result, he reasoned this formation was the result of a hurricane or tsunami, not millions of years of slow deposition.

Moshier and Davidson continue in Hill et al. (2016), “The particles and sedimentary structures in ancient conglomerates, sandstones, shells, and limestones are not fundamentally different from sediments we find associated with modern rivers, lakes, bays, and the sea” (Hill et al. 2016, 73). Again, that is true. But we also see sediments associated with very catastrophic processes and not just slow gradual erosion and sedimentation. They add that “the same physical and chemical laws in effect today were also in effect in the past, allowing us to use modern observations to identify ancient events and environments” (Hill et al. 2016, 73). Again, flood geologists agree about the laws. The laws of nature were in effect in the past, including during Noah’s Flood. But the rate, frequency, and power of those natural processes have not always been the same. And if Noah’s Flood was global, as God’s eyewitness testimony teaches and the physical evidence supports, then the processes we observe today are not identical but only analogous to what happened in the Flood in terms of the rate, frequency and power of the processes of erosion and sedimentation to produce rock layers, and the faulting, bending and breaking of those sedimentary rock layers. They are only analogous because Noah’s Flood was a unique event. It is philosophically erroneous to equate modern process rates, frequency, and power with what happened during the Flood.

Next, Moshier and Davidson make this misleading statement: “This *uniformity* of natural laws gave rise to the term *Uniformitarianism* and to the *Principle of Uniformitarianism*, which is one of the fundamental precepts of geology” (Hill et al. 2016, 73; italics in original). Of course, the word “uniformity” gave rise to the word “uniformitarianism.” But because

Moshier and Davidson repeatedly misconstrue these words, I want you to see clearly that uniformity of natural laws is not the same as uniformity of rates, frequency, and power of geological processes.

The scriptural geologists and the old-earth catastrophists were applying the principle of uniformity of natural laws (except where there was clear biblical evidence of divine supernatural activity; namely, during Creation Week, at the Fall, and at some points in Noah’s Flood), just as much as Lyell and the other uniformitarians. And flood geologists today apply the same principle. Uniformity of laws is a fundamental precept of geology. But uniformitarianism is not. It is rather an erroneous worldview. This confusion of uniformity and uniformitarianism has been much discussed by both secular geologists and historians of geology (e.g., Hooykaas 1970; Rudwick 1962; Shea 1982). Moshier and Davidson are culpably ignorant of this literature or intentionally confusing and misleading the reader.

Under the subheading “Misrepresenting Uniformitarianism,” Moshier and Davidson now make the strong charge, based on their confusion about uniformity and uniformitarianism:

Flood geologists commonly demonize uniformitarianism by misrepresenting it as being synonymous with *materialism* or *evolutionism*. Yet when they seek to find scientific evidence in support of a young Earth, they actually apply uniformitarian principles! (Hill et al. 2016, 73, italics in original)

Wrong again, as a careful reading of the earlier section on the history of geology shows. Materialism, also called naturalism, is at the *foundation* of the idea of uniformitarianism. But naturalism and uniformitarianism are not the same ideas and I did not equate them. Materialism is the foundation of old-earth catastrophism just as well as of uniformitarianism. And as I said, not all old-earth proponents then or now denied the existence of God. But when they did their *geological work* and *theorizing*, they reasoned about the rocks *as if* nature or matter is all that exists, and they rejected the Word of the Creator. Also, uniformitarianism is at the foundation of astronomical evolution, geological evolution, and biological evolution. All three parts of the evolutionary story are based on the uniformitarian assumption that slow, gradual, observable natural processes are the way that the stars, galaxies, earth, rock layers, and life evolved into existence over millions of years. Although the millions of years of uniformitarianism is not evolutionism, that “deep time” is essential to evolutionism.

In an endnote related to their statement above on page 73 (Hill et al. 2016, 215), Moshier and Davidson cite three creationist books to justify their

¹⁹ Ammonites are shell creatures in the ocean.

fallacious and misleading accusation (repeated on page 215) that “flood geologists misrepresent uniformitarianism as being synonymous with materialism or evolutionism.” They cite Whitcomb and Morris (1961, 96); Austin (1994a, 22); and Vail et al. (2008, 15). It will now be shown that Moshier and Davidson misrepresent the cited sources to make their accusation.

Whitcomb and Morris (1961, 96) say:

The fact that Lyellian uniformitarianism has been accepted as the true philosophy of geology in all major centers of scientific learning in the world today may be attributed partially to the fact that Charles Darwin, a disciple of Lyell, built his theory of organic evolution upon the uniformitarian foundation which Lyell had laid.

And then Whitcomb and Morris quoted Darwin saying exactly that in his *Origin of Species*.²⁰ So Whitcomb and Morris do not treat uniformitarianism as synonymous with but rather as *foundational* to evolutionism.

In Austin (1994), in an introductory section of his chapter on “Interpreting Strata of Grand Canyon,” he spends three and a half pages carefully discussing the difference between data, interpretations, presuppositions (or premises), and conclusions. He says on page 22:

One of the most basic premises held is that the stratum under investigation has *historical* significance—it represents the results of processes which operated during a past interval of time, and, therefore, is worthy of historical study. . . . Geologists, universally, recognize the historic significance of strata.

That includes flood geologists, like Dr. Austin! They too recognize the historical significance of the geological evidence. Austin continues:

A second premise, dependent on the first, which the geologist may hold when studying a rock layer is that its origin can be explained by sedimentary processes of the same *kind* as those which occur today . . . This assumes that certain laws of nature (gravity, momentum, molecular bonds, etc.) were the same in the past as when the stratum is observed. (italics in original)

All flood geologists operate with this premise, too. They recognize that the same *kinds* of processes (for example, erosion, sedimentation, volcanism, earthquakes, flooding) are working today as in the past, including during Noah’s Flood. But then Austin explains:

A third, much more controversial premise which the geologist *may* hold, is that the origin of the stratum can be best explained by sedimentary processes

whose *rates* approximate those observed today. . . . this premise assumes that process and material conditions of the past are substantially of the same rate, scale, or intensity as those of the present. What is “normal” or “average” today is being assumed also for the past. (italics in original)

This is where flood geologists disagree with evolutionary geologists. A little later on the same page, Austin accurately says:

Evolutionists frequently make the uniformitarian assumption that strata of Grand Canyon formed during long ages as oceans slowly advanced and retreated over the North American continent. Sediment accumulated during millions of years, according to evolutionists, in or next to great calm and tranquil seas.

Finally, on page 22, Austin says:

These *interpretations* of strata are determined by the *presuppositions* or *bias* of the interpreter. If one begins with the uniformitarian model, that sedimentation occurred in calm and placid seas, an evolutionary interpretation of the strata sequences will be derived.

Austin in no way says or even implies on this cited page that uniformitarianism is synonymous with materialism or evolutionism.

Moshier and Davidson’s third cited creationist book to justify their fallacious and misleading accusation is Vail et al. (2008) which is a tourist guidebook, not an in-depth scholarly work like the previous two creationist books. The only statement on page 15 relevant to the Moshier and Davidson’s accusation is this:

For simplification, we will use the term ‘evolutionary’ when referring to uniformitarian thinking or processes. *We understand that this is not always technically the same*, as some uniformitarians do not believe in biological evolution. (italics added)

So, fair readers can see that none of these young-earth creationists do what Moshier and Davidson accused them of doing. But readers of Hill et al. (2016) would never know Moshier and Davidson misrepresented these creationists unless they had access to these three books and bothered to cross-examine the charge.

Immediately following their accusation, Moshier and Davidson discuss Mt. St. Helens, the volcano in eastern Washington that erupted several times in the early 1980s. flood geologists see many results of those catastrophic eruptions as being *analogous* to geological features seen in the Grand Canyon and elsewhere in North America that have been traditionally interpreted by evolutionists as forming

²⁰ Darwin’s words quoted by Whitcomb and Morris were: “He who can read Sir Charles Lyell’s grand work on the *Principles of Geology*, which the future historian will recognize as having produced a revolution in natural science, and yet does not admit how vast have been the past periods of time, may at once close this volume” (Darwin 1985, 293).

over millions of years.²¹ In doing so, flood geologists are reasoning exactly like the evolutionary neo-catastrophist Derek Ager reasoned in arguing against uniformitarianism in *The New Catastrophism* (Ager 1993) quoted in the section above on the history of geology.

But rather than critiquing specific examples of features produced by Mount St. Helens, which creationists argue are *analogous* to (and shed light on) the processes that produced features seen in other specific locations, Moshier and Davidson accuse creationists of not “comparing apples with apples and oranges with oranges” (Hill et al. 2016, 74). Vail et al. (2008) specifically reference this comparison saying that the processes only “closely align” with the formations of the Grand Canyon. They state, “Both Mount St. Helens and the Scablands of eastern Washington provide examples of how catastrophic processes work in geology, examples which closely align with the creationist model of the Grand Canyon’s formation” (Vail et al. 2008, 144).

Moshier and Davidson continue:

Flood geologists further depart from uniformitarian principles (and from Christian doctrines of God’s consistency and providence) when they assume natural laws describing physical and chemical processes must have been different during the creation week, before the fall in the Garden of Eden, or at various points during Noah’s flood (Hill et al. 2016, 74).

Now they are applying uniformitarianism to God! God is indeed immutable and consistent in His character. And He does providentially rule over creation. But His actions in the world are most certainly not uniform in the way that Moshier and Davidson imply in reference to God’s supernatural work in Creation Week and to His holy judgments at the Fall and the Flood. Once again, they erroneously and misleadingly equate natural *laws* about natural processes with *rates, frequency* and *power* of natural processes.

They then say, “Some young earth advocates write that the natural laws in the whole universe are a consequence of God’s ‘curse’ or punishment for the fall” (Hill et al. 2016, 74). They have no endnote to document this claim about young-earth creationists. While it may be true that someone made such an outrageous statement, I know of no creationist who would even suggest such a statement is true. Notice also that they put the word “curse” in quotation marks, as if God’s judgment in Genesis 3 should not be so labeled. But Genesis 3:14 and 3:17 say that God “cursed” the animals and the ground. And Lamech remembered that “curse” when Noah was born

(Genesis 5:29). And one day God will remove that “curse” when Jesus comes again (Revelation 22:3).

They conclude this discussion of uniformitarianism by saying, “In science, all observations point to a consistency in the laws of nature, back to the first microseconds of the universe. The Bible likewise says nothing about the fundamental laws of nature being altered after man’s sin.”

The first sentence is simply false. Scientific observations cannot prove this, for it is a statement about the unobservable, unrepeatable past. And it is patently contrary to Scripture. It reflects an atheistic uniformitarianism that denies the supernatural Creation Week. As noted earlier, there were no laws of biogenesis and reproduction functioning before God made plants and animals on Days 3, 5, and 6, and there were no laws of planetary motion in operation until God made the sun, moon and stars (some of which we call planets today) on Day 4.

The second sentence is misleading. Certainly, the Bible says nothing explicitly about the fundamental laws of nature in relation to the Fall. But it is equally certain various Scripture passages imply some significant changes in the creation. While the law of gravity or the First Law of Thermodynamics or the three laws of motion or the ideal gas laws did not change at the Fall, God’s curse on creation profoundly affected the natural world as death and disease entered His creation. The second law of thermodynamics was in effect from the beginning, but it (or its consequences) was altered in some way. Creation was no longer “very good” but was and still is groaning in bondage to corruption and waiting to be liberated at the return of Christ, as will be discussed more below in the analysis of chapter 2 of Hill et al. (2016).

These old-earth geologists have grossly misrepresented the views of young-earth creationists and are confusing and misleading their readers about uniformitarianism in contrast to the uniformity of physical laws and processes.

The Surprising Modern Rise of Neo-Catastrophism

Uniformitarian naturalism dominated geology from about 1840 to the 1970s, and through Darwin it subsequently took control of all the sciences. A dictionary of geology published by two prominent British geologists in 1972 gave this definition:

Catastrophism: The hypothesis, now more or less completely discarded, that changes in the earth occur as a result of isolated giant catastrophes of relatively short duration, as opposed to the idea, implicit in *Uniformitarianism*, that small changes are taking place continuously (Whitten and Brooks 1972, 74).

²¹ Steve Austin is the leading creationist researcher on Mt. St. Helens. People should consider his video on Mt. St. Helens: <https://answersingenesis.org/store/product/mount-st-helens/>.

But in the 1970s something unexpected happened. The modern young-earth creation movement was growing in the church after the publication of *The Genesis Flood* in 1961 by John Whitcomb and Henry Morris. At the same time, some evolutionary geologists began to reject Lyell's uniformitarianism (while retaining the assumption of naturalism and belief in millions of years) and to return to the ideas of the early nineteenth century catastrophists.²² A prominent Irish geography professor put it this way in 1993:

We are rewriting geohistory....We live in an age of neocatastrophism. Surely what we know as geohistory originates not within rocks but within the minds of human observers. As a creation of the human intellect, our geohistories may owe more than is commonly supposed to processes acting within our own cerebra. (Davies 1993)²³

As a result, some geologists today are more open to catastrophe as an explanation for what they see. But uniformitarianism is still the default mode of geological reasoning.

Something similar also developed in biology in the 1970s as some evolutionists (including Stephen Gould at Harvard and Niles Eldridge at the American Museum of Natural History) began to reject Darwinian gradualism and advocate for "punctuated equilibrium" (namely, that significant biological change happened very rapidly in short bursts of evolution separated by long periods of stability with only gradual, insignificant changes in organisms).²⁴

One of the leading "neo-catastrophists" of the twentieth century was Derek Ager. He was Professor and Head of the Geology Department at University College of Swansea (in Wales) from 1969–1988 and president of the Geologists' Association in Britain from 1988–1990. During his life he visited 57 countries to study geological formations and wrote 200 papers and four books on geology. In 1981 he wrote:

My excuse for this lengthy and amateur digression into history is that I have been trying to show how I think geology got into the hands of the theoreticians who were conditioned by the social and political history of their day more than by observations in the field....So it was—as Steve Gould put it—that Charles Lyell "managed to convince future generations of geologists that their science had begun with him." In other words, we have allowed ourselves

to be brain-washed into avoiding any interpretation of the past that involves extreme and what might be termed "catastrophic" processes. (Ager 1983, 46–47). Ager died in 1993 and the last book he wrote, published posthumously, was entitled *The New Catastrophism*. There he said:

Just as politicians rewrite human history, so geologists rewrite earth history. For a century and a half, the geological world has been dominated, one might even say brainwashed, by the gradualistic uniformitarianism of Charles Lyell. Any suggestion of "catastrophic" events has been rejected as old-fashioned, unscientific and even laughable. (Ager 1993, xi)

In this book he gave many examples of geological formations that traditionally had been interpreted as forming over millions of years. But he gave his reasons for concluding they formed by catastrophic floodwaters in hours, days, weeks, or months. Ager saw the evidence for catastrophe, but he never saw the evidence for the one great catastrophe, Noah's Flood. He was blinded by the philosophical glasses he was wearing: his openly expressed, anti-biblical (and I suspect, atheistic) worldview.²⁵

But not only have geologists been brainwashed for 200 years into believing in millions of years and rejecting Noah's Flood as a global catastrophe, so have most non-geologists, including most theologians and Bible scholars.

Wayne Grudem, one of the most respected evangelical theologians today and an enthusiastic endorser of Hill et al. (2016), wrote in his widely used *Systematic Theology* text (translated into 12 major languages):

Although our conclusions are tentative, at this point in our understanding, Scripture seems to be more easily understood to *suggest* (but not to require) a young earth view, while the observable facts of creation seem increasingly to favor an old earth view. (Grudem 1994, 307)

No, it is not the "observable facts of creation" that point to millions of years. It is the anti-biblical philosophical and religious *assumptions* that have been used to *interpret some* of the observable facts which lead most geologists to *believe* in an old earth.

Prominent Old Testament (OT) scholar, C. John Collins, editor for the OT notes in the ESV Study Bible and who also endorsed Hill et al. (2016), said in his book on science and faith:

²² Some of the critics of uniformitarianism were Ager (1973, 1981, 1983, and 1993), Gould (1975, 1978), Heylman (1971), Kauffman (1987), and Shea (1982).

²³ Davies (1932–2019) was a well-known professor in the Department of Geography, Trinity College, in Dublin, Ireland.

²⁴ "Punctuated Equilibrium." https://www.pbs.org/wgbh/evolution/library/03/5/1_035_01.html.

²⁵ In Ager (1993, xi), he said (bold in the original): "On that side too were the obviously untenable views of Bible-oriented fanatics, obsessed with myths such as Noah's Flood, and of classicists thinking of Nemesis. That is why I think it necessary to include the following 'disclaimer': **in view of the misuse that my words have been put to in the past, I wish to say that nothing in this book should be taken out of context and thought in any way to support the views of the 'creationists' (who I refuse to call 'scientific').**"

I conclude, then that I have no reason to disbelieve the standard theories of the geologists, including their estimate for the age of the earth. They may be wrong, for all I know; but if they are wrong, it's not because they have improperly smuggled philosophical assumptions into their work. (Collins 2003, 250)

But I contend this is precisely what the old-earth geologists have done. Hutton, Lyell, and Darwin *knowingly* smuggled anti-biblical, uniformitarian, naturalistic (that is, atheistic) *assumptions* into geology (and biology). Virtually all geologists trained since Darwin have been *unknowingly* brainwashed with those assumptions, which they then brought into their geological work. And all these geologists have in turn (knowingly or unknowingly) brainwashed nearly all the rest of the scientists and non-scientists (including the majority of evangelical theologians) in the world to think the geological facts point undeniably to an earth billions of years old.²⁶ Only those who have believed God's Word in Genesis have been liberated from the deception of these false, anti-biblical, philosophical and religious assumptions and the resulting false history of the earth.

I return to the quote I used at the beginning from the non-Christian co-author of Hill et al. (2016), geologist Wayne Ranney. He said, "Though few people realize it, to deny an old age for the Earth or the Grand Canyon, while embracing other aspects of science, is essentially a statement that science works only when we agree with the outcome" (Hill et al. 2016, 11). I hope you see that young-earth creationists are not accepting one aspect of science but denying another aspect. It is not the science but the interpretations made by scientists with which we disagree. We accept all aspects of science, both in operation science and in origin science. But we reject the worldview *assumptions* dominating scientific interpretations made over the last 200 years, and we reject the old-earth *interpretations* of the observations of the physical world derived from those assumptions. We reject the atheistic, naturalistic, uniformitarian glasses through which the majority of scientists, including all the Christian and non-Christian authors of Hill et al. (2016), look. Instead, creation geologists wear biblical glasses and seek to let God's inerrant, eyewitness testimony guide their interpretation of the geological evidence.

A Word About the Word "Evolution"

Many old-earth Christians say, "I do not believe in evolution." What they mean is that they do not

believe in biological evolution and especially human evolution. But evolution is actually a three-part theory to explain all of physical reality: cosmological evolution, geological evolution, and biological evolution (which includes human evolution from some ape-like creature). Famous American evolutionary geneticist, Theodosius Dobzhansky, explained it this way:

Evolution comprises all the stages of the development of the universe: the cosmic, biological and human or cultural developments. Attempts to restrict the concept of evolution to biology are gratuitous. Life is a product of the evolution of inorganic nature, and man is a product of the evolution of life. (Dobzhansky 1967)

An online course at Harvard University pictured the view expressed by Dobzhansky in the way shown in fig. 5.²⁷

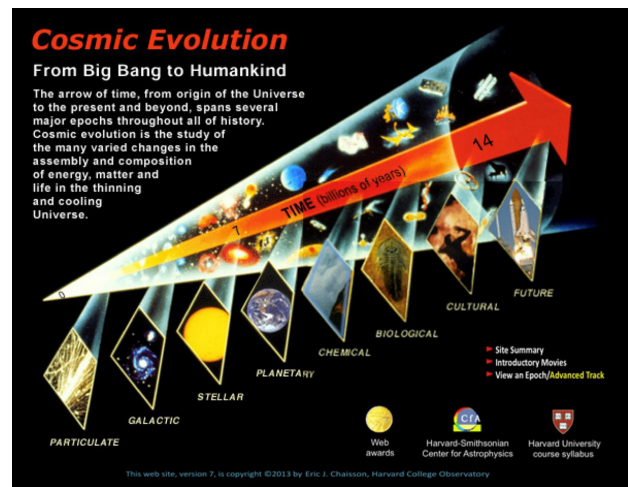


Fig. 5. The Harvard University chart on cosmic evolution. The text under the subheading reads: "The arrow of time, from origin of the Universe to the present and beyond, spans several major epochs throughout all of history. Cosmic evolution is the study of the many varied changes in the assembly and composition of energy, matter and life in the thinning and cooling Universe." The stages of evolution from bottom to top are: Particulate, Galactic, Stellar, Planetary, Chemical, Biological, Cultural, and Future.

I represent evolution more simply with three concentric circles (fig. 6). Biological evolution (which includes human evolution) is the story of how time plus chance plus the laws of nature produced the first living cell from non-living chemicals and then, over millions of years, that cell multiplied and diversified into all the plants, animals and people that have ever lived. Geological evolution is the story of how

²⁶ For more examples of prominent Christian leaders who do not believe Genesis see Mortenson (2010) "Why Don't Many Christian Leaders and Scholars Believe Genesis?" <https://answersingenesis.org/genesis/why-dont-many-christian-leaders-and-scholars-believe-genesis/>.

²⁷ A course at Harvard University used this diagram to visualize cosmic evolution. Harvard University Extension Course, Spring 2014: "ASTR E-8 Cosmic Evolution: The Origins of Matter and Life." https://www.cfa.harvard.edu/~ejchaisson/cosmic_evolution/docs/splash.html.

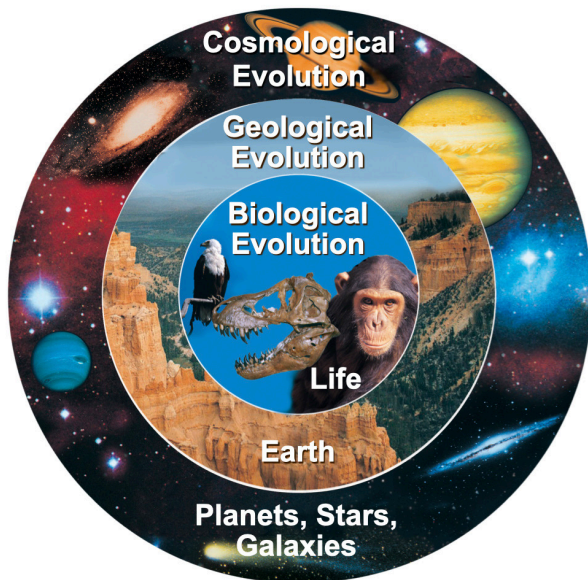


Fig. 6. The grand theory of evolution based on philosophical naturalism consists of biological evolution, geological evolution, and cosmologic evolution bound together like three strands in a rope.

time plus chance plus the laws of nature produced a molten earth from a solar gas cloud. Then, over billions of years, that molten ball was transformed into today's earth, covered with thousands of feet of rock layers and fossils. Cosmological evolution is the story of how (after the still mysterious big bang) time plus chance plus the laws of nature produced all the stars, galaxies, planets, comets and asteroids.

The whole big-bang-to-man evolutionary theory is based on the worldview assumptions of uniformitarian naturalism, which is atheistic. Again, not all scientists are atheists, but most scientists are doing their scientific research based on an atheistic worldview, *as if* everything they study was the result of time plus chance plus the laws of nature. In other words, they are wearing naturalistic glasses as they study the physical world. That is generally not a problem in operation science, where they are studying the present organization and function of an object and doing so with repeatable, observable experiments. But those worldview assumptions are a massive problem in origin science, where evolutionary scientists are trying to reconstruct the unobservable, unrepeatable origin and history of an object, or even the world.

To illustrate this another way, naturalism's control of science can be represented by a three-stranded rope. Theistic evolutionists are tied up by all three strands of evolution (fig. 7). Old-earth creationists (who reject biological and human evolution) think they are free from naturalistic assumptions but are still tied up because of their acceptance of billions of years of cosmological and geological evolution (fig. 8). Young-earth creationists are truly free from the control of naturalism (fig. 9).

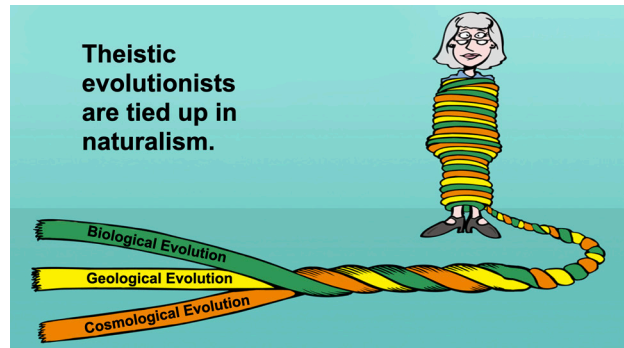


Fig. 7. Theistic evolutionists are captive to philosophical naturalism.

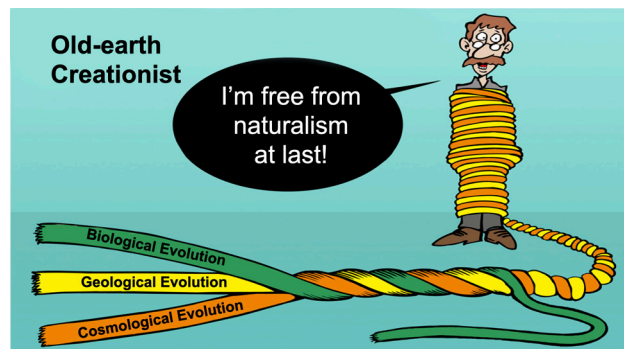


Fig. 8. All old-earth creationists are still captive to philosophical naturalism.

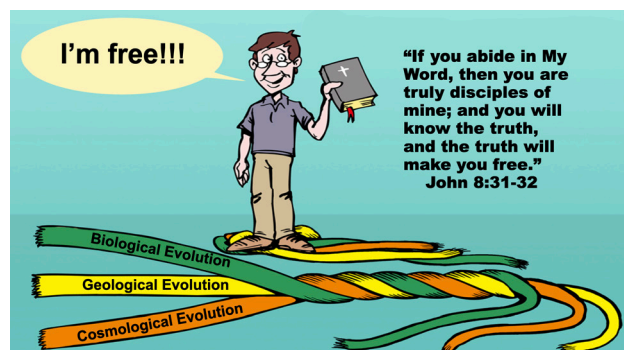


Fig. 9. By rejecting biological, geological, and cosmological evolution, the Bible-believing, young-earth creationist is truly free from naturalism.

Summary of the Argument Thus Far

Let us review what we have covered so far in preparation for a more detailed critique of selected sections of Hill et al. (2016). First, we clarified the nature of science, making the important distinction between operation science and origin science. We defined key terms such as uniformitarianism, catastrophism, and evolution. Then we considered a brief review of the history of geology and the development of the millions-of-years, old-earth story. We now are in a better position to examine the historical, biblical, and philosophical claims and arguments in the foreword and chapters 1, 2, a little of 7, and the last chapter. But before we examine the claims and arguments in Hill et al. (2016), let's

consider some very important and very revealing facts concerning how this book came into existence.

Grand Canyon, Monument to an Ancient Earth The Origin of the Book

The Authors of the Book

In the Acknowledgments page of the book, the authors say, “each of the eleven authors owes much to the teachers” they had. They added, “we are especially grateful for the individuals who walked before us, on whose shoulders we stand,” and then they name five Christian geologists. The *impression*, therefore, is that all eleven authors of this book, published by a Christian publisher, are Christians.

An astute reader of the short biographies in the back of the book (Hill et al. 2016, 232–234) would note, however, only eight of the biographies explicitly indicate any connection with Christianity (through their writings or organizational memberships). The other three biographies do not explicitly reveal that those authors are in any way associated with Christianity. I am not questioning their relationship with God, or their salvation, just that they did not profess their faith directly or indirectly in this book.

The Acknowledgments page does express appreciation for Davis Young’s endorsement on the inside cover. There, a careful reader would find the statement by Young (Professor Emeritus of Geology at Calvin College and a long-time proponent of theistic evolution) revealing that “most of the authors are Christian,” which of course implies that the other co-authors are not Christians.

We have to go outside the book for more specifics about the authors. About the time of the publication of the book, the lead editor, geologist Carol Hill, wrote an article for the journal of the American Scientific Affiliation (a theistic evolutionist organization). There she says about herself that, “She felt that the authors of these chapters should be picked—not on the basis of their being Christians or non-Christians—but on their professional expertise both in the Grand Canyon and elsewhere, and on their experience of dealing with YECs [young-earth creationists]” (Hill 2016, 125). She soon gathered ten other scientists to co-author the book: six geologists, one hydrologist, one physicist, one biologist, and two paleontologists. In her ASA article, Hill did identify the Christian authors by name, all of whom are theistic evolutionists (Hill 2016, 128).²⁸ So, we can conclude that the three non-Christian authors are Wayne Ranney, David Elliott and Bryan Tapp, all of whom are evolutionists. It is doubtful very many readers (including the theological endorsers) of the book read the ASA journal and that article to know this about the authors.

A year after the publication of Hill et al. (2016), three of the professing Christian authors told readers of *GSA Today*, the monthly magazine of the Geological Society of America (which is dominated by unbelievers) that “eight of the authors are Christians; three are not” (Davidson, Hill, and Wolgemuth 2017). But they did not specifically identify the non-Christians nor say what their religious orientation is. Why did Carol Hill, the lead editor of the book, hide this important fact from the readers of *The Grand Canyon, Monument to an Ancient Earth*?

