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Creation and Genesis: A Historical Survey

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Abstract

Analysis of the historical development of doctrines and theological motifs is a crucial but often neglected element of the interpretive process. Such investigations protect the interpreter from making the common mistake of reading later ideas back into the biblical text. This survey outlines the major views on Creation and the age of the earth advocated by Christians and Jews throughout history. I also analyzed the influence of scientific naturalism and evolutionary theory on biblical interpretation. Although the survey is by no means exhaustive, it is, nevertheless, intended to be a fair and faithful representation of the major views and their adherents.

Introduction

Analysis of the historical development of doctrines and theological motifs is a crucial but often neglected element of the interpretive process. Such investigations protect the interpreter from making the common mistake of reading later ideas back into the biblical text (Osborne, 1991). It is unfortunate that many modern writers have done exactly this, resulting in a great deal of misrepresentation of the church's historical views concerning the Genesis cosmogony, the days of Creation, and the age of the earth. Particularly poor have been the treatments by Ross (1994), Ross and Archer (2001), Stoner (1997), and Forster and Marston (1999).

Fortunately, there has also been some outstanding historical scholarship in this area—in particular, the work of Lewis (1989), Hall (1999a, 1999b), Hall and Duncan (2001a, 2001b), and Mortenson (1997, 2004) among others. This survey is indebted to their work and draws heavily from it.

Early Jewish and Christian Commentators (BC–AD 500)

The rabbinic writings reflect many different views concerning the Creation account, and most comments tend to relate to various details in the text rather than the temporal implications of the days of Creation. Nevertheless, R. Judah stated that the world "was created in six days, for in the account of each day it is written, 'and it was so'" (Urbach, 1975, p. 192).

Concerning the problem of day and night existing before the sun and moon, the talmudic writers concluded that time was created separately, and that "God fixed the duration of the day and night and then arranged for the appearance of the sun and moon to conform therewith" (Cohen, 1995, pp. 36–37).

The Jewish historian Josephus made a number of comments about the days of Creation in book 1 of his *Antiquities of the Jews*. Although he promised a separate treatise on the days—a promise he apparently did not keep—his other comments indicate that he almost certainly understood the days literally. Regarding the first day, he wrote, "The name he gave to one was *Night*, and the other he called *Day*: and he named the beginning of light, and the time of rest, *The Evening* and *The Morning*, and this was indeed the first day. But Moses said it was one day" (Josephus, 1999, p. 49). He continued: "Accordingly Moses says, that in just six days the world, and all that is therein, was made. And that the seventh day was

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a rest, and a release from the labor of such operations; whence it is that we Celebrate a rest from our labors on that day, and call it the Sabbath." Furthermore, regarding the exposition of Genesis 2:4 onwards, Josephus commented, "Moses, after the seventh day was over begins to talk philosophically" (Josephus, 1999, p. 49), which indicates that Josephus understood the Genesis 1:1–2:4 as straightforward historical narrative rather than primarily a philosophical or theological statement.

Forster and Marston (1999, pp. 192–198), however, argue that the Jewish readers of Genesis 1–3 understood much of it as allegorical rather than as literal history. In support, they appeal to Philo and the Targums. Their claims, however, are without substance. First, Philo (ca. 20–15 BC to AD 45–50) was a Hellenistic Jew who could not read Hebrew (Runia, 1991, p. 2). Not surprisingly, his writings are almost totally free of rabbinic concerns. Instead, he resorted to "an extensive allegorical interpretation of Scripture that made Jewish law consonant with the ideals of Stoic, Pythagorean, and especially Platonic thought" (Achtemier, 1985, "Philo"). Philo clearly was more concerned with harmonizing the Old Testament with Greek philosophy than with careful exegesis. Thus, to appeal to Philo as a representative of all Jewish readers has no justification. Note, however, that Philo's philosophical ideas and allegorical method had a direct impact on Christian theology through the writings of Clement of Alexandria (AD 150–215) and Origen (ca. AD 185–254).

