# Christians Most Not Divids Over the Age of the Earth!

#### By David Lee Burris

#### FLOOD, FOSSILS, AND STRATA:

Geology and the Age of the Earth

"Some drill and bore
The solid earth, and from the strata there
Extract a register, by which we learn,
That He who made it, and revealed its date
To Moses, was mistaken in its age."

—William Cowper, "The Task"

In the early eighteenth century, about the time New England Puritan ministers were teaching the new astronomy, some also announced the discovery of fossilized evidence of human giants killed by Noah's flood. A giant tooth weighing nearly five pounds on the banks of the Hudson River provided the evidence, though it actually had belonged to a mastodon. Mastodon fossil remains were so puzzling they were referred to as the American incognitum. Early American gentry were very familiar with the puzzling phenomenon, and frequently collected its bones and speculated about its identity. A salt lick in Kentucky came to be known as "Big Bone Lick" due to the discovery there in 1739 of *incognitum*'s bones. Before the Revolutionary War, bones from the site were sent to Paris, London, and Philadelphia. Recipients included George Washington, Thomas Jefferson, Benjamin Franklin, and French naturalist Georges-Louis Leclerc Buffon. Even during the Revolutionary War, Washington and Jefferson bothered to collect their bones from battlefields. Within a few decades, most rightly held that the bones were from some type of elephant like the mammoth whose frozen carcass had been discovered in Siberia. Jefferson, as the nation's foremost authority on these bones, even believed the animal still lived in the Northwest Territories. Most Americans were not yet aware that any of God's creatures had ever become extinct. Debates ensued whether incognitum had been carnivorous. Speculation about its potential savagery made its extinction God's blessing on the human race. Fascinating fossil discoveries like incognitum would become key to the growing understanding of the earth, and why some would eventually believe it was old.

Ussher's famous biblical chronology from the mid-seventeenth century dated creation to 4004 BC. Students of the earth at that time felt no compulsion in challenging such work.<sup>6</sup> Why should they? The earth's age had been uncontroversial, and recent creation was assumed much the same way geocentrism had been.

No one set out to determine scientifically the age of the earth. Pragmatic concerns such as mining and digging wells provided incentive to learn about its interior. But following the Copernican revolution, questions also arose regarding the earth's nature since it now was understood to be a planet. The new science of the heavens inspired seventeenth- and eighteenth-century "theories of the earth" regarding the earth's surface and interior.

Many geologists in the late sixteenth and early seventeenth centuries, much like Johannes Kepler, viewed their work as a religious duty since they were respecting the Creator's handiwork. The late seventeenth-and early eighteenth-century British geologists often understood geology to reveal God's glory. They correlated the creation order of Genesis 1 with the fossil sequence in the strata as evidence for the truth of the Bible. During the first couple of centuries of geological theorizing, most claimed their views were in full accord with the biblical creation and flood. Theologians especially supported early geological work. With an emphasis on God's work in history, the biblical worldview framed an understanding of the finite, linear flow to earth history.

#### THEORIES OF THE EARTH

Early modern scientific thinking about the earth was naturally influenced by the Bible. But important questions still did not admit of ready-made answers. For instance, what was the nature of the interior of the earth? Was it the biblical "great abyss," or was it filled with a liquid or fire? One theory, however, was standard.

#### **Diluvialism: Early Flood Theories**

In the seventeenth and eighteenth centuries, the most influential early theory was diluvialism, explaining phenomena in light of the flood. Though some Christians had historically suggested the flood as cause of some of the earth's features, these new theorists sought more explicitly scientific explanations. And like the central figures in the geocentrism controversy, these thinkers typically sought to understand puzzling physical features in light of the Bible. 15 The theories were diverse, controversial, and creative. Seventeenth and eighteenth-century Protestants discussed scientifically reasonable, discoverable, and usually massive geological effects of the flood. They often speculated that the deluge produced the inclination of sedimentary layers, but differed widely otherwise. Some argued the waters collapsed the earth's crust, with mountains remaining as points not sunken down. Others conjectured that the earth entirely dissolved in the flood and was then redeposited as the present strata. Some reasoned that the land and oceans had been completely rearranged. Thomas Burnet (1635–1715) calculated that the volume of water in the oceans could not have covered the mountains during the flood. Therefore, there must be a subterranean reservoir of water. The cracking open of the crust not only released that water but also broke up the smooth surface and created a tilt in the earth's axis. This brought about the origins of seasonal climates. And because the sun was not created until the fourth day, the first three days could have been of undetermined length, thus allowing an extended history of the earth. Burnet's theories were controversial enough, but he also provoked trenchant criticism by discounting the biblical flood as literal history. 18

John Woodward (1665–1728), regarded as the "Grand Protector of the Universal Deluge," agreed with Burnet regarding a hollow earth filled with water. But he condemned Burnet for not maximizing the flood's effects. The desolating waters, according to Woodward, would have broken the entire landmass into particles. The deposition of the rock layers represents the heavier particles on bottom and the lightest on top. The resulting strata were also broken and dislocated in places, with virtually no significant modification of the earth's surface since the flood.

William Whiston (1667–1752) also believed the water necessary to cover the earth had been trapped in its core. A comet traveling perilously close tilted the earth on its axis, releasing the deadly interior waters. Getting double-duty from comet theory, Whiston postulated a comet also had affected the chaos of Genesis 1:1–2. Edmund Halley (1656–1742), of comet fame, earlier had theorized that a comet induced the earth to tilt, causing the flood. But Halley's theory didn't require as much water, speculating that the tilting sloshed the oceans out of their basins over the continents. Louis Bourguet (1678–1742), like Woodward, hypothesized that the flood's complete dissolution of the earth re-hardened into various sedimentary layers. But he added mountain formation coupled with a novel use of the now accepted heliocentrism: the earth's daily rotation stirred the dissolved landmass into the final contours of mountain ranges.<sup>21</sup>

The seventeenth and eighteenth centuries also produced theorists approaching diluvialism in quite the opposite fashion; they minimalized the flood's effects. Based on biblical teaching alone, some argued against a violent deluge; the olive branch brought to Noah by the dove implied an olive tree survived the catastrophe. Others argued that the flood's short duration could not have caused the multitude of fossil layers. Some diluvialists posited the flood universally killed all humans but limited the flood geographically because of the absence of catastrophic geologic effects.<sup>23</sup>

Catholic thinkers accentuated the flood's supernaturalism and deemphasized observable effects such as marine fossils discovered inside mountains. Some argued that interpreting the deluge scientifically demeaned its miraculous nature. Others worried providing flawed proofs would create doubts in the minds of believers and strengthen skeptics. But Voltaire ridiculed it nevertheless: "All is miracle in the history of the deluge.... It would be senseless to explain it; these are mysteries one believes by faith; and faith consists in believing what reason does not believe, which is another miracle." Catholic censors denouncing physical explanations of the flood safeguarded their theology, but opened the door for Enlightenment geologists to abandon the Bible altogether.<sup>25</sup>

Even if flood theorists found little consensus, attempts to understand the geo-historical effects of the flood contributed to the rise of modern geology. But by the mid-eighteenth century, extensive European fieldwork led to widespread doubts that the flood primarily caused all the rock sequences and fossils. Before 1770, flood theories predominated, but afterward a "critical mass" regarding theories of the earth was reached. From 1770 to 1800, a variety of important ideas began to coalesce. One of the major sources of the new ideas came from well-digging and especially mining.

In 1605, just three years before Dutchman Hans Lippershey (1570–1619) unveiled a telescope that fascinated Galileo, another important event took place in Holland. An Amsterdam well dug more than 200 feet deep revealed fascinating alternating layers of silts, sands, and clays. This evidence of remarkable stratification would be studied by scholars for the following century. And the end of the seventeenth century would witness impressive advances in mapping stratigraphic cross-sections for the use of miners. With its attempts to understand the substructure of the vast underground, mining in Europe played a critical role in the development of geology.

Reformation advancements in university education like those we saw associated with Melanchthon included mining. The 1556 publication of Georgius Agricola's *De Re Metallica* (*On the Nature of Metals*) with its clear description of the rock layers provided the authoritative text for most of the following two centuries.

But mining knowledge really exploded in the second half of the eighteenth century. The Industrial Revolution necessitated locating and extracting abundant resources such as coal and iron. Journeys devoted to searching for distant mineral deposits multiplied, with many romanticized publications resulting with the word *Voyage* in their titles.

The study of the origin and distribution of minerals and rocks became a distinct scientific field. Teaching in a major mining academy, Abraham Gottlob Werner (1749–1817) focused on the structure and content of the earth's subsurface. Though he didn't create this new science, Werner coined its name, "geognosy." Geognosy provided methodical accounts of the earth's architecture, "both global and local, vertical and horizontal, dividing it, in a hierarchical manner, from great systems to elementary lithostratigraphic units. Of significance, geognosy gave a name to each subdivision. It fixed their sequential order of superposition, which it tried also to trace laterally step by step."

#### **Neptunism: Oceans Do the Work**

Werner also speculated about rock origins, with his theory called "Neptunism." Named after the Roman god of the sea, the theory conjectured that the terrestrial subsurface crystallized from oceans. As the standard model in the latter half of the eighteenth and early nineteenth centuries, Neptunism largely ended the dominance of diluvialism. Some such as Richard Kirwan (1733–1812) viewed Neptunism through a biblical lens, thinking of the initial watery chaos of Genesis 1:2, as well as the flood waters receding into caverns in the earth. But as an Enlightenment deist, Werner felt no obligation to the Bible and did not accept the biblical flood. Without submission to external authority, he sought to project his ideas as a rational and objective examination of the evidence. Nonetheless, its reductionism regarding geological mechanisms legislated erroneous expectations that various homogenous strata would be discovered throughout the earth.

#### **Plutonism: Heat Does the Work**

Neptunists tried to make oceanic sedimentation responsible for too many geologic features. Plutonism, named after the Greek god of the deep earth, held that interior heat generates not only volcanic rocks but also produces granites and uplifts in the surface. James Hutton (1726–1797) theorized that subterranean heat uplifted new continents that over time eroded and were deposited into the oceans, only to have the endless cycle begin again. Hutton argued that so many cycles had already passed that no current rocks could be considered original.<sup>43</sup>

Hutton fell into his own reductionist outlook. Whereas other theories viewed the earth as in steady decay, Hutton construed the earth as a kind of self-replenishing heat engine deduced from first principles rather than field observations. Controversially he assumed all geologic features have resulted from past natural processes still operating today at the same rates. This view, later called uniformitarianism, directly challenged the idea that short-lived, violent events produced most geologic effects, that is, catastrophism. Anny Christians deemed uniformitarianism unacceptable since it undermined supernatural activity such as creation and the flood.

#### CHARLES LYELL'S UNIFORMITARIANISM: REJECTING THE SUPERNATURAL

Charles Lyell's (1797–1875) famous book that Darwin devoured, *Principles of Geology*, contended that geology would never become a science until it relied solely on observable processes to explain the past. He employed his legal training to present a sustained case against catastrophism, usually associated with progressive creationists. Linking geology with the Bible disturbed Lyell. So he sought to remove supernatural causes and to discredit a universal flood.<sup>48</sup> He emphasized, then, Huttonian uniformitarianism to attack diluvialism, but took it to a whole new level. Committed to no change over time, Lyell proposed that dinosaurs might one day reappear or great numbers of mammals would be discovered in the earlier strata.<sup>50</sup> Most geologists, however, accepted the evidence of fossil changes in rock sequences and found Lyell's approach unrealistic.

Lyell's dogmatism runs counter to contemporary geology, which accepts frequent small and infrequent large geologic events. Lyell's view precluded acceptance of catastrophic mass extinctions (such as the so-called big five). Gradualism, that major changes always come by slow, incremental steps, has come to be rejected. On the other hand, actualism, the unity of historical processes, with its emphatic rejection of supernatural explanations, is still accepted. 52

But if some like Werner, Hutton, and Lyell sought to liberate geology from biblical connections, many theorists continued to search for correlations with the Bible. But just how to understand the evidence in correlation with the flood was requiring considerably more creative hybrid theories. Earlier theorists developed numerous models to account for the missing volume of flood water. Now much greater knowledge of the earth's interior was forcing similar moves. For reasons we will see shortly, the burgeoning knowledge of the earth's strata led to an increasing marginalization for all-encompassing flood theories in the last half of the eighteenth century. But Christian diluvialists persisted into the nineteenth century, though the difficulties sometimes led to in-house quarrels over what specific effects the flood had on the earth.

A remarkable revival of diluvialism was born around the beginning of the nineteenth century with a new burst of resourceful hypothesizing. Because current processes (e.g., erosion) could not explain all the earth's surface features, the flood (or running waters for those not concerned to correlate their theory with the Bible) became the most likely explanatory cause as the last of a number of earth-shaping events. Even after glaciology began to be understood several decades later, the notion of running waters, often cataclysmic, as the cause of many surface features remained an ongoing theory. Ferhaps other catastrophes better explained the earth's internal features. But in 1822 geologist William Conybeare (1787–1857) even coined a term "diluvium," for the flood's water-born debris, the last great geologic catastrophe shaping the earth's surface.

William Buckland (1784–1856), pioneering geologist at Oxford University, also was a theologian concerned to demonstrate the Bible's trustworthiness in light of geological discoveries.

His conviction that the flood explained all the internal rock formations had waned after studying volcanoes. But his study of surface features prompted his dramatic announcement in 1823 that he had confirmation of the universal flood. Buckland correctly identified recently discovered fossils in Kirkdale Cave (North Yorkshire, England) as non-native: hyena, elephant, and hippopotamus. He originally supposed they had been swept there from afar by the flood, but evidence eventually led him to believe the animals lived there before being destroyed by the deluge. This radical idea, that Great Britain had once featured a vastly different ecological system, was quite controversial. But a major figure had reincorporated the flood into geology.

#### DISCOVERIES THAT LED TO OLD EARTH THEORY

Buckland may have led the renewed charge to defend the biblical flood, but like virtually all geologists at the time, including Christians, he believed the evidence pointed to a very old creation. That same evidence had prompted him to seek flood evidence on the earth's surface. Difficulties long associated with correlating biblical and earth history pertained largely to the evidence of life contained in rocks.