We learn more about the authors from an interview with the anti-Christian group, Americans United for Separation of Church and State. In that interview, the interviewer discussed the book with Tim Helble (one of the professing Christian authors). There we are told that these three non-Christian authors “identify as agnostic” (Boston 2016, 11). Of course, an agnostic is a weak or non-committed atheist: he does not really believe God exists (and lives his life like an atheist), but for whatever reason he does not want to say he is an atheist. However, the Bible tells us all people know that God (the true and only God, the God of the Bible) exists but because of sin suppress that knowledge (Romans 1:18–20).

This fact (vaguely revealed in Davis Young’s endorsement inside the front cover of the book and more vaguely hinted at in the biographies in the back of the book) that three agnostics helped write this book should raise a huge red flag in the mind of Bible-believing Christians before even reading this book. In 2 Corinthians 6:14–15 the apostle Paul commands Christians:

Do not be unequally yoked with unbelievers. For what partnership has righteousness with lawlessness? Or what fellowship has light with darkness? What accord has Christ with Belial? Or what portion does a believer share with an unbeliever? (ESV)

Why are professing Christians (all of whom are theistic evolutionists) uniting with non-Christians (agnostics and evolutionists) to write a book to convince Christians not to believe God’s Word about the Flood and the age of the earth? And why didn’t Grudem, Collins, Keathley, and Copan investigate who the authors were, or if they did, why didn’t it matter to them that the authorship of the book was in direct violation of Paul’s command above? We can certainly work with non-Christians to build a car or find a cure for cancer or fight abortion, but not to explain to the church what God’s Word means.

The Funding of the Book

How did they fund this beautiful, hardback book, so lavishly adorned with full-color diagrams and photos of Grand Canyon? Hill says funding was “the hardest problem we faced” (Hill 2016, 128). The

²⁸ They are Carol Hill, Gregg Davidson, Tim Helble, Steve Moshier, Joel Duff, Ken Wolgemuth, Roger Wiens, and Ralph Stearley.

authors tell us in the Acknowledgements page that they “are particularly appreciative of the enthusiastic support and monetary contributions from the American Scientific Affiliation, the John Templeton Foundation, and the BioLogos Foundation.” All these groups promote in the church the acceptance of not only millions of years and the big bang theory but also theistic evolution (including human evolution from ape-like creatures). For many years now, BioLogos has had a booth at the annual meeting of the Evangelical Theological Society (ETS). The co-publisher of Hill et al. (2016) is Solid Rock Lectures, which also has a booth at the ETS annual meeting. They are seeking to influence evangelical theologians to accept millions of years and biological evolution.

Funding evidently also came (“providentially,” said Hill 2016, 128) from scientists in the American Association of Petroleum Geologists (AAPG), through the efforts of co-author Ken Wolgemuth, an active member of AAPG. But like the rest of the geological world (indeed the whole scientific community), the AAPG is dominated by non-Christians. Hillsaid, “Most geologists have heard about YEC and flood geology, and knowing how it degrades geological education, many of those approached by Ken [Wolgemuth, for donations] expressed their appreciation that we had taken on this project” (Hill 2016, 128). So, did God really “providentially” guide non-Christian geologists to support a book that undermines Christians’ faith in God’s Word by influencing them to reject the global Flood and biblical teaching on the age of the earth?²⁹ Why is a professing Christian encouraging non-Christians to help do this? The question also arises, why would petroleum geologists, who have no interest in the Grand Canyon (they are not drilling for oil in Grand Canyon!), support such a project?

Regarding funding, we also need to consider the Templeton Foundation (TF) a little more. The Foundation was started by the very wealthy financial investor, Sir John Templeton (1912–2008). He also created the Templeton Prize “because he wanted to recognize discoveries that yielded new insights about religion especially through science, and he set the award amount above that of the Nobel Prizes in order to recognize the importance of what he called ‘progress in religion.’”³⁰

Templeton was theologically a very liberal Presbyterian who believed all religions were helpful, which is why since its inception his Templeton Prize has been awarded to representatives of all religions, from Billy Graham to the Dalai Lama. His foundation’s website describes Templeton’s theology this way:

Declaring that relatively little is known about the divine through scripture and present-day theology, he predicted that ‘scientific revelations may be a gold mine for revitalizing religion in the 21st century.’ To his mind ‘All of nature reveals something of the creator. And god is revealing himself more and more to human inquiry, not always through prophetic visions or scriptures but through the astonishingly productive research of modern scientists.’ Sir John’s own theological views conformed to no orthodoxy, and he was eager to learn not just from science but from all of the world’s faith traditions.³¹ (“god” is in the original)

Further the website says, “He expected the John Templeton Foundation to stand apart from any consideration of dogma or personal religious belief and to seek out grantees who are ‘innovative, creative, enthusiastic, and open to competition and new ideas’ in their approach to the Big Questions.”³²

Over the last eight years (2012–2020) the TF has given directly to BioLogos (ca., \$10,148,000), Faraday Institute (in the UK, ca., \$3,374,000), and American Association for the Advancement of Science (AAAS, ca., \$14,216,000).³³ All these grants were for promoting evolution in the church. Since 2015, the TF has given \$7,900,000 to Trinity Evangelical Divinity School for their “Creation Project,” which as their many lectures and research grants have shown, is dominated by old-earth perspectives (though a few young-earth scholars have made presentations).³⁴

The TF has also directly given \$17 million (collectively) to Calvin College (which holds to theistic evolution) and Biola University (which favors any old-earth view).³⁵ Even if these grants are not obviously applied to issues related to evolution, money from corrupt sources will always eventually produce corrupt results, as Marvin Olasky at *World Magazine* documented (Olasky 2012). Olasky

²⁹ God sovereignly uses wicked leaders to judge other wicked people. But He would never use unbelieving people to get sincere Christians (especially young ones) to doubt or deny His Word. The God of truth would never do that. Rather He promises judgment for those who lead Christians (especially young Christians) astray (Matthew 18:6, James 3:1).

³⁰ <https://www.templetonprize.org/templeton-prize-winners/>.

³¹ “Life Story,” <https://www.templeton.org/about/sir-john>.

³² “Life Story,” <https://www.templeton.org/about/sir-john>.

³³ <https://www.templeton.org/grants/grant-database>.

³⁴ Trinity Evangelical Divinity School received \$3.7 million in 2015 (<https://news.tiu.edu/2015/06/26/trinity-awarded-3-4-million-templeton-grant/>) and \$4.2 million in 2019 (<https://news.tiu.edu/2019/03/18/templeton-awards-grant-to-trinity-evangelical-divinity-school/>) for their “Creation Project.”

³⁵ Regarding Calvin College and Biola University, see <https://www.templeton.org/grants/grant-database>. Calvin received roughly \$4,381,000 in 2011–2015 and Biola’s Center for Christian Thought (CfCT) received \$3,029,221 in 2012, but another roughly \$9,633,000 in 2015–2020 for other programs apparently not related to science and the Christian worldview, as the CfCT would be.

reviewed two books that tell the story of how once-Christian colleges went from being conservative Christian to liberal Christian to totally secular (anti-Christian). Olasky gave three warning signs:

- (1) follow the money,
- (2) watch the college president, and
- (3) see what the college does with Darwin.

TF is also influencing other seminaries through their above-mentioned grants to the evolutionist-controlled AAAS's "Science for Seminaries" program (Skinner 2017). The AAAS said this about their program back in 2016:

AAAS is supporting 10 pilot project seminaries as they endeavor to integrate science into their core curricula. Resources are continuously being developed and will be made available to all interested seminaries in the Resource section of this website. Through strategic engagement with theological education leaders and future clergy, we anticipate a positive impact not only on seminary education, but on the broader American public.³⁶

By 2018, "AAAS had placed science advisors in ten schools and changed more than 116 course curricula, five times what they had hoped," and it planned to expand the program "to as many as 35 more schools over the next five years" (Heilweil 2018). They are particularly targeting evangelical schools.

Now we can be certain about three things regarding this AAAS program for seminaries. First, they would not provide scientists to lecture to the seminarians about chemistry, physics, and engineering, but instead only scientists to lecture about subjects related to origins, the nature of man, and ethics. Second, they will not be openly critical of the school's doctrine of creation but subtly advance ideas to make evolution and millions of years seem compelling (to students who lack biblical conviction and critical thinking skills but have great confidence in their professors and the scientific majority). Third, we can be certain that, as they influence the seminaries, they will indeed make an impact on the American public. This will be a very positive impact from the perspective of evolutionists. But it will be a very negative impact on seminarians' view of Scripture and the character and truthfulness of God, and on seminaries' doctrinal orthodoxy.

The Purpose of the Book

Hill explains, again in an article for the journal of the theistic evolutionist American Scientific Affiliation (not in Hill et al. 2016), the purpose of *The Grand Canyon, Monument to an Ancient Earth*:

After deciding on a respectful, yet truthful, approach, now came the hard task of deciding how to present evolution. Evolution is a confrontational subject in some churches, and even the mention of the "E-word" can be divisive between Christian believers. And divisiveness was not what any of the "Canyon's eleven" [Christian and non-Christian authors] wanted! We wanted our readers to come to our book with open minds on the subject of evolution. (Hill 2016, 127)

So, the goal of the book was *not simply* to persuade Christians to accept millions of years and reject the global Flood. It was also intended to move them (indirectly and unknowingly) closer to accepting biological evolution (including the descent of man from ape-like creatures). Later in the same article she said the book was written to explain to lay-people that "Noah's Flood—as portrayed by flood geology—cannot explain the Grand Canyon or any other geologic landscape," that "flood geology is *not* science," and that they hope secular and Christian colleges and universities will use the book as a beginning geology textbook (Hill 2016, 129). Given the endorsements and promotion of the book, which we will consider next, their hope will no doubt be realized. Sadly, the result will be many deceived Christian and non-Christian students, because the book is full of inconsistencies and misinformation, as we shall see.

The Promotion of the Book

In the book (just inside the cover) published in late April 2016, were endorsements by four geologists (all evolutionists), but also by four prominent evangelical scholars (Paul Copan, Wayne Grudem, C. John Collins and Ken Keathley). Consider the four evangelical non-geologists.

Popular apologist Paul Copan, professor of philosophy and ethics at Palm Beach Atlantic University, said this in his endorsement:

I find this work by well-qualified, faith-filled scientists convincing—a book desperately needed in a day when critics consider the Scriptures and science to be in serious conflict and various well-meaning Christians fail to fully account for the available geological evidence.

This brilliant philosopher has not read very critically and apparently failed to investigate who the authors of this book were. Three of the eight authors of the book have *no faith*, as we have seen. But Copan is also mistaken and misleading about the conflict. The battle is not between Scripture and

³⁶ See <https://www.aaas.org/programs/dialogue-science-ethics-and-religion/projects>, and <https://www.aaas.org/programs/dialogue-science-ethics-and-religion/science-theological-education>, accessed 2019 April 3. The ten pilot seminaries in 2016 included Roman Catholic and theologically liberal schools as well as three evangelical schools: Concordia Seminary (Missouri Synod Lutheran), Multnomah Biblical Seminary, and Regent University School of Divinity.

science but between the plain teaching of Scripture and the *philosophical assumptions* controlling the *anti-biblical interpretations* of some of the scientific observations. It is no wonder that the few young-earth creationist geologists in the world (with a PhD or MS in geology) have not been able to “fully account” for all the geological evidence in Grand Canyon. But *no* group of scientists (even *all* the secular geologists who have ever been to the Grand Canyon) can “fully account” for the available geological evidence. Copan’s claim is philosophically shallow.

Wayne Grudem, research professor at Phoenix Seminary, is one of the most influential evangelical theologians in the world. He confidently endorsed the book this way:

Can Bible-believing Christians also believe that the earth is billions of years old and that the Grand Canyon could not have been formed by Noah’s Flood? . . . On page after page, professional geologists explain that “flood geology” omits essential facts and fails to explain massive amounts of evidence in the Grand Canyon itself. This important book must be carefully considered by everyone involved in the debate about the age of the earth.

Ever since I had Dr. Grudem as a professor and faculty advisor and served one year as his teaching assistant at Trinity Evangelical Divinity School (1989–1992), I have tried privately to get him to examine the biblical and scientific evidence and discuss this issue of the age of the earth. I invited him 11 years in a row (usually with 12–18 months’ advance notice) to come on the Christian Leaders Trip (CLT), a heavily scholarshipped, one-week, rafting trip through Grand Canyon for Christian leaders and scholars, partially led by two PhD creation geologists.³⁷ He never accepted my invitation. I see no evidence in his various writings on the topic of creation or in the few brief interactions that he has been willing to have with me in the past thirty years that he has read the best creationist geological literature.³⁸ So how does he really know flood geology “fails to explain massive amounts of evidence in the Grand Canyon”? But read on, to see who has really omitted essential facts: young-earth creationists or the authors of Hill et al. (2016).

We have seen that the authors of this book are trying to persuade Christians to accept evolution. But in 2009 Grudem wrote the foreword to a multi-author book refuting theistic evolution (TE), saying that “adopting theistic evolution leads to many

positions contrary to the teaching of the Bible” (Nevin 2009, 9–10). In that foreword he mentioned 8 of the 12 biblical and theological problems with TE that he thoroughly discussed in his two chapters in the 2017 multi-author book that he coedited, *Theistic Evolution: a Scientific, Philosophical and Theological Critique* (Moreland et al. 2017). So, it is a serious inconsistency for him to heartily endorse Hill et al. (2016), written by theistic and agnostic evolutionists in order to influence Christians to accept evolution. But like Copan, Grudem evidently did not investigate who wrote *The Grand Canyon, Monument to an Ancient Earth*, why they wrote it and who funded it.

C. John Collins is professor of Old Testament at Covenant Seminary and editor of the OT notes in the ESV Study Bible. He too was excited in his endorsement of the book:

The various authors of this book have done us all a tremendous service in their patient and clear exposition of geological thinking about the Grand Canyon (a magnificent place in its own right) . . . These are God’s processes after all! I urge everyone to read this, believe or not—you will enjoy it.

Collins was also invited annually for about ten years to come on the Grand Canyon CLT, but never accepted. Like Grudem, he also contributed to the 2017 book above critiquing theistic evolution just one year after endorsing Hill et al. (2016) that was designed to influence Christians to accept evolution.

Ken Keathley is a professor of theology at Southeastern Baptist Theological Seminary. He enthusiastically insists:

Here is a resource that not only demonstrates the superiority of an ancient-earth interpretation of the Grand Canyon, but also testifies of God’s grandeur and providence. This is a necessary textbook for any class on Creation.

Unlike Grudem and Collins, Keathley was on the first CLT in 2008. But that one-week trip in the Grand Canyon is hardly enough time to present young-earth geological explanations to counter the arguments represented in Hill et al. (2016) claiming to show the “superiority” of the old-earth view, a view by the way which Keathley has been exposed to all his life in our evolution-saturated culture. Even before Keathley saw Hill et al. (2016) in 2016, he coauthored a book in 2014 on creation and evolution in which he accused flood geologists of needing to be “more honest,” and of being “misguided” and “detrimental” to the church

³⁷ See an explanation of the Christian Leaders Trip at <https://www.canyonministries.org/clt/>. We have had many men on the trip who were not outdoorsmen and had never camped before, but they all said it was a trip of a lifetime and were glad they came. Many of their comments (with their names hyperlinked to take you to their comments) are here: <https://www.canyonministries.org/wp-content/uploads/2013/07/cltparticipants.pdf>.

³⁸ For example, see the layman-level book by Morris (2007a). Or see the more in-depth books by two geologists who have done considerable geological research in Grand Canyon: Austin (1994a) and Snelling (2009a).

and the cause of Christ.³⁹ On the contrary, I contend here that it is Keathley and the authors of Hill et al. (2016) who are guilty of this charge.

Significantly, the Bible verse at the bottom of the endorsements page of *The Grand Canyon, Monument to an Ancient Earth* is Proverbs 18:17, which reads, “The one who states his case first seems right, until the other comes and examines him.” The old-earth geologists have stated their case for over 150 years in the schools, universities, state and national parks, science TV programs, etc., and also in this book. And the vast majority of people, including Christian leaders and scholars, have had little to no exposure to the biblical and scientific case for the truth of Genesis and arguments against millions of years. I see no evidence in their writings on the question of origins and Genesis that Grudem, Collins, Keathley, or Copan have carefully examined the biblical or geological arguments for the global catastrophic Noachian Flood and young-earth creation. So, who is really only examining one side? Not flood geologists and other scholars in the leading young-earth creationist organizations who had to endure decades of evolutionist teaching all the way up through their doctoral degrees.

But we can learn some more interesting and revealing facts from other efforts to promote this Grand Canyon book published in late April 2016. In the September 2016 issue of *GSA Today*, the monthly newsletter of the Geological Society of America, Kregel (the publisher of the book) had a full-page ad entitled, “A critical resource for anyone wrestling with Young Earth Creationists.”⁴⁰ It included part of one of the geological endorsements as well as a sentence from Grudem’s endorsement in the book. Why would an evangelical publisher promote a book that attacks the Bible’s teaching on the Flood and the age of the earth to an audience made up overwhelmingly of non-Christian geologists and use an evangelical theologian to promote the book to those geologists?

In July 2017, the book was also promoted to members of the Geological Society of America in an article by three of the book’s Christian authors. The article instructed GSA members (mostly non-Christians) on how to more effectively oppose young-earth creation and persuade Christians (especially young ones) to abandon that view (Davidson, Hill, and Wolgemuth 2017). Why would old-earth Christians seek the help of non-Christian to *correct*

what these old-earth Christians believe is wrong thinking in the church about the age of the earth? Why would apparent members of the church want the help of enemies of the church to fight against the beliefs of other (young-earth) members of the church? It is because those professing old-earth Christians think that science is the supreme authority in determining the correct meaning of Genesis 1–11 and that science must correct wrong thinking in the church. But their authority is not really *science*. Rather, their supreme authority is the *majority view* among modern *scientists*. Science does not say that the earth is millions of years old. It is *scientists* who make this dogmatic claim. And not all scientists say this. Only the majority do.

The Christian authors of *The Grand Canyon, Monument to an Ancient Earth* have also been very active in teaching *secular* (non-Christian) geologists how to undermine the faith of Christians, who might not be well-grounded in a scientific defense of a young earth view. These geologists are being trained so those Christians can be easily convinced that the “scientific evidence” overwhelmingly proves the young-earth view is wrong.

In September 2016 (five months after the Grand Canyon book was published) at the annual meeting of the Geological Society of America, there was a section of papers to do just that.⁴¹ Consider the screen shots of the GSA website of the meeting (figs. 10 and 11). I have highlighted (by arrows and boxes) the title of the section (which was advocated by two of the book’s co-authors), and the titles of the presentations given by one non-Christian and five Christian co-authors. Also note the titles of the other presentations. *The Grand Canyon, Monument to an Ancient Earth* is only the tip of the iceberg in this debate. In figure 10, the highlighted title of the section of papers is “Bringing the Horse to Water and Getting It to Drink: Obstacles and Innovative Ways of Getting the Religious Public to Consider Scientific Evidence” (i.e., to accept evolution). The section was organized by two of the authors of Hill et al. (2016): Carol Hill and Gregg Davidson. The three highlighted presenters are also co-authors of the book (Joel Duff, Carol Hill, and Wayne Ranney). In the second screen shot of this section of the program (fig. 11), three more authors of the book presented papers (Ralph Stearley, Roger Wiens, and Gregg Davidson).

³⁹ Keathley says, “The only recourse that flood catastrophists have to save their theory is to appeal to a pure miracle and thus eliminate entirely the possibility of historical geology. We think that would be a more honest course of action for young-earth advocates to take. Young-earth creationists should cease their efforts to convince the lay Christian public that geology supports a young earth when it does not do so. To continue that effort is misguided and detrimental to the health of the church and the cause of Christ.” (Keathley and Rooker 2014, 307–308). This statement literally matches the words in Young and Stearley 2008, 474, which Keathley footnotes. But it is not hard-indented by Keathley and Rooker as other long quotes are in the book (to inform the reader that it is a quote). That this is not a typographical mistake but reflects at least Keathley’s view is clear, however, from the conclusion of their chapter on geology (309–310), where he essentially says the same thing in different words.

⁴⁰ *GSA Today* 26, no. 9, 32 (September 2016).

⁴¹ <https://gsa.confex.com/gsa/2016AM/meetingapp.cgi/Session/39758>.

GSA Annual Meeting in Denver, Colorado, USA - 2016

Session No. 285

Wednesday, 28 September 2016: 8:00 AM-12:00 PM
Room 503 (Colorado Convention Center)

T89. BRINGING THE HORSE TO WATER AND GETTING IT TO DRINK: OBSTACLES AND INNOVATIVE WAYS OF GETTING THE RELIGIOUS PUBLIC TO CONSIDER SCIENTIFIC EVIDENCE

GSA Geology and Society Division; GSA Geoscience Education Division; Paleontological Society

Carol A. Hill and Gregg R. Davidson, Advocates

	8:00 AM	Introductory Remarks
<u>285-1</u>	8:10 AM	<u>I DON'T BELIEVE IN CLIMATE CHANGE (Invited Presentation)</u> <u>HAYHOE, Katharine</u> , Climate Science Center, Texas Tech University, Holden Hall 72, Texas Tech University, Lubbock, TX 79409, katharine.hayhoe@ttu.edu
<u>285-2</u>	8:30 AM	<u>THE ARK ENCOUNTER: A NEW OBSTACLE TO SCIENTIFIC UNDERSTANDING FOR THE RELIGIOUS PUBLIC IN NORTHERN KENTUCKY (Invited Presentation)</u> <u>RATAJESKI, Kent</u> , Department of Earth and Environmental Sciences, University of Kentucky, Slone Research Building, Lexington, KY 40515, <u>DUFF, R. Joel</u> , Department of Biology, University of Akron, Auburn Science and Engineering Complex, 235 Carroll St., Akron, OH 44325-3908 and PHELPS, Daniel J., Kentucky Paleontological Society, 2004 Sawyer Ct., Lexington, KY 40514, kent.ratajeski@uky.edu
<u>285-3</u>	8:50 AM	<u>BOOK PROJECTS SERVING AS BRIDGE BETWEEN SCIENCE AND RELIGION</u> <u>GREENBERG, Jeffrey K.</u> , Department of Geology and Environmental Science, Wheaton College, 501 College Ave, Wheaton, IL 60187, jeffrey.greenberg@wheaton.edu
<u>285-4</u>	9:05 AM	<u>GRAND CANYON: MONUMENT TO AN ANCIENT EARTH: WHY THIS BOOK WAS WRITTEN</u> <u>HILL, Carol A.</u> , Earth & Planetary Sciences, Univ of New Mexico, 221 Yale Blvd., Northrop Hall, Albuquerque, NM 87131, Carolannhill@aol.com
<u>285-5</u>	9:20 AM	<u>EARTH-BASED EDUCATION IN THE CATHEDRAL OF TIME: STRATEGIES LEARNED WHILE WORKING AS A GEOLOGIC INTERPRETER IN THE GRAND CANYON</u> <u>RANNEY, Wayne</u> , 55 E. Hutcheson Dr., Flagstaff, AZ 86001, wayneranney17@gmail.com
<u>285-6</u>	9:35 AM	<u>RELIGION - SCIENCE CONFLICT: THE UNBRIDLED TRUTH</u> <u>FOSTER, G David</u> , retired geologist, Jackson, MI 49202, fosteg2@alum.rpi.edu

Fig. 10. Geological Society of America 2016 annual meeting, Wednesday 28 September 2016, Session No. 285, part 1.

GSA Annual Meeting in Denver, Colorado, USA - 2016

Session No. 285

Wednesday, 28 September 2016: 8:00 AM-12:00 PM
Room 503 (Colorado Convention Center)

<u>285-7</u>	10:05 AM	<u>BIOTIC SUCCESSION IN THE STRATIGRAPHIC RECORD: IS IT MORE THAN AMMUNITION IN A PERCEIVED CULTURE WAR? (Invited Presentation)</u> <u>STEARLEY, Ralph</u> , Department of Geology, Calvin College, North Hall, 1740 Knollcrest Circle, SE, Grand Rapids, MI 49546, rstearle@calvin.edu
<u>285-8</u>	10:25 AM	<u>EDUCATING CREATIONISTS ON THE AGE OF THE EARTH</u> <u>WIENS, Roger C.</u> , 941 Estates Drive, Los Alamos, NM 87544, rcwiens@msn.com
<u>285-9</u>	10:40 AM	<u>A SUCCESSFUL CASE STUDY OF TEACHING EVOLUTIONARY GEOSCIENCE LITERACY IN A CONSERVATIVE CHRISTIAN CHURCH</u> <u>RUNYON, Kirby D.</u> , Earth and Planetary Science Dept, Johns Hopkins University, 3400 North Charles Street, Baltimore, MD 21218, kirby.runyon@jhuapl.edu
<u>285-10</u>	10:55 AM	<u>THE IMPORTANCE OF TRUST IN OPENING DOORS TO CONSIDERING SCIENTIFIC EVIDENCE</u> <u>DAVIDSON, Gregg R.</u> , Geology & Geological Engineering, University of Mississippi, Carrier 118, University, MS 38677, davidson@olemiss.edu
<u>285-11</u>	11:10 AM	<u>FIRE AND BRIMSTONE AND FORT MCMURRAY: CONSIDERING THE IMPLICATIONS OF APOCALYPTIC RHETORIC IN CLIMATE COMMUNICATION</u> <u>DUGGAN-HAAS, Don</u> , The Paleontological Research Institution, 92 South Drive, Amherst, NY 14226, ZABEL, Ingrid H.H., The Paleontological Research Institution, 1259 Trumansburg Rd., Ithaca, NY 14850 and ROSS, Robert M., Paleontological Research Institution, 1259 Trumansburg Road, Ithaca, NY 14850, dad55@cornell.edu
<u>285-12</u>	11:25 AM	<u>THE FAILURE OF FACTS IN THE CLASSROOM</u> <u>BARINEAU, Clinton I.</u> , Earth and Space Sciences, Columbus State University, 4225 University Avenue, Columbus, GA 31907-5645, barineau_clinton@columbusstate.edu
	11:40 AM	Discussion

Fig. 11. Geological Society of America 2016 annual meeting, Wednesday 28 September 2016, Session No. 285, part 2.

Based on her 9-page handout,⁴² I want to add a comment about Carol Hill's presentation about the book (fig. 10) because it further reveals the character of the authors and their deceptive book. Hill is a professing Christian and lead editor of the book, which she promoted in this presentation.

On page 3 under "Need for Book" she has a large picture of one of the vans Canyon Ministries (CM) uses to show people the canyon from the South Rim and explain to them the creationist view of the canyon (fig. 12).⁴³ Her first point is: "What has been, and is being, done to make the religious public more scientifically literate is NOT WORKING! There now exists a climate of 'anti-science' populism."⁴⁴ She then mentions AiG's Ark Encounter⁴⁵ as "symptomatic of YEC's popularity" and expresses her very troubled concerns about how CM rim tours, hikes and river trips are growing.

Twice on this page she describes the pictured van as a "prayer van" with the word "prayer" in quotation marks on her page of the handout. She is either mocking the prayer offered in the van by CM tour leaders, or she is implying that the van is primarily for prayer (which is false) or that CM itself labels their van as a prayer van (also false). Nowhere on the CM website do they call them "prayer vans." Jon Albert, Executive Director of CM, has told me they of course do pray in the vans, but most of the words spoken in the van are about science, history, and the Grand Canyon.

Besides her claim that young-earth creationists are "anti-science" (handout, 3), she says "flood geology is NOT science" (5, her capitals). She says "every" college student in "every university and college in the country" must be taught how to distinguish "science from pseudoscience" (7 and 8, underline and

NEED FOR BOOK

- What has been, and is being, done to make the religious public more scientifically literate is NOT WORKING! There now exists a climate of "anti-science populism."
- The \$1.02 million "Ark Encounter" built at the *Answers in Genesis* Creation Museum in Kentucky is symptomatic of YEC's popularity.
- The YEC group, Canyon Ministries, has been leading Grand Canyon river trips and hikes into the canyon for years.
 - Now they have 2 "prayer" vans escorting the public along the South Rim in order to promote their view that almost all GC sedimentary rocks formed in the one-year of Noah's flood. This business is supposedly doubling every 2-3 yrs.
 - They are also placing their brochures in many Flagstaff motels advertising their van excursions.
 - They are hoping to someday build a Creationism museum in Tusayan, gateway to the South Rim for over 5 million visitors a year.
 - They are still selling their book *A Different View* at places like the IMAX theatre in Tusayan.




Photo of book author Tim Helble holding OUR book in front of a Canyon Ministries "prayer" van, Memorial Day, 2016. Photo by Tina Helble.

THEY HAVEN'T GONE AWAY; they are GETTING STRONGER, and no longer should be ignored!!!
Their presence is evident in politics and public policy on important issues such as global warming!

Fig. 12. Page 3 of Carol Hill's presentation handout at the Geological Society of America 2016 annual meeting, Wednesday, 28 September 2016, Session No. 285.

⁴² It can be downloaded at <https://gsa.confex.com/gsa/2016AM/meetingapp.cgi/Paper/281565>.

⁴³ Go to <https://www.canyonministries.org/> to learn about their half-day, full-day, and sunset tours on the South Rim, hiking tours, and various rafting trips down the Colorado River through Grand Canyon.

⁴⁴ "NOT WORKING" is in all capitals and "anti-science" is in quotation marks in the original.