Second, the Targums (Aramaic paraphrases of the Old Testament) vary greatly in their literalness and in the way they expound the text (Payne, 1996). Citing a relatively minor Targum edition (*Targum Neofiti*, dating from the third century AD) proves very little, especially since *Targum Onkelos* was actually the official version of the Babylonian Jews.

Regarding the beliefs of the Christian church, Davis Young (1982) provides a good survey of the views held by Christians over the centuries and concludes that "the concept of a recent creation was a virtually unanimous belief of the early church….Many of the church fathers plainly regarded the six days as ordinary days" (p. 19 & 21). Up until the eighteenth century, virtually the entire Christian world believed the earth was only a few thousand years old. It was not until the development of geological investigation that some churchmen began questioning this belief and proposing alternative non-literal interpretations of the days of Creation in Genesis 1.

Forster and Marston (1999, p. 38), on the other hand, claim that nonliteral interpretation of the Creation days is *not* a modern idea, and that important mainstream church leaders had taught such views from the beginning. Paul Elbert (1996) concurs and includes Irenaeus, Origen, Basil (329–379), and Augustine (354–430) among those who viewed the days of Creation as phases. Yet Forster and Marston (1989, see p. 205) also acknowledge that Barnabas (b. AD 100), Irenaeus (ca. 120–202), Hippoplytus (170–236), Methodius (260–312), Lactantius (ca. 260–330), Theophilus (ca. 115–188), and John of Damascus (ca. 675–749) all understood the days as corresponding to seven ages of a seven-thousand year world history. In other words, the totality of world history could be broken down into seven ages, each of which lasts for one thousand years. It follows, then, that all these writers believed the creation was not more than seven thousand years old.

A number of early commentators understood *b^{e}yôm* ("in the day") in Genesis 2:4 as a reference to "instantaneous" creation. In *De Opificio Mundi*, Philo wrote: "And he says that the world was made in six days, not because the Creator stood in need of a length of time (for it is natural that God should do everything at once, not merely by uttering a command, but by even thinking of it)" (Yonge, 1993, p. 4). Origen (Roberts et al., 1994a, vol. 1, *Against Celsus* 6.49, 50, 60; *De Principiis* 4.3.1), Athanasius (ca. 296–373) (Roberts et al., 1994c, vol. 4, *Orations* 2.48–49) and Augustine (Taylor, 1982, vol. 1, *The Literal Meaning of Genesis*) held a similar view and discussed how it could be harmonized with the six days.

Comments on the days of Genesis are sparse in Christian writings of the second century, and, as Lewis (1989) noted, there is a marked tendency to allegorize the days. Theophilus (Roberts et al., 1994a, vol. 2, *To Autolycus* 2.10–18), in his discussion of Creation, regarded the days as normal 24-hour days, but also applied various typological understandings to them. Young (1982, see p. 21) claims that Clement of Alexandria interpreted the days allegorically but admits that it is unclear whether he also considered the days to be literal. However, the following comment from *The Stromata* indicates otherwise: "And they purify themselves seven days, the period in which Creation was consummated. For on the seventh day the rest is celebrated; and on the eighth he brings a propitiation, as is written in Ezekiel" (Roberts et al., 1994a, vol. 2, *The Stromata* 4.25). Even more compelling is Clement's statement in *The Stromata* 6.16:

> For the creation of the world was concluded in six days. For the motion of the sun from solstice to solstice is completed in six months—in the course of which, at one time the leaves fall, and at another plants bud and seeds come to maturity. And they say that the embryo is perfected exactly in the sixth month, that is, in one hundred and eighty days in addition to the two and a half, as Polybus the physician relates in his book *On the Eighth Month*, and Aristotle the philosopher in his book *On Nature* (Roberts et al., 1994a, vol. 2, *The Stromata* 6.16).

Both of these comments refer to

"days" and "months" as normal, common periods of time.