#### **Fossil Theories**

Originally "fossil" (Latin *fossilium*) meant anything dug up from the ground, and generally the Greeks and Romans showed little interest in them. <sup>60</sup> The ancients easily identified fossilized animal bones that had contemporary analogues. But enormous fossil bones were another story and likely contributed to stories of giant human bones both ancient and modern (e.g., *incognitum*).

#### Inorganic Views

By the end of the Middle Ages most believed fossils spontaneously formed in rocks. The view from their perspective was hardly irrational: how could living things have ever made their way inside rocks? Theories of causation for these included tricks or "sports" of nature, mysterious natural forces, astral fertilizations of the soil, satanic creations, and even God's ancient experiments.

During the Copernican controversy, the church showed little interest in fossils. Though Luther basically attributed them to the flood, marine fossils discovered on land were paid little attention. Speculations regarding fossil causes included a type of fatty matter was fermented by heat; seeds or germs sunk through pores into rocks; underground passages carried seeds to mountaintops to be watered by snow; and even that God created fossils as puzzles to test believers' faith. The prevailing view in the sixteenth century and even into the seventeenth was that the strange rockencased forms had spontaneously generated. Fossils were just unique rocks that formed without ever having been part of any animal or plant.<sup>64</sup>

Theorists admitted fossils often looked similar to living things or other slightly different fossils, even referring to them as analogues. British naturalist Martin Lister (1638–1712) zealously explored the English countryside, collecting fossils and mapping their distribution. He reportedly trekked halfway across England to follow the trail of just one fossil in a particular rock layer. Yet writing at the end of the seventeenth century, Lister denied that fossil shells were really shells. They were only resemblances found in unique rocks, *Lapides sui generis*. How could they have come from living animals if they were of the same material as the surrounding rock?<sup>67</sup>

#### Modern Organic Views

But if only a few such as Leonardo da Vinci (1452–1519) had once recognized the organic origin of fossil shells, around 1660 fossils began regularly to be considered as evidence from the living past. Robert Hooke (1635–1703) affirmed the organic origin of fossils in 1665 even though some had no living analogues. He likened fossils to divine archaeological objects serving as archives of the past. And because written in stone, they provide even more lasting monuments than Egyptian pyramids. Other observers such as flood theorist John Woodward (1665–1728) accepted the organic origin of fossils and noted they not only differed from their analogues today, but analogues also differed from place to place. By the middle of the seventeenth century, publications throughout Europe described fossils, even though systematic classification terminology had not yet been developed. Bernard Le Bovier de Fontenelle (1657–1757) foresaw the need for paleontological maps indicating fossil geographical distribution with their resemblances to present-day flora and fauna.

Carolus Linnaeus (1707–1778), the father of modern taxonomy, laid the foundation for the modern description of fossils. His *Systema Naturae* classified the plant and animal kingdoms. Linnaeus conceived of orders containing a number of genera that contained the closely related species. He introduced the modern technique of assigning every species two Latin names, the first term for genus, the second for species. For more than a century afterward the overwhelming majority of scientists considered the species a largely unchanging biological reality until Darwinism rendered them more like snapshots in time.

So eighteenth-century geologists overwhelmingly accepted the organic origin of fossils and believed they likely resulted from the flood. Theories abounded as to how the fossils of marine animals were discovered on high mountains. Diverse notions of the flood, with or without the lowering of the oceans or the raising of the ground were all much discussed. Discovery of tropical animal fossils in temperate zones (e.g., Kirkdale Cave) as well as gigantic flora and fauna fossils were just some of the enigmas confronting thinkers at the dawn of geology. During this period passion arose in Great Britain for inventorying minerals, rocks, and especially fossils. John Woodward carefully collected and catalogued an immense collection of fossils still preserved today at Cambridge. Later a network of fossil dealers sold rare specimens to wealthy clients. The famous tongue-twister "she sells seashells, by the seashore" was based on the life of Mary Anning (1799–1847), discoverer of important fossils and collector for famous geologists.

#### **Strata: The Layers Reveal Their Secrets**

While the organic origin of fossils was being settled, problems for recent creation and traditional flood theories were mounting. The challenges had to do not only with the types of fossils being discovered, but where they were discovered: in rocks. The fossil-embedded layers revealed unanticipated keys to the earth's past.

Nicolas Steno (1638–1686), often viewed as the father of geology, sincerely desired to demonstrate agreement with his discoveries and the creation and flood of Genesis. He also devoted an entire year to studying ancient shell deposits and the geological structure of Tuscany. He became convinced that Tuscany once lay under water, and that the flood provided the satisfactory

explanation. The publication of Steno's studies in 1669, the *Prodromus* ("forerunner" of a work never published), is regarded as one of the most important texts in the history of science. Unlike others who theorized from a chair, his originality lay in allowing objects to reveal their history and

mode of production, whether large (regional structures) or small (fossils or crystals). One of his handwritten manuscripts displays his attitude: "They sin against the greatness of God, who do not wish to observe the actual works of nature but, satisfied by reading the writings of others, imagine and fabricate various hypotheses." The birth of stratigraphy is associated with Steno's recognition of what later would be called the principle of superposition: due to the order in which they were deposited, older layers of rock generally lie under the younger.

Steno's discovery had been recognized before. Miners had long defined certain beds as markers helping them navigate layers of rock. The strata were often labeled by letters or numbers because they generally followed in order. Then fossils themselves were termed "medals" or "monuments" as ways of indexing and dating the various strata. By the latter half of the eighteenth century, the contents of these strata were being catalogued as archives of earth's history. So when the "father of English geology," William Smith (1769–1839), displayed his fossil collection, he grouped similar types together according to the strata in which they were found and coined the term "stratigraphy." He also identified and named many of the Mesozoic rock units and created a geological map of much of England and Wales.<sup>87</sup>

But these discoveries presented a problem for theorists seeking a comprehensive flood explanation of the strata. Why were the fossils found in the strata with such regularity that the layers could be indexed by them? Should not the flood have thoroughly mixed rather than thoroughly sorted the animals and plants of that world? Some pondered why no human fossils were mingled in the strata. The problem led Johannes Jakob Scheuchzer (1672–1733) to seek diligently for *homo diluvia testis*, a (fossilized) human witness of the flood. In 1726, he dramatically announced just such a find, claiming it a clear flood relic confirmable by even the most exacting anatomist. The "ancient sinner" fossil was celebrated and reproduced in numerous publications. Georges Cuvier, however, carefully and conclusively demonstrated in 1812 that it belonged to an extinct giant salamander.

Another problem had to do with the kind of fossils entombed in the rocks. I've already alluded to the controversy raised by Buckland's discovery of tropical animal fossils in England. Further finds of that sort raised the question: *Did the earth in the past have very different ecologies?* Stranger still were the discoveries of fantastic creatures such as the dinosaurs. William Buckland described in 1824 for a rapt public the gigantic carnivore from the Jurassic rocks. He named it Megalosaurus (great lizard), the first published description of a dinosaur. He and fellow clergyman William Conybeare also conveyed details about the remarkable flying reptiles. Non-scientists developed tremendous interest in the historical past by identifying and collecting fossils. <sup>90</sup> By the latter half of the nineteenth century, dramatic paleontological discoveries opened the door to a vastly richer understanding of the past.

But if the strange fossil world was being increasingly better understood, Christians were increasingly being faced with the challenge of making sense of the extinctions. The sheer number of extinct animals raised concerns how all of them could have fit on the ark. Early assumptions even made it theologically difficult to accept the possibility of extinctions. If God created species for his glory, why did he allow them to become extinct before humans had ever seen them? Did extinctions imply an imperfect creation from the start?

Some sought to escape the problem by theorizing only near complete extinctions, that "lost" species might still live somewhere yet unexplored (e.g., Jefferson's suggestion about *incognitum*). The great John Ray in the late seventeenth century frankly admitted he had no easy answer and retreated to the widely held inorganic fossil view to avoid the extinction problem.

Most vexing of all was the question why the strata revealed occasional extinctions followed by sudden appearances of quite different creatures. Georges Cuvier (1769–1832), the father of modern paleontology, recognized that strata characterized by unique fauna were replaced by distinctive younger fauna and could thus be dated relative to one another. This principle would come to be called the law of faunal succession. He observed that "modern" species diminish farther down in the strata, whereas the older strata contain extinct species with no modern counterparts. He noted that reptiles predated mammals, and marine mammals predated terrestrial mammals. William Buckland in 1821 noted that continental Europe had faunal succession similar to that of Britain. By the middle of the nineteenth century, similar patterns discovered in British and continental European biostratigraphy were corroborated on other continents, leading to the virtually complete understanding of the stratigraphic column during that century.

#### The Flood Column Becomes a Creation Column

Late seventeenth-and early eighteenth-century British geologists often understood the fossil sequence as evidence for creation, and sought to correlate the strata with the first chapter of Genesis. But since the seventeenth century, the primary lens for understanding the geologic column had been the flood. Yet diluvialists had never agreed on an overall theory of the earth nor had they been convincing in their handling of the growing challenges presented by advancing geological knowledge. Unanticipated from a flood standpoint, fossils were found sorted according to strata rather than mixed. Human fossils were never found in the old strata, but strange creatures like the dinosaurs were. Extinctions were followed by new and different species. If the flood seemed unable to account for the challenges, and neither spontaneous generation nor evolutionary approaches were acceptable, the only tenable option remaining for most people, not just Christians, was to accept that God had progressively created many new life forms following various extinctions in the earth's past. The flood column came to be viewed primarily as a creation column.

Cuvier resisted any evolutionary implication of the evidence. He insisted that similar organisms resulted not from common ancestry but common function, and that Lamarck (like Darwin later) had to posit transitional forms not found in the fossil record. So though his religious convictions made him uncomfortable with the notion of repeated creations, Cuvier accepted that the evidence supported "progressionism," a cycle of catastrophe-divine creation-catastrophe, with each new divine creation becoming more complex. <sup>104</sup>

Though not all of the Christians contributing to the rise of modern geology held a progressive creationist view (some held to an old earth gap theory), virtually all were both old earth creationist and anti-evolutionary. William Conybeare viewed Lamarck's evolutionary theory as "monstrous." Adam Sedgwick (1785–1873), William Buckland (1784–1856), and Hugh Miller (1802–1856) also strongly rejected Lamarckianism. They believed that the absence of missing links in the fossil record argued against the gradual transformation of organisms over time. Miller and Sedgwick were especially outraged with Robert Chamber's (1802–1871) proposal of an animal ancestry for humans in his *Vestiges of the Natural History of Creation* (1844). By the early nineteenth century, the same evidence that led the overwhelming majority of Christian geologists to view the strata as a creation column also convinced them the earth was very old. By the middle of that century, Darwin presented the same evidence as an evolution column through the world-changing lens of the *Origin of Species*. And those who resisted Darwinism and theological liberalism (surveyed in the previous chapter) like Hodge or the fundamentalists or William Jennings Bryan were old earth creationists. They wore the primary anti-evolutionist mantel for a full century.

But even though the fossil column had come to be viewed as a creation column, Christian geologists continued to look for the effects of the flood. Some such as William Buckland continued to use the flood as explanation for the carving and shaping of the earth's surface features. But Louis Agassiz (1807–1873), an early influential pioneer in the study of glaciers and later a decidedly anti-Darwinist, demonstrated that glaciers best explained surface features rather than diluvialism. Even though he eventually convinced Buckland and others of his view, most geologists rejected it in continued support of diluvialism. By the 1850s, however, the majority began to consider seriously ice age theory. Modern geology, and, as we will see, even leading young earth creationists hold that the superficial features of northern Europe and North America have been extensively shaped by glaciation. 110

The gradual dissociation of flood explanations for various geologic features was not acrimonious among the majority of Christian geologists and theologians. A vocal but largely uninfluential minority, the scriptural geologists, protested old earth creationism and the move away from flood geology, as we will see in the following chapter. For the most part, amicable biblical interpretation generally developed alongside the new understanding in the developing science. Some attempted **hybrid models** incorporating the notion of a geographically local flood destroying all humans other than those saved on the ark. But perhaps most conservative Christians continued to accept a geographically universal flood without attempting scientific correlations until the rise of modern flood geology.

#### **Later Dating Methods Strengthening Old Earth Theory**

Dating methods moved from relative and inexact to increasingly more exact methods. Early estimates based on such things as erosion and sedimentation rates were very inexact. A great many types of dating methods developed over time such as measuring starlight or the number of ice cores in glaciers. Radiometric dating gets the most attention since it has also permitted the development of absolute rather than relative dating methods for rocks and the earth.

Other aspects central to modern geology also seemed to corroborate the ancient age of the earth. One such critical concept is now central even in many leading young earth creation models: the notion that a supercontinent(s) broken up and moved by plate tectonics led to our present continents. As early as 1596, Abraham Ortelius (1527–1598), geographer and creator of the first modern atlas, noted the similarities in the coastlines of the Americas, Europe, and Africa and suggested that they had once been joined. Others before the twentieth century also posited similar ideas.

But Alfred Wegener (1880–1930) generally gets credited for postulating continental drift in 1912. He observed that various continents shared fossil species that could not have traversed water and that represented originally different climatic zones. The most reasonable theory was to postulate that the continents themselves had moved. Stratigraphic sequences and structural elements of matching shorelines also suggested they once had comprised just one continent, which he named Pangaea ("all lands"). Moreover, matching ancient glacial changes from these continents seemed to confirm the theory. Wegener's ideas, though widely accepted in Britain by 1925, were not fully accepted by American geologists until the 1960s. The revolution in plate tectonics that began in the 1960s was documented by the detailed mapping of the continents' locations from years past. Providing the explanation for Wegener's continental drift, plate tectonics holds that the earth is covered by moving crustal plates driven by radioactive heat deep in the earth's mantle.

For example, Great Britain has traveled great distances into different climate zones in the past due to plate tectonics. The floors of the oceans thus continually regenerate themselves by spreading from the center and sinking at the edges. The revolution in geology produced by plate tectonics cannot be overstated.