⁴⁵ She erroneously says was "built at the Answers in Genesis Creation Museum"—the Ark is a 45-minute drive away from the Museum—a fact she could have known with minimal effort.

italics in the original). She calls young-earth creation “deception” (7). She also says “die-hard YECs” have the attitude, “Don’t bother me with the facts, my mind is made up” (4). Notice these labels are subtle ad hominem attacks (against creation scientists personally rather than arguments against their scientific views), for they imply creation scientists are not real scientists but rather are fake scientists opposed to science and are deceivers. Such are the typical tactics of evolutionists (theistic or atheistic) used against young-earth creation scientists who have earned PhD science degrees from respected secular universities. If PhD young-earth creationists are doing pseudoscience, how could the evolutionist professors at the universities where they got their PhDs be so undiscerning of the dishonesty, incompetence, and ignorance of the creationists to whom they granted the PhD degrees? This labeling of creationists as anti-science and pseudoscientists is indirectly an attack on the respected universities where they were academically trained. If the creation scientists are pseudoscientists, then by implication their supervising professors are pseudo-professors handing out pseudo-degrees. People only resort to ad hominem attacks when they cannot really defend their views in the free-market place of ideas.

Hill’s last statement that young-earth creationists have the attitude, “Don’t bother me with the facts, my mind is made up,” perfectly describes the attitude of *most* evolutionists, which is why they almost completely ignore the published research of PhD creation scientists, just as the authors of Hill et al. (2016) have done. For example, in several places their book discusses the origin of the Coconino Sandstone (65, 70–71, 78, and 154–159), which is near the top of the sequence of Grand Canyon’s horizontal layers. They argue this rock layer was formed over millions of years in a desert and therefore is powerful evidence against flood geology. Yet there is no mention (in the text or in the endnotes) of Cedarville University geologist Dr. John Whitmore’s in-depth 2015 article (published nine months before Hill et al. 2016) that presents many lines of evidence (discovered by Whitmore’s extensive field research in the Coconino) that show that it was formed rapidly, in a short time, under water (Whitmore 2015).⁴⁶

The attitude of “my mind is made up; don’t confuse me with the facts” is also why evolutionists hire lawyers to sue or threaten to sue any state or any local school board that decides to allow students to hear in the classroom the scientific evidence and scientific arguments in favor of the literal truth of Genesis

1–11. If scientific evidence overwhelmingly confirms evolution and millions of years, why are evolutionists afraid to let the students hear the “anti-science pseudoscience”? Do they not think the students can discern the truth when the “pseudoscience” is laid side by side with the “real science” in their textbooks, especially with the help of their teachers, most of whom are not young-earth creationists? And if creation science fails so completely against evolution, wouldn’t such an academic exercise of comparison actually strengthen the evolutionist position in the minds of students by teaching them how to think critically as good scientists?

This closed-mindedness is also why evolutionists tried for three years to prevent AiG’s geologist, Dr. Andrew Snelling, from getting a permit to do research on folded rock layers in Grand Canyon, a permit Snelling finally obtained only after filing a lawsuit against the Grand Canyon National Park that exposed evolution-motivated, illegal, viewpoint discrimination against Snelling (explained below on page 311).

Summary of the Argument to This Point

So far, the significant difference between operation science and origin science has been shown. We have also seen that origin science (especially many subdisciplines of geology) requires worldview assumptions on the part of the scientists. There are no scientists without a worldview bias (fig. 13).

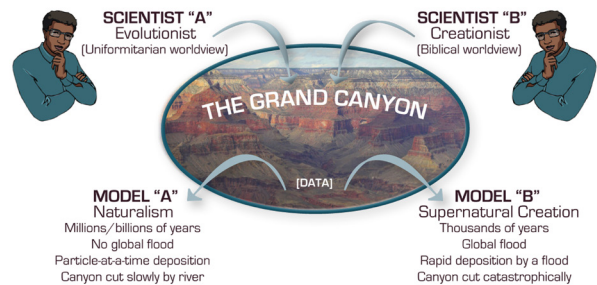


Fig. 13. The role of worldview assumptions in the interpretation of the evidence. Image from Vail et al. (2008), 141. Used with permission.

We have seen that since the early nineteenth century geology has been controlled by an anti-biblical, naturalistic, uniformitarian worldview, and that evolution is a three-part theory to explain the origin of everything (not simply biological life). Therefore, anyone who rejects biological evolution but still accepts the idea of millions of years of earth history is still largely embracing an evolutionary view and the *assumptions* of the naturalistic, uniformitarian worldview.

⁴⁶ This article is comprehensible for laypeople. He had also previously published technical papers (Whitmore 2014; Whitmore, Forsythe and Garner 2015). Whitmore (2019) was published after Hill et al. (2016). It should be noted that all of these research papers were published in creation-based publications because the secular journals refused to publish them.

Let us conclude this last section on the authors, funding, purpose and promotion of Hill et al. (2016) by asking a series of questions:

- (1) Why would professing Christians co-author a book with agnostics in blatant violation of 2 Corinthians 6:14–15?
- (2) Why would professing Christians co-author a book with agnostics that promotes the acceptance of millions of years while hiding the true agenda of influencing readers to accept all of evolution?
- (3) Why would professing Christians co-author a book with agnostics funded by anti-Christian scientists and a theologically liberal, Scripture-rejecting philanthropist (who is funding other efforts to influence the church to accept millions of years of evolution)?
- (4) Why would professing Christians co-author a book with agnostics that has been promoted to non-Christian scientists to help them know how to effectively undermine the faith of weak Christians who do not know how to defend their faith in the true history in Genesis 1–11 about Creation, Noah's Flood and the age of the creation?

Does not the origin of *The Grand Canyon, Monument to an Ancient Earth* raise a serious question about the validity of the old-earth views expressed in the book? But let us move on now to look at the book itself to see more reasons why Christians should reject this book and the Bible-subverting myth of millions of years of earth history.

Hill et al. (2016): Wayne Ranney's Foreword

In his four-page, engaging foreword to Hill et al. (2016), geologist Wayne Ranney describes the first two geologists who explored the Grand Canyon. He also declares that flood geology does not provide a credible scientific understanding, and he assures readers that the book does not undermine religious faith.

Before looking at what he said, I remind the reader that Ranney is an agnostic.⁴⁷ We get insight into his agnostic perspective in a 74-slide lecture entitled, "Sticking to the Science: How Best to Engage with Fundamentalists About the Age of the Grand Canyon" given in 2017 (Ranney 2017). A discerning Christian will see, as he scrolls through the slides online, that Ranney is certainly trying to undermine the faith of "fundamentalist" young-earth creationists, though he says on a couple of slides he is not doing that. But as James 1:14–26 urges us, do not accept what a man says without looking at what he does. Much of Ranney's lecture promotes and discusses the Grand Canyon book we are considering. But he also encourages his listeners

to seek information from the theistic evolutionist organizations, BioLogos, and the American Scientific Affiliation. Additionally, he promotes "The Clergy Project," which involves "clergy" from all kinds of non-Christian and theologically liberal "churches" promoting the acceptance of evolution to their congregations, and which was started by atheist biology professor Michael Zimmerman (Mitchell 2013).

On slide 21 in his 2017 lecture (fig. 14), Ranney asks the question, "What is YEC and when did it take hold?" He mentions Bishop Ussher (whose name Ranney misspelled) and his dates for Creation (4004BC) and the Flood (2348BC). Then he lists Darwin's 1859 book *Origin of Species*, which Ranney says drew the ire of "some fundamentalists." He says the early twentieth century saw little opposition to millions of years among Christians. He wants his listeners to know that in the years 1910–1915 it was Seventh Day Adventists who promoted young-earth creation. In mentioning the Scopes evolution trial in 1925, it is reasonable to suppose that Ranney pointed out that the creationist lawyer in that trial, William Jennings Bryan, held to the day-age view of Genesis 1. He follows this with slide 22, showing a picture of John Whitcomb and Henry Morris's famous book in 1961, *The Genesis Flood*. Slide 23 is a picture of Steve Austin's 1994 book, *Grand Canyon: Monument to Catastrophe*. Slide 24, his final slide for explaining the history of the young earth creationist view, has a picture of Tom Vail's 2003 book, *Grand Canyon: A Different View* (Vail 2003).

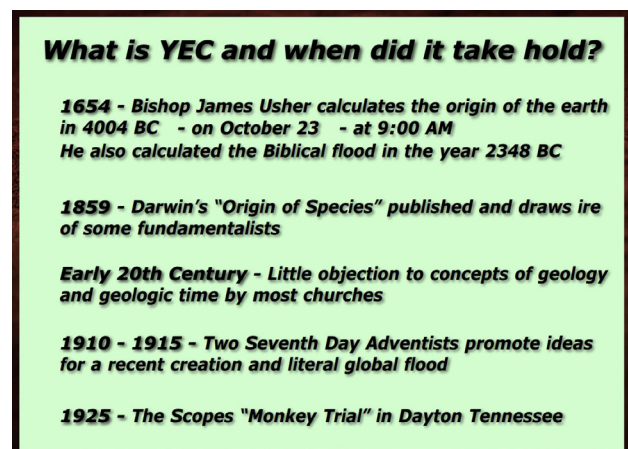


Fig. 14. Slide 21 in Wayne Ranney's 2017 presentation.

From this series of slides his message to the uninformed listener is clear: young-earth creation and flood geology are novel ideas among modern fundamentalist Christians over the past half century. But as I showed earlier, this is a grossly inaccurate picture. Young-earth creation was the dominant view in the church up to the early

⁴⁷ See the discussion following footnote 28.

nineteenth century, not an idiosyncratic view of a seventeenth-century Irish bishop. And there were young-earth creationist geologists in the early 1800s, whose Bible-based interpretations of the geological evidence were very similar to the geological views of the Adventist George McCready Price (who referred to some of the scriptural geologists in his writings⁴⁸) and the geological interpretations of modern creation geologists. So, Ranney gave a very distorted view of the history of young-earth creation, just as the authors of Hill et al. (2016) have done, as will be shown below.

In a way that reveals Ranney's lack of understanding (or an intentional hiding) of the critical difference between operation science and origin science and the philosophical, worldview nature of the origins debate, he says in his foreword to Hill et al. (2016):

Some who seek to discredit science nevertheless use modern devices bequeathed to them through scientific discovery and experimentation (such as medical advances), while they simultaneously discount other aspects of science that seem to conflict with their interpretation of the Bible. To some people, the pronouncement that our planet was created “billions of years ago” is viewed as an attack on the Bible, but it need not be (Hill et al. 2016, 10).

Now, how would a geologist who is an agnostic (and who is therefore suppressing the truth of God in unrighteousness) know (or have any authority to say) that the idea of millions of years of earth history is not an attack on the Bible? He has no credible knowledge of or belief in the Bible to make such a statement. His geological credentials have no authority here. And Christian readers (including the prominent Christian scholars who endorsed Hill et al. 2016) should immediately start asking penetrating questions about this book. Also, as any honest observer would see from reading creationist literature or watching their video lectures, young-earth flood geologists are not “discrediting science” and “discounting some aspects of science.” Rather they are rejecting *anti-biblical worldview interpretations* of some of the observational geological evidence. Ranney is displaying his misunderstanding (or denial) of the difference between operational and origin science. Medical advancements do not result from origin science; they lie in the realm of operation science.

The First Two Geologists Who Explored Grand Canyon

In his forward to *The Grand Canyon, Monument to an Ancient Earth*, Ranney gives a brief account

of the early geological investigations of Grand Canyon. John Strong Newberry (1822–1892) was the first geologist to investigate the Grand Canyon (from the south rim) during the Ives' expedition in 1858. Influenced by a prominent geologist in 1841 (who was undoubtedly an old-earthier), his academic training in the 1840s was in medicine, not geology.⁴⁹ From the edge of the Grand Canyon, he realized the obvious—that it had been formed by water. Ranney says this about Newberry's conclusion: “Having the trained eye of a scientist, Newberry recognized that the Grand Canyon was not a giant earth fissure that only later became occupied by the Colorado River, but rather that the giant canyon was actually made by the river” (Hill et al 2016, 9). But he did not have training in geology, so why does his opinion have weight, but modern PhD creation geologists have none? Actually, Newberry's theory was not that the river carved the canyon, as Ranney asserts. “Newberry's hypothesis, termed “lake-overflow,” represented a new idea to explain transverse drainages and his work was the first of many to scrutinize Grand Canyon's history” (Douglas n.d.; Douglass et al. 2020). So, in reality, Newberry's theory was closer to the long-held current creationists' breached dam theory of the canyon's formation than it is to many of the current secular theories (Austin, Holroyd, and McQueen 2020).

Eleven years later, the next geologist to visit the Grand Canyon was John Wesley Powell (1834–1902), who saw the canyon from its depths while navigating the rapids of the Colorado River in 1869. As the son of a Methodist preacher, he was raised in a Bible-believing Christian home, and his parents hoped he might be a preacher like his namesake. But, as a young man, he embraced the principles of uniformitarianism.

In 1859, when Darwin published his *Origin of the Species*, Powell was 25 and he immediately embraced biological evolution, too. At that time, Powell joined the ranks of the naturalistic skeptics and, as one biographer said, “religion never again played a major role in defining his outlook of life” (Worster 2001, 66). Actually, Powell simply abandoned Christianity in favor of the religion of atheism, which then played a major, defining role in his outlook for the rest of his life, including when he saw the Grand Canyon. Another biographer wrote, “Powell believed with all his heart that science was the only path to truth and that religion was a tangle of myth and obfuscation” (Dolnick 2001, 218). The biblical Christian knows Powell's beliefs about science and religion could not be farther from the truth.

⁴⁸ Price refers to and quotes from two of the most geologically competent scriptural geologists that I thoroughly discussed in my PhD thesis: George Fairholme and George Young. See Price (1913), 74, 78, and 115.

⁴⁹ https://en.wikipedia.org/wiki/John_Strong_Newberry.

Ten years later (1869), as Powell was seeing the Grand Canyon for the first time, he said: "...the thought grew into my mind that the canyons of this region would be a Book of Revelations in the rock-leaved Bible of geology...I determined to read the book."⁵⁰ But Powell was reading the rocks with the wrong glasses on, which blinded him from seeing the truth. He went into the canyon believing in millions of years and so he developed a very distorted and erroneous understanding of the message of the rocks.

These first two geologists who investigated Grand Canyon (in two separate summers, 1858 and 1869) were uniformitarian evolutionists who *already* believed in millions of years of slow, gradual processes *before* they ever saw the canyon and did their rather uneducated and superficial investigations of the geological evidence. They did not come to the canyon as unbiased, objective pursuers of truth, as Ranney and the other authors of Hill et al. (2016) want us to believe. No such person has ever existed either inside or outside of science. Every scientist has a worldview bias, whether he realizes it or not. Fundamentally he is either for God's Word or against it, either for Christ or against Him (Romans 3:1–4; Matthew 12:30).

Newberry's theory was generally rejected and Powell's view that the Colorado River cut the Grand Canyon over millions of years was *assumed* to be correct by nearly all subsequent secular geologists, as well as most Christian geologists (including the Hill et al. 2016 geologists), who got their scientific training under uniformitarian/evolutionary geologists, many of whom have never even been to the Grand Canyon. All their subsequent research has been controlled by that paradigm (i.e., worldview).

Ranney ends his Foreword to *The Grand Canyon, Monument to an Ancient Earth* by assuring his undiscerning Christian readers,

In this book, you will find explanations of how the Grand Canyon came to look the way it does...Many of the contributors to these chapters are Christians, while some are not. However, each of us is a student of the earth who is troubled by what we believe to be a needless controversy that surrounds the story of the Grand Canyon. None of us presumes that acceptance of great age for the Grand Canyon will undermine religious faith. In fact, one early chapter offers insight into why an old earth view is actually more in line with biblical teaching. In 150 years of scientific study, we have learned a great deal about how the Grand Canyon was formed. (Hill et al. 2016, 11)

Of course, the non-Christian authors of this book think that the age of the earth is a "needless controversy," and that belief in millions of years will not undermine "religious faith." Many Protestants,

most Catholics and Jews, as well as all Hindus, Buddhists, etc. unquestioningly accept evolution and millions of years. But the idea of millions of years most certainly does undermine *biblical* faith. As will be illustrated, the professing Christian authors of this book must ignore or superficially refer to Scripture or deliberately twist it in order to persuade undiscerning readers that the age of the earth is a needless controversy. Before we explore that evidence, we need to consider an earlier book by Ranney, which provides valuable context.

Valuable Insights from Ranney's Own Book on the Grand Canyon

The dogmatic claims of Ranney and the other authors of *The Grand Canyon, Monument to an Ancient Earth* about how and when the Grand Canyon formed are quite unjustified and unreliable, given the candid statements in Ranney's 2005 book, *Carving Grand Canyon: Evidence, Theories and Mystery* (Ranney 2005).

I want to give a series of statements from Ranney's book to show readers why they should not accept the confident statements in Hill et al. (2016) that the Grand Canyon was formed by the Colorado River over millions of years and that young-earth flood geology is pseudoscience, anti-science, and absolutely false, and therefore not worthy of a moment's consideration. On the first page of his introduction to *Carving Grand Canyon*, Ranney says:

This canyon is one of our planet's most sublime and spectacular landscapes, yet to this day it defies complete understanding of how it came to be. It is visited by millions of people a year and not one of them knows precisely how or when it formed. The canyon's birth is *shrouded* in hazy mystery, *cloaked* in intrigue, and *filled* with enigmatic puzzles. And although the Grand Canyon is one of the world's most recognizable landscapes, it is remarkable *how little is known* about the details of its origin. (Ranney 2005, 11, italics added)

A little later in his introduction he says:

The amount of time that the Colorado River has been carving Grand Canyon is the subject of *much controversy and debate*. Geologists who have studied the canyon during their *entire* careers *can only suggest a range* of ages somewhere between 70 and 6 million years, although the younger age is most widely accepted. This range of dates is perhaps testament to *how unknowable* the canyon really is to us. (Ranney 2005, 15, italics added)

His preface to Chapter 1 additionally tells us:

Grand Canyon is a puzzle, a mystery, an enigma. It appears to have been carved through an uplifted

⁵⁰ Quoted in Austin 1994, 21.

plateau, ignores fault lines, may have been born by a river that once flowed the other way, is possibly quite old or quite young—or both—and is set within a more mature landscape. (Ranney 2005, 19, italics added)

Noting the italicized words, we see the remarkable admission of mystery, ignorance, and debate about the canyon. Nevertheless, he continues in chapter 1, “Didn’t the river carve it?” people invariably ask. The answer is absolutely yes and the one truth that *every geologist agrees* upon is that the Colorado River carved the Grand Canyon.” (Ranney 2005, 19, italics added)

But that is false. Every geologist does not agree. Creation geologists (with PhD or MS degrees) who have done geological research in the Grand Canyon do not agree with that statement. And some (although a minority) of secular geologists are moving away from the idea of a river-carved canyon to a theory of a catastrophically carved canyon, though not connected to Noah’s Flood (Austin, Holroyd, and McQueen 2020; Douglass et al. 2020). Even if every other geologist did agree that the river carved the canyon, that would not make it so. Truth is not determined by majority vote. Furthermore, probably 99% of geologists in the world have never been to the Grand Canyon, much less studied the evidence on location. So, their agreement with Ranney would be a pure act of faith. But Ranney continues:

But more important are the deeper questions: “How did the river cut the canyon?” “When did it accomplish its task and by which manner of erosion?” Geologists remain *perplexed* by these more difficult questions and continue to *puzzle* over the subtle intricacies and lack of meaningful clues about how and when this landscape evolved. Grand Canyon is somewhat unique among our national parks because of *the lack of a single, scientific theory* regarding its origin. . . . Grand Canyon’s origin remains *shrouded* in mystery and there are few places visitors can go to obtain *even a rudimentary* understanding about its beginnings. (Ranney 2005, 19–20, italics added)

Well, here we are 15 years after Ranney wrote that, and the old-earth geologists are still perplexed, puzzled, and almost clueless, or rather blind to the clues about how the canyon formed. Creation geologists do not have it all figured out either, but as they wear biblical glasses they have seen much geological evidence that confirms Noah’s Flood (not millions of years) and points to a lot of water over a short period of time (not a little bit of water over a long period of time) as the key to explaining the canyon’s origin (Austin, Holroyd, and McQueen 2020).

Later concerning the Colorado River, Ranney again returns to the question of the age of the river and the canyon:

One of the most *hotly contested* matters among scientists is the river’s age and thus that of the Grand Canyon. Some geologists see evidence for an old river and canyon, on the order of 80 or 70 million years. Others *believe* that they are quite a bit younger, between about 6 and 5 million years. However, upstream in the state of Colorado, the river shows evidence of being somewhere between 20 and 10 million years. How can a river be 20 million years old in one location but no more than 6 million years downstream? (Ranney 2005, 23, italics added)

Now think about this. If there are such “hotly contested” views (among evolutionists!) about the age of the river and canyon (5–80 million years), and the river is claimed to have vastly different ages (6–20 million years) in different sections of the river, why should we bow the knee to the evolutionists’ dogmatic claims about the reliability of the radiometric dating methods (as also claimed in Hill et al. 2016)? Remember, these dating methods are based on naturalistic, uniformitarian assumptions about the past. If they really do not know the age of the canyon or the river, why should we endorse the hundreds of millions of years evolutionists assign to the formation of the layers of rock we see exposed in the Grand Canyon? There is much evidence that the dating methods are giving totally false dates.⁵¹ These statements by Ranney should alert you to that fact, even if you cannot understand the technical scientific arguments about dating methods.

Brief Excursus on Dating Grand Canyon Rock Layers

Additional light needs to be shed on dating the Grand Canyon. On page 41 of Hill et al. (2016) is a diagram (fig. 15) showing the horizontal sedimentary strata in the Grand Canyon, which is the same basic diagram creationists use when referring to the canyon formations. It says the “Great Unconformity” at the bottom of the Tapeats Sandstone (the lowest sedimentary layer) is dated at 525 million years (Ma) and the top of the Kaibab Limestone (the uppermost layer in the Grand Canyon) is 270Ma. So, Hill et al. (2016) says it is a trustworthy scientific fact that the horizontal layers represent 255Ma.

However, since 1997, I have rafted down the Colorado River through those layers 14 times, and many times we received the latest edition of *Belknap’s Waterproof Grand Canyon River Guide* (Belknap et al. 1989, 2007) (fig. 16). Since at least 2011, the first

⁵¹ For articles and videos on the unreliability of radiometric dating see <https://answersingenesis.org/geology/radiometric-dating/>. For a good introduction and an explanation of the three key unprovable assumptions that evolutionists use in the method, see Snelling (2009b).

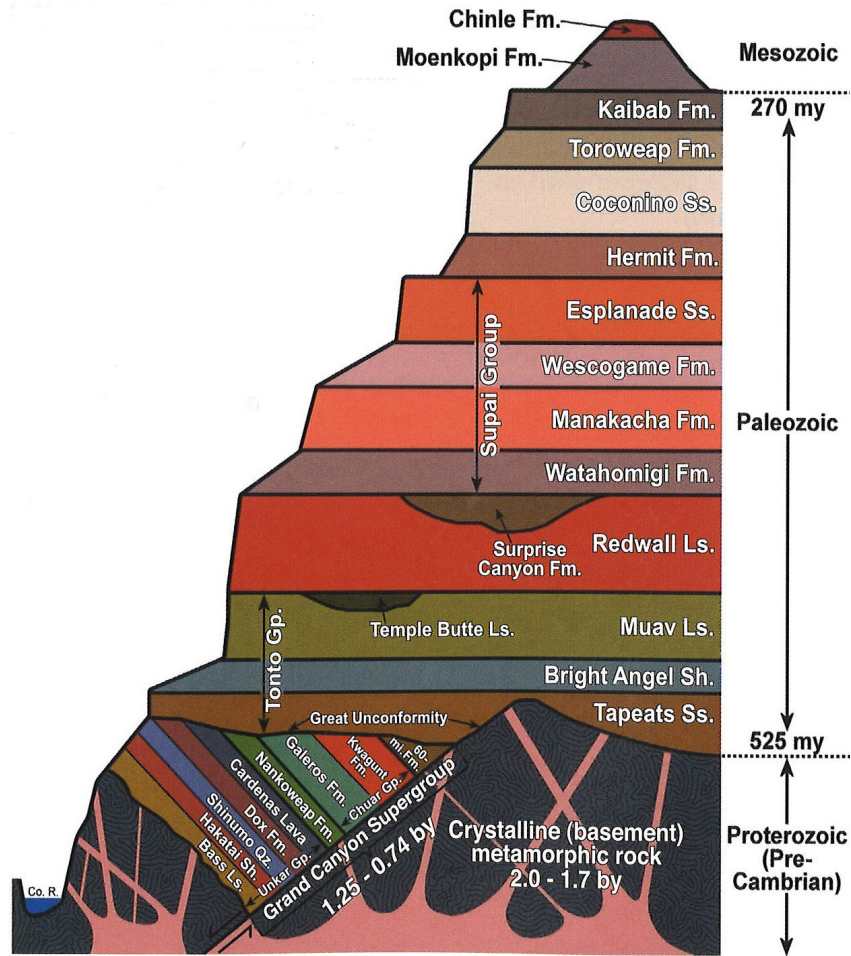


Fig. 15. Reproduction of Fig. 4-1, Hill et al. 2016, 41.

section entitled “Geology of the Grand Canyon” has been written by Wayne Ranney. In the 1997 edition of the *River Guide* we were told that from the bottom of the Tapeats to the top of the Kaibab spanned 570 Ma–245Ma (so, a total of 325Ma). But in the 2007 edition the layers spanned 545–250Ma (so, a total of 295Ma). That means, based on the not-so-trustworthy dating methods, in just 10 years the Grand Canyon layers became 30 million years younger! But then in the 2011 edition, the layers spanned 525–240Ma (a total of 285Ma). Thus, in four more years, the time required to deposit those layers decreased another 10 million years! Now evolutionists will surely explain these discrepancies by the fact that they have dated more horizons by correlating them with well-dated sedimentary rock layers worldwide. So, they will claim, they found and dated better marker beds within those sedimentary layers (such as volcanic ash beds) elsewhere in the world that they believe are the same age as the layers in Grand Canyon. But that is a belief, not a proven fact. Furthermore, what happens when even better marker beds or better methods are found for redating “more accurately” the previously trusted marker beds? The dates will change again. So how will we know which are the

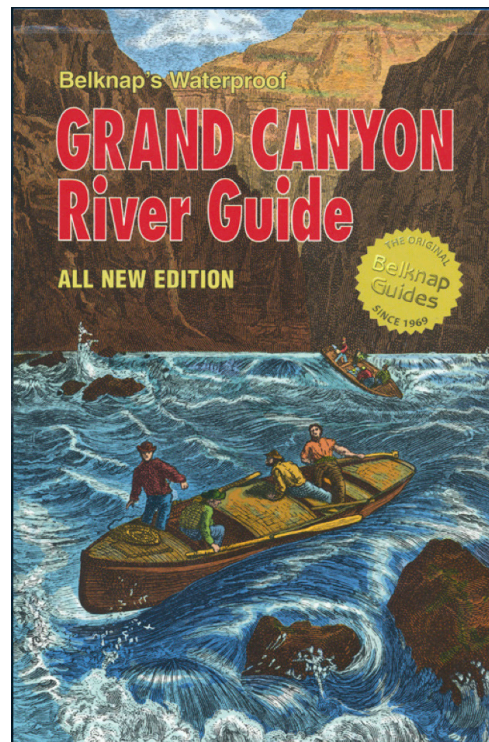


Fig. 16. The cover of *Belknap's Waterproof Grand Canyon River Guide* (Belknap et al. 2007).

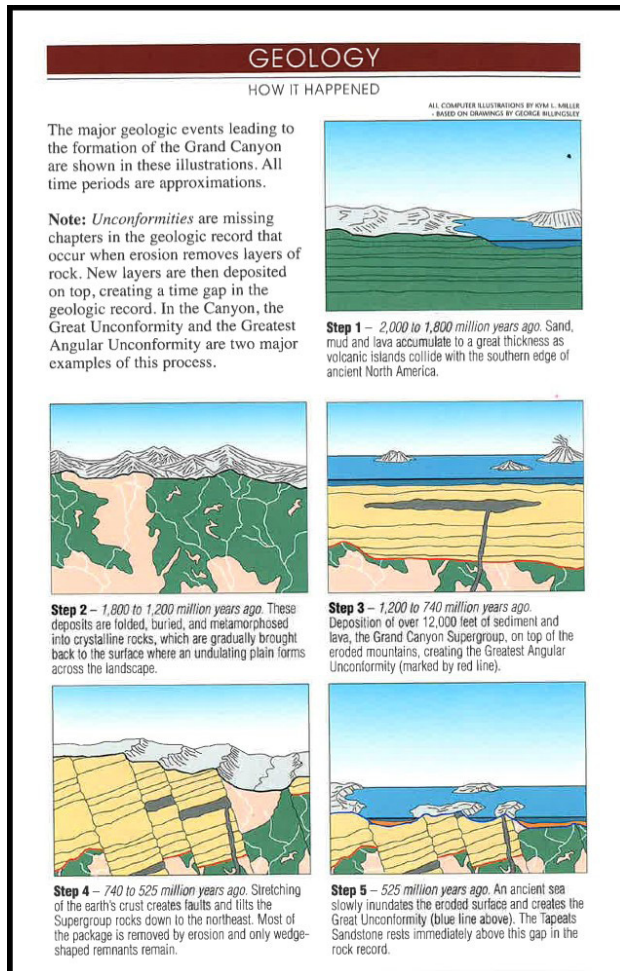


Fig. 17. *Belknap's Waterproof Grand Canyon River Guide*, (Belknap et al. 2011, 14), depicting steps 1–5 in how the geology of the Grand Canyon happened.

correct dates? And we are supposedly talking about changes on the order of millions or tens of millions of years!