Although Origen regularly applied a nonliteral hermeneutic, he "did not usually deny the literal sense of the biblical text but used it as a vehicle to get at other 'higher' meanings within a scheme of three levels of interpretation" (Stallard, 2000, p. 16). Origen saw a triple sense in Scripture: the literal, the moral, and the spiritual. If difficulties resulted from a literal reading of Scripture, then he suggested a spiritual meaning should be sought, and he applied this hermeneutic to the days of Creation (Lewis, 1989).

Basil, on the other hand, rejected any allegorical interpretation of Genesis:

> For me grass is grass … I take all in the literal sense…. It is this which those seem to me not to have understood, who, giving themselves up to the distorted meaning of allegory, have undertaken to give a majesty of their own invention to Scripture. It is to believe themselves wiser than the Holy Spirit, and to bring forth their own ideas under a pretext of exegesis. Let us hear Scripture as it has been written (Roberts et al., 1994c, vol. 8, *Homilies on Hexaemeron* 9.1).

Likewise, Gregory of Nyssa (335–395) claimed in *Explicatio Apologetica in Hexaemeron* that he never resorted to allegorical interpretation, although some scholars dispute this (Lewis, 1989). In *Against Eunominus* he wrote: "The creation, as we have said, comes into existence according to a sequence of order, and is commensurate with the duration of the ages, so that if one ascends along the line of things created to their beginning, one will bound the search with the foundation of those ages" (Roberts et al., 1994c, vol. 5, *Against Eunominus* I.24). While this may at first appear to indicate a belief in the day-age interpretation, the context suggests that Gregory's use of the term "creation" refers not to Creation week but to the entire time span over which the creation has existed, from the initial act "in the beginning" up until the present day.

Of all the early commentators, Basil probably gave the clearest explanation of his interpretation of the days:

> Why does Scripture say "one day the first day"? Before speaking to us of the second, the third, and the fourth days, would it not have been more natural to call that one the first which began the series? If it therefore says "one day," it is from a wish to determine the measure of day and night, and to combine the time that they contain. Now twenty-four hours fill up the space of one day—we mean of a day and of a night; and if, at the time of the solstices, they have not both an equal length, the time marked by Scripture does not the less circumscribe their duration. It is as though it said: twenty-four hours measure the space of a day, or that, in reality a day is the time that the heavens starting from one point take to return there. Thus, every time that, in the revolution of the sun, evening and morning occupy the world, their periodical succession never exceeds the space of one day (Roberts et al., 1994c, vol. 8, *Homilies on Hexaemeron* 2.8).

Following Basil, Ambrose (339–397) (Ambrose, 1977, *Hexaemeron* 3.8, 2.2) also understood the days literally and explicitly stated that the days were of twenty-four hours in length. Regarding the first day of creation, he stated that "one day" is used instead of "the first day" because it is the foundation of all others things and should not to be compared to the other days.

Chrysostom (347–407) also appears to take the days literally. Commenting on Genesis 1:5, he wrote:

> Then, when he had assigned to each its own name, he linked the two together in the words, 'Evening came, and morning came, one day.' He made a point of speaking of the end of the day and of the end of the night as one, so as to grasp a certain order and sequence in visible things and avoid any impression of confusion (Chrysostom, 1986, vol. 3, pp. 10–11).

Augustine was inclined to think God created all things in a moment of time, and the days were simply introduced to aid the finite human intelligence (Lavallee, 1989). In *The City of God*, he wrote,

> What kind of days these were it is extremely difficult, or perhaps impossible for us to conceive, and how much more to say!…We see, indeed, that our ordinary days have no evening but by the setting, and no morning but by the rising, of the sun; but the first three days of all were passed without sun, since it is reported to have been made on the fourth day. And first of all, indeed, light was made by the word of God, and God, we read, separated it from the darkness, and called the light Day, and the darkness Night; but what kind of light that was, and by what periodic movement it made evening and morning, is beyond the reach of our senses; neither can we understand how it was, and yet must unhesitatingly believe it (Roberts et al., 1994b, vol. 2, *The City of God* 11.6–7).