#### **CONCLUSION**

The earliest theories of the earth were mostly flood theories. But diluvialism struggled to account for the surprising geologic discoveries such as the lack of fossil mixing in the strata, different species such as extinct dinosaurs followed by new creatures, and more. Historians of geology agree that the rise of old earth geology involved much more than the acceptance of the theories of Hutton or Lyell. The vast majority were creationists opposed to evolutionary ideas as well as uniformitarianism. Most geological pioneers sought in varying degrees to correlate their understanding of the earth's past with the Bible. Many of the geologists working at the time were evangelicals and believed in the truth of the Bible. 122

Similar to the Copernican controversy, Bible-believing Christians practiced the conservatism principle in the lead-up to modern geology. They reluctantly courted the possibility of an old earth and whether the flood could explain most or at least major parts of modern earth science. They proposed a large number of hybrid flood models, but none won the day even among flood theorists. Old earth evangelicals, whether day-age or gap theorists, also never wavered in their commitment to biblical inerrancy.

There was no major controversy about the age of the earth or the geologic column two hundred years ago. But, of course, there is today. The difference between now and then is that the fossil column can be interpreted three different ways: as flood column, creation column, or evolution column. Beyond the obvious scientific questions, a significant number of theological issues are related to each view as well. We will look at some of those in the next four chapters. Each of our three evangelical groups (YEC, EC, and OEC) faces difficult questions.

Because of the age of the earth controversy, of special interest is how YECs understand and interpret the relevant scientific evidence. As we will see in chapter 7, leading modern young earth creationists are sophisticated and have worked hard on questions facing them. Those questions include the following: Should the fossil column be trusted or rejected? How should we think about the rise of new species? How should one understand extinctions? But first we turn in the following chapter to a brief survey of the history of young earth creationism.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Cabal, T. J., & Rasor, P. J., II. (2017). <u>Controversy of the Ages: Why Christians Should Not Divide over the Age of the Earth</u> (pp. 99–120). Bellingham, WA: Lexham Press.

#### **THEOLOGICAL TRIAGE:**

#### **Drawing Doctrinal Boundaries**

Liberals have never met a doctrine worth fighting for; fundamentalists have never met a doctrine not worth fighting for.

—Anonymous

Sixteenth-century Lutherans certainly had a robust sense of heresy. They were willing to imprison even the son-in-law of Martin Luther's great collaborator Philipp Melanchthon. Caspar Peucer married Magdalena, Melanchthon's daughter, and taught Copernican astronomy at Wittenberg. But Peucer's twelve-year imprisonment was not for crypto-Copernicanism: he had taught the new science openly even if cautiously. Instead, he was incarcerated for crypto-Calvinism. Even the great Kepler would later be expelled from the Lutheran congregation in Linz in 1612. Holding a Calvinist view of communion (Christ is spiritually present), he couldn't sign in good conscience the Lutheran Formula of Concord (Christ is substantially present in the sacramental union of bread and wine with the body and blood of Christ). But this had nothing to do with his enthusiastic advancement of Copernicanism.

Boundaries are an inevitable fact of life. No boundaries are more important for humans than worldview boundaries. We decide how to live and die based on them. Christians have always believed theological boundaries are essential for identifying, nurturing, and protecting the faith. But knowing where, when, and how to draw Christian doctrinal boundaries is not necessarily easy.

Creationist ministries necessarily must draw boundaries for their teams of co-workers. For Answers in Genesis (AiG), the boundaries include recent creation, a geographically universal flood, speciation limits, and biblical inerrancy. Reasons to Believe (RTB) draws lines around an ancient earth, narrow speciation, and inerrancy. BioLogos defines its ministry around evolution (and modern science); biblical inspiration and authority (not inerrancy); and the incarnation, death, and resurrection of Jesus Christ. More things, of course, could be listed distinguishing these three leading evangelical creationist ministries. But as we saw in the previous chapter, even their different understandings of the nature of biblical inspiration set them apart.

Non-specialist evangelicals presented with the differences between these three organizations must sort through complex biblical, theological, philosophical, scientific, and historical information. Enormous resources are expended in presenting, defending, and criticizing each other, so deciding which to believe (if any) presents a daunting challenge. With extremely serious theological charges sometimes leveled, careful thinking is crucial in deciding where to draw lines. And, of course, it's possible to get the boundaries right, but to go about setting them in wrong ways.

#### THEOLOGICAL TRIAGE

R. Albert Mohler Jr. helpfully suggests a way to reflect on "which Christian doctrines and theological issues are to be given highest priority in terms of our contemporary context." He uses the notion of triage, the process used in settings like emergency rooms in which patients are sorted according to the urgency of their medical need. Though recognizing the task is not easy, Mohler proposes Christians use a theological triage of three levels to ascertain theological urgencies.

**First-level doctrines are essential to Christianity**, and include "doctrines such as the Trinity, the full deity and humanity of Jesus Christ, justification by faith, and the authority of Scripture." Mohler notes that Christ's death, burial, and bodily resurrection are such that those who reject them are "by definition, not Christians." Similar things can be said about the Trinity and justification by [an obedient] faith. He notes that the authority of Scripture is a first-order doctrine because otherwise the church is left "without any adequate authority for distinguishing truth from error," leading to "an eventual denial of Christianity itself."

**Second-order doctrines are those that do not define Christianity**, but Christian disagreements "will create significant boundaries" such as those that separate congregations and denominations. Examples include the meaning [versus individual understanding] of baptism and the role of women. "Many of the most heated disagreements among serious believers take place at the second-order level, for these issues frame our understanding of the church and its ordering by the Word of God." 9

Finally, third-level doctrines are those "over which Christians may disagree and remain in close fellowship, even within local congregations." Christians affirming the bodily and historical return of Christ may debate a variety of other eschatological matters yet remain closely united in ministry and mission. Prioritizing doctrines in this way does not imply Christians should consider any biblical truths insignificant. But Mohler rightly spells out the extremes: "The mark of true liberalism is the refusal to admit that first-order theological issues even exist. Liberals treat first-order doctrines as if they were merely third-order in importance, and doctrinal ambiguity is the inevitable result. Fundamentalism, on the other hand, tends toward the opposite error. The misjudgment of true fundamentalism is the belief that all disagreements concern first-order doctrines. Thus, third-order issues are raised to a first-order importance, and Christians are wrongly and harmfully divided."

#### DARING TO APPLY THEOLOGICAL TRIAGE TO THREE EVANGELICAL CREATIONIST MINISTRIES

#### **Answers in Genesis**

I am grateful most young earth creationists do not believe the earth's age is worth dividing over. In my denomination, church, and school, I suspect young earth creationists (YECs) outnumber old earth creationists (OECs), but our skirmishes over the age of the earth have never led to division. In spite of deep commitments to either view, the age of the earth has been considered a level-three doctrine.

As noted in the previous chapter, I believe Answers in Genesis has drawn boundaries for inerrancy too narrowly. Their view not only submits biblical inspiration to a particular view of the earth's age, but also to modern scientific theories such as specific views of the fossil column, details about taxonomy, and Neanderthals. Moreover, AiG insists that rejection of YEC has led and will lead to the ruined condition of the church and the world. If their warnings are true, my church, denomination, and school will fall because we have not heeded them. Christians who "tremble" before scientists rather than God's Word have no place in Christian leadership. But if AiG's alarms are false yet we acted on them, we would become divided in mission and fellowship for terribly wrong reasons. Note this sampling of the terrible effects AiG claims follows from embracing OEC: the downfall of Western culture and morals, the loss of Christians' personal faith, and the undermining of the gospel itself.

For example, in response to a blog arguing why a Christian might hold an old earth view, Terry Mortenson posted the following on AiG's website as part of his reasoning to reject OEC:

Furthermore, historically, the church's widespread acceptance of millions of years over the past 200 years has contributed massively to a growing resistance to the gospel in nations that were in the past very influenced culturally by biblical Christianity. That acceptance also has been a very significant reason, among others, that many children raised in gospel preaching churches and Christian families have (since leaving home) departed from the church or even the faith they once professed. There has indeed been a "slippery slide" of the church into much apostasy. Denominations that were once orthodox 100 or 150 years ago are now liberal and deny the biblical gospel. Europe, Britain, and America, which once were so powerfully impacted by the gospel and were launching pads for missions to the world, are now post-Christian and increasingly anti-Christian. Who would have thought 30 years ago that professing evangelicals today would doubt or deny that Adam ever existed or would embrace or accept homosexual behavior? The undermining of the truth of Genesis 1–11 regarding the age of the earth and the Flood has unquestionably contributed to the undermining of the truth of Genesis 1–3 regarding Adam, marriage, and sexuality both in the church and in the culture."

Certainly, if these things are true, then my church, school, and denomination need to take action to remove OEC leaders sooner rather than later. On the other hand, if these dreadful accusations are false, they should be recanted. Space precludes a detailed response, but several things should be noted.

First, though these kinds of far-reaching claims are not uncommon, the careful historical work substantiating them is. Extremely serious but controversial accusations should first be carefully grounded on evidence. Sweeping claims of these sorts are frightening to those who must trust the leaders making them. But claims are easier to make than justify. For instance, AiG would rightly be disturbed if, say, an extremely influential OEC ministry made a claim like the following:

About the time of the rise of modern (old earth) geology, the modern missionary movement was born. As the earth's creation column was being revealed, William Carey took the gospel to Hindus and Adoniram Judson evangelized Buddhists. Braced by their convictions about the creation column, OECs also led the way in resisting Darwinism after publication of *The Origin of Species* in 1859. At the turn of the twentieth century, OEC fundamentalists stood in the gap against theological liberalism. And by the middle of the twentieth century, OEC dominance among evangelicals produced tremendous godly effects upon the United States. As Gallup reports, greater than "95% of Americans identified as Christian in the 1950s," the highest percentage of the twentieth century.

Tragically, the publication of *The Genesis Flood* in 1961 launched the modern YEC movement. That decade saw prayer thrown out of public schools and the rise of the drug and free sex culture. By the 1980s Henry Morris celebrated the proliferation of YEC ministries that led to 44% of Americans believing in YEC. By 2008, the YEC revolution had fully come into its own: the creation column had become a flood column with 60% of Americans believing in a flood "within the past 10,000 years that covered all of the earth and was responsible for most of the rock layers and fossils that are seen across the world."

During that decade the culture and church hit new moral and spiritual lows, with young people leaving the church in droves. The undermining of the truth of OEC interpretations of Genesis has unquestionably contributed to the undermining of both the church and the culture.

Of course, these two paragraphs above are nonsense, even though genuine polling data is cited. Any number of similarly alarming claims can be made using questionable cause fallacies. Or to turn Mortenson's reasoning on its head, one could claim that since now YEC has become so popular among creationists, we should soon expect a revival of the missions and morality so damaged by the once-dominant OEC. Historians attribute the past cultural dethronement of evangelical influence to other causes. Biblical theology was displaced in the academy by the humanities. Theological liberalism aided and abetted this move by making the inner life of humanity the rightful place to ground religious knowledge. But by far the biggest factor was the widespread impact of Darwinism, with its attendant naturalistic influences. Evangelical and fundamentalist leaders in the culture wars a century ago termed themselves "anti-evolutionists" for a reason. Contesting evolution united them; agreement about the interpretive details of Genesis was considered largely unimportant. 49

AiG faces its own critics who use the kinds of criticism AiG directs at OECs. A small but serious Christian movement today argues that the real problem occurred long before the rise of modern geology. This group contends that the turn to heliocentrism defined the moment when biblical authority was surrendered to science. The chief proponent of this view, Gerardus Bouw, now retired professor at Baldwin-Wallace College in Berea, Ohio, holds a Ph.D. in astronomy from Case Western Reserve University. He contends that any variance between the "readings" of astronomy and the Bible are always due to error in the readings of the "Book of Nature." The earth "is not older than about six thousand years," and "the Bible teaches us of an earth that neither rotates daily nor revolves yearly about the sun; that it is at rest with respect to the throne of him who called it into existence; and that hence it is absolutely at rest in the universe." Bouw contends: "If God cannot be taken literally when he writes of the 'rising of the sun,' then how can he be taken literally in writing of the 'rising of the Son?' "53

AiG featured astronomer, Danny Faulkner, believes Bouw's view is a problem for YECs: "Alas, there are recent creationists in the world today who are geocentrists. They teach that the rejection of God's Word did not begin with Darwin's theory of biological evolution or even with Hutton and Lyell's geological uniformitarianism. Instead, they argue that the scientific rebellion against God began much earlier with heliocentrism." Faulkner goes on to present an extensive argument biblically and scientifically why geocentrism should be rejected.

Bouw rises to the challenge, claiming Faulkner's criticism "is very shallow and often misrepresents geocentricity, geocentrists, the history of the Copernican revolution, its evidences, and the authority of Scripture." Bouw concludes his response by charging Faulkner with rejecting the biblical teaching of a geocentric universe for no "reason other than his opinion. In effect, his view is founded on the assumption that the proper interpretation of the Bible in the realm of science may await future discoveries by science." Faulkner's worries that geocentrism makes YEC an easy target for critics is "sheer nonsense" because knowledgeable antagonists can single out the hypocrisy of insisting the days of Genesis 1 are literal but the sun's rising and setting is not. Bouw contends that YECs like Faulkner who reject geocentrism do so "for the sole purpose of appearing intellectual and acceptable to the world, which desire is enmity with God (James 4:4). The creationist movement is fortunate that evolutionists don't understand these simple issues, for if they did, creationists would be shamed and held contemptible even more than they are now."

Other Christian groups such as the Missouri Lutherans also defended geocentrism "well into the twentieth century." But the point here is that Bouw's rejection of heliocentrism and Faulkner's defense of it remarkably parallel debates between OECs and YECs. In this case Faulkner and other YECs who reject geocentrism find themselves being accused of surrendering Scripture to science.

Especially troubling is the way AiG frequently makes the confusing and misleading claim that YEC is a gospel issue. In an article titled, "Millions of Years—Are Souls at Stake? Biblical Authority," Ken Ham writes, "Well, it isn't a salvation issue—but it is!" He argues that OECs interpret the Bible in light of science, which "means God's Word is not the final authority and is not without error. It also opens the door to others doing this with other historical claims of Scripture—such as the Resurrection and virgin birth." This charge is especially irresponsible and self-defeating. As we have seen in chapters 6 and 7, YECs make the very same moves in relating theology and science, just with compressed time scales. Does this mean YECs' reading speciation and plate tectonics/continental drift into the Bible opens the door for others to reject the resurrection of Christ and virgin birth?