But I found more discrepancies in these multiple revised editions. Reproduced in figs. 17 and 18 are pages 14–15 of the 2011 edition of Belknap et al. (2011) written by Ranney. In the editions I have from trips in 1997 to 2018, the diagrams are identical to these. We should note that there were no human eyewitnesses to those supposed changes or movies documenting them. They are the result of changing evolutionary age determinations by both geologic and radiometric dating. Notice also how radically the pictures change from Step 1 to Step 5 and from Step 6 to Step 8. It is handwaving to change one scene to the next scene over tens or hundreds of millions of years. It is evolutionary storytelling. They do not *know* that Grand Canyon formed by this sequence of events. Nor do they know how long it took for these imagined changes to take place. The diagrams certainly are not the result of “just letting the data speak for themselves.” The series of images is result

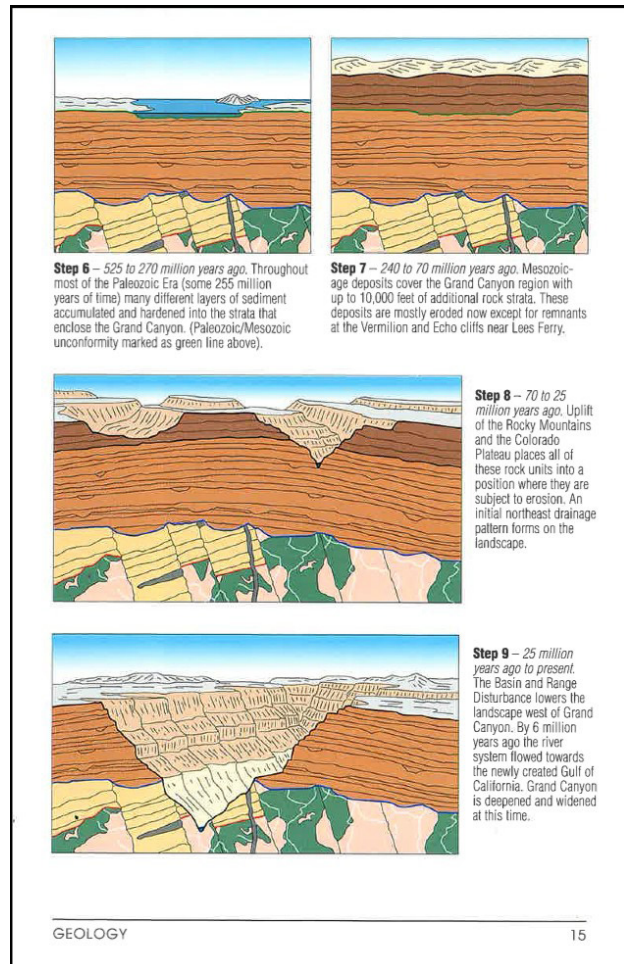


Fig. 18. *Belknap's Waterproof Grand Canyon River Guide*, (Belknap et al. 2011, 15), depicting steps 6–9 in how the geology of the Grand Canyon happened.

of a naturalistic uniformitarian interpretation of *some* of the observable evidence in this huge and still largely unknown canyon and extensive pile of rock layers. Of course, flood geologists could also make a series of pictures to explain the sequence of events during Creation and the Flood, based on the eyewitness testimony of the Creator in Genesis 1–11. But that series of pictures would also be largely imagined because the Bible does not describe the formation of the layers of the Colorado Plateau or the carving of Grand Canyon.

But I also want you to know something about the dates assigned to many of the steps. They have significantly changed in successive editions of the Belknap et al. (1989, 2007, 2011, 2013, 2017), as table 1 shows. The ages for each step are given as millions of years. Notice particularly Step 3, Step 4 and Step 9 in the five editions.

We have been told *for over half a century* that geologic and radiometric dating are trustworthy. If so, why are all these ages for the layers of the Grand Canyon in steps 3–9 changing in such a short period

of time? Someone will surely object, “Yes, but all these dates are in the hundreds of millions of years, so that consistency shows that they are reasonably accurate.” However, there are good reasons to reject that objection and ALL these ages assigned to these rocks, as has been explained by PhD creationists well-trained to deal with the technical arguments. Readers are urged to look at those good reasons presented in the sources previously cited (in footnote 51).

Even though the dates for Steps 1 and 2 have remained the same, how can the old-earth geologists say they understand even the basics of the canyon’s formation when the later numbers have changed well over 200 percent in just 20 years.⁵² And what made the dates change? In 20 years, the rock layers of the Grand Canyon have not changed in any significant way. Scientists were not able to travel back in time and redate the rocks at each step. In fact, most of the rock layers in Grand Canyon have never been directly dated by radiometric dating methods. Their age interpretations of the rock layers changed due to the radiometric dating of supposedly equivalent layers elsewhere that contained beds or minerals which, they believe, could be dated accurately by these methods (which, again, are based on naturalistic uniformitarian assumptions). And it should be noted, their numbers are not set in stone, as different publications report different ages.

Back to Ranney’s 2005 Book

I return to Ranney’s book on the Grand Canyon (Ranney 2005). After summarizing the puzzling facts that the river goes through an uplifted plateau instead of around it, that it crosses many fault-lines

(some nearly perpendicular to the river), and that “perhaps” it flowed in the opposite direction in the past, Ranney says:

These *puzzling* relationships: flow through an elevated plateau, the lack of fault control on the placement of the river, possible reversed drainage direction, uncertain age, and the canyon’s setting within a more mature landscape, help us to frame the questions we need to ask in order to understand the canyon’s origin. There are *many possible explanations* for these questions and each explanation may *raise more queries* than it answers. (Ranney 2005, 24, italics added)

If there are so many puzzling observations and “many possible explanations” that may raise more questions than they answer, why are these old-earth geologists so dogmatic about their position and so opposed to even considering young-earth creationist observations, explanations and questions? Why? Because it is a worldview conflict. It is not about observational science. Old-earthers (whether agnostic or professing Christian) are adamantly closed-minded to any explanation that questions the millions of years and the uniformitarian, naturalistic worldview.

Ranney uses the nebulous words “the scientific method” (which hide from the reader the significantly different methods of doing operation science and origin science) when he says, “Those curious enough to ask these questions rely on the scientific method to find a satisfactory answer” (Ranney 2005, 25). He says new theories can be proposed to answer these questions. But regarding any new theory he explains:

It is then tested by the observer and unbiased colleagues and in time it may be proven to hold

Table 1. Changes to geologic ages in millions of years for the steps in the geologic history of the Grand Canyon (fig. 16) as represented on pages 14–15 of *Belknap’s Waterproof Grand Canyon River Guide* (Belknap et al. 1989, 2007, 2017).

Edition	1997 (1989 ed.)	2008 (2007 ed.)	2011	2013	2018 (2017 ed.)
Step 1	2000–1800	2000–1800	2000–1800	2000–1800	2000–1800
Step 2	1800–1200	1800–1200	1800–1200	1800–1200	1800–1200
Step 3	1200–900	1200–900	1200–740	1200–740	1200–550
Step 4	800	800	740–525	740–525	550–525
Step 5	570	545	525	525	525
Step 6	245	250	525–270	525–270	525–270
Step 7	70	70	240–70	240–70	240–70
Step 8	70–40	70–40	70–25	70–25	70–25
Step 9	5–1	6–present	25–present	25–present	25–present

⁵² So, for example, in 1997 they said that step 3 took 300 million years (1200–900), but in 2018 step 3 took 650 million years (1200–550), which is a 217% increase in time. In 1997 going from step 4 to step 5 required 230 million years, whereas in 2018 that transition required only 25 million years, a 900% decrease in time. And in 1997 step 9 took 4 million years but in 2018 they said that step consumed 25 million years, a 625% increase in time.

up better to scientific scrutiny than others. It may eventually come to be regarded as a valid answer to the original question. This scientific method has served us well in deciphering the complex geologic history of our planet. (Ranney 2005, 25)

But no *unbiased* colleagues exist! This is the deception of the scientific majority and the deception of the book *The Grand Canyon, Monument to an Ancient Earth* (Hill et al. 2016). As Harvard geologist Steven Gould said, “The stereotype of a fully rational and objective ‘scientific method,’ with individual scientists as logical (and interchangeable) robots, is self-serving mythology” (Gould 1994). All old-earth geologists have the same bias—*against* the inerrant, eyewitness testimony of the Creator, and instead *for* Hutton and Lyell’s imagined story of millions of years. Therefore, the idea that the Colorado River carved Grand Canyon is not open to scrutiny or question. But Ranney wraps up the first chapter of his book with this:

Sometimes however, as is the case with the Grand Canyon, there is not enough evidence to bring everyone to agreement and a single solution. Because of this, there may be *many possible answers* and professional disagreements may ensue among geologists. Some of the most colorful and important discussions concerning the Colorado River’s history have resulted in a “scientific draw” with no one answer fully excepted [sic] as truth. As interested observers, we must satisfy ourselves with the knowledge that *we may never be able to fully explain* what we see so vividly laid out before our eyes. In the end, this is the larger *enigma* of the Grand Canyon—that a feature so large and highly regarded may forever remain *unknowable* to us. (Ranney 2005, 25, italics added)

As we saw earlier, Ranney said, “The canyon’s birth is *shrouded* in hazy mystery, *cloaked* in intrigue, and *filled* with enigmatic puzzles.... Grand Canyon’s origin remains *shrouded* in mystery and there are few places visitors can go to obtain *even a rudimentary* understanding about its beginnings” (Ranney 2005, 11, 20, italics added). Since this is so, there is no scientific or rational reason not to seriously consider young-earth creationist views of the canyon. Young-earth geologists’ observations and interpretations should not be ridiculed and censored, but warmly welcomed to help solve the mystery. Scientists studying origins (on both sides of the debate) are not unbiased and completely rational because they have very finite knowledge, and they are sinners. To a greater or lesser degree, sin darkens the understanding (Romans 1:21 and Ephesians 4:17–18). Furthermore, most scientists (including Ranney and the two other agnostic authors of Hill et

al. 2016) are trying to explain the world without God so they can evade (as they foolishly think) their moral and spiritual accountability to Him.

Given these facts and the evolutionary geologists’ changing ages for the river, canyon, and rock layers, how can old-earth geologists be so certain the river cut the canyon and so confident about the age of it all? And why are they (including the authors of Hill et al. 2016) so opposed to the Grand Canyon research and writings of PhD creationist geologists? It is because young-earth creation geologists have rejected and are challenging the ruling naturalistic uniformitarian paradigm that has blinded geologists from even seeing, to say nothing of correctly interpreting, many of the details of the Grand Canyon for the last 150 years. The controversy has nothing to do with the geological facts and everything to do with the anti-biblical worldview controlling geology (including the minds of most professing Christian geologists, like the ones contributed to Hill et al. 2016).

Summary of the Argument Thus Far

So, let us once again take stock of where we are in this discussion. We have a proper understanding of the very significant difference between operation science and origin science and the critically important role of philosophical, worldview assumptions used in the interpretation of geological observations. We defined key terms such as uniformitarianism, catastrophism, and evolution. We rehearsed the history of the development of the idea of millions of years and of the thinking of the earliest geologists who saw the Grand Canyon. We considered the authorship, funding, promotion and endorsements of the book that should raise serious yellow flags in the minds of thoughtful, biblical Christians. And we have seen the honest statements by Ranney about the complexity and perplexity of the Grand Canyon. Therefore, even before we open *The Grand Canyon, Monument to an Ancient Earth* we should be highly suspicious of the evolutionary story about the origin and history of the canyon that it tells. And we should have no doubt that the book’s claim that the young-earth, flood-geology view is pseudoscience and therefore not worthy of fair consideration is false. The old-earth view of history is undergirded by (or built on the foundation of) an anti-biblical worldview. It is philosophy masquerading as science.⁵³ Further examination of the book will reveal this fact even more.

Hill et al. (2016):

The Authors’ Introduction (Chapter 1)

After a brief description of the size of the Grand Canyon, the eleven authors of this short chapter

⁵³ For more evidence of this masquerade, see my DVD *Deep Time Evolution: Anti-biblical Philosophy Masquerading as Science* or online at <https://answersingenesis.org/media/video/evolution/deep-time-evolution/>.

explain the old-earth and young-earth views and then use large, beautiful, full-color pictures to give a view of the canyon from the rim.

First, they summarize the “conventional” (old-earth) view of the canyon, which is the result of “eons of major land changes, including rising and falling sea levels, land uplift and subsidence, long periods of deposition and erosion, faulting and folding of rock and the eventual carving of most of the canyon by the Colorado River and its tributaries” (Hill et al. 2016, 15). But please note, this is not the conclusion of operational, experimental, observational science (using repeatable experiments), because none of the listed processes and events were observed by any old-earth geologists. Rather, this is a *story* about the unobservable, unrepeatable past to attempt to explain what is seen in the present.

In contrast, the authors somewhat accurately say, In opposition to this understanding are some Young Earth Creationists who have promoted a view that makes two bold claims: (1) that the biblical worldview leads necessarily to the conclusion that the Grand Canyon and its rocks were created in recent events associated with Noah’s Flood, and (2) that the scientific evidence, when not bound to an evolutionary or uniformitarian bias, speaks clearly of a recent global deluge. Those seeking to use science to defend this view are generally referred to as *flood geologists*. (Hill et al. 2016, 15–16, their italics)

Regarding the first point, I do not think any flood geologist would say the biblical worldview *necessarily* leads to the conclusion that the Flood caused Grand Canyon and the horizontal rock layers in its walls. That conclusion is the result of taking the Genesis account of the Flood seriously and investigating the geological evidence carefully. As a result, while flood geologists agree the Flood deposited the horizontal sedimentary layers in Grand Canyon, they also generally agree the tilted sedimentary layers and the metamorphic and igneous rocks below the horizontal layers were created during Creation Week and pre-Flood era. But there is considerable disagreement among flood geologists about whether the canyon was carved as the floodwaters receded off the earth, or if it was carved in a post-Flood erosion event, or if it was some combination of the two. More research is needed on that question.

The Hill et al. (2016) authors also say, “Somewhat ironically, both the conventional geologic view and the Young Earth view concur that the Grand Canyon’s layers and deep chasm formed by *natural* processes and are subject to scientific inquiry” (Hill et al. 2016, 16, italics in the original). Yes, that is true about the two views. But there is nothing ironic about that. Scientific inquiry is what geologists do, so the fact that young-earth geologists do this is not

ironic. It is just that young-earth geologists are doing scientific inquiry by studying the canyon in light of a modern understanding of observable, natural (both catastrophic and slow, gradual) processes of erosion, sedimentation, faulting, and folding, etc., *as well as* in light of the eyewitness testimony of the Creator about earth history.

So, what then is the difference between the two views? They tell us, “However, they differ radically in the time it took to form the canyon and in the approach used to investigate and interpret the evidence” (Hill et al. 2016, 16). Exactly! The difference is “the approach,” the interpretive starting points, or philosophical/religious assumptions, or worldview presuppositions, of the two groups. The old-earthers believe a lot of time (billions of years) and a little bit of water (mostly calm, placid oceans and the generally gentle Colorado River) produced the canyon. And their *approach* to the investigation and interpretation of the geological evidence is to wear naturalistic uniformitarian glasses. Creationists instead approach the canyon wearing biblical glasses (the historically accurate, eyewitness testimony of the Creator) which helps them see that a little bit of time (about 6,000 years) and a whole lot of water (often very violent) produced most of the geologic features we see today. In the creationist view, the bottom “basement” formations of igneous and metamorphic rocks were created during Creation Week, and the mostly non-fossiliferous tilted sedimentary rock formations are late Creation Week pre-Flood, which lie under all the horizontal Flood layers. An additional difference is that creationists assign the carving of the canyon to a catastrophic event after the formation of all the sedimentary layers, not to a slow process over millions of years.

Regarding point 2, flood geologists are correct in what they say about the role of evolutionary bias in the interpretation of the scientific evidence—namely, the scientific evidence, when not bound to an evolutionary or uniformitarian bias, speaks clearly of a global deluge and a young earth. But how do the Hill et al. (2016) authors respond to this claim of the flood geologists? They say, “The purpose of this book is to show that the first Young Earth claim is not supported by a straightforward reading of Genesis, and that the second claim is not supported by an equally straightforward study of the geology of the canyon.” (Hill et al. 2016, 16)

Do you see it? They are evading the issue of evolutionary, uniformitarian bias. A “straightforward study of the geology” will not tell you how old the rocks are! They ignore the question of bias, because there is no such thing as a “straightforward study” of the rocks. *All* geologists have a bias, either for or against God and His Word. The question of bias is

a philosophical, historical, and biblical question, not answerable by looking at rocks, fossils, or radioactive isotopes.

Note above that the *stated* purpose of the book is simply to argue for an earth millions of years old. But remember what we saw earlier (in the section, “The Purpose of the Book”), namely, these authors hoped through this book to “open [Christian] minds on the subject of *evolution*” (Hill 2016, 127, italics added). They cannot, and we should not, divorce the question of the age of the earth from the question of evolution. The question of age and the origin of life are part of the grand evolutionary story of the universe, a story which eliminates God from the plot and flatly contradicts what His Word teaches about Creation, the Fall, the Flood, redemption and the second coming of Christ.

We will consider their “straightforward reading of Genesis” in their next chapter. But wrapping up their Introduction chapter before giving their view of the canyon from the rim, they say:

For any view of the history of the Grand Canyon to be considered plausible, it must be able to provide *consistent* explanations for the origin of not just isolated layers or features, but for the *entire* sequence of layers, along with *all* the internal chemistry, structures, and fossils....Any explanation must account for not only individual features observed in the canyon, but also for how *all* the pieces fit together in a larger story. The chasm between the explanatory models of flood geology and conventional geology is as wide as the canyon itself. (Hill et al. 2016, 16 and 19, italics added)

The clear implication is that the story told in Hill et al. (2016) meets the standard demanded here. This is a preposterous claim, one neither this book nor any other book, either old-earth or young-earth, can or ever will achieve. No book or even a collection of books can explain the *entire* sequence of layers and *all* the internal chemistry, structures, and fossils. Hopefully, you see that in the light of what has already been discussed, especially those quotes from Ranney’s book in 2005. No evolutionist explanation of the canyon shows “how *all* the pieces fit together in a larger story.” Yet they are demanding of creationists what they themselves have not delivered in this book and indeed can never deliver.

But consider also that only a handful of young-earth creationists have had the geological training and opportunity to investigate Grand Canyon. Over the past 30 years, with very limited financial resources (donated by Christians), a handful of creationists have produced a few papers and a couple of books presenting the results of their focused, in-depth research on small, but strategically important parts of the canyon for the origins debate. It should be no surprise then, that their output of published

research does not fit *all* the pieces together and is not equal in quantity to the amount of literature produced by hundreds of evolutionists over the last 150 years with literally billions of research dollars from state and federal governments and universities.

Given the resources, personnel, and time available, it truly is remarkable (almost miraculous) that flood geologists have discovered as much as they have to produce an informed young-earth interpretation of the geological evidence in the canyon. It should also be noted that, while the creationists do not have all the answers, their model answers some of the big questions that the old-earth model is unable to answer, such as why the river does not follow major fault lines, which is a question Ranney mentioned several times.

Hill et al. (2016):

What Is Flood Geology? (Chapter 2)

This chapter is written by geologists Stephen Moshier and Carol Hill. They first explain in one paragraph what Genesis says about the Flood and then give a brief history of the debate about the age of the earth.

Secondly, they summarize the “basic principles of flood geology”:

- (1) the age of the earth and date of the Flood,
- (2) the source of water for the Flood,
- (3) the extent and geological results of the Flood, and
- (4) the Fall of Adam in sin as it relates to this controversy.

In a third section of the chapter, they discuss six “biblical problems” with flood geology:

- (1) the “literal interpretation,”
- (2) the Hebrew word *eretz* in the Flood account
- (3) the use of “all,” “every,” and “under heaven” in the Flood account,
- (4) the meaning of “covered the mountains” in Genesis 7,
- (5) death and the Fall, and
- (6) the Garden of Eden.

In the final brief section (1 page) they compare the claims of flood geology and “modern geology.” These four sections will be critiqued in what follows.

The Flood Account and History of This Debate

In their summary of the Genesis account of Noah’s Flood, Moshier and Hill do get a few facts right:

- (1) God warned Noah of the coming flood and told him to build an ark,
- (2) the waters came from the rain and the fountains of the deep and rose over five months, and
- (3) Noah and the animals were on the ark for a little more than one year.

But two points are inaccurate:

- (1) They say the ark was to preserve “pairs of every animal.” But Scripture says pairs of every *kind*

of *land animal* and *bird*. So, their statement is wrong by several orders of magnitude. As we shall see, a lack of attention to the details of the biblical text is symptomatic of their handling of Scripture.

- (2) They say, “rain fell for forty days and nights.” But Scripture says rain fell non-stop for 40 days and nights, but rain continued until Day 150, when God closed the windows of heaven (Genesis 7:24–8:4).

Moshier and Hill correctly say that flood geologists believe the Flood was global and would have left massive evidence in the rocks, fossils and topography of the earth. Therefore, flood geologists look for that evidence when they study Grand Canyon. But using the common evolutionist tactic to convince readers to reject young-earth creation, Moshier and Hill reply, “Yet, nearly all modern geologists—including most Christian geologists—find no physical support for that interpretation of Grand Canyon geology.” (Hill et al. 2016, 21) When we hear a statement like this, we should remember that:

- (1) truth is not determined by majority vote,
- (2) the majority has often been wrong in the history of science, and
- (3) the *majority view* has been achieved by 200 years of naturalistic uniformitarian “brainwashing” (as the evolutionary neocatastrophist, Derek Ager put it).

In giving “a brief history of the encounter between science and Christian theology,” Moshier and Hill acknowledge that modern science was born in the womb of the biblical worldview. Referring to the Copernican revolution (moving from a geocentric to a heliocentric view of the universe), they correctly say “the age of the creation was not yet a concern for scientists, who had no evidence or reason to question” that age derived from Genesis 1, 5, and 11. But then Moshier and Hill erroneously assert that Galileo and other early scientists “typically sought to use their newly acquired skills of observation and scientific reasoning to show proof for how God created the Earth. They did not seek to overturn or overrule Scripture.” (Hill et al. 2016, 22) On the contrary, Galileo, Kepler, and Copernicus were *not* thinking and writing about *how God created* (origin science), but rather about the arrangement and movement of the heavenly bodies (operation science). And while they perhaps did not *seek* to overturn or overrule Scripture (only God knows their motives), they certainly did drive a wedge between Scripture and science, as expressed in Galileo’s famous dictum, “The Bible tells us how to go to heaven, not how the heavens go.” It was a wedge that unbelieving geologists in the late eighteenth and early nineteenth century used to silence God’s eyewitness testimony

about history, as I discuss and document elsewhere (Mortenson 2004, 19–23).

Turning to geology, Moshier and Hill rightly declare that geology became a true scientific discipline in the early nineteenth century. They refer to the first geologists as either old-earth catastrophists or uniformitarians. Not surprisingly, they make no mention of the young-earth “scriptural geologists” in the early nineteenth century, even though another Hill et al. (2016) author (Ken Wolgemuth) has heard me lecture on this subject (the focus of my PhD research) at least once. But then they say:

Over years of observation, this view eventually led them to conclude that the earth is very ancient, and its history far too complex to be explained by a single catastrophic event. Note that this was not a rejection of the Noachian flood, nor was it a rejection of God’s providence in nature—it was simply a rejection of the flood as a major cause of Earth’s many geologic layers. (Hill et al. 2016, 22–23)

This is a grand myth. It was not over years of observations that geologists concluded the earth is very ancient. As was said in the section on the history of geology and documented more fully elsewhere (Mortenson 2004, 27–33), the founders of modern geology in the early nineteenth century were *already* committed to the idea of a very ancient earth *long before* they knew hardly anything about the geology of England, much less the rest of the world. Commitment to millions of years *preceded*, rather than followed, their observations. They ignored or rejected the biblical account of Noah’s Flood (which clearly describes a global, not localized, flood) and simply *assumed* most of the sedimentary rock record could not be explained by the Flood. As I documented in *The Great Turning Point* (Mortenson 2004), they rejected the global Flood, not as a result of careful analysis of the biblical text nor as a result of any scientific experiments nor as a result of a wealth of carefully scrutinized geological observations. They rejected the Flood because of anti-biblical philosophical (i.e., religious) assumptions, just as most geologists (including those contributing to Hill et al. 2016) have done ever since.

Moshier and Hill are wrong again when they say, “By the beginning of the twentieth century, catastrophist geologists had largely conceded to the uniformitarians” (Hill et al. 2016, 23). The uniformitarians had won the day by about 1840. By that time also, the geologically competent, young-earth, scriptural geologists were nearly dead or had given up the fight and had no means of reproducing themselves because the university geology departments, geological journals, and geological societies were totally controlled by the old-earth uniformitarian paradigm.

Moving into the twentieth century, Moshier and Hill refer to *The Fundamentals*, a collection of twelve volumes of 90 articles published from 1910 to 1915, as evidence that most of the conservative Bible scholars saw no problem with accepting the millions of years. Of course, the implication of mentioning this historical fact is that the age of the earth is clearly not important, and that someone can be perfectly orthodox while embracing old-earth geology. Only six of the 90 articles dealt with science. None of them defended the young-earth view. But none of these sincere fundamentalists carefully dealt with the biblical text regarding Creation Week, the Flood, or the age of the earth.⁵⁴

Next, to show that Christians should not accept the young-earth, global-Flood view, Moshier and Hill discuss George McCready Price (1870–1963), the brilliant, self-taught geologist and Seventh Day Adventist (SDA). In the first few decades of the twentieth century, he wrote many books on geology presenting evidence for a young-earth and the global Flood (a view he derived from the Bible) and against the uniformitarian, old-earth view. Moshier and Hill then mention Whitcomb and Morris’s highly influential book, *The Genesis Flood* (Whitcomb and Morris 1961). They subtly condemn Whitcomb and Morris for “expand[ing] on Price’s work (though giving minimal credit to Price)” (Hill et al. 2016, 23). But anyone looking at Price’s writings on geology and Whitcomb and Morris’s book can see that *The Genesis Flood* has far, far more analysis of the biblical text than Price gave, and it has more up-to-date references to geological and other relevant scientific literature. So, while Price certainly helped Morris to see the lie of uniformitarian geology, Whitcomb and Morris’s work was not simply a regurgitation or slight expansion or update of Price’s work. Furthermore, elsewhere Morris devoted many pages to Price and other Adventist creationists in his survey of the history of modern creationism (Morris 1993, 66–67, 73, 88–94, 126–134).

With these comments about Price, Whitcomb, and Morris, the authors of Hill et al. (2016) are clearly trying to discredit young-earth creation in the minds of evangelical readers. In other words, you should not accept Whitcomb and Morris’s view because it derives from a theologically unorthodox source. In this strategy they are following Ronald Numbers, the eminent historian of science who wrote

a history of modern creationism, *The Creationists* (Numbers 1992). Numbers said in his text, “Whitcomb grudgingly agreed to mention Price in a footnote, so long as it did not draw attention to the old man’s [that is, Price’s] peculiar religious beliefs.” (Numbers 1992, 199) Numbers buried in the endnotes of his book the fact that Price is mentioned positively in the text of Whitcomb and Morris (1961) on four pages. Whether Whitcomb “grudgingly agreed” to mention Price is an accurate description or simply an antagonistic “spin” by Numbers cannot be determined because Numbers does not quote Whitcomb’s exact words in the private, unpublished correspondence that Numbers cites in an endnote, and both Whitcomb and Morris have gone home to be with their Lord.

Understandably, Whitcomb understandably wanted to keep Price’s influence and his Adventism nearly out of sight in *The Genesis Flood*. He was wise enough to know that people like Numbers and the authors of Hill et al. (2016) would indeed try to use Price’s Seventh Day Adventism to discredit evangelical, young-earth creationists’ view of the Flood and age of the earth. Whitcomb’s concern has been vindicated many times since 1961, and especially since Numbers’ book, but readers should note two important facts.

First, while as a Seventh Day Adventist Price did have some views not held by evangelical/fundamentalist Christians, he did clearly believe the gospel.⁵⁵ Price advocated for a young earth and solar system and the global Flood, but in a brief comment he was open to an old universe. He cited Job 38:7 as biblical evidence “that many beings and much of the universe were already in existence long before this world was created.” But Price rejected the ruin/reconstruction gap theory and the day-age theory (Price 1941, 12).

Second, if Christians should reject Whitcomb and Morris’s young-earth view of origins (because they were influenced by the biblical and geological arguments of a Bible-believing, gospel-believing, Seventh Day Adventist man named Price), then Christians should also reject the old-earth views advocated in Hill et al. (2016) written by Christians and agnostics (in defiance of 2 Corinthians 6:14–17) who were influenced by the agnostic, former Seventh Day Adventist man named Numbers⁵⁶ and by all the

⁵⁴ See a short analysis of *The Fundamentals*, and especially the six articles dealing with science, in Mortenson (2010).