Therefore, Augustine interpreted the days of Creation allegorically. Nevertheless, other remarks indicate that he was not entirely happy with this view, even to the point of reluctant acceptance, and in *The Literal Meaning of Genesis*, he expressed some openness to considering other views:

> Whoever, then, does not accept the meaning that my limited powers have been able to discover or conjecture but seeks in the enumeration of the days of creation a different meaning, which might be understood not in a prophetical or figurative sense, but literally and more aptly, in interpreting the works of creation, let

> him search and find a solution with God's help. I myself may possibly discover some other meaning more in harmony with the words of Scripture (Taylor, 1982, vol. 1, *The Literal Meaning of Genesis* 4.28.45).

Note that although Augustine held to an allegorical interpretation, he did not believe in an ancient world. In his response to the Egyptians' "one hundred thousand year chronology," he stated that the world was less than six thousand years old.

> For as it is not yet six thousand years since the first man, who is called Adam, are not those to be ridiculed rather than refuted who try to persuade us of anything regarding a space of time so different from, and contrary to, the ascertained truth? For what historian of the past should we credit more than him who has also predicted things to come which we now see fulfilled? And the very disagreement of the historians among themselves furnishes a good reason why we ought rather to believe him who does not contradict the divine history which we hold (Roberts et al., 1994b, vol. 2, *City of God* 18.40).

One Syriac manuscript indicates the Syrian fathers considered evening and morning (Gen 1:5) to be true measures of time, even though the sun and moon had not yet been created. They believed darkness was created first and lasted twelve hours, and then light was created and lasted twelve hours. This was called "day," and Scripture says "one day" rather than "first day" so that "it should not be thought that just as we know the days now, even so they were formed in the first instance" (Levene, 1951, pp. 73, 131–132). In other words, because the term "first" describes the relation of this day to the following days, it is not an appropriate descriptor since, at that time, the following days did not exist.

While all the early creeds speak of God as the maker of heaven and earth, they do not mention the six days. This should not be surprising given that the creeds were written to clarify elements of Christian doctrine, and therefore reflect only the various doctrinal controversies in the early church. Thus, the early creeds focused on the Trinity and the Person of Christ, which had been the center of controversy in the early church. Likewise, the Reformation creeds focused on the differences between Protestantism and Roman Catholicism. Nevertheless, almost all the early Gentile Christians had turned from pagan evolutionary ideas (Lavallee, 1993), and believed that God had created the universe either in six days or in an instant.

The Middle Ages and the Reformers (1000–1700)

Jewish commentators Rashi (Rabbi Shlomo Yitzchaki, 1040–1105), Ibn Ezra (Abraham ben Meirmâr, ca. 1089–1164), Maimonides (1135–1204), and Gersonides (Levi ben Gerson, 1288–1344) rejected literal interpretations in favor of allegorical and nonchronological approaches. However, William Turner noted that Maimonides was heavily influenced by Greek philosophy (Broderick, 1990), and Tamar Rudavsky has pointed out that Gersonides staunchly defended the Platonic theory of Creation and regarded human reason above Scripture as the most important criterion for determining truth (Rudavsky, 2002).

Following Barnabas, Irenaeus, Methodius, and other early church fathers, Peter Lombard (d. 1164) and Hugo of St. Victor (1097–1141) also believed God created both in an instant and in six days. Arnoldus of Chartres (ca. 1160), on the other hand, held to an early "days of revelation" view in which each day refers to the order in which the world was unfolded to Adam (Lewis, 1989).

Thomas Aquinas (1225?–1274), in his treatise on the six days in *Summa Theologica*, considers many philosophical questions connected with Creation. He believed in seven distinct days rather than one only, which constituted "a succession both in time, and in things produced" (Book I, 74.2). Regarding the length of the days, Aquinas (Book I, 74.3) wrote, "The words 'one day' are used when the day is first established, to denote that one day is made up of twenty-four hours. Hence, by mentioning 'one,' the measure of a natural day is fixed."