Ham considers especially problematic the OEC view that animals died before the fall of Adam. After making his biblical and scientific case, Ham argues that "it seems obvious that bloodshed, death of animals and man, disease, suffering, and thorns came after sin." And because the Old Testament sacrificial system set the stage for Christ's sacrifice, "if there was death and bloodshed of animals before sin, then this undermines the atonement. Also, if there were death, disease, bloodshed, and suffering before sin, then such would be God's fault—not our fault! Why would God require death as a sacrifice for sin if He were the one responsible for death and bloodshed, having created the world with these bad things in place?" Ham concludes: "So to believe in millions of years is a gospel issue. This belief ultimately impugns the character of the Creator and Savior and undermines the foundation of the soul-saving gospel."

Ham's claim creates a sense of urgency for AiG's message, but is nonetheless theologically careless. Describing the age of the earth as a salvation issue would be shockingly heretical and is therefore trivial. But calling it a gospel issue that "undermines the foundation of the soul-saving gospel" is a seriously similar assertion certain to create a major boundary between believers over the age of the earth. Debating OECs over the issue of animal death before the fall is perfectly reasonable. But Ham's assurance that those who disagree can still be saved hardly ameliorates his accusation that OECs undermine the very mission of Jesus.

Ham's move is based on arguing from non-human effects of the fall. Questions about those effects have been raised for centuries. Did the fall affect the heavens, too, or were heavenly bodies expected to be perfect (e.g., no craters on the moon)? Did certain animals develop carnivorous features after the fall (fangs, claws, and digestive systems)? Did any scientific laws change postfall (e.g., second law of thermodynamics)? Debate over animal death before the fall is both interesting and important, but to refer to it as a gospel issue is reckless—precisely because the saving work of Christ has to with the fall's effects on human beings.

D. A. Carson notes that to describe something as a "gospel issue" can be just another way of categorizing the importance of doctrinal issues into either important or not. And because the gospel is supremely important, calling an issue a gospel issue then draws a boundary around it. But often the issue at hand is just a hot topic, albeit important, that defines our particular interests. Prominent YEC Todd Wood agrees with Carson. Wood rightly emphasizes that the doctrine of creation and even how God created are important. But he finds the use of describing YEC as a gospel issue "alarming." He notes the gospel is "not about when God created the universe," but "is about Jesus and how we obtain life through Him.

We ought not add to the gospel other things, important though they may be." He also is bothered the way the "gospel issue" is "too often used as a weapon to beat up those who disagree with the person using it." And Wood is especially alarmed that "gospel issue" maneuvers "seem to be adding to the gospel. The gospel is not the story of Jesus' salvation + my favorite doctrine. Even if those doctrines are true (and important), we should not attach them directly to the gospel. The Bible has very strong words for people who try to place extra burdens on people in addition to the gospel. That makes a false gospel. Ironically, it seems to me that calling things 'gospel issues' is an actual gospel issue."<sup>72</sup>

#### **Reasons to Believe**

A fair critique of this book would be the lack of equal time spent criticizing Reasons to Believe (RTB). But the intention is not to give them a pass, but to argue that the age of the earth is the wrong place to draw lines. So, of the three major creationist ministries, RTB stood out the least because it completely affirms the Chicago Statement on Biblical Inerrancy (CSBI). On the other hand, AiG desires to reformulate the CSBI in its image, and BioLogos promotes acceptance of dangerous anti-inerrancy viewpoints. RTB also does not accept universal common descent as does BioLogos.

However, Hugh Ross, president of RTB, does deserve criticism for some of the ways he has exacerbated the age of the earth controversy. He has been rightly criticized for seeking to solve perennial theological debates by use of the concept of extra-dimensionality. Perhaps this might have been less a concern if he just related the concept to something like God's relationship to creation. But Ross seeks to tackle Trinitarianism, Christology, divine sovereignty and human freedom, and more by use of at least eleven space-time dimensions. In response to the first edition of Beyond the Cosmos containing these ideas, Ross met with a panel at a national meeting of the Evangelical Theological Society in 1997. Most noted their appreciation for his apologetics work. But his "extra-dimensionality" approach to theology was less warmly received. William Lane Craig criticized Ross: "I find his attempt to construe God as existing in hyper-dimensions of time and space and to interpret Christian doctrines in that light to be both philosophically and theologically unacceptable." Craig went on to challenge Ross either to explain his positions better or "else to modify his views so as to avoid them." Ross claimed his way of explaining things to laypeople had been misunderstood, that he unwaveringly holds to orthodox theology. Perhaps a common perception among evangelical theologians regarding his theological work applies also to other creationist ministries: scientists do better science and theologians do better theology.

Ross has also been noted in calling for evangelical councils to bring resolution to the age of the earth controversy. Unfortunately, when calling for these councils early on, he referred to the current dispute as "analogous" to the problem at the Council of Jerusalem (Acts 15). The issue decided at that council, Ross notes, was that certain teachers were adding legalistic burdens to Gentiles, blocking them from saving faith in Christ. The immediate context of his analogy was his telling the story of a new believer attacked by radical YECs, making impossible demands on the young convert's faith.<sup>77</sup> The seeming analogy of YECs as legalists was hardly an auspicious way to call for a council with them. Eventually Ross claimed the council idea was not working, so he called for testing the competing age of the earth models. By means of testing their respective hypotheses, in a short time the issue should be settled as to which view was correct.<sup>78</sup>

Ross has gone on to publish several books touting the testability and success of his model relative to other competitors such as naturalistic evolution, theistic evolution, and young earth creationism. Not helping calm the fray over the age debate, he wrote in 2009: "One serious critique of young-earth creationist attempts to explain the natural realm is that their explanations, typically rooted in religious dogma, have no flexibility to adapt and self-correct as knowledge increases." But that is not true. As we saw in chapter 7, contemporary YEC models have adapted dramatically to the latest science over the decades. And YEC leaders have been willing to abandon ideas and models they believed were no longer viable (e.g., the vapor canopy). R. A. Peters, apparently no longer a creationist of any sort, argues that even secular science should not treat YECs as the church has sometimes handled heretics: demanding faith and persecuting infidels. He argues that young earth creationists are continuing to develop more sophisticated and self-critical traditions.<sup>80</sup>

#### GENERAL LESSONS LEARNED FROM THIS STUDY

Biblical Christians historically have practiced the conservatism principle in science-theology conflicts. The practice was founded on the assumption of biblical inerrancy, the coherence of biblical and natural facts, and a reluctance to adjust biblical interpretation unless proven science made clear the biblical interpretation had been wrong. Contrary to its stated position, even AiG practices this complex but necessary Galileo proposal. And in spite of differing positions on the age of the earth and other science-theology issues, AiG and RTB both have practiced the conservatism principle. BioLogos, on the other hand, not only maintains no commitment to biblical inerrancy but is willing to propose views far removed from anything like a traditional understanding of inspiration. Its apparent openness for a one way submission of the Bible to the terms of modern science distinctly rejects the Galileo proposal.

None of the three ministries are denominationally accountable, thus they are under no obligation to present robust theological systems. Their effects, however—theologically and emotionally—on churches are significant. Obviously very different doctrines of creation, humanity, and the fall of Adam are presented. And as mentioned, the three groups offer quite different approaches to biblical inspiration. RTB and AiG have much in common with their commitments to inerrancy and the rejection of human evolution. AiG, however, insists that the very nature of biblical inspiration be tied to recent creation and several specific scientific viewpoints. The mission of BioLogos places the promotion of evolution foremost, with details of pertinent biblical doctrines to be worked out in its light.

I believe AiG draws theological boundaries too narrowly and BioLogos too broadly. I have by far the deepest doctrinal concerns regarding the effects of BioLogos on the church. But I also have serious concerns about AiG's effect on the unity of the church.

#### THE THREE MAJOR CREATIONIST MINISTRIES: DRAWING LINES

#### Reasons to Believe

The history of conservative Christians wrestling with Scripture and science makes clear that generations may pass before viewpoints coalesce on specific scientific theories. A few examples might include the law of faunal succession, glacial theory, and continental drift. More goes into acceptance of specific scientific theories than just analysis of objective data.

Therefore, I suggest RTB should consider halting the notion of tests to demonstrate the superiority of its model over its counterparts, including YECs. The difference is subtle but perhaps important, between presenting evidence for one's view, and presenting even a hint that another viewpoint should surrender. There can be no question that RTB has been the target of many unfair attacks by some YECs over the decades such as referring to it as evolutionist. I also have no expectations that those attacks will end any time soon. But I remain convinced that YECs should be encouraged to develop their models in faithfulness to their biblical convictions.

#### **Answers in Genesis**

If I believe YECs should be respected and heard regarding their biblical and scientific models, I also am convinced that some YECs draw the lines too narrowly. I believe the age of the earth should be a level-three issue. But one YEC leader told me the issue's importance makes it a "1.2" doctrine for him. Of course thinking of the issue that way does not fit Mohler's triage structure: (1) without believing this you cannot be considered a Christian; (2) you may be a Christian believing this, but regrettably we cannot do missions or education or church together; and (3) your belief differs from mine but that does not come between us. But my friend's "1.2" honesty explains the confused—and damaging—way some YECs handle the matter.

AiG's rhetoric has institutionalized for this generation the confusion about the importance of YEC. AiG's tone was first "constitutionalized" by Henry Morris but traces back to Price and the scriptural geologists. OECs are alleged to be enemies of God, thus allies of Satan. But in attempting to demonstrate this accusation, AiG leaders repeatedly overreach themselves. AiG uses the same science as do the "atheistic" OECs-but with reduced time scales, more speciation, and in considerable disagreement with some other YECs. AiG blames the downfall of the West, including the loss of faith and morality, on OEC-without documentation and in the face of cultural historians. And, again without evidence, AiG blames the Chicago Statements for opening the door to more recent decay in the churches. To fix those problems, AiG unilaterally proposes a profound reformulation of the Chicago Statements that conflates interpretation with inspiration, excluding in the process even some YECs from being inerrantists. The Bible cannot be considered inspired unless the interpreter believes not only in recent creation, but also in particular scientific theories about the fossil column, Neanderthals, and the degree of speciation permitted in baraminology. AiG even argues the gospel itself must be linked to YEC or else be undermined. The easiest documentable example of overreach is the frequency with which AiG leaders claim to know the hidden motives driving OEC theorists: they are "trembling" before scientists rather than God's Word. Yet unless AiG leaders have received a remarkable spiritual gift, they are claiming to know something only God does.

Thankfully, most YECs I know neither believe nor approve AiG's rhetoric. One may believe wholeheartedly that the Bible teaches recent creation. And one may believe YEC without believing those who disagree are unwitting agents of evil. AiG may have well succeeded in convincing many to believe YEC. I have no problem with that, but am grateful AiG has not been nearly as effective in convincing YECs to use their divisive rhetoric.

I believe divisive rhetoric is the correct term to describe AiG's language as documented throughout this book. Why? If AiG's charges against OECs were believed and acted on, massive divisions in denominations and churches would follow. I have been a pastor or seminary professor for more than 35 years. I would consider it failure in the line of duty not to correct a Christian under my charge who believed doctrines that destroy the culture, church, family, faith, and the gospel. If I knew of a leader in my church, school, or denomination who believed in such destructive doctrines, I would take a further step. I would call for that person to disavow those doctrines. If they did not, I would have no choice but to bring charges for the removal of that person from leadership. Indeed, one denomination has struggled with whether to divide over YEC.<sup>84</sup> Therefore, AiG needs to be more consistent. If it continues to use rhetoric which suggests the age of the earth is a level two doctrine, then it should also own the implications.

Yet, if AiG supporters persisted in such a way as to be disruptive and divisive, I and many evangelical leaders would consider this applied aspect of AiG doctrine to be level two. In other words, a truly consistent AiG follower might rightly find themselves rebuked in a church or ministry for divisiveness, but not for believing the earth is young. A sad affair like this would not only be the responsibility of the person causing the division, but also AiG for misleading and motivating them in the first place.

#### **BioLogos**

Neither Darwinism nor theistic evolution is new, but a powerful and influential popularizing ministry urging evangelicals to get on board with them is. Neither does some of the material coming out of BioLogos appear like older versions of theistic evolution. Certain of their book titles make clear their target: *How I Changed My Mind about Evolution: Evangelicals Reflect on Faith and Science*. The volume reads like a collection of Christian conversion testimonies, except the conversion is to evolution.

But this newly packaged evangelical version of evolutionary creation still raises deep concerns. Darwinism initially seemed to demolish natural theology by providing a naturalistic explanation for design in living creatures. Evangelicalism responded by strengthening its defense of the Bible. Yet BioLogos makes no commitment to full scriptural inspiration, thus it does not practice the conservatism principle. The question then for watching evangelicals: Will BioLogos be more prone to substantial doctrinal reformulations?

Again, since BioLogos is neither a church nor a denomination, it would be unfair to expect a unified theological vision. But that is precisely one of its biggest dangers. BioLogos unifies around evolution but only a fairly sparse doctrinal basis. Its mission is to encourage evangelicals to realize that evolution can be accepted without theological worries. Yet how to construe important doctrines evolutionarily often seems to be a work in process, including how much to trust the Bible. The evangelical outsider might be forgiven for feeling like the message is: "Evolution is true, but we're not sure about all of the Bible, and we're hard at work now to figure out how to retain as much traditional evangelical theology as possible."

BioLogos holds that population genetics certifies that the entire human race cannot have descended from Adam. "At BioLogos, we are persuaded by the scientific evidence that human beings evolved, sharing common ancestors with all other life on earth. Furthermore, it increasingly appears that the genetic diversity among humans today could not have come from just two individuals in the past, but a population of thousands." 88

Human evolution, then, apparently forces rejection of the traditional doctrine of the special creation of humanity. In early response to Darwinism, theological liberals discarded the historical fall of Adam. Instead of the traditional view that humans degenerated from their created innocence, liberals argued that humanity evolved (fell) upward from its subhuman past with its animal appetites. BioLogos entertains similar evolutionary notions of how sin might have entered the world, that "there was a gradual awakening to sin. That is to say, in the same way that each human individually becomes morally responsible for actions as he or she grows up, so too the species gradually developed an awareness of their sin. On this account, there is no stark before-and-after line, but rather a gradual 'coming of age.' ... Perhaps God held *Homo* species 500,000 years ago responsible for some things; species 200,000 years ago for more; 30,000 years ago - even more; and when the law was given to Moses, God held the people accountable in a new way."