⁵⁵ Price said, “And in that day—nay, in this day—when we are in the stress and conflict over the very foundations of belief, when evil is once more apparently triumphant, and Satan’s first, last lie, ‘Ye shall be as gods,’ is again called truth and wisdom, reader, where do you stand? Are you trusting in the Creator of the heavens and the earth, who alone has the power to re-create you a new creature in Christ Jesus, and who is able to preserve amid the utmost stress and trial every trusting child of faith? Or will you reject the salvation so freely offered as a gift, and join those who are seeking in their own way and according to their own theories to save themselves and their world, and who, in their blindness, think it necessary to get rid of the troublesome few who stand in their way? “Choose ye this day whom ye will serve, but as for me and my house, we will serve the Lord” (Price 1902, 270–271). Many other places in Price’s numerous books show that he was trusting in the Savior and believed the Bible as the Word of God.

⁵⁶ Numbers openly describes his SDA, young-earth creationist upbringing and his departure into agnosticism during his PhD studies after hearing a lecture on evolution, in Numbers (1992, xvi).

secular scientific writers cited in Hill et al. (2016). But there is a difference. Price, Whitcomb, and Morris arrived at their conclusions about the Flood and the age of the earth by believing the Bible's clear teaching on those subjects and by using it like a pair of glasses to interpret the geological evidence. Numbers and the authors of Hill et al. (2016) have rejected God's clear eyewitness testimony (and the agnostics have rejected the gospel, rooted in that literal history of Genesis 1–11) and are wearing naturalistic, uniformitarian glasses to interpret the geological evidence.

Biblical Evidence:

Noah's Flood, A Historical, Global Catastrophe

Before looking at the "biblical" arguments that Hill et al. (2016) raise against flood geology, I want to give a brief summary of the truly biblical evidence that Noah's Flood was a historical, global, catastrophic judgment capable of producing most of the geological evidence that Hill et al. (2016) assigns to millions of years.⁵⁷

Noah's Flood Really Happened in History

There are many biblical and extrabiblical lines of evidence that Noah's Flood was an historical event which really happened. The Genesis account is not mythology.

- (1) Eleven times in Genesis the Hebrew word *toledoth* appears and is variously translated as "this is the account of" or "these are the generations of."⁵⁸ The use of the word ties the whole book together as a historical document, covering the key events of history from Creation to the time of Moses.
- (2) The Flood account reads like a diary, describing things that happened on specific days in the 600th and 601st years of Noah's life.
- (3) Jesus (Matthew 24:37–39), Peter (1 Peter 3:20, 2 Peter 2:5; 3:3–7), Isaiah (Isaiah 54:9) and Ezekiel (Ezekiel 14:14) believed it was a historical event.
- (4) The genealogy of Jesus demands that the Flood really happened, since all of His descendants (including Noah) must have been real historical people (Luke 3:23–38), or else Jesus was descended from a myth (Snelling 2009, 99–106).
- (5) Hundreds of flood stories from people groups around the world (many of which have details matching those in Genesis 6–9) point to a real historical event in the memory of humanity (Nelson 1931, 1968, 165–190).⁵⁹

Noah's Flood Was Global

The Flood was not localized in the Mesopotamian

valley, as many Christians believe and as the authors of Hill et al. (2016) contend, but was global in extent. When the waters reached the highest level, there was no land above sea level anywhere on the planet.

- (1) *Purpose of the Flood.* It was sent to destroy not only sinful man but also *all* land animals and birds not in the ark and the surface of the earth (Genesis 6:7, 13). A flood in the Middle East would not kill any birds or animals outside the Middle East. Birds are mentioned 19 times in Genesis 6–9; the repetition is undoubtedly emphatic and strongly points to the globality of the Flood. Birds could easily fly out of a localized flood-zone and animals could migrate to a safe area before the waters reached the highest level.
- (2) *Height of the Flood.* Only a global flood would cover *all* the high mountains under the heavens, by at least 15 cubits (or about 25 feet, or 7 meters: Genesis 7:19). Since water always seeks the lowest level, to cover just the mountains in the Middle East would result in a global flood. God would need to miraculously contain the floodwaters in a localized area by blocking every single mountain pass to avoid that global result. But nothing in Genesis 6–9 indicates that He did this. The text is screaming the opposite conclusion.
- (3) *Duration of the Flood.* From the beginning of the Flood until the people and animals disembarked on dry ground was 371 days (Genesis 7:11 and 8:14). The reference to 40 days (Genesis 7:12–18) refers to the continuous, torrential rains, but the fountains of the deep did not close and the rains did not stop until Day 150 (Genesis 8:2). It then took another 221 days for the waters to retreat and the land to sufficiently dry out. No local flood could last that long.
- (4) *Purpose of the Ark.* God told Noah to take onto the ark the birds and land animals that He brought to Noah, so as to repopulate the earth after the Flood (Genesis 7:1–3). If the flood was localized in the Middle East, the ark was totally unnecessary for the birds' and animals' survival. Even if all the animals and birds in the local flood zone died, the area would be repopulated by creatures from outside the zone. As for Noah and his family, they could have gone on a vacation to Egypt or Europe. The ark was only and absolutely essential if the Flood was global.
- (5) *Volume of the Ark.* It was unnecessarily large (Genesis 6:15) to save only a few animals, birds and people from a local flood. But the size described *was* necessary and adequate to save

⁵⁷ For a full discussion of the biblical evidence regarding the Flood, see Snelling (2009a), 1–294.

⁵⁸ Genesis 2:4; 5:1; 6:9; 10:1; 11:10; 11:27; 25:12; 25:19; 36:1; 36:9; 37:2.

⁵⁹ Nelson (1931, 165–190) summarizes 39 of those legends and cites other authors who describe more of them. See also <http://www.talkorigins.org/faqs/flood-myths.html>.

the number of *kinds* of creatures taken on board (Snelling 2009, 131–144).⁶⁰

- (6) *Landing of the Ark*. It landed in the mountains (plural in Hebrew) of Ararat (likely modern-day eastern Turkey), near the top of the highest mountain somewhere in that region at that time. It was 74 days before any nearby mountains could be seen (Genesis 8:4–5). No local flood could raise the ark to this altitude. And only a global flood would require this much time to recede as earth movements uplifted other mountains and the waters retreated into new ocean basins so that other nearby mountains became visible. We will consider more on this point when analyzing Hill et al. (2016)’s discussion of Mount Ararat.
- (7) *Rainbow Promise*. God promised to Noah and his family, to the animals and the birds on the ark, to all their offspring, and to the earth itself that He would never again send another flood to destroy them (Genesis 9:8–17). If the Flood was local, then God lied because since then there have been many local floods that have killed some animals and people and destroyed large areas of land. But Noah’s Flood was global, and God has kept and will keep His promise.
- (8) *Post-Flood Command*. God directs the animals and Noah’s family to repopulate the earth (Genesis 8:15–17 and 9:1). The commands were only necessary if it was a global flood. The animals and birds outside a local flood-zone would just naturally repopulate the area. And given the evidence in Genesis 4–6 that pre-Flood man was inventive, industrious and an explorer, and that Noah had the know-how to build the enormous ark,⁶¹ there is no reason to think that all the pre-Flood people lived in a single area of Mesopotamia.
- (9) *Repetition of Universal Terms*. Words such as “all,” “every,” “under heaven,” and “in whose nostrils was the breath of life” appear over 60 times in the Flood account. Certainly, the Hebrew word *col* (translated “all” or “every”) does not always literally mean all. But it often does. When it does not, the context makes it perfectly clear. In Genesis 6–9, the 60-fold use of these words is emphatically literal. Literally *all* the

high mountains under the whole of heaven” and *all* birds and land animals on the face of *all* the earth and not in the ark perished. We will come back to this point when critiquing what Hill et al. 2016 says about “all.”

- (10) *The Hebrew Word for Flood in Genesis 6–11: mabbul*. In these chapters, twelve times God uses the Hebrew word *mabbul*. It appears only one other time in the Old Testament (Psalm 29:10), where it undoubtedly refers to Noah’s Flood since *mabbul* is preceded in that verse by the definite article (i.e., *the* flood). It is not referring to any flood, but “the” Flood, where God truly showed Himself to be the absolute King over all creation. All other floods (literal or metaphorical) in the Old Testament are described with the noun, *sheteph*,⁶² or the verb, *zaram*.⁶³ In the New Testament, the Greek word *kataklysmos* (from which we get the English word “cataclysm”) is used only in reference to Noah’s Flood.⁶⁴ The same is true for the Greek translation of the Old Testament (Septuagint, or LXX): *kataklysmos* is only used in Genesis 6–11 and Psalm 29:10 (LXX: Psalm 28:10).
- (11) *Jesus and Peter*. Both Jesus (Matthew 24:37–39) and Peter (2 Peter 3:3–7) clearly imply that the Flood was global since they link the judgment of the Flood to the future judgment at the second coming of Jesus Christ, which will have a global effect.

Noah’s Flood Was Catastrophic

- (1) *Purpose of the Flood*. Expressing His holy wrath, God intended to “destroy” the surface of the earth (see also 2 Peter 3:6) and “blot out” creatures (Genesis 6:7, 17). This was no peaceful event that would leave no lasting evidence. The language implies a radical transformation of the surface of the earth.
- (2) *Source of the waters*. The Hebrew words used in Genesis 7:11 (ESV) are important and revealing. On the first day of the Flood, “all the fountains of the great deep burst forth” and “the windows of heaven opened.” The “deep” (*tehom*) is used 36 times in the Old Testament and usually refers to the oceans. “Fountains” implies subterranean

⁶⁰ Snelling estimated that fewer than 16,000 animals and birds were on the ark. More recent creationist research about the created kinds indicates there were only about 1,400 kinds and less than 7,000 animals and birds, leaving plenty of room for all the plant material for food. See Belknap and Chaffey (2019) and the technical papers to which they refer.

⁶¹ In Genesis 4 we learn that Cain built a city and people developed musical instruments, did mining, and discovered how to make metal instruments, which given the growing wickedness became instruments of war and crime. It is unthinkable that such people never figured out how to build boats and never travel by land or sea to explore to satisfy curiosity, to search for food and other things that could sold or traded back home, or to live far from the neighbors (and violence).

⁶² Job 38:25; Psalm 32:6; Proverbs 27:4; Isaiah 54:8; Daniel 9:26; Daniel 11:22; and Nahum 1:8.

⁶³ Psalm 77:17 and Psalm 90:5.

⁶⁴ Matthew 24:38–39; Luke 17:27 and 2 Peter 2:5. The associated verb (*kataklyuzomai*) is also only used with reference to Noah’s Flood (2 Peter 3:6). For other floods, the New Testament uses the noun *plēmmyra* (Luke 6:48) and the noun *potamos* and adjective *potamoforētos* (Revelation 12:15).

water coming into the oceans. “Broke open” is a translation of *baqa*, which is used in Numbers 16:31 (when God destroyed rebellious Korah and his family and livestock with a small earthquake), in Judges 15:19 (when God broke the rock to provide water for Samson), and in Zechariah 14:4 (where it refers to Jesus splitting the Mount of Olives east of Jerusalem to form a huge valley at His Second Coming). Genesis 7:12 shows that the “windows of heaven” is a metaphorical way to refer to heavy rain (like our English phrase “it’s raining cats and dogs”). But this was no spring rain to water the garden. The non-stop global rain for 40 days was an expression of the wrath of God. The language therefore clearly implies earth movements on the deep ocean floor as it broke open (i.e., earthquakes), which would trigger volcanic eruptions and tsunamis. Add to this the torrential global rain and the destruction is unimaginable.

- (3) *Rising of the waters.* The waters did not cover the whole earth on the first day. That likely did not occur until the fortieth day or later. From the onset of the Flood, when the fountains were broken up and the windows of heaven were opened, the waters continually rose and prevailed on the land (Genesis 7:18–20). Until the land was completely covered, tsunamis would hammer the land, eroding it as the floodwaters surged higher and higher and then retreat between surges. So, during the rising of the water, in any given area there would be times of violence and other brief times of relative calm. It would not have been equally catastrophic everywhere at the same time.
- (4) *Movement of waters.* During both the inundation stage and the recessional stage, water would be moving. And moving water erodes sediments and deposits them elsewhere. The Hebrew verbs in Genesis 8:5 clearly indicate a back-and-forth motion: the waters were going and returning, just as the raven flew back and forth (8:7). So, there would have been additional erosion and sedimentation in the recessional stage, reworking material previously deposited during the inundation stage. This was a complex event that would have produced complex geological evidence (just like the evidence we observe in the rocks today).
- (5) *Dimensions of the Ark* (Genesis 6:15). Scientific research has shown that the ark’s dimensions, particularly its length-width-height ratio, would have provided maximum stability, strength, and comfort to survive the worst sea conditions (Hong, Na, Hyun, et al. 1994; Hodge and Lovett 2009; Lovett 2013).

- (6) *Location of the Garden of Eden.* The geographical description in Genesis 2:10–14 cannot be harmonized with the geography of the post-Flood Mesopotamian valley or anywhere else on the earth. The Garden of Eden cannot be found because the pre-Flood world was totally destroyed. We will return to this point later when we consider how Hill et al. (2016) argues that the Flood was localized in Mesopotamia.

Now, what would we expect to find today if this global, year-long, catastrophic Flood had occurred? We would expect to find billions of dead plants and animals (both land and sea creatures) buried in various kinds of sediment layers that have hardened into rock and that show evidence of having been deposited in water (not in a desert or otherwise dry environment). We would expect to find evidence of massive erosion and sedimentation on a scale unlike anything we observe occurring today. And we would expect to find this same evidence all over the earth. That is exactly what we find! Billions of dead things, buried in rock layers, laid down by water, all over the earth. The question of human fossils is complex and addressed elsewhere (Lacey and Foley 2018; Snelling 1991b). But what we see in terms of billions of plant and animal fossils in geographically extensive, water-deposited, sedimentary layers is exactly what we would expect from Noah’s Flood.

The Hill et al. 2016 Rejection of the Global, Catastrophic Flood

With that brief summary of the biblical evidence of the Flood, we are now in a better position to examine Moshier and Hill’s attempt to argue in favor of their local flood view.

First, they briefly discuss four “basic principles” of flood geology, which they say “are based in a selectively literal reading of Genesis” and are “some of the most important scriptural interpretations” in defense of flood geology (Hill et al. 2016, 24). But as will be shown, Moshier and Hill are the ones who are engaged in a selective literal reading of Genesis because they have left out most of the biblical evidence summarized above.

Basic Principle #1: Age of the Earth and Date of the Flood

Moshier and Hill do accurately say that young-earth creationists believe God created the world “approximately 6,000 years ago” and the Flood happened “about 4,500 years ago.” But then they add, “One popular young earth organization claims the year of the Flood was 2304BC, stating that ‘all civilizations discovered by archaeology must fit into the last 4,285 years,’ without any further explanation.” However, anyone reading the 1981 online article they quote will see that indeed further explanation was given.⁶⁵

⁶⁵ The article cited in the endnote (211) is Osgood (1981, 10–13).

Furthermore, it is inaccurate to say the *organization* which posted the article “claims” this date of 2304 BC. That organization, Creation Ministries International (CMI), did not make that claim. Rather one of their contributing authors claimed that date in an article published *35 years before* Hill et al. (2016). But in 2013, another writer and staff member of CMI calculated the approximate date of the Flood to be 2474±10 BC (Cosner 2013). And a senior scientist staff member, speaker and prolific author for CMI explained in his 2015 commentary on Genesis 1–11 how he arrived at the “ball-park figure” of 2522 BC for the year of the Flood (Sarfati 2015, 126–131). So, Moshier and Hill have selected the date from one article on CMI’s website from almost 40 years ago and labeled it as CMI’s date for the Flood. Their selective out-of-date reading distorts the truth.

Moshier and Hill are equally inaccurate to say in the endnote related to this point (211) that “according to flood geology” the date of the Flood was 2304 BC. Answers in Genesis favors (though not dogmatically) a Flood date of 2348 BC and a Creation date of 4004 BC as a result of the respectful considerations of the scholarly work of Ussher, Jones and many other careful students of biblical chronology.⁶⁶ The Institute for Creation Research also values Ussher’s chronology and leans toward the Flood date of 2348 BC as approximately accurate.⁶⁷ It is also unfair and a misrepresentation to cite a 1981 article to say that “according to flood geology” or “one popular young earth organization claims” the date of the Flood was 2304 BC. Inaccuracies and misrepresentations of young-earth flood geology are typical in Hill et al. (2016), as will be further documented below.

Basic Principle #2:

Source of Floodwaters

Repeating what they said on page 21, Moshier and Hill say on page 24 that from the commencement of the Flood it rained for 40 days. But Genesis 7:11, 7:24, and 8:2 indicate it rained for 150 days in total.

Moshier and Hill mention the vapor canopy theory that was popular among creationists in the past. And they say correctly that “in recent years flood geologists have grown increasingly skeptical of this idea” (Hill et al. 2016, 21).⁶⁸

They also mention “the fountains of the great deep” in Genesis 7:11. But in their discussion of the “biblical problems” with flood geology (see below) they make no comments about these two sources of water which, as expressions of the wrath of God, so powerfully point to a global, catastrophic flood. It is perfectly understandable that the three agnostic

authors of this book would want to ignore these details of God’s eyewitness testimony. But why would the eight professing Christian authors do so? Where is their professed belief in the inspiration and truth of Scripture?

Basic Principle #3:

Extent and Geologic Results of a Global Flood

Moshier and Hill summarize flood geology regarding the extent and results of the Flood by saying that flood geologists believe tectonic forces unleashed during the Flood “rapidly built up entire mountain ranges, including the mountains of Ararat reaching nearly 17,000 feet, where the ark eventually landed (figure 2-4, and box below)” (Hill et al. 2016, 24). Flood geologists do indeed believe massive mountain-building occurred during and as a result of the catastrophic Flood. But the rest of Moshier and Hill’s sentence is false and therefore misleading.

Their figure 2-4 (25) is a beautiful photo of Mount Ararat, which they use to subtly suggest is where flood geologists think and teach the ark landed. Below the photo they say (with no endnote documentation), “many young earth advocates believe the ark landed on the tallest peak of the Middle East region, Mount Ararat. After the ark landed on Mount Ararat (or more precisely, on the ‘mountains of Ararat’...).” In noting the plural “mountains of,” Moshier and Hill imply they are more precise in their biblical analysis than the young-earth creationists that they are condemning.

Their “box below” mentioned in the quoted statement (24) in the paragraph above is entitled “Incredible (non-biblical) events required for Mount Ararat.” Under this heading, they tell their readers to “consider the sequence of events required by flood geology for this to form during a single flood.” They then list five events.

First, “sediments and dead animals were deposited from floodwaters.” Second, “the sediments turned into fossil-rich rock.” Third, “magma was extruded into and up through the sedimentary rock (which was miraculously shielded from significant alterations by the heat) to create an entire volcanic mountain range up to 17,000 feet in height.” Fourth, “this huge once melted rock mass cooled at a miraculous rate.” Fifth, Noah’s Ark landed on it.” They end the list with “all in 150 days!”

The first statement above is correct; flood geologists believe it is certain that those things were deposited during the Flood. But flood geologists would reject point two, for they do not think all the sediments were rock hard and dry by

⁶⁶ <https://answersingenesis.org/the-flood/> and Hodge (2007).

⁶⁷ <https://answersingenesis.org/age-of-the-earth/how-old-is-the-earth/> and <https://www.icr.org/article/how-young-earth-applying-simple-math-data-provided/>.

⁶⁸ For reasons why, see Snelling (2009a) 471–473, 662–670 and Worraker (2020).

the end of the Flood, as they are today. The other three points are definitely not what the leading flood geologists believe, so here we have more misrepresentation.

As noted before, the Bible does not say that the ark landed on Mount Ararat, but rather in the “mountains” (plural) of Ararat. Morris and Whitcomb’s *The Genesis Flood* said that in 1961, and only in a footnote (87) did they mention “rumors” of the ark being on Mount Ararat. But they added that those rumors “have never been confirmed.” None of the three leading creationist organizations (AiG, ICR, and CMI) say the ark landed on Mount Ararat. In fact, all young-earth flood geologists who have examined the geology of that part of Turkey agree that Mount Ararat is a largely post-Flood volcanic mountain. AiG’s Andrew Snelling has explained why he believes Mount Ararat cannot be the landing site of the ark, and he refutes recent claims that it has been found there (Snelling 2017). With helpful graphics, he also discusses the geological processes and timing involved in making the sedimentary rock layers and volcanic rock layers under Mount Ararat, which is a volcanic mountain core, known as a stratovolcano. Several articles on CMI’s site also argue against the ark landing on Mount Ararat. (Crouse 2001; Habermehl 2012; Humphreys 2011). ICR’s geologist, Tim Clarey, likewise rejects Mount Ararat as the ark’s landing site (Clarey 2019a). ICR’s John Morris made many trips to search for the ark on Mount Ararat because so many people over the centuries claimed to have observed the ark on that mountain. But Morris has always said the ark landed in the Ararat *mountains*, not on Mount Ararat.⁶⁹ Some creationist researchers have long argued Mount Cudi, about 325km southwest of Mount Ararat, was the landing place of the Ark (Crouse and Franz 2006). But the jury is still out on this question of the landing site, and wherever the ark landed, it may have been destroyed (or buried) by processes since the Flood.

So Moshier and Hill are misleading their readers (actually, they are not being truthful either intentionally or out of culpable ignorance) by implying or saying that flood geologists believe and say the ark landed on Mount Ararat.

Basic Principle #4: “The Fall” and Animal Death

Moshier and Hill correctly say that young-earth creationists contend there was no animal death, disease, and extinction before Adam’s Fall in sin, and therefore all fossil-bearing sedimentary rocks must be post-Fall. They say we believe that at the beginning “peaceful coexistence of immortal creatures prevailed” (Hill et al. 2016, 25). I don’t know any creationist who uses the term “immortal” to refer to animals, but it was conditional immortality related to Adam’s obedience. That no-death state continued only for a few days before Adam sinned and death entered the world.⁷⁰

But contrary to Moshier and Hill’s claim, creationists do not say there was “no decay anywhere on earth” before the Fall (Hill et al. 2016, 25). For as Adam and Eve and the animals ate plants and their fruit (Genesis 1:29–30), the food would certainly have decayed in their stomachs. As all leading creationist organizations say today, the second law of thermodynamics (also known as the law of entropy) did *not* commence at the Fall.⁷¹ It was operating before the Fall. However, the curse at the Fall did bring about “a change related to the effect and eventual results brought about by the second law.”⁷²

“Flood Geology: Biblical Problems”

Moshier and Hill claim there are six “biblical problems” with the young-earth, flood-geology view. We will consider them in turn. But first I will comment on their opening paragraph to this section, which reads:

Multiple *scientific* arguments can be made, and have been made for centuries, against a global interpretation of Noah’s Flood. These arguments are reflected in questions such as, “How could the ark carry all of the animal species on earth?” Or, “How did llamas from South America or penguins from Antarctica migrate to and from the ark?” Here, we present some *biblical* arguments *against* flood geology. (*italics in the original*)

We must remember that geology as a science was born and the old-earth story became entrenched in geology only in the early nineteenth century, when

⁶⁹ For example, Morris (1990). In Morris (2007b), he presents points for and against Mount Ararat being the correct mountain and notes that “[Mount] Ararat is a volcanic cone with little evidence that it was ever under water during the flood, indicated that it may have formed after the flood.”

⁷⁰ Several lines of evidence point to the Fall being only a few days after the creation of Adam and Eve. (1) Chapter divisions in the Bible are not inspired and there is no indication in the text of a great passing of time between the creation and the temptation of Eve (as in Genesis 4:1 which indicates the passing of nine months, or in Genesis 16:16–17:1, which covers 13 years). (2) Adam and Eve were commanded to have children and God would surely have created Eve to be fertile, but they apparently did not have sexual relations, or at least Eve did not conceive until after they were expelled from the Garden. (3) Once Satan fell, he would not wait a long time to attack God’s highest creation.

⁷¹ In addition to digestion, other evidences of the second law in effect before the Fall would include the solar heating of the earth (heat transfer between hot and cold objects), walking (involving friction), and breathing (moving air from high to low pressure).

⁷² For a careful discussion on the second law from a creationist perspective, see Anderson (2013).

hardly any of the geology of the earth had been studied. So, any “scientific” arguments against the Flood at that time were based on gross ignorance of the geological evidence and (as documented earlier in this essay) as a result of anti-biblical, philosophical assumptions used to interpret that scanty evidence. Additionally, the above sample questions of the skeptics reflect that ignorance. The Bible does not say Noah took “all of the animal species” on the ark. He did not take any sea creatures, which constitute about one-fourth of all species (Latty and Lee 2019). And he did not take two of every land and bird *species*, but only two of every *kind* (and seven pairs of the bird *kinds* and of the clean animal *kinds*: Genesis 7:1–3).⁷³ Furthermore, the early nineteenth century skeptics never did any scientific research to answer the first question. They (including professing Christian old-earth geologists) simply *assumed* Noah’s Flood was a myth or just a local flood, and they ignored the biblical text, as document elsewhere (Mortenson 2004).

The second question Moshier, Hill, and other skeptics ask merely assumes the very point in question. They assume the pre-Flood world was made up of continents with certain animals just as we have today. But there is no biblical justification for that assumption. In fact, if the Flood was the global, year-long, catastrophe that Genesis describes, there are very good reasons to think the pre-Flood world was vastly different. How creatures like llamas and penguins got from the ark that landed in the mountains of Ararat to the places where they now live is not hard to explain scientifically (see Snelling 2009a, 163–180; Taylor 2006). Of course, we cannot fault the uninformed European scientists of the early nineteenth century who knew very little about the rest of the world’s biology and geology. But there is no excuse for the authors of Hill et al. (2016), who could have examined the already available creationist

literature on this question to see the fallacy of their skeptical question.

Now we move on to examine the “biblical arguments against flood geology” made by Hill et al. (2016). Much will be quoted from this section to shed light on their twisted arguments.

Their “biblical argument” #1: A Literal Interpretation of Scripture?

Moshier and Hill say, “Young earth writers affirm the inerrancy of Scripture in its original form as the ‘one basic premise’ informing their understanding of creation history” (Hill et al. 2016, 26). Certainly, creationists very openly affirm the historic Christian doctrine of the inerrancy of Scripture. Furthermore, we know for sure that the three agnostic authors of *The Grand Canyon, Monument to an Ancient Earth* do not affirm this doctrine. Whether the other eight (professing Christian) authors hold to inerrancy is at least questionable, since they do not affirm it in this book, and BioLogos (with which they are all associated) does not affirm it either.⁷⁴ Furthermore, Solid Rock Lectures, the co-publisher of the book, has three speakers (who are also co-authors of the book): Gregg Davidson, Ken Wolgemuth, and Joel Duff. Their organization’s “Statement of Beliefs” does not affirm inerrancy either.⁷⁵ So, it is very doubtful that any authors of this book hold to the doctrine of inerrancy.

Moshier and Hill continue regarding young-earth creationists, “For them, biblical inerrancy means that words in the Bible are taken literally with little or no regard for how those words may have held different meanings when they were written” (Hill et al. 2016, 26). That is absolutely false! Young-earth creationists fully affirm *The Chicago Statement on Biblical Inerrancy* (TCSOBI, 1978) regarding the meaning of inerrancy. And as the International Council on Biblical Inerrancy’s (ICBI) additional

⁷³ There are good scientific and biblical reasons to conclude that the “kinds” referred to in Genesis 1 and Genesis 6 are not equivalent to the modern taxonomic classification of species, but mostly like to the level of family. See Lightner (2008), and Purdom (2010).

⁷⁴ Wheaton College, where Moshier teaches and is required to sign the doctrinal statement each year, does affirm inerrancy (see <https://www.wheaton.edu/about-wheaton/statement-of-faith-and-educational-purpose/>). But the statement does not explicitly say Scripture is inerrant on all matters about which it speaks, including history and science, as *The Chicago Statement on Biblical Inerrancy* (TCSOBI) does in Article 12 (https://library.dts.edu/Pages/TL/Special/ICBI_1.pdf). Without that specificity, Wheaton faculty could interpret the doctrinal statement to mean “inerrant in spiritual and moral areas only.” The belief in “limited inerrancy” is a real problem in evangelical academia, as Norman Geisler warned (<https://defendinginerrancy.com/inductive-deductive-inerrancy/>).

Sadly, Geisler was inconsistent in his commitment to inerrancy and compromised with millions of years because of some ambiguous wording in TCSOBI and *The Chicago Statement on Biblical Hermeneutics*, as is shown in Mortenson (2020).

Both Moshier and Hill (and five other Hill et al. 2016 authors) are associated with and have written articles for the theistic evolutionist organization, BioLogos, which does not affirm inerrancy in their doctrinal statement (see <https://biologos.org/about-us/what-we-believe/>).