Guillaume Salluste DuBartas (b. 1544) and Francisco Suarez (1548–1617) preferred the strictly literal view of the Creation days (Lewis, 1989), as did the reformer, Martin Luther (1483–1546), who understood the terms "evening and morning" as a reference to a natural day of twenty-four hours "during which the *primum mobile* revolves from east to west" (Luther, 1958, p. 48). Philip Melanchthon (1497–1560), on the other hand, apparently believed that Creation occurred in both six days and in an instant (Lewis, 1989). Calvin (1509–1564), however, was unimpressed with the idea of instantaneous creation, and responded as follows:

> Here the error of those is manifestly refuted, who maintain that the world was made in a moment. For it is too violent a cavil to contend that Moses distributes the work which God perfected at once into six days, for the mere purpose of conveying instruction. Let us rather conclude that God himself took the space of six days, for the purpose of accommodating his works to the capacity of men (Calvin, 1948, vol. 1, p. 78).

While it is well known that James Ussher (1581–1656), Archbishop of Armagh, interpreted the days literally and calculated the date of Creation to be 4004 BC, John Lightfoot (1602–1675), his contemporary and the leading Hebrew scholar at that time, also interpreted the days literally and calculated a similar date of 3960 BC. Lightfoot wrote:

> So that look at the first day of the creation, God made heaven and earth in a moment. The heaven, as soon as created, moved, and the wheel of time began to go: and thus, for twelve hours, there was universal darkness. This is called the 'evening,' meaning night. Then God said, 'Let there be light;' and light arose in the east, and, in twelve hours more, was carried over the hemisphere: and this is called, 'morning,' or 'day.' And the evening and morning made the first natural day; twelve hours, darkness—and twelve, light (Pitman, 1822–25, vol. 7, p. 373).

Although allegorical interpreters still could be found during the Middle Ages, they nonetheless assumed the literal meaning of the text was truthful. The allegorical hermeneutic was applied to the text only in order to discover deeper spiritual meanings. As Woodbridge (1985, p. 199) pointed out, "the allegorization program of most interpreters was not intended to throw disrepute on the accuracy of the biblical accounts."

At this point it is important to note that a major philosophical and theological shift was occurring in the church throughout this period. Ideas and influences external to Scripture had an increasing impact on both the church and society as a whole, especially Greek philosophy. David Lindberg and Ronald Numbers (1986, p. 342) noted that:

> by the beginning of the thirteenth century, virtually all of the works of Aristotle had become available in Europe, and from this point onward we see a persistent effort to integrate Aristotelian natural philosophy, or science, with Christian theology. In the end, Christianity took its basic categories of thought, its physical principles, and much of its metaphysics and cosmology from Aristotle. By means of its power to organize and interpret human experience, Aristotelianism conquered Christendom.

Note also that it was this broad acceptance of Aristotelian thought and cosmology by the church, and the academic community that apparently led to the heliocentric controversy involving Galileo (Schirrmacher, 2000).

Furthermore, due to the increasing influence and authority given to the natural sciences, many commentators started believing in the great antiquity of the earth. Episcopius (1586–1643) advocated a "gap theory" in which a long period of time passed between Genesis 1:1 and 1:2. R. Obadiah, around 1698, argued from Psalm 90:4 that each Creation day may be a thousand years (Lewis, 1989). This is probably why, as Lavallee (1993) noted, church creeds written in the seventeenth century explicitly affirmed the six days of Creation.

The first creed mentioning the six Creation days was the *Irish Articles* from the Irish Episcopal Church, which was adopted in 1600. This later became the model for the *Westminster Confession*. Article 18 reads: "In the beginning of time, when no creature had any being, God, by his word alone, in the space of six days, created all things" (Lavallee, 1993).