Likewise, evolutionary theory since Darwin has contended that human morality evolved from animal emotions. BioLogos not only promotes this gradualist origins of human morality, but also an evolutionary account for belief in God. Thus, evolutionary psychology has revealed "the (rather unsurprising fact) that, in the words of Oxford psychologist Justin Barrett, 'Belief in gods and God particularly arises through the natural, ordinary operation of human minds in natural ordinary environments.' "93 Conservative evangelicals will wonder if BioLogos wants them also to consider an evolutionary account of Christian belief formation.

In the end, BioLogos faces the same epistemological question as earlier theological liberals when they rejected the full trustworthiness of Scripture: How should we ground the knowledge of God? Unquestionably BioLogos leaders desire to be faithful to Christ and the gospel. But traditional evangelicals cannot help but be concerned when the ministry recommends an article urging readers to discern the Bible's scientific, historic, moral, and theological errors in the light of Christ's love. Post-Darwinian liberals also sought to ground theology in Jesus Christ rather than the explicit teachings of the Bible. In actuality, human experience viewed through an evolutionary lens became their arbiter for deciding Christian doctrine. BioLogos desires to help evangelicals no longer have to choose between faith and science. But some of us will feel BioLogos forces us to choose between their views and the Bible.

Understandably the ministry's leaders will view themselves in the Galileo tradition, and that their endorsement of evolution is similar to the heliocentric and age of the earth debates. I also understand my qualms with them appear similar to those of YECs with OECs. But one big difference stands out: BioLogos has abandoned the conservatism principle. I would have no qualms with BioLogos were it strictly a scholarly society engaged in the study of science and theology, discussing and debating various hybrid models. Its talk of just having a conversation about evolution is no problem either. Yet, the importance of a fully trustworthy Bible is so critical for evangelicalism that I believe this issue rises to level two of doctrinal importance.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Cabal, T. J., & Rasor, P. J., II. (2017). <u>Controversy of the Ages: Why Christians Should Not Divide over the Age of the Earth</u> (pp. 187–217). Bellingham, WA: Lexham Press.

#### **CONCLUSION**

Though only about a half century old, in conservative evangelical circles the age of the earth controversy feels like a major science-theology conflict on par with the Darwinian. One reason is that some leading YEC groups frequently and specifically link the age controversy to the Darwinian. Therefore, the debate takes on considerably more urgency among evangelicals with longstanding antipathy to evolution. Yet the battle against Darwinism was carried on for a century mostly by OEC anti-evolutionists, including the Old Princetonians such as Charles Hodge, the fundamentalists, and neo-evangelicals such as Carl Henry. Ironically, YEC initially gained credibility in OEC circles by appearing to be a new inerrantist version of anti-evolutionism with superior, even if confusing, scientific evidence.

Evangelical voices of authority today urgently call for decisions on some extremely difficult biblical, theological, scientific and philosophical debates. Making matters more complex, an evolutionary creationist evangelical voice has been added to the mix. Many evangelicals feel forced to decide between well-known leaders or ministries, even though doing so may well lead to boundaries being drawn between them and other Christians.

These voices of authority are backed by enormous resources and popular support. Ignoring their calls for decision is not easy; fellow church members are being pressured to take a stand too. These popularizing ministries are specifically positioned to reach as many non-specialists as effectively as possible. Their presentations may contain complex and technical material beyond the training of their followers, but these ministries are not like evangelical scholarly societies, which have long debated the same issues without agreement. Instead these ministries by design often present their viewpoints as long settled truths to those who have no way of knowing otherwise.

At present these creationist ministries present their evangelical audiences with a myriad of hybrid theories. The conceptual instability and emotional atmosphere suggest that those who are uncertain what to believe should trust their Bible and wait for further light on the details. Those Christians can trust that the God of truth will have the final say in the outworking of history. But for those who believe they understand things rightly, they should humbly and patiently teach so as to nurture the unity of God's church. And **if boundaries must be drawn, and at times they must, may they be outlined with exquisite Christian kindness and gentleness**.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Cabal, T. J., & Rasor, P. J., II. (2017). <u>Controversy of the Ages: Why Christians Should Not Divide over the Age of the Earth</u> (pp. 223–225). Bellingham, WA: Lexham Press.

# Bretherheed Battler CAR of the Earth Deer God Exectl Vo. Apologother Press

"Despite this anti-evolutionary stance that dominated the Restoration Movement writings of the 1870s, there were some voices that were pro-evolution, and these increased in dominance as the decades rode on. In 1877 Church of Christ minister Clark Braden published *The Problems of Problems*, an anti-evolutionary book that caused a storm of pro-evolutionary publications by voices that otherwise may have remained silent. Many (but not all) continued to deny human evolution, *but saw no conflict between species' mutability and Christianity*.

Among the pro-evolutionary voices were some heavy hitters within the Restoration Movement. Although Alexander Campbell died in 1866 and therefore missed most of the debate, he lived during the height of the geology debate. Rather than insist on a literal reading of Genesis one, however, he allowed the science to influence his reading of scripture, **accepting geological evidence for an old earth.** 

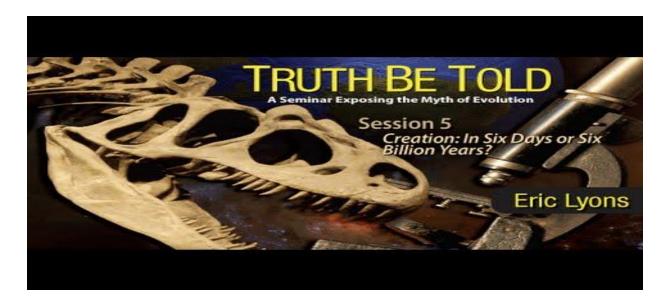
#### Isaac Errett in 1884, in an article entitled *Evenings with the Bible*, wrote:

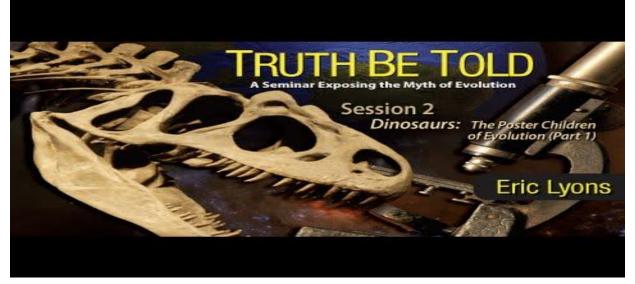
'It is of little concern to me so far as my faith in this revelation is concerned, whether the Evolution theory be true or false—whether every created thing sprung into full perfection by an immediate act of creative power, or was developed from one or more created germs, in which were packed away all the possibilities and potentialities of all the varieties of being, the various forms and grades of life that were afterwards produced. In any case, it requires this revelation to lift the veil beyond which science has never been able to penetrate, and **show in God himself the original fountain of life and creative power**.'

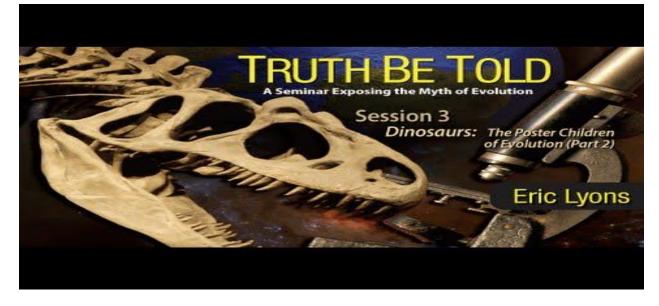
No less than David Lipscomb, who in the 1870s had written an openly anti-evolution article, in 1899 published five articles that showed that evolution, if true, was no threat to Christianity. In short, although many within the Church of Christ today unreflectively assume that the anti-evolution stance is the original position of the church, in reality the history of the Church of Christ is more diverse, with people engaged in open dialogue, allowing a plethora of voices to be heard." - Evolution & the Churches of Christ (Blog)











### WHAT WAS THE CAUSE OF THE BEGINNING?

#### by John N. Clayton

It is assumed that the reader has read the first two booklets in this series, the first titled <u>A Practical Man's Proof of God</u> and the second <u>A Help in Understanding What God Is</u>. In these two booklets, we have established that all scientific evidence supports the fact that there was a beginning, and that the beginning was caused. We have also shown that the creator of time, space, and energy has to be something that is outside of time, space, and energy. The nature of the cause cannot be in the three-dimensional physical world in which we live and must be outside of time to have created time. That does not automatically mean that God is the creator, because recent studies in quantum mechanics have shown that there are many things that apparently function outside of the three-dimensional world that we are familiar with. The purpose of this discussion is to show that a dominant property of the cause of creation is intelligence which radiates purpose in the creation & eliminates chance as a cause of the beginning. There are several different kinds of evidence that show the nature of intelligence in the creation. We would like to briefly review these with the hope that the reader will pursue other writings that explore and expand each of them.

#### **Intuitive Design**

Intuitive design simply means to look at the world around you without the prejudice of science, philosophy, or religion. It is difficult to observe the birth of a child and not be impressed with the incredible complexity of that process. Standing on a mountain or in a spaceship and looking out at the cosmos in which we live is a wonderful, aweinspiring act. Snorkeling in a reef and watching the interplay of hundreds of living things is exhilarating. Watching the incredible migrations of birds, whales, eels, turtles, caribou, and fish fills us with wonder and amazement. All around us we see evidence of incredible intelligence, which poets and religious writers have extolled for centuries. The Bible writers were a part of this as they said things like, "The heavens declare the glory of God; the skies proclaim the work of his hands." (Psalm 19:1). "Go to the ant, you sluggard; consider its ways and be wise" (Proverbs 6:6)! "For since the creation of the world God's invisible qualities ... have been clearly seen, being understood from what has been made, ..." (Romans 1:20).

Atheists and skeptics will respond that there are natural ways of explaining all of these things, and we would agree. The problem is the number of things that have to be explained is staggering and growing as our knowledge expands. Offering a possible natural explanation is not a proof any more than maintaining that God did it.

#### **Architectural Design**

In the creation there are a vast number of artistic and architectural functions that radiate incredible beauty, but have no biological or physical necessity to exist. The Fibonacci ratio, for example, exists throughout every aspect of the creation — from the shape of galaxy arms to the DNA helix. This ratio and the spiral structures it produces offer no functional advantage — it is not stronger than other structures and it does not improve the probability of survival. There is no reason for it to exist and especially not to exist in the thousands and thousands of different applications where it is found.

What the Fibonacci ratio and its structures do offer is incredible beauty. The whole creation is teeming with examples of beauty that are not essential to function, but have appeal to minds that can comprehend and appreciate it. Attempting to ascribe such beauty to chance and the interpretation of the human mind falls woefully short of supplying a satisfactory explanation.

#### **Mathematical Design**

Over recent years, we have seen a number of new terms evolve to describe the attempts to ask if chance is a mathematical possibility in explaining what we see in the cosmos. Irreducible complexity and the soft anthropic principle have been heavily promoted at the start of the 21st century by all kinds of scientists & philosophers. The problem is that, as mankind has come to understand the processes seen in nature, we realize that there are many parameters that are necessary for things to exist as we see them. Chaos theory has helped us learn that things we thought were chaotic in many cases are just so complex that our calculating skills and tools did not allow us to see the design that is there. How many variables are there in producing a carbon atom? Any high school student knows this list is huge - the gravitational coupling constant, the strong nuclear force coupling constant, the weak nuclear force coupling constant, the electromagnetic force coupling constant, the ratio of electron to proton mass, the expansion rate of the cosmos, the entropy level of the cosmos, the mass density of the universe, fine structure constant, the decay rate of a proton, just to name a few. Similar lists can be given for the producing of a life-supporting planet or for life itself. (Note: lists are available upon request.)

Late in the  $20^{th}$  century, scientists & mathematicians began to apply mathematics to these kinds of lists. The problem is when you have a large number of independent variables and each of them has a finite probability, the total probability becomes astronomical. If you draw a card from a deck of cards once, the odds of getting an ace of spades is one in 52. The odds of drawing an ace of spades twice in a row back-to-back is one in 2,704 (1/52 x 1/52). The odds of doing it four times in a row is one in 7,311,616. This same technique has to be applied to all of the variables necessary to produce an atom, a planet, life... if the calculation is done on a purely chance basis. The probability figures come up with numbers like one chance in ten to the 800th power! Even famous atheists like Francis Crick and Antony Flew have agreed that chance isn't a valid means of explaining these numbers. They suggest that aliens or some other intelligence is responsible, which does not answer the question but just pushes it back one level.

Another response to our argument is to maintain that the cosmos is so vast and so old that, no matter what the odds are, it will happen. The problem with this explanation is... as scientists examine the cosmos, they don't find it to be infinitely old or infinitely big. If the big bang theory is accepted in any of its versions, the cosmos is finite in both size and age. Textbooks will estimate the number of baryons in the cosmos as ten to the 78th power, and that is not in the range of the probabilities that exist. The cosmos is not big enough nor old enough to allow chance to be an operating mechanism. Proposals of parallel universes and virtual existence are not supported by evidence and appear to be desperate attempts to avoid the admission of intelligence in the creation.

#### **What About Imperfection?**

I am the father of a son born blind, mentally retarded, with cerebral palsy and a form of muscular dystrophy. For centuries philosophers & skeptics have maintained that any argument for intelligence in the cosmos is negated because of imperfections seen in everything around us. The miracle of the birth of a baby is blunted when that baby has enormous congenital problems. Many people see the violence of a supernova or a volcano or earthquake as a negation of any suggestion of intelligence and design in the creation. Some of the problem here is ignorance of the scientific purpose in things we see as violent. Volcanos and earthquakes are positive natural forces that benefit life on earth. Without them, new land to replace eroding continents and new minerals to sustain life would not exist. In other words, life would not be possible. Even hurricanes have a positive function in the overall ecosystem of this planet. What we consider to be imperfection is sometimes a function of our ignorance.