⁷⁵ <http://solidrocklectures.org/statement-of-beliefs.html>, accessed 2020 June 12. The statement is so brief that it is anyone’s guess what they mean by any of these six points. Regarding point 1, as Hill et al. 2016 demonstrates, they surely do not believe in the authority and infallibility of Genesis 1–11. Here is the statement verbatim (except that I have numbered the bullet points to arrange them in a single sentence): “We believe and affirm (1) the authority and infallibility of Scripture, (2) the reality of miracles, (3) the deity, virgin birth, and resurrection of Christ, (4) Adam and Eve, Garden of Eden, and first sin, (5) the need for the atoning blood of Jesus, and (6) that science is not necessary to understand the intended meaning of Scripture, but can be useful in weeding out unintended secondary interpretations.”

document, *The Chicago Statement on Hermeneutics (TCSobH, 1982)*, instructs, Christians should determine the meaning of a biblical word, phrase, or verse by studying it in context and comparing Scripture with Scripture. Young-earth creationists do not hold to a woodenly literal interpretation of Scripture. Answers in Genesis' doctrinal statement on Scripture is perfectly consistent with the ICBI statements on inerrancy and hermeneutics. So are the doctrinal statements of the Institute for Creation Research and Creation Ministries International. Moshier and Hill have made an often-used, straw-man argument, which some basic fact-checking would show to be false. They continue:

Readers of Young Earth literature are warned that non-literal interpretations of words and phrases such as 'day' and 'all the land' or 'all flesh' are compromises to accommodate evolutionary ideas about creation that violate biblical admonition such as Deuteronomy 4:2: *You shall not add to the word which I am commanding you*. (Hill et al. 2016, 26)

They cite no creationist literature to support this claim. What young-earth creationists teach is that non-literal interpretations of the "days" of Genesis 1 are not contextually and biblically defensible given that the days are numbered and used with "night," "evening," and "morning" in context and given God's own commentary on the Creation days in Exodus 20:8–11 as well as numerous other lines of biblical evidence (Mortenson 2011). In addition, nonliteral interpretations of "all the land" or "all flesh" in Genesis 6–8 that would limit the Flood to a geographical area in the Middle East are also contextually and biblically untenable. We also say these exegetically untenable interpretations are driven by a commitment to the supreme and inerrant authority of the scientific consensus about evolution and millions of years rather than a commitment to the supreme authority of Scripture.

Moshier and Hill continue, "However, flood geologists frequently bring modern scientific concepts to the biblical text in a way that does just that—adding to the Word." To support this contention, they do not cite any example from young-earth creationist literature discussing the Flood account (Genesis 6–9). Rather, they cite this one example:

Consider how Psalm 104:8 is "quoted" in *Grand Canyon: A Different View (GC:ADV)*: "*The mountains rose, the valleys [ocean basins] sank down to the place which you established for them [brackets in original]*". Here the author feels free to interpret valleys to mean ocean basins even though this is not a literal translation and

thus, contrary to the book's stated "one basic premise" of biblical literalism. (Hill et al. 2016, 26)

Of course, the author of that statement (John Whitcomb) felt free to *interpret* "valleys" to mean "ocean basins." That is the obvious meaning from the context, as the next sentence in *Grand Canyon: A Different View* (which Moshier and Hill did *not* quote) shows from Psalm 104:7 (as *GC:ADV* says), "And thus, '*At Your rebuke they [the waters] fled...they hurried away.*' (v.7)." To be sure, "[the waters]" is also an *interpretation* absolutely demanded by the context. But Moshier and Hill complain "this is not a literal translation." They are correct. It is not a *translation* at all; it is an *interpretation*! Either they do not understand the difference between a context-controlled interpretation and a translation, or they are not paying careful attention when they read creationist literature, or they are using a deceptive, apples-versus-alligators argument (by replacing the words "literal interpretation" with "literal translation").

Notice also how Moshier and Hill have switched from accurately saying *inerrancy* is the "one basic premise" of creationists (as stated plainly in *GC:ADV*⁷⁶) to now falsely saying that our "one basic premise" is "biblical literalism" (which *GC:ADV* does not say at all). In the next paragraph they refer to *The Chicago Statement on Biblical Inerrancy* (produced by the ICBI), saying that it "clearly disavows ironclad biblical literalism." Moshier and Hill's use of the undefined phrases of "biblical literalism" and "ironclad biblical literalism" is a standard tactic of those who intentionally misrepresent Bible-believing Christians as a part of the skeptics' subtle attack on the truth of Scripture. But as shown elsewhere, there are some small but significant problems in the wording of the ICBI's two statements on inerrancy and hermeneutics, which have in effect opened the door to undermining the inerrancy and authority of Scripture (Mortenson 2020).⁷⁷ Because of those problems in the wording of *The Chicago Statement on Biblical Hermeneutics (TCSobH)* and because of Moshier and Hill's own false, misrepresenting labels, they claim:

Flood geologists have largely ignored these admonitions and have drawn geological and paleontological conclusions about the extent of the Genesis Flood from many words and verses, without considering the ancient cultural context of the Bible. In truth, the flood geology position derives not from a literal interpretation of Genesis, but from debatable assumptions about the intended meaning of specific words and phrases. Several examples follow. (Hill et al. 2016, 26)

⁷⁶ On page 7, *GC:ADV* says, "As you read this book, you will see that we look at the Canyon from a biblical worldview. With that in mind, there is one basic premise, or framework, used as a starting point. That premise is: the Bible, in its original form, is the inerrant Word of God."

⁷⁷ See also my DVD lecture <https://answersingenesis.org/store/product/inerrancy-and-undermining-biblical-authority/>.

We will now consider the several examples they use to support this charge in their five “biblical arguments” against the global Flood.

Their “biblical argument” #2: Eretz

One of the Hebrew words in the Flood account (Genesis 6–9) is *eret*, a word used over 2,500 times in the Old Testament. Moshier and Hill correctly say this word has multiple meanings: earth (that is, the planet), ground, land, soil, or country. It also sometimes refers to the people on the earth (e.g., Genesis 11:1). But as with most other words in a Hebrew-English dictionary (and in dictionaries for every other language), it is very important to remember that *context* must always determine the specific meaning of a word in a *particular* sentence.

Moshier and Hill correctly say that in Genesis 1:10 God calls the “dry land” *eret*. They also say that “face of the ground” (where “ground” represents *eret*) in other verses “are best understood as the *soil* or *local region* that we can see around us; that is, what is within view of the horizon” (Hill et al. 2016, 246). But they cite no verses to support their meaning of “local region” or “within view of the horizon.”⁷⁸ More importantly, they cite no verse in Genesis 6:1–9:17 (the Flood account) where *eret* has that geographically limited meaning. In fact, “face of the ground” in those chapters is a translation of “face of the *adamah*.”⁷⁹ “Face of the *eret*” is translated as “face of the earth” in most English translations because the context indicates clearly that *eret* is referring to all the land on the planet.⁸⁰

But Moshier and Hill say, “Flood geologists understand *eret* to mean the entire planet Earth” (Hill et al. 2016, 26). No, flood geologists understand this word, *eret*, has a range of meanings, as mentioned above. Usually from Genesis 12 through Deuteronomy, it refers to the land (that is, territory, country) of Israel or of Egypt (which is far greater than simply what is within view of the horizon), as context makes abundantly clear. But *eret* means the whole planet in Genesis 1:1–2, 2:1–4, 14:22, 24:3, and many other places.⁸¹ And when it does refer to land in contrast to the sea, it often unquestionably means all the land on the planet (not merely a small portion of the land within eyesight), as for

example, in Genesis 1:10–12 and 1:24–25. That is also true in Genesis 6:1–9:17, where *eret* is used 48 times. Given these other verses in Genesis, the uses of *eret* in Genesis 6–9 must likewise refer to all of the land on planet earth (as distinguished from the oceans). It should also be noted that in the Septuagint translation of Genesis 6–9, the Greek word *gē* (translation of *eret*) is used always. But the Greek word *oikoumenē* (which refers to a part of the inhabited land of the earth) is never used in those chapters.

Therefore, there is no basis in the text of Genesis 6–9 for *eret* to be interpreted as a local area that only extends as far as a person can see to the horizon. The only reference to visibility in the Flood account is in relation to seeing nearby *mountains* after the Ark landed (Genesis 8:5), not to seeing the *eret*.

After this fatally flawed denial of the global Flood based on the meaning of *eret*, Moshier and Hill claim, “The ancient Hebrews knew nothing about planet Earth. The land around them is all they knew” (Hill et al. 2016, 26). These two geologists do not tell us how they know this; they cite no experts on the thinking of ancient Hebrews. In fact, we know Moshier and Hill are absolutely wrong. Noah surely was not the only person who knew how to build a boat. And before Noah there were people inquisitive and intelligent enough to develop mining, metallurgy, and musical instruments (Genesis 4:21–22). Abraham (who lived over 500 years before Moses wrote Genesis) undoubtedly knew of people and lands to the east of Ur, and he traveled west all the way to Egypt. Even a flood that covered all the high mountains under heaven for nearly 150 days just in the territory that Abraham knew would be a global flood since water always seeks the lowest level plane. Furthermore, Moses was trained “in all the learning of the Egyptians” (Acts 7:22), who built the pyramids up to about 800 years⁸² before Moses, were expert shipbuilders, and traded by sea with far-away lands.⁸³ Moshier and Hill’s statement reflects a fallacious evolutionary view of man: that ancient people (including the Israelites) were primitive and ignorant.

Moshier and Hill conclude this one-paragraph point saying, “The *mistranslation* of *eret* as planet Earth,

⁷⁸ Neither the New American Standard Exhaustive Concordance (Thomas 1981) nor Strong’s Exhaustive Concordance (Strong 1990) offers “local area within view of the horizon” as a meaning of *eret*. Nor does Hamilton (1999), 74. It is not even clear what “within view of the horizon” means.

⁷⁹ The Hebrew word *adamah* occurs 225 times in the Old Testament and is translated as ground or land. It is used nine times in the Flood account. “Face of the ground” (*adamah*) appears in Genesis 6:1, 6:7, 7:4, 7:23, 8:8, and 8:13 as well as in Genesis 2:6. In Genesis 6:20, 7:8, 8:21, and 9:2 *adamah* appears in phrases such as “creeps on the ground” or “curse the ground.”

⁸⁰ “Face of the earth” (*eret*), or “face of the whole earth” (*col eretz*) is used in Genesis 7:3, 8:9, 11:4, 11:8 and 11:9, as well as in 1:29.

⁸¹ See also Exodus 9:29, 20:11 and 31:17; Deuteronomy 30:19 and 31:28; Joshua 3:11; 2 Kings 19:15; Job 38:4 and 38:33; Proverbs 3:19 and many Psalms, e.g., 8:1, 24:1, 47:7, 57:5, 89:11, 102:25, 115:15, 121:2, 124:8, 134:3, 148:13.

⁸² Since Egypt as a nation was formed post-Flood and post-Babel, then if the Flood was at c. 2350 BC and Babel at c. 2240 BC then Moses was in Egypt c. 1480 BC, which is about 800 years.

⁸³ <https://exploration.marinersmuseum.org/watercraft/egyptian-ships/>.

instead of as a local parcel of land, is the foundation for many of the false assumptions and precepts of flood geology” (Hill et al. 2016, 26). Of course, no English Bible translates *eretz* as “planet Earth.” Rather, flood geologists *interpret* Genesis 6–9 (based on many lines of textual *evidence*, as discussed above) to mean that when the waters reached their highest level (possibly by Day 40 and several times after that until Day 150, when the recessional phase of the Flood began), the whole surface of planet earth was covered with water (that is, no dry land anywhere). Other than citing the range of meanings of the word *eretz* and offering their undocumented and false claim about what ancient Hebrews knew, Moshier and Hill offer no textual, exegetical arguments for their assertion that the Flood only covered “a local parcel of land.”

The sloppy, shallow reasoning of these two geologists and their co-authors is the foundation for their own anti-biblical, naturalistic, uniformitarian assumptions and precepts driving their old-earth view that Noah’s Flood only covered a local area in the Middle East.

***Their “biblical argument” #3:
“All,” “Every,” and “Under the Whole Heaven”***

No informed young-earth creationist, much less a flood geologist, denies that the Hebrew word *col* (translated “all,” “every,” and “whole”) can mean “all” in a limited (rather than a global or absolute) sense. Moshier and Hill correctly say there are numerous examples of a less-than-universal sense, including the only example they cite, Genesis 41:57, where the context clearly indicates that “all (*col*) the nations” refers to the nations near to Egypt, not every nation on the planet.

But there are numerous examples in the Old Testament where *col* does mean literally “all.” At the end of the sixth day of creation, God saw *all* that He had made, and it was very good (Gen. 1:31). *All* the days of Adam were 930 years (Genesis 5:5), *all* the days of Seth were 912 years (Genesis 5:8), and similarly in the rest of the genealogy. *Every* intention of the heart of pre-Flood people (except for Noah and his family) was evil (Genesis 6:5). *All* flesh (except for Noah and his family) had corrupted its way on the earth (Genesis 6:12). *All* the people of the earth in the first century or more after the Flood (until God’s Tower of Babel judgment) spoke the same language (Genesis 11:1). *All* that the earth contains is the Lord’s (Psalm 24:1). *All* we like sheep have gone astray and need the Savior (Isaiah 53:6). And *all* of God’s righteous ordinances are everlasting (Psalm 119:160. Many more examples could be cited.⁸⁴

After arguing for the obvious relative meaning of *col* in Genesis 41:57, Moshier and Hill ask, “So why

is the global interpretation insisted upon by flood geologists for Noah’s Flood?” Creationists will always answer, “Context, context, context!”

The repeated use of this word, *col*, in context with other words in Genesis 6–9 shows emphatically that every use of “all” in the Flood account literally means “all.” If “*all (col)* the high mountains under the *whole (col)* heaven were covered” (Genesis 7:19, ESV) does not mean that all the land everywhere on planet earth was covered with water, then what does it mean? And if “*all (col)* flesh died that moved on the earth, birds, livestock, beasts, *all (col)* swarming creatures that swarm on the earth, and *all (col)* mankind” (Genesis 7:21, ESV) does not literally mean all those air-breathing, land-dwelling creatures everywhere on the planet, then what does it mean? And if “He blotted out *every (col)* living thing that was on the face of the ground: man and animals and creeping things and birds of the heavens, and they were blotted out from the earth, [so that] only Noah was left, and those who were with him in the ark,” (Genesis 7:23, ESV) does not mean all air-breathing land and flying creatures on planet earth not in the ark, then what does it mean? And if “*everything (col)* on the dry land in whose nostrils was the breath of life died” (Genesis 7:22, ESV) does not refer to all such creatures on the planet, then what does it mean? Are we seriously to believe all those creatures only lived on only a very small localized part of all the dry land on the planet? And are we to seriously believe that when God said, “And the waters prevailed so mightily on the earth that *all (col)* the high mountains under the whole heaven were covered,” he meant that only some low hills in a localized area of the Mesopotamian valley were covered?

The appallingly shallow argument Moshier and Hill put forth here is a blatant evasion of the obvious. That is not the way to treat a book they claim is the inspired inerrant Word of God. What were endorsers Grudem, Collins, Keathley and Copan thinking when they endorsed this book?

***Their “biblical argument” #4:
“Covered the Mountains...”***

Moshier and Hill say, “the depth of the flood is also a matter of interpretation.” That’s true, and to interpret correctly can only be done by looking at the whole Flood account and paying attention to all the details. But they only focus on a single verb! They tell us the floodwaters “covered the mountains to a depth of more than twenty feet” (or 15 cubits, as Genesis 7:20 variously says in most English translations). But they say the Hebrew word translated “covered” (*kasah*) could be interpreted as “drenched,” and therefore this verse means that “water rose to a depth of twenty feet *against* the mountains” (Hill et

⁸⁴ For example, Genesis 5:8, 11, 14, 17, 20, 23, 27, and 31; and 46:26; 2 Chron. 20:6; Psalm 97:6; Psalm 103:19; and Dan. 4:35–37.

al. 2016, 27, italics in the original). That is their whole one-paragraph argument to attempt to neutralize the truth of Genesis 7:20, which with other verses in Genesis 6–9 so powerfully speaks of a global flood. In the endnotes they cite no scholarly Hebrew source to support their claim about the meaning of *kasah*.

But *kasah* occurs 153 times in the Old Testament and never means “drench.” Hebrew scholars tell us it means to cover, conceal, hide, clothe, spread over, or overwhelm (Harris 1999; Koehler and Baumgartner 2001, 488). And there is no Hebrew word in this verse supporting their inserted word “against.” This is a very good example of Scripture-twisting, which Peter warned about in 2 Peter 3:16.

Their “biblical argument” #5: Death and the Fall

Moshier and Hill do correctly report that young-earth creationists contend:

- (1) there was “no animal death before the Fall” and
- (2) therefore, the fossils (which are primarily the remains of dead plants and animals), as seen in the Grand Canyon and everywhere else, cannot be the result of millions of years of earth history.

They respond, “But nowhere does scripture say that animal death resulted from man’s sin. Genesis 3 does not make this claim, nor is it supported by commentary in the New Testament” (Hill et al. 2016, 27). They then quote Romans 5:12–13 and say this only applies to human death. Two rebuttals can be made here.

First, creationists do not say, “Scripture says animal death resulted from man’s sin.” Rather, we argue that the Bible teaches this truth, just as Scripture teaches the doctrine of the Trinity, even though nowhere does the Bible say that God is triune.

Second, Moshier and Hill are right about Romans 5:12–13; in context it is only referring to human death. Some young-earth creationists have used Romans 5:12 as a “magic bullet” to shoot down the idea of animal death before the Fall. But this is a classic case of taking a verse out of its context. Romans 5:12 is discussing human death. The whole chapter makes that clear. Nevertheless, it must be added that even leading creationists who mention Romans 5:12 with respect to the question of animal death before the Fall do not reference that verse alone. They also cite at least some of the verses discussed here below.⁸⁵ A thorough discussion of this issue can be found elsewhere (Mortenson 2012). But in summary, the biblical evidence that there was no animal death

before the Fall can be stated briefly as follows:

- (1) Genesis 1:29–31 tells us that in the original creation, which God called “very good,” both man and *all* the animals and birds were vegetarian. God did not give permission for man to eat animals until Genesis 9:3. If at the end of Creation Week some of the animals and birds were carnivores, then we would expect Genesis 1:30 to say “and to *some* beasts of the earth and to *some* birds of the sky and to *some* things that move on the earth...I’ve given every green plant for food.” But God says “to *every* beast...to *every* bird...to *every* thing that moves...I’ve given every green plant.” The repetition of “every” is emphatic.
- (2) Genesis 3:14–19 tells us that as a result of Adam’s sin, He not only judged Adam and Eve, resulting in physical death for all people starting with them. God also cursed the animals. And He cursed the ground, bringing forth thorns and thistles and causing the world to be a difficult place in which to live. God’s curse was so indelibly impressed on man that it was on Lamech’s mind when Noah was born (Genesis 5:29) 1,100 years after Adam sinned.
- (3) Genesis 8:21 tells us the Flood was also a curse on the earth and its non-human creatures.
- (4) In Deuteronomy 28:15–68, God promised a curse on Israel, if they disobeyed His Word. That curse would not only affect the Israelites personally (both in terms of death, disease—both physical and psychological—and captivity), but it also would affect their cities (walls and buildings), land, crops and livestock, and the weather patterns in Israel. Similar judgments on the non-human creation because of human sin are revealed elsewhere in the Old-Testament.⁸⁶
- (5) Romans 8:18–25 teaches that the whole creation is now subject to futility and groaning in bondage to corruption, waiting to be set free when Christians receive their resurrection bodies, and the creation is restored.
- (6) Colossians 1:15–20 reveals that Jesus Christ not only created all things but by his death and resurrection redeemed all things (both things in heaven and things on earth). The full expression of that redemptive work will occur when the curse is removed, and the creation is restored at His second coming (Acts 3:21; Revelation 22:3).

Fig. 19 expresses visually both the truth of God’s Word and the orthodox belief of the church for 2,000

⁸⁵ In arguing for no animal death before the Fall, the following creationist authors do not simply refer to Romans 5:12. They all refer also to Romans 8:19–23. Most of them also refer to other passages to make this point including, Genesis 1:29–31 and 3:14–19; Isaiah 11:6–9; and Revelation 22:3. So it is a serious misrepresentation of the young-earth view to imply the only verse we use to argue for no animal death before the Fall is Romans 5:12. See Ham (2012 rev. ed.), 123–126; Hodge and McIntosh (2006); Klein and Klein (2020); Kulikovskiy (2009), 197–220; Lacey (2012); Morris (1998); Whitcomb and Morris (1961), 454–473; Sarfati (2011), 191–211; Smith (2007); and Turpin (2013).

⁸⁶ Genesis 19:25; Leviticus 26:14–43; Jeremiah 7:20; and Jonah 4:11.

years. Figs. 20 and 21 are lies and gospel-subverting heresies.

The idea of millions of years of natural evil contradicts the clear teaching of Scripture about an original “very good” creation, thereby assaulting the character of God. It also destroys the Bible’s teaching on the Fall and the curse, nullifies the global flood of Noah, and undermines the redemptive work of Christ. The gospel is rooted in the literal history of Genesis 1–11. Moshier and Hill and the rest of the Hill et al. (2016) authors have no biblical support for their view of the original Creation and the Fall and its consequences.

After this one-paragraph, supposedly refuting the young-earth view of animal death, disease, and extinction, Moshier and Hill then attempt to silence the Bible completely when they ask, “Does the Bible contain scientific errors? The answer is No—if it was

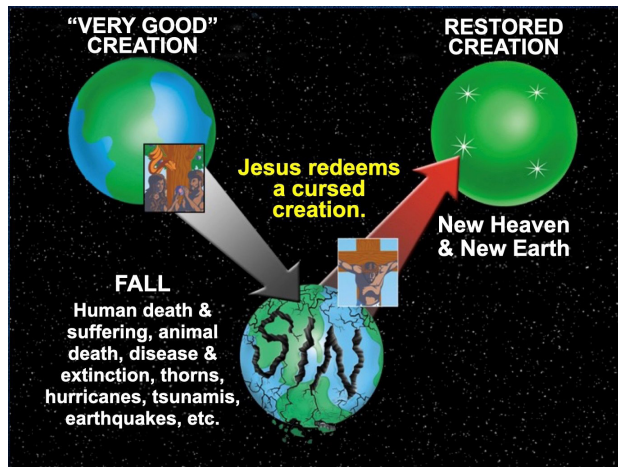


Fig. 19. Biblical view of the earth’s history from Creation to the Consummation

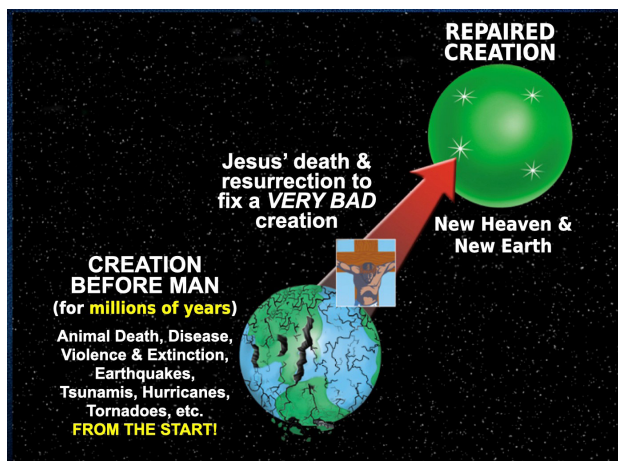


Fig. 20. Antibiblical view of the earth’s history from its marred evolutionary development to the Consummation.

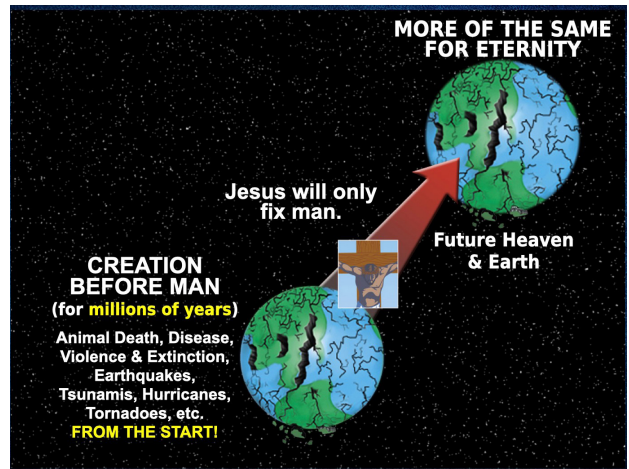


Fig. 21. Antibiblical view of the earth’s history from its marred evolutionary development to an eternally marred state because Jesus’ atonement was only for man’s sin.

not meant to convey scientific information. Bible scholars and theologians reason that the scriptures were not written ‘to us,’ but ‘for us’” (Hill et al, 2016, 27). In the context of this book and particularly the pages we have examined, this strongly indicates that Moshier and Hill do not think the Bible was meant to convey any information relevant to scientific questions about the origin and history of the creation, particularly the origin and history of rock layers and fossils in Grand Canyon. They imply that a large number of Bible scholars and theologians hold to this “for us but not to us” view of the Bible. But in the endnotes, they cite only one such scholar: John Walton, professor of Old Testament at Wheaton College.

Like eight of the authors of Hill et al. (2016), Walton is a theistic evolutionist. He is a theological advisor to BioLogos.⁸⁷ Purifoy is right in labeling Walton’s unorthodox and novel views as “gnostic” (Purifoy 2018). In his book, *The Lost World of Genesis One*, Walton unquestionably implies and almost explicitly says, “You can’t understand Genesis unless you are an expert in ancient Near-Eastern literature.”⁸⁸ Taking the supposed worldview of the literature of ancient Israel’s pagan neighbors as his hermeneutical grid, Walton contends that Genesis 1 does not describe the creation of anything, but only teaches that God gave function to preexisting material things to transform the creation into a cosmic temple. Therefore, the Bible is silent, he says, about material origins, and we can accept whatever the evolutionary scientific majority says about those origins. Walton’s views have infected the global church like a virus and have been insightfully refuted by several astute biblical

⁸⁷ Walton is on the BioLogos Advisory Council: <https://biologos.org/about-us/advisory-council/>.

⁸⁸ In an appendix to his book (Walton 2009, 171), Walton asks the question: “If this [Walton’s cosmic temple functionality view of Genesis 1] is the ‘right’ reading, why didn’t we know about it until now?” His answer: “The worldview of antiquity was lost to us as thinking changed over thousands of years, and the language and literature of the ancient world was buried in the sands of the Middle East. It was only with the decipherment of the ancient languages and the recovery of their texts that windows were again opened to an understanding of an ancient worldview that was the backdrop of the biblical world. This literature and the resulting knowledge have made it possible to recover the ways of thinking that were prominent in the ancient world and has given us new insight into some difficult biblical texts.”

critics.⁸⁹ Moshier and Hill embrace Walton's teaching and continue:

Understanding the ancient near East (ANE) mindset helps provide context, because the people "to" whom the Bible was written did not care about the structure of the physical world in the way that modern scientists think about it; they cared about the *function* of the physical world. While the Genesis account of God making the world, and other biblical references to the natural world, do not use scientific language as we understand it, the Bible does explicitly claim that all that we see was created and is sustained by God's hand. (Hill et al. 2016, 27)

Oh, so Moshier and Hill *do* think the Bible makes scientific claims (contrary to their earlier claim that it was not meant to do so). Yes, indeed, it does convey scientific information. Or more precisely, it conveys eyewitness, historical truths (about Creation, the Fall, chronology, and the Flood) that directly bear on origin scientists' efforts to *interpret* the physical evidence *observable* in the *present* as they try to reconstruct the *unobservable, unrepeatable past*. But wait a minute. Did you notice that Moshier and Hill follow Walton who says that Genesis 1 does not tell us about the creation of material things but only that God gave pre-existing things function? And yet in the quote above they say that Genesis 1 is an account of "God making the world." So did God make things in Genesis 1 or not. Moshier and Hill cannot have it both ways. It should be noted that the three agnostic authors of this book effectively, if not explicitly, deny that the Creator made the world and sustains it by His hand. And those three agnostics certainly do not believe that God destroyed it and all mankind (except the eight in the Ark with the animals) by a global flood because of man's rebellion. In their sin, these agnostics rebelliously refuse to worship the God who made them and this world and judged it and will judge it again. So Moshier and Hill's statement above does not reflect the thinking of all the authors of this book. But, of course, most Christian readers of the book will not know that three of the authors are agnostics.

Notice also what Moshier and Hill say about the concern of ancient peoples: they did not care about the structure of the physical world, but only about the *function* of the world (just as Walton has taught Moshier and Hill to think). That claim is disputed by Walton's critics who are just as well-versed in the ANE pagan literature of ancient Israel's neighbors. Certainly, the Bible does not speak about stratigraphy and topography of planet earth (except for some of the topography of the Promised Land). But it most certainly does speak (in everyday layman's language, rather than modern technical scientific language)

about the origin of the physical world and key events in its history. It does not speak about these things in great detail. But the details of the inerrant Word of God are vitally and authoritatively important. Woe to those scientists who ignore, reject, or undermine that God-revealed truth.

Their "biblical argument" #6: The Garden of Eden

We come to Moshier and Hill's final "biblical" argument against flood geology and a young earth. They begin this topic by showing that they either do not read creationist literature carefully or they are deliberately misrepresenting our view. They say, "The Bible does not claim, as flood geologists do, that all (or almost all) of the sedimentary rock on Earth formed in the Genesis deluge" (Hill et al. 2016, 27). Of course, the Bible does not explicitly say anything about sedimentary rocks. But flood geologists do not say that all (or almost all) sedimentary rocks were deposited by Noah's Flood. In the Grand Canyon, the thick sequence of tilted sedimentary layers (called the Grand Canyon Supergroup) below the Great Unconformity at the bottom of the horizontal layers are considered pre-Flood. Many layers near the top of the geological record (above the layers seen in Grand Canyon) are considered post-Flood. But not surprisingly given the limited number of flood geologists and the enormity of the task, there is not unanimity among them about where the Flood/post-Flood boundary is in the geological record in every area of the earth.