In the Netherlands, the Mennonites wrote their *Dordrecht Confession* in 1632, in which the first article reads: "In this one God, who 'worketh all in all,' we believe. Him we confess as the Creator of all things, visible and invisible; who in six days created and prepared 'heaven and earth, and the sea, and all things that are therein'" (Lavallee, 1993). Later in the century, the Amish also adopted this confession, and it remains authoritative in many of these communities (Lavallee, 1993).

The *Westminster Confession*, completed in 1646, was the core doctrinal statement of the Presbyterian Church. Article 5.1 states: "It pleased God the Father, Son, and Holy Ghost, for the manifestation of the glory of His eternal power, wisdom, and goodness, in the beginning, to create, or make of nothing, the world, and all things therein whether visible or invisible, in the space of six days; and all very good." The Confession also formed the basis for the *Congregational Savoy Declaration* of 1658 and the *Baptist London Confession* of 1689. Both affirmed Creation in the space of six days (Lavallee, 1993). Some have questioned whether the authors of the Westminster Confession really intended the statement "in the space of six days" to be taken as a reference to 24-hour days. However, Hall (1999a) has convincingly shown that those divines who discussed the days all held to 24-hour days.

The Enlightenment

In the seventeenth and eighteenth centuries, most Christian naturalists based their hypotheses about earth history on an essentially literal reading of the biblical account of Creation and the Flood (Young, 1987), and the belief in a lengthy earth history was adhered to only by a small group of naturalists (Rudwick, 1986, p. 309). Davis Young acknowledged that "the almost universal view of the Christian world until the eighteenth century was that the earth was only a few thousand years old. Not until the development of modern scientific investigation of the Earth itself would this view be called into question within the church" (Young, 1982, p. 25).

The Enlightenment was an eighteenth-century phenomenon that had its philosophical roots in the seventeenth century. The human mind was freed from its philosophical and religious shackles, making it totally autonomous. McCune (1998, p. 6) observed, "It was a movement in thought, sometimes known as the Age of Reason, that was totally secular."

Miles (1991) noted that the eighteenth century is generally regarded as a golden age for science while at the same time religion began to be eroded by the rise of rationalism, materialism,

deism, agnosticism, scepticism, and secularism.

Naturally, this kind of thinking had a significant impact on Christianity and the church. Society became autonomous and totally free intellectually. No longer were people bound by church creeds, theological statements, revelation, or any particular worldview or presuppositions of any kind. Man was intellectually independent in an open universe of chance, relativism, and inevitable change in all areas (McCune, 1998).

Second, the Enlightenment denied the need for divine revelation. Revelation was no longer thought to be necessary since man could learn just as much about God and the world through science and reason (McCune, 1998). Previously, reason was initially guided by, and subordinate to, biblical revelation, but soon the domain of biblical revelation became severely restricted—no longer was it viewed as being more authoritative than science (Miles, 1991). Biblical revelation was to be understood only within the bounds of human reason, and its message and significance were essentially limited to issues of salvation and morality. Thus, Miles (1991) concluded that "science and reason in the 18th century directly undermined the authority of Scriptural revelation by elevating the status of reason."

Third, the Enlightenment also led to the beginning of the detachment of Christianity from history. Rather than Christianity being true because it is rooted in history and therefore dependent on the facts of history, theologians influenced by Enlightenment thinking became more concerned with Christianity's ability to transform lives through its morality and system of ethics. "Theology became more concerned about spiritual 'life' or the practical interests in the field of religion" (McCune, 1998, p. 8; cf. Hughes, 1992; Woodbridge, 1985).

It is not surprising, then, that during this period various Christian scholars began to argue that Scripture was not strictly historical (Hughes, 1992), and therefore contained "errors" in its descriptions of the Creation and the Flood. As a result scientists no longer felt the need to align their findings with biblical teachings. Indeed, many scientists argued that their conclusions about the "real world" should be given more authority than the "phenomenological" statements in the Bible pertaining to the physical creation. In other words, the Scriptures should conform to what science teaches and not vice versa (Woodbridge, 1985, see p. 261). Therefore, church creeds began to reflect these new ideas. Instead of incorporating the Westminster Confession's "in the space of six days," the 1890 English Presbyterian Articles of Faith read, "Almighty God…was pleased in the beginning to create the heavens and the earth…through progressive stages" (Lavallee, 1993).