The other variable that has to be included in this discussion is the purpose of the existence of man. If your view of man is that he is simply the apex of evolutionary process, then finding any real purpose for our existence is problematic at best. As pollution, war &overpopulation create havoc on the planet, the value and justification for man's existence becomes blurred at best.

The biblical explanation of man is that man is created in the image of God. That means man is primarily a spiritual being, not a physical one. The Bible also indicates that God's purposes in creating man have no physical significance. Passages like  $\underline{Job\ 1}$  and  $\underline{2}$ ,  $\underline{Ephesians\ 3:9-11}$ , and  $\underline{Ephesians\ 6:12}$  make it clear that man is a part of something far grander and more magnificent than those things that happen in space and time. Imperfection in this physical world is far less significant if you understand that this world is not the sum total of our existence. It is hoped that the reader will want to pursue what the nature of that existence is and how we play a significant role in the battle between good and evil. It is also hoped that in doing this the reader will find meaning and value in life that will lead to a better, more fulfilling, and more peaceful life here than has been experienced before.

### GOD'S REVELATION IN HIS ROCKS AND IN HIS WORD

by John N. Clayton

#### **Biblical Time**

How old does the Bible say that man, life in general, and the earth are? The first point that needs to be made is that God can do whatever God likes! God has power to create the cosmos as it is, with you sitting there reading this, the paper in your hands, the memories in your head, and all that surrounds you good and bad — all of that could have been created two seconds ago or even less. God does not need time at all! If we understand God as the Bible defines and describes Him, then time is a creation of God and does not control God. The issue is not what God could do but what He did do. The evidence is that you have been sitting there more than three seconds, and the evidence is that the Creation happened more than 10,000 years ago.

Any attempt to date the earth biblically has to make assumptions just as scientific methods have to make assumptions. In 1650, Archbishop James Ussher of the Episcopalian Church stated beautifully the most fundamental assumptions:

- 1. There are no undated verses in the biblical account.
- 2. There are no missing people in biblical genealogies.
- 3. The purpose of the genealogies was chronological.
- 4. No historical period is missing from the Bible.
- 5. The genealogies are all written in chronological order.

Any dating method that attempts to use the Bible as a basis will have to use these assumptions, and yet all of these assumptions are wrong! Let us take a look at them:

**Assumption 1.** There are many undated verses and events in the Bible. How long were Adam and Eve in the Garden of Eden? I have a male chauvinistic friend who says, "Knowing my wife, it couldn't possibly have been more than 10 minutes;" but that is an assumption with great consequences. I would suggest that Adam's age was measured from the time he began to die — not from his creation, so the time in the Garden cannot even be related to his age.

Another example of an undated verse or event in the Bible is <u>Genesis 1:1-3</u>. Denominational tradition has taught us that the first three verses of Genesis are a summary of the rest of the chapter. For years, people have read <u>Genesis 1:1</u> like this: "In the beginning God created the heaven and earth and, in the next 31 verses, I am going to tell you everything God did." That is simply not what it says. These verses are a historical narrative written in a historical style. Notice the wording:

When? "In the beginning"

Something happened. "God created the heaven and the earth"

What happened next? "The earth was (or became, as some versions say) without form

and darkness was upon the face of the deep."

What happened next? "the Spirit of God moved upon the face of the waters."

These are historical events written in a historical sequence. These are not summary verses of what is to follow. Something is happening in each of the statements that are made, and the things that are happening are undated and untimed.

**Assumptions 2 and 3.** It is clear that biblical genealogies were not written for chronological purposes nor are they supposed to be interpreted as being complete. In the book of Ezra, for example, there are four people listed in the genealogy between Azariah and Amariah. In  $\frac{1 \text{ Chronicles 6:3-14}}{1 \text{ Chronicles 6:3-14}}$ , the same genealogical sequence is given, but this time there are twelve people listed in the same sequence. The genealogy of  $\frac{1}{1 \text{ Chronicles 3:11-12}}$  does not agree with  $\frac{1}{1 \text{ Chronicles 3:11-12}}$  which has Uzziah's father, grandfather, and great-grandfather omitted. In fact, Matthew gives 42 steps in the same genealogy for which Luke gives 55 steps. Some have pointed out that Luke records Mary's side of the family instead of Joseph's, but that does not explain 13 missing generations.

The point is these writings were not written by people living in the twenty-first century. In ancient times, people did not give complete listings of their family tree when giving their ancestry. What they usually listed were the famous people in their lineage. In <a href="Matthew 1:1">Matthew 1:1</a>, for example, the genealogy of Jesus is given as follows: "Jesus Christ, the son of David, the son of Abraham." It is obvious that Jesus was not Abraham's grandson, but that is in fact what the passage says. It is not an error; it is simply that genealogies were never written in the Bible with the idea that it would be used to calculate time or to establish chronology. Ancestry (lineage) is the only message of the biblical genealogies.

**Assumptions 4 and 5.** It is totally obvious that the Bible does not include a number of historical events. The time between Malachi and Matthew is an obvious example, but there are many others that can be given. There are cases in the Bible where genealogies are reversed; for example, Noah's sons are listed in reverse order.

The point of this discussion is that, like the scientific methods of dating, biblical methods of dating involve a large number of assumptions which make any attempt to give a biblical age to the creation or to Adam doomed to failure. There is no reason to use the Bible in this way unless your denominational tradition forces you to. If your denominational creed teaches that the history of the earth involves even time periods of about 1,000 years each, the last of which is said to be the physical reign of Christ upon the earth, then you have to find a way to limit the age of the earth to a relatively small number. This is a case of a human belief system forcing something on the Bible which the Bible does not say. It seems to this author it is more logical and consistent to simply admit that this is not a biblical issue, and whether the earth is 6 seconds old, 6 days old, 6 millennia old, or 6 trillion years old does not matter.

What we have suggested in this discussion is not new. Many years ago, conservative biblical students who took the Bible literally instead of accepting the teachings of human beings said the same thing we have tried to articulate. David Lipscomb said in 1921, "I have no way of knowing how long the world was created before man was created. The Bible does not tell. It only says, 'In the beginning' and that afterwards He created the plants and animals, and last of all man. But it gives no intimation how long the earth was created before these other things were" (*Questions Answered by Lipscomb and Sewell*, Gospel Advocate Co., Nashville, TN, 1974, page 747. Originally published by McQuiddy Printing Co. in 1921). **Foy E. Wallace said**,

"There is no statement in the Bible which indicates the age of the earth. If the scientist or pseudoscientists want to ascribe to the earth an age of a million, a billion, or three hundred billion years, I will not pause to argue... 'In the beginning God.' That is all the Bible affirms on the question" (*God's Prophetic Word* by Foy E. Wallace, The Roy E Cogdill Publishing Co., Lufkin, TX, 1946, page 6).

### GOD'S REVELATION IN HIS ROCKS AND IN HIS WORD

by John N. Clayton

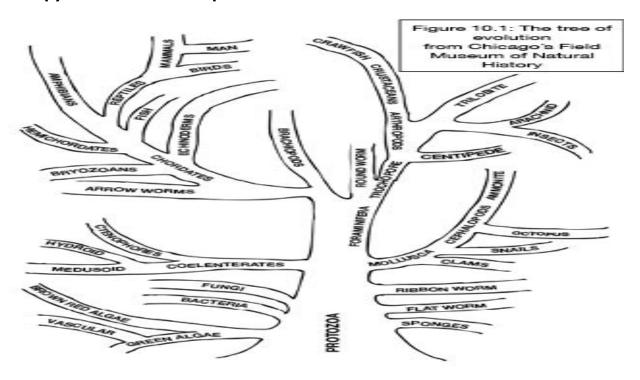
#### What about Dinosaurs?

The one remaining question in our study of the Genesis account is the question of how prehistoric creatures like the dinosaurs fit into the Genesis account. Before tackling this subject, it is important to present an explanation of our approach to the words of Genesis. It is our belief, in order to have any meaningful understanding of the Bible, we must understand that words to always have the same meaning unless there is an unquestionably unique reason why they do not (such as the biblical writer redefining a term). A New Testament example might be useful. What does the word baptize mean? Greek scholars tell me the word is derived from a Greek term meaning to immerse... In Acts 8:38, people went down into the water and John was said to be baptizing in the Jordan River "because there was much water there" (John 3:23). There are many places where there's no way to tell from the description whether the method of baptism was by sprinkling or pouring or some other method. If the word baptize is clear in most cases, I assume it must mean the same thing in all other places. Those who maintain that there are innumerable interpretations of the Bible do so primarily because they have refused to recognize the consistency of words in the biblical account. Much of the confusion about the Genesis account among people in the religious world has taken place because words are not used consistently.

What do words like behemah, kanaph, remes, etc., in Genesis mean? If you look at appendices A and C you can see these words being used. I suggest that these words are used in Genesis the same way they are elsewhere in the biblical record. Behemah is used 51 times in the Bible. All of the times outside of Genesis that the word's use can be determined, it is used in reference to an ungulate — an animal that nurses its young. (The reference usually is to a cow.) What does behemah mean in Genesis 1:24-25? Can it refer to a *Tyranosaurus rex*? To be facetious, I seriously doubt that anyone has ever attempted to milk a T. rex! Behemah cannot refer to a dinosaur. In Job 40:15, there is another reference to a large version of behemah. A giant ground sloth is a real possibility for the meaning of this word, but a dinosaur is not unless the words are being used in a inconsistent way! The leviathan of Job 40 is described in Psalm 104 as a creature of the deep ocean. Dinosaurs were not deep ocean creatures. The context of the passage is the struggle between good and evil, and the language certainly gives us a vivid picture of evil. Most dinosaurs were harmless cocker spaniel-sized reptiles. Words like behemoth and leviathan cannot be dinosaurs. All of the animals in Genesis 1 are animals that Moses was familiar with — his cattle, his poultry, etc.

It is a major error to assume that these words can include the amoeba, virus, duckbilled platypus, echidnas, bats, etc. There have been some 26 million different species of living things that have existed on this planet. If Genesis used half a verse to tell us about each of these, the Genesis account would be 13 million verses long and you would need a fork lift to pick up your Bible. That is not the purpose for which the Bible was written! Genesis is saying two things: (1) that God created everything and (2) that God created man special in His image. When, where, how, and why are not spelled out and are not relevant to the purposes for which the Bible was written. God has not told us when the dinosaurs were created. Like a lot of things, dinosaurs were created for a reason, fulfilled that reason, and then disappeared.

There are several possible ways to explain the dinosaurs and how they fit into Genesis. The Bible says that God does not do anything in vain (Isaiah 45:18), and that is true of the dinosaurs. There is considerable evidence that the dinosaurs were major influences in the preparation of the earth for man. The dinosaurs ate gymnosperms — sporebearing plants like ferns, conifers, etc. You and I eat angiosperms — plants with fruit and seeds, not gymnosperms. The whole dinosaur ecosystem led to the successful preparing of the earth for man to be able to live and eat. If the dinosaurs were created for this purpose, then they must have been brought into existence by God in Genesis 1:1-3. The word translated earth in Genesis 1:1 does not refer to a blob of gook. In the rest of the Bible it refers to a functioning, life-bearing planet. The word was in Genesis 1:2 is translated became in Genesis 19:26. Whether this has reference to the asteroid collision mentioned earlier is problematical, but the eradication of the dinosaurs by some process cleared the way for man and his world. The prehistory of the earth is in Genesis 1:1-3, while man and his world are created in what may have been a literal week, and man and his animals occupy the rest of the chapter.



The Bible not only gives us an account, which is checkable in every detail of the history that it gives, but also a checkable means of taxonomical classification. The figure below shows the well-known Tree of Evolution as it is portrayed in Chicago's Field Museum of Natural History. In this tree, the oldest and simplest forms of life are found at the bottom of the tree & the more complex and the more recent forms of life are at the top. There are a number of problems with this model. Animals like the trilobite have been placed at the top of this tree. This has been done because the animal's so complex. The trilobite eye is sometimes referred to as nature's most perfect eye. The eye of the trilobite was so good that it could look at something a foot away & a mile away & they would both be in focus at the same time. Needless to say, this is not something that you & I can do. The problem with this is that the trilobite is one of the oldest animals to have ever lived on the earth. The trilobite is an index fossil for the Cambrian period which is the period when life began. There is no way this complex animal can logically be at the bottom of the evolutionary tree; so even though it is very old, it is placed near top of the tree in the museum chart. Other examples exist that have similar problems. Bryozoans are one of the simplest animals to have ever lived on the earth, but they are not found in the earliest rocks. There are a large number of these cases that violate assumptions of neo-Darwinism.

There is also the problem of the ease which animals can be classified. Classical evolutionary neo-Darwinism suggests that there should have been a large number of transitional forms between groups. These would have been animals that could not be classified easily, because they were an evolutionary "experiment" between orders or phyla. There should have been thousands of evolutionary dead ends — animals who were unsuccessful and died out, but were links between related taxonomical groups. What could you have that would be in between the cold-blooded animals & the warmblooded animals? Can we logically believe in luke-warm-blooded animals? Rather than engage in a running gun battle, both scientists & more open creationists have looked at other options. An option suggested about 40 years ago by Dr. George Kerkut in his book Meanings and Implications of Evolution involves a forest model instead of a tree model. Another name that has been applied to this model in recent years is the lawn of evolution.

The concept being proposed is that life started in many different trees of evolution. Each tree started independently, but the changes in the tree eventually led to a diverse population of animals who were uniquely linked. Dr. John Bonner of Yale commented on Kerkut's suggestion by saying "This is a book with a disturbing message. It points to some cracks in the foundations. The truth of the matter is that we don't know whether the transition from nonliving to living occurred once or twice or many times ...." (American Scientist, volume 49, June 1961, page 240 and Scientific American, November 1992, page 84). The really interesting thing about this model is that it is extremely close to what the Genesis account has been saying all along. The word kind in Hebrew is the word min, and it is a broad term. In the New Testament, 1 Corinthians 15:39 says that there are four kinds of flesh — the flesh of birds, the flesh of beast, the flesh of fish, and the flesh of man. The same system of classification is used in the first chapter of Genesis & in the flood chapter. We would suggest the biological community has finally caught up with Genesis and that this division matches the fossil record better than any model that has ever been proposed.