Following the misleading statement about how much of the rock record flood geologists attribute to Noah's Flood, Moshier and Hill continue (with reference to fig. 22), "In fact, this interpretation contradicts the literal biblical location for the Garden of Eden. The rich description of Eden in Genesis 2 is in near perfect concordance with the geography of Mesopotamia today, where four rivers merge at or near the Persian Gulf (Figures 2–5)." (Hill et al. 2016, 27)

They of course assume that the Tigris and Euphrates of Genesis 2 are today's rivers in Iraq. They say the Pishon is the abandoned channel, called the Wadi Batin, that sometimes has water flowing from the southwest to the northeast to join the Tigris and Euphrates. The Gihon, they claim, is probably the modern Karun River flowing down from the northeast in Iran. They also say the natural resources mentioned in Genesis 2 match what is known from the Arabian gulf region. They conclude, "All of these clues further identify the Garden of Eden as being located on the earth's surface, *as we presently find it*, not on a catastrophically altered and

⁸⁹ In addition to Purifoy's excellent article, see also Steve Ham (2011, 2015, 2016); and Weeks (2016).

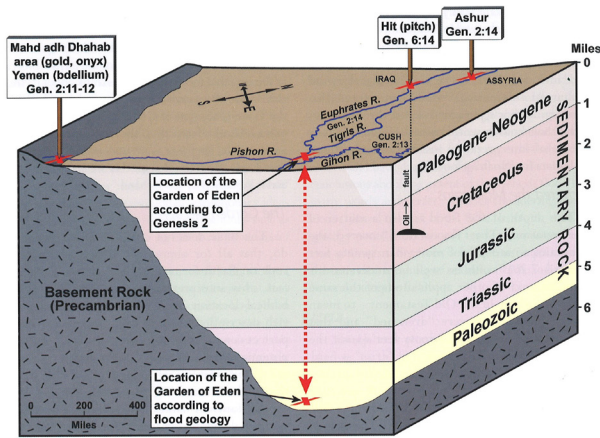


Fig. 22. Schematic diagram of the Iraq/Arabia region and biblical location for the Garden of Eden (vertically exaggerated) (Hill et al. 2016, figure 2-5, 28). Modified from Hill (2000).

buried landscape.” (Hill et al. 2016, 28, their italics)

To test their claim, we only need to read Genesis 2:10–14 carefully. The Bible says one river flowed out of Eden and then divided into four rivers. The Pishon “flowed around the whole land of Havilah.” The

Gihon “flowed around the whole land of Cush.” And the Tigris “flows east of Assyria.” Since rivers always flow downhill, this tells us unmistakably that Eden was at a higher elevation than the river channels around these other lands.

By contrast, in today’s Middle East, the Tigris and Euphrates start in two different places in the mountains of Turkey and eventually unite hundreds of kilometers away near the Persian Gulf. The other two rivers mentioned in Genesis 2 are not in the Middle East. If the Pishon is the Wadi Batin and the Gihon is the Karun River, as Moshier and Hill claim, why would people change the names of two rivers in Genesis 2 and not change the others? Wadi Al-Batin (claimed to be the Pishon) is only 75 km long and does not reach Mahd adh Dhahab (in southwest Saudi Arabia) or farther south to Yemen (as Moshier and Hill’s diagram depicts).⁹⁰ So, they are playing fast and loose with geography. Furthermore, as maps of the ancient empire of Assyria show (fig. 23), the Tigris never flowed “east of Assyria,” but rather through the middle of it.⁹¹

In Moshier and Hill’s diagram (fig. 22), Eden must be lower in elevation than the sources of the

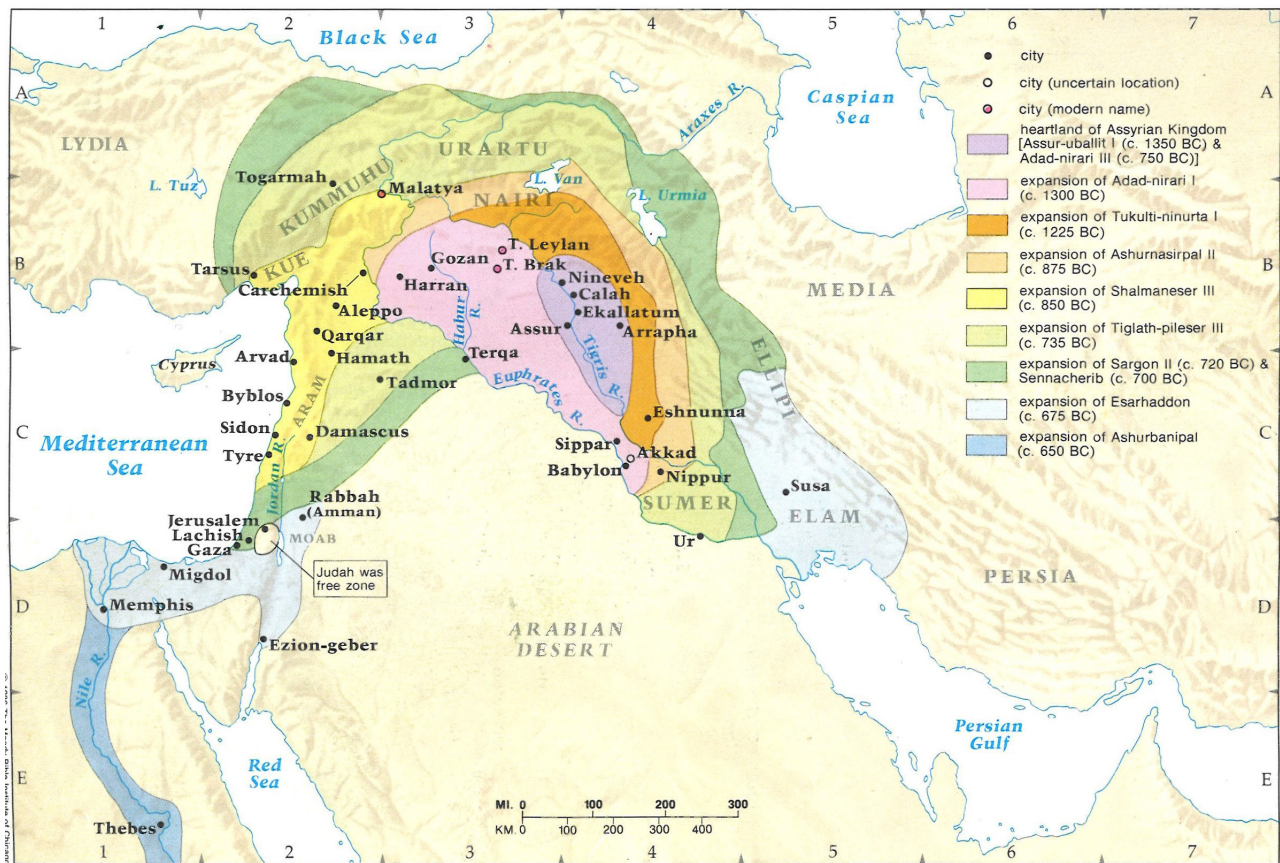


Fig. 23. Map of the Assyrian Empire from *NASB Ryrie Study Bible* (Chicago, Illinois: Moody Press, 1996), map 7. Note that the Tigris River flows through “heartland of the Assyrian Kingdom” (the purple shaded area).

⁹⁰ <https://www.britannica.com/place/Wadi-Al-Batin>.

⁹¹ See similar maps at <https://blog.britishmuseum.org/introducing-the-assyrians/>, https://en.wikipedia.org/wiki/Neo-Assyrian_Empire, <http://www.ancientpages.com/2016/08/11/pax-assyriaca-important-time-for-the-neo-assyrian-empire-and-surrounding-regions/>, and <https://www.christianity.com/church/denominations/discover-the-assyrians-10-things-to-know-about-their-history-faith.html>.

four rivers, which flow into each other just before going into the Persian Gulf. And the four rivers must flow together to form one river that empties into the Persian Gulf, just the opposite of what Genesis 2 says. To get the rivers to fit the description in Genesis 2, God would have to raise the Gulf and lower the topography going east toward Iran, southwest toward Yemen, and north toward Turkey to make the waters of the four rivers flow the opposite direction. But then what do those rivers empty into? What kind of a topography and rivers are they imagining? Certainly not the Mesopotamian region of the post-Flood world of the last roughly 4,350 years that we still see today!

Yes, but what about the names in Genesis 2:10–14? Contrary to their picture in fig. 22, Ashur (as distinct from Assyria) is not named in verse 14. Bible scholars generally equate Cush with Ethiopia, not a little area in southwest Iran. While the names of Tigris, Euphrates, Cush and Assyria are in the post-Flood world, there is no reason to assume (especially considering the difference in topography described above) that the so-named rivers and areas of the pre-Flood world are the same as the rivers and areas of the post-Flood world which bear those same names.

Birmingham, England, is not the same as Birmingham, Alabama, USA. Moscow, Idaho, USA, is not the same city as Moscow, Russia. Milan, Indiana, USA, is not the same location as Milan, Italy. And the River Severn in England is not the same as the Severn River in Australia or the Severn River in Maryland, USA, or the Severn River in Ontario, Canada. Throughout history, it has been typical of people to use a name over and over as they migrate. In New Testament times, Antioch in Syria was not the same city as Antioch in Pisidia. Use of the same names does not mean we are referring to the same locations. In an endnote (Hill et al. 2016, 212), Moshier and Hill accurately cite two young-earth creationist sources that make this argument about the same names referring to different locations (Ham 2009; Morris 2012, 55). But they offer no rebuttal in the endnote or in the chapter.

And as for the natural resources mentioned in Genesis 2, the presence of those resources in some places in the Middle East means nothing, since those resources are also found in many other places on earth.⁹² As for pitch that covered the Ark inside and outside, today is largely produced by heating coal. But in the past, it was made by distilling or heating wood (Walker 1984). The description of the Garden of Eden simply does not fit any location on earth today.

Moshier and Hill contend that “Recognition of the Garden of Eden as existing on a modern landscape

presents a major (and ironic) conflict between what is a truly literal understanding of the text and what flood geologists believe about earth history.” Here, Moshier and Hill imply they are taking Genesis 2:10–14 literally. Why is their view more literally accurate? “The reason? There are six miles of sedimentary rock beneath the Garden of Eden/Persian Gulf” (Hill et al. 2016, 28). In contrast, their diagram points to the “location of the Garden of Eden according to flood geology” under those miles of sediment beneath the confluence of the Tigris and Euphrates. They continue:

How could Eden, which existed in *pre-flood* times, be located *on top* of over six miles of sedimentary rock supposedly deposited *during* Noah’s flood? According to the flood geology model, Eden was flooded, buried under six miles of sediment, the crust was heaved violently upward and back downward, and somehow mineral and oil deposits appeared and rivers reformed to *mimic* the old landscape, whereupon resettlers gave rivers and places the same names—all to accommodate a scenario that the Bible never claims. (Hill et al. 2016, 28)

On the contrary, the question should be asked, how can these professing Christians so repeatedly misrepresent what flood geologists believe and say (and so butcher the biblical text)? No flood geologist says what they are accused of believing and saying here, which is why Moshier and Hill cannot document it in their endnotes.

Flood geologists have no idea where the location of the Garden of Eden was in relation to the present arrangement of the land masses of the earth, because the Flood radically destroyed and rearranged the topography and arrangement of the pre-Flood land. In fact, Genesis 1:9–10 suggests there was only one landmass in the pre-Flood world, since the waters were gathered “into one place,” and “dry land” (*yabbashah*) is singular in Hebrew.

So, those are the “biblical” arguments against the young-earth, flood-geology view and for Moshier and Hill’s view that the Flood was localized in the Mesopotamian basin as we know it today. What I hope this analysis has revealed is their appalling handling of Scripture by ignoring and twisting it. Bearing in mind James 2:14–15, their actions show that despite their claims of faith in the Bible, they really do not believe the Bible to be the inspired, infallible, inerrant Word of the Creator, who is a completely trustworthy, truthful eyewitness to every event in the Bible, including Noah’s Flood. Why would a respected Christian publisher (Kregel) publish a book that twists and attacks the truth of Scripture like this? More importantly, even if they accept an old-earth view,

⁹² See https://www.usgs.gov/faqs/how-much-gold-has-been-found-world?qt-news_science_products=0#qt-news_science_products, <https://en.wikipedia.org/wiki/Onyx#:~:text=Onyx%20is%20a%20gemstone%20found,various%20states%20in%20the%20US>, and <https://en.wikipedia.org/wiki/Bdellium#:~:text=Bdellium%20%2F%CB%88d%C9%9B,Eritrea%20and%20sub%2Dsaharan%20Africa>.

why would Wayne Grudem, C. John Collins, and Ken Keathley endorse this book that displays such a lack of careful interpretation, or clear Scripture-twisting? They are normally far better exegetes than this. Did they even read the book before they endorsed it? If they did, why didn't this mutilation of Scripture raise big red flags in their minds?

Infallible View?

On page 27, Moshier and Hill have a little inset box with title question "Infallible View?" Beneath it they say:

Young Earth Creationists insist that they are on secure footing with their view of nature because it is based on the revealed, infallible word of God. What few acknowledge, however, is that this view is not actually based on the assumption of the infallibility of the *Bible*, but on the assumption that their *interpretation and understanding* of the Bible is infallible. (Italics in the original)

Another false charge. Young-earth creationists do not *assume* that their *interpretation and understanding* of the Bible is infallible. Rather, their interpretation that the Flood was a year-long, global catastrophe is a conclusion derived from careful exegesis (using historically orthodox hermeneutical principles articulated by the International Council on Biblical Inerrancy) of the infallible, inerrant text. What we contend is that the young-earth view of Genesis 1–11 is the only interpretation that:

- (1) takes into account all the details of Genesis 6–9 and the relevant statements from the rest of the Bible, and
- (2) stands up to careful scrutiny.

Old-earth creationists (of various stripes) do not even attempt a serious exegetical refutation of our best biblical arguments (Sarfati 2015; Snelling 2009, 1–294; Whitcomb and Morris 1961, 1–88). Hill et al. (2016) certainly has not done so in its shallow objections.

Flood Geology and the Grand Canyon

Wrapping up chapter two of this book, Mosier and Hill correctly say that flood geologists use the Grand Canyon as a showcase for the global Flood. But then they falsely say, "Furthermore, they claim that almost the entire canyon was carved suddenly when one or more dammed lakes formed after the Flood were breached, followed by the Colorado River carving the rest of the canyon over the last few millennia" (Hill et al. 2016, 29). Wrong again.

Flood geologists do *not* say the Colorado River did any carving of the canyon. The river is not even powerful enough to remove the boulders (which came down from side canyons in flashfloods) that form the rapids. In fact, most of the rapids are the

same ones John Wesley Powell navigated in 1869. Rather, flood geologists argue that the canyon was carved by a lot of water over a short period of time, either by receding floodwaters in the latter part of the Flood year or by post-Flood lakes that breached a natural dam sometime in the early decades after the Flood. As noted earlier, this latter explanation is similar to the "lake-overflow" model that John Newberry suggested back in the middle of the nineteenth century which has recently received some unintentional support from secular geologists (Douglass et al. 2020). But flood geologists are not in agreement about which view of the carving of the canyon is correct. So, to imply a monolithic view is inaccurate and a misrepresentation.

Moshier and Hill then refer to a chart on the bottom half of page 29 (to be discussed below), showing the different interpretations between flood geology and evolutionary geology (which they deceptively call "modern geology"). They say, "Both sides claim these statements are scientifically defensible, but the stark contrast in interpretations of the Earth's history reveal very different approaches to science" (Hill et al. 2016, 29). No and yes. They actually have exactly the same approaches in terms of *methods* of scientific, particularly geological, investigation. But they use different religio-philosophical *assumptions* to interpret the evidence. Moshier and Hill continue to deceive readers by saying:

The conventional scientific approach puts all ideas and theories about the workings of nature to the test (not tests of whether nature is superintended by a divine Creator, but tests of whether nature has behaved in one particular way or another). This approach starts with the questions and works forward to find answers. All the conclusions on the right-hand side of the table [discussed below] grew out of observations and testable hypotheses derived from studying the Earth and its surrounding solar system, with questions unfettered by preconceived notions of what the answers *should* be. (Hill et al. 2016, 29)

This statement could not be farther from the truth. The old-earth geologists (the "conventional scientists," that is, the majority) do not "put all ideas and theories about the workings of nature to the test." They have *never* really tested the idea of a global, year-long, catastrophic flood about 4,500 years ago as a possible cause of much of the geological record of rock layers and fossils. As demonstrated in the history discussion near the beginning of this critique, the early nineteenth century geologists rejected the Flood out of hand, before they had hardly any knowledge of the rocks of Europe (to say nothing of the rest of the world), and they did so for religious and philosophical (not scientific) reasons. They did not start with questions like these:

- (1) What kind of erosion, sedimentation, faulting, folding, earthquakes and volcanoes would we expect to result from the fountains of the great deep breaking up and the rain falling globally, non-stop for 40 days and then continuing to some degree for another 110 days?
- (2) What kind of erosion, sedimentation, faulting, folding, earthquakes and volcanoes would we expect to result in the 221 days of receding water and drying out of the land as mountains were being lifted up and valleys were sinking, as Psalm 104:6–9 describes?⁹³
- (3) What kind of marine and terrestrial fossil evidence in sediments would we expect from a flood of this magnitude ripping up all the vegetation on the pre-Flood land, as well as destroying sea creatures, land animals, birds and people?

No, the “conventional scientists” (that is, Bible-ignoring and Bible-rejecting geologists) never asked these questions. Much less did they make any effort to find answers by careful and extensive investigations of the rocks, lab experiments, microscopic analyses of rock samples, etc. Instead, as documented in Mortenson (2004), anti-Christian men (such as Hutton, Lyell, and Cuvier) and professing Christian old-earth geologists (such as Buckland, Sedgwick, and Conybeare) simply *assumed* the Noachian Flood could not produce what they were observing. Their hypotheses of an old earth *preceded* their investigations. They never considered how nature would have behaved during the Flood because they rejected the eyewitness testimony of the Creator in Genesis before they ever started. Their minds were made up before they examined hardly any observable geologic evidence.

All the “conventional geologists” (most of them agnostic or atheist, and all of them evolutionist) have been doing the same things for the last 200 years. They start with the preconceived notion that the answers must fit within the millions-of-years paradigm, a paradigm instilled in them from primary school through their PhD studies. And, of course, the agnostic co-authors of Hill et al. (2016) do not believe the Creator superintends nature. If they did, they would trust, obey, and worship Him, not deny His existence and His Word.

After this deception about the nature of the “conventional scientific approach” and how it arrived at (and continues to perpetuate) the idea of a millions-of-years-old earth, Moshier and Hill present their readers with a deceptively false view of flood geology:

In contrast, flood geology starts with the answers and works backward to what questions should be asked. The conclusions of flood geology, on the left side of the table [below], start with a commitment to a set of particular, selectively literal interpretations of Scripture as “the answer,” with ensuing questions designed only to support the predetermined conclusions. To flood geologists, these conclusions do not actually need to be testable because they are thought to represent revealed truth. Yet, flood geologists argue that their *geologic* interpretations *are* in fact testable by scientific investigation, so throughout this book we will evaluate the claims of flood geology on their scientific merit. (Hill et al. 2016, 29, italics in original)

As was said at the beginning of this critique, I will let young-earth geologists evaluate the “testing” of their geological interpretations by the authors of Hill et al. (2016). But if this critique of the non-geological sections of the book are any indication, I am confident a young-earth geological analysis of the authors’ testing will find plenty of compelling evidence that the old-earth test is seriously flawed. But my readers can decide (that is, test with an open Bible) who they think is engaging in “selectively literal interpretations” of the Bible, and thereby misinterpreting Genesis 1–11.

Moshier and Hill say on the one hand that flood geologists think “[their] conclusions do not actually need to be testable because they are thought to represent revealed truth.” But then they turn around and say, “flood geologists argue that their *geologic* interpretations *are* in fact testable by scientific investigation.” So, which is it? Their young-earth interpretations do not need to be tested or they are indeed testable. The latter is the case.

Flood geologists do not believe their geological interpretations or models are revealed truth. They believe Genesis 1–11 is revealed truth which can, indeed must, inform their geological investigations, just as demonstrably truthful eyewitness testimony would guide a police detective’s investigation of the evidence for a crime (and just philosophical naturalism informs, indeed controls, old-earthers’ study of the rocks). But flood geologists’ geological interpretations and geological models (say, for example, for the formation of Grand Canyon) are not revealed truth, nor are those interpretations and models inerrant (whereas Scripture is). Flood geologists have welcomed secular geologists to test (critically evaluate) their published research in

⁹³ Psalm 104 is not a poetic rehearsing of Genesis 1. Only verses 5 and 19 refer to God’s acts in Creation Week. Except for verses 6–9, the rest of the psalm is referring to God’s acts in the world at the time of the psalmist, which is evident by the fact that these verses mention things that did not exist during Creation Week: rain, wine and oil (made by man), ships, Lebanon, carnivorous animal behavior, and wicked sinners. Also, the order in which things are mentioned in the psalm contradicts the order in which creatures were created in Genesis 1. That verses 6–9 refer to Noah’s Flood (not the third day of Creation Week) is seen in verse 9, which reflects God’s promise in Genesis 9:9–17 and reiterated in Isaiah 54:9.

presented papers or posters at annual meetings of the Geological Society of America, by presentations to the Grand Canyon National Park rangers and scientists, and in scholarly books or printed and online technical journal articles. All of their books and most of their journal articles must be made public by creationist publishers, because the secular publishers and journals have an ironclad philosophical bias against them. Generally, the evolutionists reject creationist research before they ever look at it because the authors are known to be creationists (just like the old-earth geologists rejected Noah's Flood before they ever looked at the geological or biblical evidence).

An excellent example of this biased suppression of creationist research involves the work of Andrew Snelling, AiG's geologist and Director of Research, with a PhD from The University of Sydney (Australia), one of the top 100 universities in the world. In 2014, he submitted a research proposal to the Grand Canyon National Park for permission to collect rock samples to test his hypothesis and the evolutionist hypothesis regarding the formation of some of the folded (bent) rock layers in Grand Canyon. The old-earth evolutionist hypothesis is that the folding occurred slowly, tens or hundreds of millions of years after the sediments were deposited and hardened into solid rock. Snelling's young-earth hypothesis is that the sediments were still soft and pliable when the folding (bending) occurred. If correct, this is strong evidence that the whole one-mile-deep sequence of horizontal sedimentary layers in Grand Canyon were formed rapidly in a very short time (which, along with many other factors, points to the global flood of Noah).

If "the conventional scientific approach puts all ideas and theories about the workings of nature to the test" (as Moshier and Hill claim), why did evolutionary geologists, with the cooperation of authorities in the Grand Canyon National Park, try to prevent Snelling from getting a research permit, so that he had no choice but to file a lawsuit to get that permit? Why? Because the secular scientists do not want to test *all* ideas and theories, especially ones that might raise doubts about the uniformitarian idea of millions of years. And they will do everything they can (by way of viewpoint discrimination) to prevent flood geologists from collecting samples to test those old-earth ideas and theories.

After the National Park Service agreed that the refusal to issue the permit was based on viewpoint discrimination and so made an out-of-court settlement, Snelling was issued a permit to collect his rock samples in 2017.⁹⁴ Since collecting those samples from four important folds in the Grand Canyon, he has been analyzing the samples under the microscope and conducting other analyses to see if the facts confirm the evolutionary hypothesis or the young-earth hypothesis.⁹⁵ That is the real scientific approach and Snelling's research conclusions will be published in the near future for all to read and evaluate. Only time will tell if old-earth geologists will continue to ignore creationist research (real science studying real data) that challenges their old-earth paradigm.

In their chart on page 29 (fig. 24), Moshier and Hill compare some of the key differences between flood geology and the majority view among geologists (what these authors call "modern geology," a label that distorts the whole issue). The correct label is "Evolutionist Geology." Or better, the argument is between "Biblical Geology" and "Anti-biblical Geology."

Let us begin with some comments about the left side of the chart, Flood Geology. First, the earth, indeed the whole universe, is only a little more than 6,000 years old. That age is based on the chronological information given in the Bible. It is based on the genealogies in Genesis 5 and 11 (which covers about 2,000 years) and chronological information in various verses in the Bible that put Abraham at about 2,000 years before Christ. Genesis 5 and 11 give us the time from Adam (created on the literal sixth day of creation) to Abraham. While, *theoretically*, there could be missing names in those genealogies (as there are missing names in Matthew 1:1–17), there are compelling biblical reasons to think there are none.⁹⁶ But even if there are missing *names*, there is *no missing time*, because the age of one man is given at the birth of next man. So, for example, it does not matter if Seth was the son, grandson or great-grandson of Adam. He was born when Adam was 130 years old. So, we can total the years from Adam to Abraham, which is about 2,000 years.

Second, flood geologists do not say radiometric dating *methods* are flawed. Rather, it is the naturalistic, uniformitarian *assumptions* imbedded

⁹⁴ See <https://answersingenesis.org/about/press/2017/05/09/discrimination-lawsuit-filed-christian-geologist-grand-canyon/> (2017 May 9) and this 26-minute interview about Snelling's research: <https://answersingenesis.org/kids/videos/creation-scientist/andrew-snelling-grand-canyon-research/> (2018 Jan. 9).

⁹⁵ The four folds are Carbon Canyon Fold (River Mile 65) in the Tapeats Sandstone, Monument Fold (River Mile 116.4) in the Tapeats Sandstone, Matkatamiba Fold (River Mile 148.8) in the Muav Limestone and Temple Butte Limestone, and Whitmore Helipad Fold (River Mile 187.4) in the Bright Angel Shale.

⁹⁶ For a theological and biblical argument in defense of this approximate age and of the genealogies of Genesis 5 and 11 being chronologically gapless, see Mortenson (2016a). For technical Hebrew arguments that these Genesis genealogies have no chronological gaps, see the articles by Jeremy Sexton and others that are referred to and documented in Mortenson (2016a).

Flood Geology	Modern Geology
◆ Earth is about 6,000 years old.	◆ Earth is about 4.5 billion years old.
◆ Radiometric methods for the dating of geologic materials are flawed.	◆ Radiometric dating methods yield reliable dates on geologic materials.
◆ Noah's flood occurred about 4,500 years ago and was global over planet Earth.	◆ There is no surviving record of a global flood.
◆ It never rained on Earth before Noah's flood (some flood geologists no longer maintain this).	◆ Abundant evidence indicates rain throughout Earth's geologic history.
◆ Fossils in sedimentary rocks represent "all flesh" of Genesis 7:21, and the only terrestrial animal species to escape death were those saved on Noah's Ark.	◆ Fossils in sedimentary rocks are the remains of plants and animals that died and were preserved as the sediments turned into rock over millions of years.
◆ Most fossil-bearing sedimentary rocks on Earth, including most Grand Canyon strata, formed during Noah's flood in only one year's time.	◆ Sedimentary rocks have formed over hundreds of millions of years through the processes of sedimentation, compaction, and cementation.
◆ The Grand Canyon and Colorado River were formed rapidly when large post-flood lakes emptied catastrophically.	◆ The complex history of the Colorado River and the Grand Canyon is still being investigated, but the canyon's erosion involved millions of years.
◆ All pre-flood land features, including the four rivers of Eden, were covered by deposits from Noah's flood (i.e., sedimentary rocks).	◆ The Garden of Eden is described in Genesis as a modern landscape overlying sedimentary rocks.

Fig. 24. Reproduction of Figure 2-6, Hill et al. (2016, 29), depicting the “basic precepts of flood geology compared with those of modern geology.”

in the methods which cannot be scientifically proven to be correct and which lead to demonstrably false ages of rocks.⁹⁷ It should be noted that there are other methods used to approximate the age of the earth based on, for example, the amount of salt in the ocean, the earth's human population, the amount of helium in the atmosphere, or the decay of the earth's magnetic field. These methods do not all produce an age of 6,000 years but do point to an age orders of magnitude less than what evolutionists claim, even when these dating methods are also based on naturalistic uniformitarian assumptions. These other dating methods contradict the ages claimed as a result of radiometric dating.⁹⁸

Third, it is not a tenet of flood geology that it never rained before the Flood. The authors of this book either have not researched the creationist literature or have again misrepresented the view of creationists in 2016. Some creationists have argued that it never rained before the Flood.⁹⁹ But more recently, other creationists have argued against that view (Sarfati

2015, 296–297, 612–614; Snelling 2009a, 267, 283). Because the Scriptures are not clear, both AiG and CMI advise creationists *not* to use the argument that there was no rain before the Flood (Mitchell 2010).¹⁰⁰ Regardless, it is not an argument related to the age of the earth.

Fourth, flood geologists do not say “the only terrestrial animal species to escape death were those saved on Noah's Ark” because they do not say Noah took two of every *species* but rather two of every *kind*. Moshier and Hill are culpably ignorant because creationists, including Whitcomb and Morris in 1961, have repeatably made this point and even estimated the number of *kinds* on the ark for *decades* (Belknap 2019; Lightner 2008; Lightner et al. 2011; Purdom 2010; Whitcomb and Morris 1961, 66–69). Or else Moshier and Hill are intentionally misleading readers by using the word “species” in this chart (fig. 24).

Fifth, the formation of the Grand Canyon and resulting flow of the Colorado River through the canyon as a result of post-Flood, catastrophic erosion

⁹⁷ See a 3-minute explanation why we shouldn't trust the dating methods in the “Check This Out” DVD (<https://answersingenesis.org/store/product/check-out/>) or a fuller analysis in the illustrated DVD lectures by Andrew Snelling: Radioactive and Radiocarbon Dating (answersingenesis.org/store/product/radioactive-and-radiocarbon-dating/) and Radiohalos (<https://answersingenesis.org/store/product/radiohalos/>). These are also available on <https://www.answers.tv/>.

⁹⁸ Regarding salt in the oceans, see Austin and Humphreys (1990), and Snelling (2012b). Regarding the earth's magnetic field, see Snelling (1991a). Regarding helium, see Malcolm (1994), and Snelling (2012a). Regarding human population, see Batten (2003, 52–55).