### GOD'S REVELATION IN HIS ROCKS AND IN HIS WORD

by John N. Clayton

## The History of Creation According to the Bible and the Fossils

It may be helpful to the reader to use the biblical text with the Hebrew words that are listed in <u>Appendix A</u> to follow this discussion. The first verse of Genesis is a creation (*bara*) verse, not a making (*asah*) verse. The things created, according to verse 1, are the heaven (*shamayim*) and the earth. What this means is that everything above and everything below were brought into existence by a miraculous act. It is interesting that the Hebrew shamayim, according to *Young's Analytical Concordance*, has a root that means "heaved up things." Whatever the understanding of the ancients might have been, today it is clear that the expanding universe fits such a description.

If the *shamayim* includes everything in the sky, this includes the sun, moon, and the stars. Someone might argue that these objects are described in <u>Genesis 1:14-19</u>, but notice that the word used in these verses is making (*asah*) not creating (*bara*). The objects were created in verse 1, the light reached the earth from these objects in verse 3, but you could not establish "signs, seasons, days and years" until verses 14 through 19. Those who argue that *bara* and *asah* mean the same thing have to invent a light for verse 3 because they claim the sun & moon came into being in verses 14-19. If we take the account literally and do not compromise the use of these words, we do not have to invent a light for verse 3. Verses 6 - 7 indicate that a change took place in the waters and indicates that three zones were produced — waters above the earth, water in the earth, and waters below. This is strongly suggestive of our modern understanding of hydrosphere, lithosphere, and atmosphere.

Is there any evidence to support the above description? The answer is a strong yes. First of all, we have good evidence that the universe had an explosion or expansion at its beginning that imparted an expansion to it that we see today. The age of our solar system seems to be sequentially as the Bible describes it. There is even a phenomenon that might explain the creating & making of the sun & its light. Those who've travelled in the desert areas are familiar with the fact that it frequently is too hot in the desert to rain. Many times, I have seen rain fall in the Grand Canyon or the Mojave and found that it evaporated before it hit the ground. If the earth was hot early in its history (and every indication is that it was) and if it tried to rain, the same thing would happen. Genesis 2:5 tells us that before there were plants and before man existed, "the Lord God had not caused it to rain upon the earth."

If the water cannot exist on the surface of the earth where will the water be? The only place cool enough for water to exist in a stable form thermodynamically would be the atmosphere. If that volume of water is in the atmosphere, there are heavy clouds and you would not be able to establish "signs, seasons, days, and years." There is a perfect fit between those few things that the Bible does say and what the evidence shows. This is also true in the sequence of life.

We emphasize the word sequence in this discussion. The chart in Appendix C gives a listing of the words used in the Genesis account and what those words generally apply to. There is also an indication of how many times the words are used. As you look down the list, you will notice all of the animals described are familiar. The word behemah, for example, always refers to an ungulate and is rendered cattle in most translations. The clearest way to see the accuracy of the sequence that is given in the biblical record is to look at the order Genesis gives. The reader might wish to begin by looking at our discussion of Genesis 1:1-3 on page 19. After these events, verses 6-10 tell us that the physical earth was modified. There is no indication of creation here — only modification. Before life could exist on earth, there had to be an environment that could support life.

We have already made reference to the division of the waters vertically. There is also a reference to the division of waters horizontally. Verses 9–10 tell us that land and water were separated, and that the water was in one place and the dry land was in another. Every geological evidence we have indicates that this is true. The current situation of many bodies of water and many land masses is the result of change. A casual look at the edges of North and South America, Europe, Africa, and the range of mountains in the center of the Atlantic Ocean, called the Mid-Atlantic Ridge, shows them all to be roughly parallel. If you take a pair of scissors and cut all of the land masses out along their continental shelves, you can actually fit them together like a jigsaw puzzle. Rocks on opposing shorelines usually match, and measurements from space and on the earth tell us that they are still moving today. (The reader may feel that Genesis 10:25 describes this process too, but it is our persuasion that this refers to the division of the languages — not the division of the land masses.)

The Bible then tells us about the sequence of formation of plants. The first living thing we are told was grass. The Hebrew here is *deshe* and the word literally means tender grass. This is not the grass you mow with your lawnmower; that word is *chatsir*. Tender grass is described as being easily broken. The second plant material produced in the sequence is the herb from the word *eseb*. A former student of mine who's Jewish tells me that, in his understanding, this word referred to a plant without hard seeds — a spore bearing plant, for example. That cannot be proven, but it is a different thing than the "tree yielding seed after his kind, and the tree yielding fruit, whose seed was in itself." This is a clear reference to an angiosperm — a tree with fruit and seed — not a fern or moss. It seems there are three kinds of plants given in the biblical sequence — the tender grass, the herb, and the flowering tree with fruit in itself. I am sure that any student of botany reading this paragraph has recognized the process of succession.

This sequence is something that God has created and used over and over in the history of this planet, and it still takes place today. My brothers and I own a fishing camp in Canada. Many years ago there was a terrible forest fire that burned the area right down to bed rock so that not a blade of grass nor a crumb of organic material remained. The area has recovered over the years. The first several years, there were mosses & lichens that covered the rocks in some of the shaded places. These simple plants certainly fit the description of "tender grass." In one place the moss grew so thick that, when you walked on it, you sank deep into it; & you could lie down on it and it would seem like a thick soft mattress. Eventually we began to see a few ferns, some conifers and horsetail beginning to grow in places where the mosses & lichens had accumulated enough organic material to enable gymnosperms to grow. These certainly fit the definition of herb given in the Bible. In just the last few years, we have seen aspen, oaks & birch trees starting to grow where the gymnosperms have established a base for them. This succession is in exact accord with what happened in the primitive earth, and it continues to take place today.

The sequence of the Bible continues to flow in exact accordance with evidence seen in the fossils. Animal life begins in water & in the Genesis account, the Hebrew suggest a wide range of swarming creatures began in the sea. The fossil record confirms this with every phylum of life known to man being found in the earliest rocks — even backboned animals, seen in graptolite (an Cambrian period index), the acorn worm, the lancelot, and other forms.

We also see other examples of the sequence accuracy of the Bible in other forms. According to the Bible, the first warm-blooded creatures were the birds. In the fossil record, we see the archeopteryx, protoavis & several finds recently in China backing the biblical statement. Mammals are described next, with man being the last thing to be described in the Bible. The biblical sequence agrees with the fossil sequence; and since the Bible is not attempting to give us the time of these events, we can only be impressed with its accuracy and integrity. It is interesting that evolutionary models come & go, with one of the more recent of these being punctuated equilibrium. Yet with all of this change in scientific theories, the Bible from the beginning has given a model that still stands as credible with all available scientific evidence.

When I was an atheist, I was in process of writing a book titled *All the Stupidity of the Bible*. I taught myself Hebrew, went to <u>Genesis 1:1</u> in the original manuscripts, & attempted to show the biblical account was pure garbage. What I ran into were the kinds of things that we have discussed. I finally gave up after almost seven years of trying to prove the Bible wrong & decided the Bible was credible and I needed to look into what being a Christian was all about. I would recommend that same step to you.

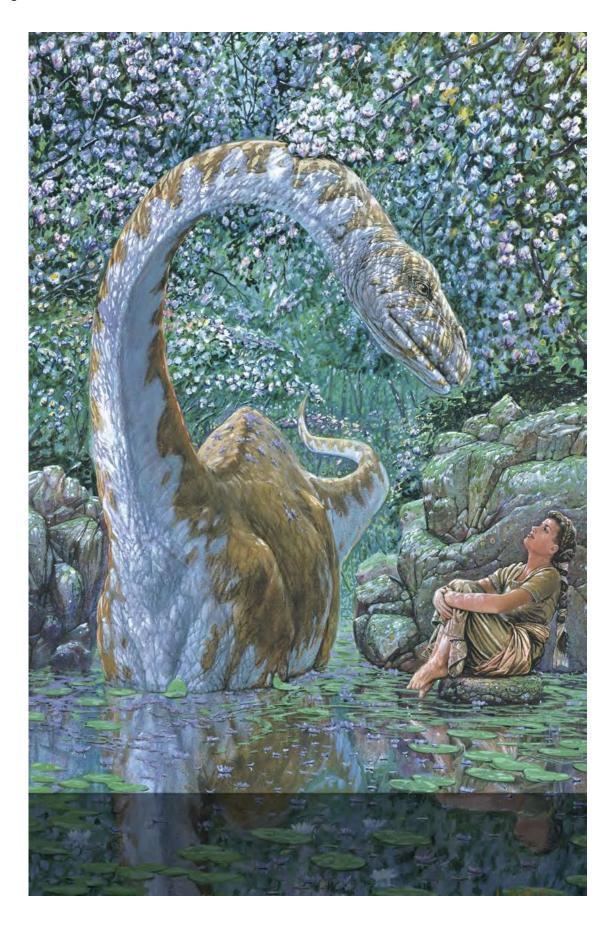
### GOD'S REVELATION IN HIS ROCKS AND IN HIS WORD

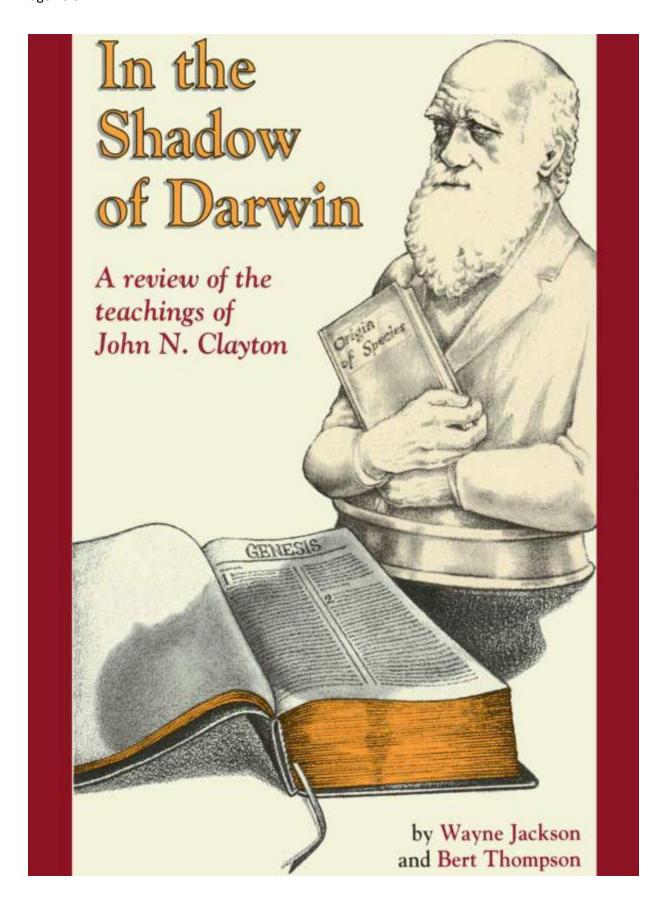
by John N. Clayton

#### **Conclusion**

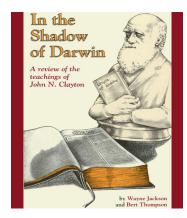
God created basic animals in a number of groups. The flesh groups are identified while insects & worms, are not. Changes have occurred within these groups. An understanding of these changes allows a great deal of biological understanding. In the prehistory of the earth in Genesis 1:1-3 the earth went through an undated, untimed period in which the resources man would need were produced. They were produced by original materials being created & then being altered by natural processes so that man could find them. As knowledge gets better, we find more and more ways to understand these things and have learned to copy them so we can produce them artificially. Genesis makes perfect sense when it is followed in a literal and careful way, recognizing that the sequence given was used initially and still takes place today in (biological) processes like succession. The creation week, which may have been a normal week, describes man and the animals man domesticated and was familiar with. If we free ourselves from human traditions and creeds and look open-mindedly & fairly at the evidence, we can see that science and the Bible are friends — not enemies. Bad science and bad theology have caused an unnecessary conflict with enormous damage being done to both science and theology. If we look at these two areas as if they exist in a positive symbiotic way, we can see that the written word revealed in the Scriptures & the created message in the world around have the same message and compliment one another in a beautiful way.

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ne of the most widely traveled speakers in the church in the field of Christian evidences is John N.



Clayton of South Bend, Indiana. Brother Clayton generally is busy several weekends of each month throughout the year with his "Does God Exist?" program, which operates under the oversight of the elders of the Donmoyer Avenue Church of Christ in South Bend, Indiana. In addition to his public lectures, John edits a bimonthly paper, also titled *Does God Exist?*, with a circulation of some 29,000+ readers. He is a prodigious producer of a variety of materials, including audio and video tapes, correspondence courses, etc. While all of this truly would be wonderful if brother Clayton were teaching faithfully the truth pertaining to Christian evidences, the sad fact is, John propagates a host of errors that are so foreign to the plain teaching of the Bible and so damaging to the faith of both young & old alike, it has become imperative that a thorough exposure of his teachings be made.

We do not write on these matters lightly. It is a serious thing to oppose a brother in Christ. Our opposition to brother Clayton's teachings is fueled neither by a personal vendetta nor by any other ill-conceived motive. Rather, our opposition is due to the fact that—and we say this as kindly as we know how—in our judgment there are few in our great brotherhood who have taught more error, on more topics, more frequently, than John Clayton.

We do not make such a statement from a position of ignorance. While some (and this would certainly include many of John's supporters) have only a cursory knowledge of what he teaches, we have spent well over a decade-and-a-half seriously studying the teachings of this brother. We have read his periodical, viewed his films, listened to his audio tapes, examined his correspondence courses, attended his lectures, read his books, and even met with him personally to discuss his doctrinal positions. When we say we believe that no one in the brotherhood knows the teachings of John Clayton as well as we do, it is not intended as a boast, but rather as a plain statement of fact. We have invested hundreds of hours in an exhaustive study of John's teachings. This will be evident to the reader as the contents of this review are examined.

The book you now hold in your hands is not the first of its kind. John Clayton began his "Does God Exist?" program in 1969. By the early 1970s, a number of brethren already had begun to discern serious errors in his teachings on a number of important points. Accordingly, they corresponded with John, seeking information, asking for clarification, etc., in areas on which they knew John to be wrong. We have in our files copies of letters to John that date as far back as 1972—letters from sound brethren who saw the direction in which John seemed to be headed, and who wanted to try to do something to prevent his apostasy. As the years passed, it became quite clear to those involved in what came to be known as "the Clayton controversy" that John not only had no intention of repenting of his many erroneous teachings, but was becoming even more "solidified" in those positions. Finally, after many years of trying to communicate with John in an attempt to help him see the errors of his way, one by one brethren found themselves being told by John that he no longer would correspond with them on these matters.

It became clear that John was not to be dissuaded from the course he had set for himself. It became equally clear that many in the brotherhood were willing to support and/or endorse John only because he billed himself as a "former atheist." [It was popular—and in many circles still is—to find someone who could boast of being a "former skeptic," "former denominationalist," etc., and therefore possessed a special appeal that could be used to draw an audience.] The point we are making is that in many instances the

people inviting John to speak had little or no knowledge of what he actually believed and taught. All they knew was that he was a "former atheist" who could draw a crowd. That, apparently, was enough.

Adding to John's popularity were two other factors. First, John was practically alone in his area of instruction. Others who had gone before him in teaching Christian evidences (e.g., Dr. Russell C. Artist, former chairman of the biology department at David Lipscomb University) were either in retirement or rapidly approaching it. John virtually had the field to himself, and he rapidly took good advantage of it to build quite a following. Second, those of us in the churches of Christ, by everyone's admission, had done a poor-to-pitiful job in the past of teaching in the areas of Christian apologetics and Christian evidences. As a result, John's message—wrong though it was—fell on untrained ears. Since John is quite a good public speaker, and since he was being billed as a "former atheist," the **messenger** overshadowed the **message.** Many people either heard what they wanted to hear, or simply had not been taught well enough to know that what they were hearing was wrong; subsequently John's popularity grew. Unfortunately, as his popularity increased, so did the amount of erroneous teaching that he propagated.

Pleas for John to change—even pleas made by those whom he considered his friends—fell on deaf ears. He made it clear that: (a) he was not one to accept graciously constructive criticism; and (b) he had a great disdain for those who felt themselves smart enough to try to teach him anything. In a letter to Jon Gary Williams of LaVergne, Tennessee, John wrote:

In the Bible belt, I have found that nearly half of the preachers trained in many of our preacher training schools do not encourage what I understand the whole New Testament church to be about. Preachers are given "canned" answers to specific points of view quoted from other preachers, or authorities in the field.... I seriously question whether the Church as the Lord intended it even exists in many communities in that part of the country... (1975f, p. 2).

Some among us felt that perhaps the brotherhood could be likened to a "sleeping giant" in regard to John Clayton. That is to say, if the alarm were sounded, the "giant" would awaken, examine the facts, and realize that the hour was much later than anyone at first had suspected. We were certainly to be counted among the number of concerned brethren who had faith in that "sleeping giant." As we spoke with others who shared our concern, the idea was conceived of putting together a compendium on the erroneous teachings of brother Clayton, in the hopes that our great brotherhood **could** be warned, and that brother Clayton **could** be turned from his errors. We were encouraged by a great number of brethren to pursue this course of action. Over a period of several years, our offices were deluged by letters and phone calls from sincere people who were greatly concerned and deeply grieved about the teaching that had come to be known simply as "Claytonism." We genuinely felt that the time had come to speak out.

Subsequently, we authored a series of fourteen articles that first appeared in the religious journal *Words of Truth*, edited by the late Bobby Duncan and published by the Sixth Avenue church of Christ in Jasper, Alabama. Those articles appeared during the dates of May 11 through August 10, 1979. Later, in September of that same year, those articles were reprinted in a thirty-two-page book titled *Evolutionary Creationism—A Review of the Teaching of John Clayton*, the immediate popularity of which took us by surprise. Ultimately, over 10,000 copies were distributed free of charge. The impact this review had on John's program is something that only he and God know. But it quickly became evident that the book was alerting brethren who previously had been ignorant of these matters. We began to receive reports of cancellations of John's program at various congregations, as well as reports of congregations that had planned to invite him, but, upon seeing the review, thought better of such an idea. So devastated was John's program that he immediately published a two-page letter, which received wide distribution, attempting to counter the impact of the book. [His letter, however, did not address any of the book's facts; it merely made personal attacks upon its authors.] Eventually, in January of 1980, John was forced to prepare an audio tape (*A Response to Evolutionary Creationism*) attempting to rebut the review.

Evolutionary Creationism never went out of print. However, it has been over a decade since it was first published, and much additional material has come from John Clayton that, we believe, necessitates a

revision of the original work. Those familiar with the first review will no doubt be shocked at some of the revelations contained in this newly revised version. Whereas we had hoped that brother Clayton's errors would have been corrected, exactly the opposite has occurred. His errors have increased not only in number, but in the nature of their seriousness as well. This claim is documented in great detail in the pages that follow.

We truly regretted having to write the first book reviewing John's erroneous teachings. But, scripturally speaking, we had little choice. Such passages as Jude 3, Galatians 2:4-5, 2 Timothy 4:1-3, and 2 Peter 2:1ff. make it clear that we are to contend earnestly for the faith, and that we must oppose error (even publicly, if need be). We regret having to publish this revision as well. But brother Clayton continues to spread his erroneous teachings—in some areas unchecked. We simply cannot remain silent and allow the propagation of such errors to continue unopposed.

It is a mild understatement to say that writing a book such as this is a most unpleasant undertaking. Only the authors actually can know just how unpleasant it really is. A person would have to be spiritually deficient, it seems to us, to enjoy such a task. We certainly have not enjoyed it. But we deemed it absolutely necessary. Our prayer is no different now than when we published the first addition of this book in 1979 – that John will come to a deeper faith in the Bible as God's Word, renounce the error in which he has become so entrenched, and join hands with those who respect the authority of the Word of God.

We ask that you carefully and prayerfully consider the documented evidence introduced here. Compare brother Clayton's teachings with the plain, uncomplicated statements of Scripture. We believe you will see that John's teachings are seriously at odds with the Bible and, for that reason, must be opposed.

Wayne Jackson and Bert Thompson

#### **ADDENDUM**

Brother Clayton often has argued that his critics speak from ignorance because they have not attended his weekend seminars, and therefore are unable to judge whether his teachings are correct or incorrect. We therefore would like to point out here that we **have** attended his seminars (Bert Thompson has attended three; Wayne Jackson has attended one). Furthermore, it matters little whether or not one attends even a single seminar because it is an easy matter to listen to John's audio tapes, view his video tapes, subscribe to his periodical, and read his many writings. Such works are readily available for a careful perusal by any interested party, and such works speak for themselves, independent of the seminars.

Additionally, we would like to make this point. For well over a decade we tried to set up either private or public meetings with John, to discuss his peculiar ideas. But time after time, John abjectly refused such a meeting. Several brotherhood lectureship directors invited him to discuss his teachings on their programs, but he declined. Editors of journals published debate propositions, but again he refused. More than one eldership wrote to us, and to John, offering to provide a place for a meeting, airfare for all parties concerned, and even an honorarium for John. Still he declined. Finally, however, the opportunity for such a meeting presented itself. Joe Orvelo, one of John Clayton's strongest supporters and a minister with the church of Christ in Manteca, California (where John was scheduled to hold a weekend seminar) misspoke himself and suggested that John gladly would agree to meet. As a result—after more than a decade of being unsuccessful in getting John to agree to a meeting—we finally had stumbled upon a situation in which brother Clayton simply had no choice but to meet with us. That discussion occurred on July 20, 1991. You will find references to it throughout this book, as well as comments on the positions that John defended in that meeting. [There is an interesting sidelight to the Manteca meeting. In the spring of 1991, when word began to spread that the Manteca church, under the dominating influence of Joe Orvelo, had secured the services of John Clayton for a summer seminar, great consternation swept through many of the churches in the San Joaquin Valley. Accordingly, a petitionary letter was sent to the Northside church in Manteca, urging these brethren to refrain from injecting brother Clayton's liberal influence into this area. The letter was signed by twenty-five regional gospel preachers! Tragically, Joe Orvelo was able to dissuade most of his brethren from considering the wishes of sound brethren throughout north/central California. As an aftermath, however, a number of faithful saints left the Manteca church.]

#### How old is the world?

#### Question:

How old is the world? Is the scientific way correct? In science, the world is around 40 billion years old. How old is the world in the Bible?

#### Answer:

Dating in the Bible is a bit difficult because, for the span of time that the Bible covers, a universal calendar was not in use. Time was measured relative to local events, such as how long the current king was in power. This also led to rounding of dates since it would be rare that major events, such as the crowning of a king would take place precisely at the beginning of a calendar year. Therefore, when working backward, you can be off  $\pm$  one year times the number of events you had to use to go backward. For example, if you went back to a point in time using the length of reign of five kings, you can be off plus or minus five years.

Fortunately, the Bible contains several summaries of eras that helps to keep overall periods roughly accurate. For example, we know the length of time the Israelites were in Egypt was 430 years (Exodus 12:40-41). We also know the time from the Exodus to building of the temple was 480 years (Exodus 6:1).

Using the records given in the Scriptures, scholars have estimated that the world is roughly 6,000 years old. Now that is not the estimate we are told the scientific community accepts. Currently, popular scientists think the world is 4.5 billion years old, though that age constantly changes. When I was in high school, it was only 3.5 billion years old, a change of a billion years -- and I haven't lived nearly that long!

What many people do not realize is there are thousands of ways to measure the age of the earth. The ones popularly touted are only those few that give very long answers. The vast majority of age measurements give ages in the 10,000-year range! As an example, scientists have noted that the earth's magnetic field is losing strength. Measurements over the last hundred years tell us the current rate of decay. If we assume the decay is constant (a big assumption that cannot be proven), the maximum earth age given current strength of the field is 8,700 years.

Another example is the saltiness of our oceans. River water entering into the oceans bring in minerals, but evaporation of the water from the ocean leaves these minerals behind. Measuring just sodium content of the ocean, using numerous methods for input and output of water and sodium, and assuming we started with pure water (a huge assumption) the amount of salt currently found in the ocean yields a maximum age of 62 million years -- far less than the 4.5 billion years currently favored.

Before the moon was explored, there were concerns about the depth of meteoric dust on the surface of the moon. Space is full of dust and it falls on the moon and the earth as we travel through space. If the world and the moon were billions of years old, one would expect a layer of dust over 150 feet, but when we got to the moon, the dust only measured to be about an inch deep. Given the measured influx of dust currently, that would account for a few thousand years.

We could continue to list various other methods, such as the build-up of carbon-14 would indicate the world has a maximum age of 30,000 years, but what we should be addressing is why do these ages vary so much? The answer is simple: we weren't there! We are taking measurements made in the last one to two hundred years & projecting them backward to come up with estimated age. But to do the projection, we must make assumptions about the rate at which the process continues, starting values, and whether the current contents might have been altered. Since we weren't there, we have no idea if our assumptions are right or wrong! Actually, we can easily show that many of the assumptions are wrong. That is why the dates are published as the maximum possible value. This means we are selecting the assumptions that give long age, even though we know this can't be possible.

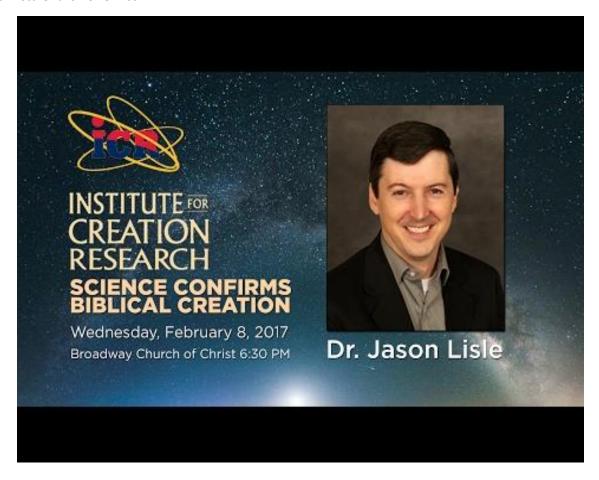
The reason the measurements giving the largest answers are popularly cited is simply because the theory of evolution needs large periods of time to even be remotely credible. Even current values are not large enough to do this, hence the continued search for larger values. Science has not proven the age of the earth because such proof is not possible. What it has produced are a series of estimates based on assumed conditions. The best it can give is the extreme outer limits, but it cannot give the actual date. So when a report is cited that age of a rock is 4.5 billion years, it should be read the age of the rock is at most 4.5 billion years -- it could be less, it could be a *lot* less.

The Bible claims to be a record of events in the world recorded for us by the Holy Spirit. In other words, if we accept that God created the world, then the Bible claims to be God's record of some of His involvement in that world. If we accept that the Bible is God's written message, then we are faced with the fact that God indicates that the world is well less than 10,000 years old. Does this match what we know in science? For the most part, it does. Every dating method's assumptions can be adjusted to give smaller ages. I know of only a few methods that give some possible difficulties, but again those difficulties arise from the base assumptions that are made.

Here then is where faith comes into play. We have wide-range of evidence of possible ages of the earth. We could believe evolution and always grab the largest dates, or we could believe God & select the dates that come closest to matching the Scriptures. Either way, it comes down to our belief -- where we place our trust. Faith is the demonstration of your prejudice.

"Now faith is the substance of things hoped for, the evidence of things not seen" (Hebrews 11:1).

La Vista Church of Christ



IN MY OPINION, ADDRESSING DARWINISM IS OUR CHRISTIAN RESPONSIBILITY & DOUBLES AS AN EVANGELISTIC TOOL... I ALSO BELIEVE DATE-SETTING OF SPECIFICITY IS AN OPINION DISCUSSION TANGENTIAL & UNPRODUCTIVE.

### Christians Most Not Divide Over the Age of the Earth!