⁹⁹ Whitcomb and Morris (1961, 241); and John Morris (1998).

¹⁰⁰ Anonymous, “Arguments we think creationists should NOT use.” <https://creation.com/arguments-we-think-creationists-should-not-use#rain>.

by water released from two lakes east of the canyon is the majority creationist view (Austin 1994b; Snelling and Vail 2009; Austin, Holroyd, and McQueen 2020). Another minority view is that much of the carving of the canyon, at least the initial path of the canyon, happened in the recession stage of the Flood (Clarey 2018, 2019b). This is a complex question and young-earth creationists do not have a unanimous answer at this time. The key point is that young-earth creationists believe it was a lot of water over a short period of time, not a little bit of water over millions of years, as evolutionists believe.

Sixth, the four rivers splitting off from the river coming out of Eden were not covered by thousands of feet of sediments. Those river channels would have been completely eroded away. The catastrophic Flood would likely not have preserved any of the pre-Flood topography of the earth.

Having considered the left side (Flood Geology) of the Moshier and Hill's chart on page 29 (fig. 24), now let us look at the right side. It should be labeled "Evolutionary Geology" because calling it "modern geology" skews the argument, since most people think that modern views are necessarily better than older views.

First, Moshier and Hill confidently say the earth is 4.5 billion years old, because "reliable" radiometric dating says so. But in reply, you are encouraged to refer back to my discussion of Wayne Ranney's 2005 book and multiple editions of the *River Guide* (Belknap et al. 1989, 2007, 2011, 2013, 2018), which reveal uncertain and ever-changing dates for the formation of the canyon's layers and the canyon itself. If they do not have certain dates for those things, how can they be confident in their 4.5 billion years for the age of the earth? Furthermore, as Snelling (2011) has documented, the 4.5 billion-year age is not the result of dating any Grand Canyon rocks or in fact any *earth* rock, but comes from dating *meteorites*, again based on the same old-earth naturalistic, uniformitarian assumptions that evolutionists use in the rest of their story about the unobservable, unrepeatable past.¹⁰¹

There is no *scientific* method which can tell us the absolute age of the earth, a rock layer, a fossil, or the universe. Why? Because *every* scientific dating method involves assumptions about the unobservable, unrepeatable past, and those assumptions can never

be verified scientifically.¹⁰² The only way we can know the age of the earth or the universe is if we have a *completely trustworthy eyewitness account* of the origin of the earth or origin of the universe. We have it in the Bible, the inerrant Word of the triune Creator God, which leads us to the second point.

Second, Moshier and Hill say, "there is no surviving record of a global flood." Of course, they reject the surviving, eyewitness, *written* record given by the Creator in Genesis. And their uniformitarian, naturalistic assumptions (religio-philosophical glasses) have prevented them from seeing the surviving *geological* record staring them in the face (for example, the fossil-bearing sedimentary layers in the walls of the Grand Canyon).

Third, notice that they contrast how flood geologists say the fossiliferous sedimentary rocks formed and how the evolutionary geologists say they formed. Moshier and Hill subtly imply that only the evolutionists believe processes of sedimentation, compaction and cementation took place. In fact, both sides believe those processes happened. The only difference is the timeframe in which those processes have acted.

Fourth, the complex history of how the canyon and river formed "is still being investigated." Yet Moshier and Hill insist it is an undeniable fact that it took millions of years. But if they do not know how the canyon formed (again, read the quotes from the Ranney (2005) book that were given earlier—though he dogmatically claimed the river did it, they really do not know how), they cannot possibly know that it took millions of years. Their estimate of *when* is based on their assumptions about *how*.

Finally, "modern geology" does not say anything about the Garden of Eden because the vast majority of geologists do not believe there ever was a Garden of Eden. And they (including all the authors of this book) certainly do not have a geological defense of this statement: "The Garden of Eden is described in Genesis as a modern landscape overlying sedimentary rocks."

Let us review the ground we have covered so far. We have considered the significant and important difference between operation science and origin science and the critical role of assumptions in the latter. We have reviewed the historical development of the idea of millions of years of earth history and

¹⁰¹ Snelling explains, "But this figure wasn't established by radiometric dating of the earth itself. Most people are not aware of this. The truth is that the age of the earth has been established by dating meteorites, which are not earth rocks. They have come from somewhere else in the solar system, and their source is assumed to have formed at the same time as the earth. Therefore, the age they supply is an interpretation based on that assumption and is emphatically not 'irrefutable proof.' How do we know for sure that the meteorites came from another body in the solar system that was formed at the same time as the earth? That's an assumption, not 'irrefutable proof'" (Snelling 2011). Snelling has several technical articles on the AiG website about the dating of meteorites (Snelling 2014a, 2014b, 2014c, 2015a, and 2015b).

¹⁰² The assumptions in every scientific dating method relate to three questions about the physical process (for example, erosion, radioactive decay, mutation rates) analyzed in the method. (1) What were the starting conditions of this process of change? (2) Has the rate of change in the process always been the same as observed today? (3) Has the process been a closed system since the beginning (that is, no inputs or outputs in the past that are not occurring in the present).

exposed the distorted historiography in Ranney's foreword to Hill et al. (2016). We have carefully explored the seriously problematic authorship, funding, purpose and promotion of the book. And we have exposed the authors' faulty and deceptive philosophical reasoning, misinterpretation, and twisting of Scripture. We come now to the final chapter.

Chapter 20: The Conclusion of Hill et al. (2016)

The concluding three-page chapter of the book is entitled "Science vs Flood Geology: Not Just a Difference in Worldview." A few comments about this will help drive home my critique of this book.

First, these eight professing Christian authors and three agnostic non-Christian authors reject the assertion made earlier, the same assertion young-earth creationists have made for 200 years, namely, that we all have the same physical evidence. But how we interpret that evidence depends on the philosophical, worldview "glasses" we are wearing. Do we accept the eyewitness testimony of the Creator about Creation, the Flood and the age of the earth? Or do we reject it? Is the Bible the foundation of our worldview, or do we let man determine what we believe?

And notice the subtitle of this chapter, "Not Just a Difference in Worldview." They cannot escape what they try to deny. It *is* indeed a battle of worldviews. It is *more* than that because there is geological evidence to consider. But it is not *less* than a worldview conflict: the young-earth creation worldview revealed by the all-knowing Creator versus the old-earth, naturalistic (that is, atheistic), uniformitarian worldview.

The book's authors implicitly deny they have "glasses" that affect what they see and how they interpret what they see, thereby equating their *interpretations* with observational *data*. They say:

For each subject addressed in this book, when the data are considered in their totality and allowed to take us wherever they lead—without foreknowledge of the answer or the predetermined outcome—we are invariably led to a history of the canyon that extends back millions of years. (Hill et al. 2016, 207)

But go back to earlier in this critique and read the words quoted from the Ranney (2005) book. The authors of this book have not considered the data "in their totality," for there is so much about the canyon that is still unknown, including an enormous amount of data in the Grand Canyon that Steve Austin, Andrew Snelling, John Whitmore, etc., have gathered and published and which the authors of this book have largely ignored. And as the eminent evolutionary geologist (Stephen Gould) and historian of geology (James Secord) have said in different words (which were quoted earlier), the data are *not* naked facts that need no interpretation. Furthermore, as

earlier documented, Hutton and Lyell did not look at the rocks, and Newberry and Powell did *not* look at the Grand Canyon, "without foreknowledge of the answer." Hutton and Lyell rejected the Word of God and believed in millions of years *before* they had seen hardly any of the rocks. And Newberry and Powell believed the same *before* they ever saw the Grand Canyon. So also did the authors of this book. Why is it that when these authors do research in the canyon, or anywhere else, their reports are peppered with opinions and footnotes from their likeminded (same worldview) scientific colleagues? They are using the "foreknowledge of the answer or the predetermined outcome" from those who preceded them.

So, when these authors say, "Herein lies the difference between science and flood geology—science goes where the data leads, flood geology does not," they are only deceiving undiscerning readers. And if they truly believe "flood geology does not study nature to discover what processes have been at work or what events may have transpired..." (Hill et al. 2016, 208) they are deceiving themselves or have not carefully investigated flood geology literature, as one would expect from scientists.

On the contrary, flood geologists study nature to discover processes at work in the past. But they do not assume those processes have always functioned at the same rate, frequency, or power as presently observed. And they do not exclude the supernatural work of God and His interventions in the normal course of nature when Scripture clearly reveals those divine acts. Therefore, flood geologists do not attempt to explain everything by purely natural processes we observe in the present. Clearly, Creation Week in Genesis 1 involved a series of supernatural acts of God. And during the year of the Flood supernatural acts must surely have occurred when:

- (1) God caused the fountains of the deep and the windows of heaven to open on the same day to initiate the Flood exactly seven days after Noah and the animals started boarding the ark (Gen. 7:4 and 7:11),
- (2) God brought the animals to Noah in the ark and closed the door (Gen. 7:7–9, 15–16), and
- (3) on the Day 150, God simultaneously caused the wind to blow, the fountains of the deep to close, the rains to stop, and the ark to land on a mountain.

Certainly, natural things happened. For example, people and animals walked into the ark; water moved, eroded, and deposited sediments; birds flew and searched for dry land; etc. But the Flood was not simply a natural event under divine providence like all the floods since. It was the result of the wrath of God poured out on a sinful world that totally disrupted the normal course of nature.

The authors of this book press on, “flood geology starts with an answer and studies nature only to find those ways that fit with the predetermined model. In this respect, flood geology is the antithesis—the very opposite—of science” (Hill et al. 2016, 208). No, the Bible does not give a predetermined *scientific* model. What it gives is key historical truths from which flood geologists develop their scientific models of earth history, just as a police detective uses eyewitness testimony to help him make sense of the evidence at the crime scene. The biblical historical truths are infallible; the geological flood models are not. But here is a great deception by the book’s authors. While it is true that flood geologists start with a historical framework in their mind (for example, God’s account of the Flood), it is equally true that “conventional” old-earth geologists start with a predetermined model of history inherited from Hutton, Lyell, and those who have accepted and taught the framework that is the foundation of their worldview. Hence the old-earth story is not science, but an anti-biblical “history” (really, story or myth) imposed on the geological evidence.

The authors contend, “The debate does involve separate worldviews, but not in the way flood geology advocates describe.” How so?

“True science is practiced by those whose worldview stipulates that nature is understandable, that the processes at work today on planet earth can be used to inform us of what may have happened in the past, and that the fundamental laws of physics and chemistry have not, and will not, change over time” (Hill et al. 2016, 208).

Wait a minute! Is not this a “foreknowledge of the answer or the predetermined outcome”? This naturalistic (atheistic) worldview eliminates any supernatural acts or processes and therefore eliminates God from the picture!

Flood geologists believe and do their geological research, as shown earlier in the section on the history of geology, based on the belief that while the fundamental *laws* of physics and chemistry have not changed over time (since they were instituted by the end of Creation Week), the *rates, frequency and power* of physical processes have changed over time. And the eyewitness testimony of the Creator indicates that the rates, frequency and power (or energy) of physical processes changed massively during the unique, yearlong, global flood of Noah about 4,500 years ago. The earthquakes during the Flood obeyed the same physical laws as we observe today, but the frequency and power of earthquakes then were on a global scale like nothing today. The waters of the Flood eroded and transported sediments according to the same laws of physics as today, but the waters moved faster, more

extensively and more destructively than we observe today. So, in this statement about the constancy of fundamental laws of physics and chemistry, these old-earth scientists are revealing that they either are not reading creationist literature carefully or they are deliberately misleading their readers.

Old-earth geologists are like a police detective trying to explain how the dead man in the apartment died by insisting that we only look at the physical evidence and that the death must have been by known natural causes (disease or accident) instead of by an intelligent agent (as in the case of murder or suicide). This detective also consciously refuses to listen to an eyewitness who saw the man die and knows the cause of death. As old-earth advocates do origin science, they likewise intentionally exclude God from their thinking and denying His eyewitness testimony.

The authors of this book insist, “Contrary to the doctrine of flood geologists, the worldview of flood geology is not distinguished from other worldviews by its adherence to the Scriptures found in the Bible” (Hill et al. 2016, 208). Really?! The worldview of flood geologists most certainly *is* distinguished from all other worldviews for this reason, for it alone takes the Bible as the inspired, inerrant Word of God and Genesis 1–11 as literal history. The authors further describe flood geology:

“Rather, its distinguishing characteristic is adherence to a particular way of interpreting select passages within the Bible—accepted as fact, without considering any conflicting evidence within or outside the Bible. As a result, all data from nature must be force-fit into the accepted-truth model, no matter how convoluted the resulting story may become.” (Hill et al. 2016, 208)

There is *no* conflicting evidence *within* the Bible. The God of truth does not contradict Himself, and His Word does not contain conflicting evidence. Also, there is no biblical evidence Noah’s Flood was a local flood in the Middle East that killed only some animals, birds and people and destroyed only a small part of the land. The whole Bible affirms Noah’s Flood was a year-long, global, catastrophe.¹⁰³ The shallow “biblical” local-flood arguments that we examined in this book collapse under even minimal scrutiny.

The only conflicting “evidence” comes from *outside* the Bible, namely, the anti-biblical *interpretations* of geological observations. For this book’s authors and most other scientists, all the data (geological observations) must be force-fit into the accepted-as-truth, naturalistic, uniformitarian story of millions of years of earth history. There simply is no scientist or geologist who goes “wherever the evidence leads.” Everyone starts with a model, a paradigm,

¹⁰³ See the thorough biblical defense of the global Flood in Snelling (2009a, 19–124).

a set of assumptions, which guides or controls their observations and interpretations of the data. Rocks do not come with labels saying, “Made XX million years ago.” Those dates are the result of presupposition-controlled interpretations of the data.

The evidence for the global Flood is staring us in the face. Most geologists do not see it because they are wearing the wrong glasses. Or they do not see because they do not want to see it. As Colin Russell, my former PhD supervisor and a leading British historian of science, said about the nineteenth century so-called “science versus religion” conflict, “Then, as now, men often perceive what they expect, and overlook what they do not wish to see” (Russell 1989, 25).¹⁰⁴

If it seems like I am repeating myself, it is because in this short, three-page, closing chapter, the authors keep hammering the same point in different words, which misrepresents what flood geologists think and say and deceives the readers. And I want you to see that. The authors continue:

The message of flood geology is that what is observed in nature today cannot be used to inform us of what may have happened in the past, that the fundamental laws of physics and chemistry cannot be assumed to be well understood, and—critically—that nature cannot be trusted to tell its own story. In this regard, flood geology is not only unscientific, it is unbiblical. The first chapter of Romans states that the Creator’s divine nature is manifest in His physical creation—in nature. If nature cannot be trusted to tell a truthful story, what does this say about flood geologists’ conception of God? (Hill et al. 2016, 208)

The first sentence is false. Flood geologists do accept as valid the fundamental *laws* of nature and do believe that observations of nature can be used to inform us about what *may* have happened in the past. But observations of nature are not self-interpreting. And interpretations of those observations made by sinful, fallible, finite humans may be wrong. Indeed, in the history of geology men’s ideas and interpretations have been shown to be wrong *many* times (as even evolutionary neo-catastrophists such as geologist Derek Ager, discussed earlier, have shown).

We must remember that nature is cursed but Scripture is not. Scripture tells us that nature infallibly reveals *the Creator*, a fact which the book’s authors stated above but have not truly grasped. Creation reveals the Creator. The Scriptures do not teach that nature reveals its own origin and history. General revelation (for example, nature) is not the

same as special revelation (for example, Scripture). General revelation reveals God’s existence and at least some of his attributes (e.g., Romans 1:18–20 and 2:14–16). Special revelation reveals God more clearly but also reveals history, God’s commands and promises, the plan of salvation and more (Mortenson 2019, 195–196; Mortenson 2020). Furthermore, regarding the origin and history of the creation, nature gives a confusing message because we see beauty but also ugliness, and obvious design but also evidence of corruption and judgment. Only Scripture can make sense of it: an originally “very good” creation severely damaged by God’s holy curse at the Fall and in judgment by the Flood because of man’s wicked rebellion.

Furthermore, nature does not “tell” us things the way Scripture tells us things. Nature is a *non-verbal* source of information, whereas Scripture is *verbal* revelation in propositional truth statements. Scripture is a revelation that God expects us and commands us to understand and believe. And Jesus and the apostles took Genesis 1–11 as straightforward history.¹⁰⁵

But sinful minds distort and deny the witness of nature revealing God’s existence, creative wisdom and power, and justice. Sinners suppress the truth in unrighteousness (Romans 1:18–20). In their unbelief, the agnostic scientists co-authoring Hill et al. (2016) deny the witness of God in creation *and* in His Word. And the professing Christian authors deny the clear testimony of His Word.

These authors ask, “If nature cannot be trusted to tell a truthful story, what does this say about flood geologists’ conception of God?” We must reply that nature can and must be trusted to tell us the truth *about God* because nature reveals that truth infallibly to all people in all times and cultures. But by itself, nature cannot tell us the story of the creation and history of the earth. Only those who trust and pay careful attention to God’s written Word will be able to correctly interpret nature’s non-verbal clues to reconstruct the unobservable, unrepeatable past history of the earth’s geology. We should most definitely not trust the story of the past invented by those who reject, ignore or twist God’s Word, as the authors of this book have done.

The authors say above that “flood geology is not only unscientific, it is unbiblical.” The truth is the exact opposite. It is old-earth geology that is unscientific (that is, godless philosophy masquerading as science) and grossly unbiblical, actually, antibiblical. The old-earth story is a gospel-subverting lie.

¹⁰⁴ In context, Russell is discussing the distorted and demonstrably false historiography of the anti-Christian, evolutionary historian of science and first president of Cornell University (the first secular university in America), Andrew D. White (1832–1918), in his highly influential book (White 1896). This quote above is Russell’s conclusion of his discussion.

¹⁰⁵ See chapters 11 and 12 in Mortenson and Ury (2008).

The authors of this book claim, “If the basis for evaluating the plausibility of a suggested history of the Grand Canyon is physical evidence, flood geology falls far short” (Hill et al. 2016, 208). But when the physical evidence is viewed from a biblical perspective, the canyon has God written all over it. Once again, it is not the evidence, it is the *interpretation* of the evidence. But the physical evidence alone is not the sole basis of evaluating the plausibility of suggested histories of the canyon. The eyewitness testimony of the Creator is critically and supremely important in interpreting the evidence and evaluating theories. A geological critique of the geological interpretations of physical evidence found in Hill et al. (2016) will have to wait for creation geologists to have time. But the already published research of Steve Austin, Andrew Snelling, and John Whitmore should be considered by those who are *truly* seeking the truth about origins and the Grand Canyon. John Whitmore’s work on the formation of the Coconino Sandstone is a short and understandable place for laymen, pastors or scientists to start.¹⁰⁶

The authors of this book assert the evidence for an old earth is “overwhelming” and the story they have told is “not an imagined history, but the history told by the creation itself” (Hill et al. 2016, 208–209). No, it is a confident story that is inconsistent with the admitted ignorance, mystery, perplexities, and disagreements about the canyon cited earlier from the 2005 book by co-author, Wayne Ranney. The old-earth story is the invention of godless geologists (such as Hutton, Lyell, Newberry, and Powell in the nineteenth century) and propagated by godless geologists ever since and by professing Christian geologists who have willingly accepted the antibiblical naturalistic uniformitarian glasses from their godless predecessors and professors. It is the story of geologists who have rejected the history told in Scripture by the only one who saw Grand Canyon and its layers form, the Creator Himself.

A final point here. Let us be clear in our thinking. Some Christian theologians and lay people who believe in millions of years also believe that Noah’s Flood was a historical, global catastrophe. But this is logically impossible because to do so one would have to believe that the global Flood left no geological evidence. The geologists who insist on millions of years are also dogmatic that there is no geological evidence for a global flood. But a historical, global, catastrophic flood just a few thousand years ago that left no geological evidence is impossible. Even local floods today leave behind evidence of their destruction and their deposition of the eroded sediments. So, as

fig. 25 illustrates, either rock layers with their fossils that speak of death, disease and extinction of plants and animals are the result of millions of years of earth history before Adam came into existence and God called all that “very good.” Or those rock layers filled with billions of dead things formed after Adam sinned. Those are the only two options. You cannot logically believe both views at the same time. And if the latter is true, then the most logical and biblical explanation for most of those fossiliferous rock layers is Noah’s Flood. So, if you believe what God says about Noah’s Flood, then you must reject the story of millions of years. If you believe in the millions of years, then you must reject God’s clear Word about the Flood by clever but shallow reinterpretations of the text. And that is what most old-earth Christians (including the eight professing Christian authors of Hill et al 2016) do.



Fig. 25. Fossiliferous rock layers were **either** formed over millions of years of “very good” death and destruction before Adam **or** formed after Adam’s sin *mostly* by the judgment of Noah’s Flood. Both cannot be true.

Does It Really Matter?

In their final few paragraphs, the book’s authors answer the question: Does it really matter? They bring up again the irrelevant issue of Galileo who was working in *operation* science and said nothing about the age or history of the creation. Galileo’s and others’ scientific research did (as the book’s authors say) enable mankind to develop the technology for GPS systems, televisions, and satellites that can give us Google Earth images. Therefore, the authors insist “Science has to be allowed to go where the data leads.”

But the critical point again is that *operation* science is not *origin* science. Scientific experiments in the repeatable present and future that produce new technology is not the same as reconstructing a history of the unrepeatable past. The “data” (observations)

¹⁰⁶ For those who already have a copy of Hill et al. (2016) (I do not recommend buying one), they should compare what it says with what is reported in John Whitmore’s in-depth and illustrated laymen’s article on the Coconino Sandstone (Whitmore 2015). There is abundant evidence that the Coconino was deposited underwater in catastrophic conditions, not in a desert as Hill et al. claim.

of origin science are not self-interpreting: the data do not lead by themselves. Just like flood geologists' interpretations, so too this book's geologists' interpretations to reconstruct the unobservable, unrepeatable past are based on non-scientific, religio-philosophical worldview assumptions.

Turning from science, the book's authors ask, "What about 'religious views and sentiments'?" They answer, "It is equally important here to allow creation to freely communicate its story" (Hill et al. 2016, 209). But *creation* does not reveal its history. It only gives us hints of that history, like the evidence at the scene of a crime. No, here too, we must allow the *Creator* to communicate *His Story*, the eyewitness history recorded in Genesis and confirmed in the rest of the Bible. That history is confirmed by massive geological evidence, which can be seen when wearing biblical glasses, evidence which is exactly what one would expect if the global Flood truly happened.

The gospel is rooted in that Genesis history. As orthodox Bible scholars have taught for 2,000 years, Scripture teaches an original very good creation (with no natural evil, such as death, disease, thorns, earthquakes, etc.), a cosmos-impacting fall in sin, the redemption of man through the Messiah, and the still-future redemption/restoration of the sin-cursed cosmos. Accepting millions of years of exploding stars, earthquakes, asteroid impacts, animal death, disease and extinction, etc., destroys the clear message of Scripture. Jesus Christ, the Creator, did not make a world filled with death and natural evil for millions of years. He did not die on a cross to fix His own appallingly bad work of creation.

The book's authors end with "Does it matter? It certainly does! Truth *always* matters." Absolutely! And God's truth in His Word matters *supremely*. It is the only way we can ultimately test the truth claims of finite, fallible sinful men, including scientists. It is also the only necessary and sufficient source of truth we need for the salvation of our souls.

Though science was born in the womb of the biblical worldview, it was taken over in the late eighteenth and early nineteenth centuries by the naturalistic (atheistic) worldview as "science" became the queen of knowledge, the supreme source for determining truth in the minds of many.

First, Hutton and Lyell used geology to destroy Christian faith in the Flood and biblical chronology. But the church retained belief in the supernatural creation of living creatures. Then Darwin (through his *Origin of Species* [1859]) influenced the church to accept the evolution of plants and animals over long ages. But the church retained faith in the supernatural creation of man. Then Darwin (through his *Descent of Man* [1871]) influenced

much of the church to accept human evolution, while retaining belief in the gospel. But it didn't take long for the liberals to jettison the gospel (by redefining it as social action) and biblical morality (by approving of abortion, homosexuality, and transgenderism, etc.).

Evangelicals are always just a few decades behind the liberals. They have clung to the gospel longer. But historically most evangelicals have long rejected the biblical chronology and the Flood. In recent years, a growing number of professing evangelicals (especially theologians) are embracing biological evolution, including even human evolution. Many young evangelicals are uncertain about the truth and authority of Scripture, especially Genesis 1–11, and as a result are confused about or approving of abortion, homosexuality, and transgenderism.¹⁰⁷

Many Christian leaders, theologians, and apologists contend that if we insist on young-earth creation, we will turn people away from the gospel. But the last 200 years of history in Western Europe, Great Britain and North America have proven just the opposite. It is the compromise with millions of years that first undermined the authority of Scripture. This started the slippery slide that has led to the widespread rejection of the gospel and biblical morality resulting in the destruction of western civilization we are currently witnessing (see Mortenson 2016b). It matters indeed what we believe about Genesis 1–11!

My Conclusions of This Analysis

We have carefully defined important terms and examined the nature and history of the origins debate and the origin of the book, *The Grand Canyon, Monument to an Ancient Earth*. We have thoroughly critiqued its sections related to history, philosophy, theology and Scripture. We have highlighted numerous false statements and misrepresentations of creationists and many examines of shallow analysis and even twisting of Scripture. Therefore, I conclude that this book is an assault on the inerrant truth and supreme authority of the Word of God.

And as is being shown by flood geologists (for example, Austin 1994a, 1994b; Austin, Holroyd and McQueen 2020; Whitmore 2104, 2015, 2019; Whitmore, Forsythe, and Garner 2015), the claims in this book are also a distortion of the observable geological evidence, some of which the old-earth geologists have ignored (for example, the angles of the cross-beds in the Coconino Sandstone). As an attentive reader progresses through the geological sections of this book, he will see those antibiblical, naturalistic, uniformitarian assumptions at work hidden in plain view.

¹⁰⁷ The moral and doctrinal confusion among "evangelical" millennials is documented and discussed in Ham, Kinley, and Beamer (2015).

Sadly, the book has been endorsed by very prominent Christian, non-scientist scholars, who evidently have not done their homework on the origin of this book and in the young-earth creationist biblical and scientific literature, but who have bowed the knee to the truth-claims of the secular scientific majority. And they either did not see or they ignored the appallingly shallow handling and twisting of the biblical text that the book's authors displayed to justify their belief in a local flood in the Middle East and an old earth.

The apostle Paul exhorted the elders of the church in Ephesus to preach the Word of God faithfully to protect the church from external and internal enemies (Acts 20:28–32). Three of the authors of this book are agnostics and therefore are like “wolves” coming into the church (v. 29). The eight professing Christian authors are like some of the elders at the church in Ephesus who Paul predicted would “speak twisted things to draw away the disciples after them” (v. 30, ESV). The book's authors are leading Christians, including evangelical theologians, away from the clear truth of the Word of God.

Carol Hill spoke the truth better than she knew when in 2016 she promoted this book in her presentation to the Geological Society of America. Under the heading “Psychology Behind Reaching the Religious Public” (with the old-earth evolutionary ideas), her first bullet point was, “The tendency of all humans to filter facts to support their pre-existing belief system.”¹⁰⁸ That is true and is another way of saying everyone has a worldview, which is religious and philosophical (not scientific) in nature. For 200 years, all old-earth proponents have denied that their anti-biblical, naturalistic, uniformitarian worldview is a *belief* system (and not derived from rocks and fossils or from science). The authors of this book have implicitly denied this fact, deceiving their readers into thinking that they are the unbiased objective pursuers of truth who simply let the geological facts or “data” or “evidences” speak for themselves.

Hill's second point on this page of the handout (on how to influence the religious public to accept evolution and millions of years) was:

The way people process information is heavily determined by their deep-seated values and cultural identities, so we look to people we trust in our in-groups to help us make judgments. This can also be referred to as a “tribal mentality” where we hold the same beliefs as others of our “tribe”—this is true for scientists as well as anyone else.

This is absolutely true. And she is admitting (without fully comprehending the implications for her old-earth evolutionary views) that she, and by extension her co-authors of this book, are in fact

biased in their search for the truth. As evolutionists, they have deep-seated values, and they trust others in their in-group who share their evolutionary tribal mentality. They process everything they hear about origins through the supreme authority of the scientific majority. It takes courage to go against the tribal leaders, because pressure is applied to keep everyone in that tribal mentality. Evolution and millions of years are accepted because the tribal mentality has been pounded into people's heads from a very young age through an education system that brainwashes them. The professing Christian authors of this book have embraced the tribal mentality of the secular world that defies the Word of God, and they are firmly committed to influencing other Christians to do the same.

Faithful Bible-believing Christians should have the tribal mentality of Christ-followers who cling to the absolutely trustworthy and supremely authoritative Word of God. They should process every truth claim by comparing it to Scripture, just as Luke commended the Berean Jews for examining the Scriptures daily to see if what Paul was preaching was true (Acts 17:11). They should take every thought captive to the Word of Christ (2 Corinthians 10:3–5) so they are not deceived by the traditions, philosophies and elementary principles of the world (Colossians 2:8) and led astray by “knowledge falsely so-called” (1 Timothy 6:20–21). They should tremble at the Word of God, rather than trembling at the words of men (Isaiah 66:1–5).

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¹⁰⁸ <https://gsa.confex.com/gsa/2016AM/meetingapp.cgi/Session/39758>, page 6.

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