It is important to emphasize, as McCune has, that Enlightenment thinkers "refused to be bound by anything such as revelation, dogma, and tradition" and that "the theoretical underpinnings were anti-Christian, pagan, and secular" (McCune, 1998, p. 7).

The Modern Period (1800–1900)

Again, up until the early nineteenth century, Jewish and Christian scholars alike agreed almost unanimously that the universe was created in six 24-hour days around six thousand years ago (Youngblood, 1991, p. 41). During the nineteenth century, however, this consensus began to be reversed, largely because of the rise of geological study and Darwin's theory of evolution.

The Influence of Geological Study

The fundamentals of geological study (fieldwork, collection of rocks and fossils, and theory construction) were not developed until the sixteenth to eighteenth centuries, and geology as a distinct discipline did not emerge until the seventeenth and eighteenth centuries, making it one of the younger sciences (Mortenson, 1997). Today there are basically two broad schools of thought in geological studies. The dominant and most widely held view is uniformitarianism, that observation in the present is the key to understanding the past. The minority view is catastrophism (or diluvialism), which postulates that the earth was shaped by major catastrophic events in the past. This is essentially the view held by "flood geologists" and those involved in the modern creation science movement. Note, however, that accepting catastrophism does not necessarily imply the acceptance of the kind of flood geology advocated by young earth creationists.

It is often stated that young earth creationism and flood geology originated with Seventh-Day Adventist George McReady-Price in *The New Geology* (1923) and was imported into mainstream evangelicalism by Henry M. Morris and John Whitcomb in their highly influential *The Genesis Flood* (Morris and Whitcomb, 1961). This understanding has become widely accepted due to Ronald Numbers's highly influential book *The Creationists* (Numbers, 1993), and Numbers's conclusions have been regurgitated by others, including Noll (1994), Ross (1998) and Sawyer (2002).

Unfortunately, this is another example of the misrepresentation and revisionism that has characterized much of modern historical study. Numbers, and those who repeat him, are wildly off the mark on this point. While McReady-Price, Morris, and Whitcomb were largely responsible for the revival of young earth creationism and flood geology in the twentieth century (particularly in the USA), similar ideas were advocated one hundred years earlier by the "scriptural geologists" in Great Britain. Mortenson (2004) shows that these Christians defended the bibli-

cal view of Creation and accepted the catastrophic impact of the global flood of Noah. Although many of the scriptural geologists were only amateur naturalists, some were highly knowledgeable and competent with respect to geological study and practice, when judged by the standards of their time (see Endnote 1). Even Davis Young (1987) acknowledged that flood geology (or diluvialism) "was not the aberrant theory of a fringe group; it was mainstream natural history and was espoused by some of the ablest naturalists of the [early- to mid-nineteenth century]" (p. 23). Young (1987) explained:

> In diluvialism, Scripture provided the main outline of terrestrial history. The writings of classical historians and scattered empirical evidence from the earth provided secondary sources of information that helped fill in the detail and were believed to corroborate the biblical accounts. The biblical scheme of creation, fall, flood, and final consummation provided the main events in earth history, and the biblical materials relating to these events were typically understood in literal terms. The creation was assumed to be a recent creation in six ordinary days, and the flood was assumed to be global. Typically, the Noahic flood was the centerpiece around which the various speculative theories of the earth were constructed. (p. 6–7.)

Note also that a number of early church fathers, including Tertullian, Chrysostom and Augustine, believed that fossils were the remains of former living things and attributed them to the Noahic flood (Mortenson, 1997).

In fact, numerous works on flood geology were published by the early geologists. Niels Steensen (1638–1686), a Dutch anatomist and geologist who established the principle that sedimentary rock layers were deposited in a successive and generally horizontal fashion, stated in his book *Forerunner* (1669), his belief in a six-thousand-year-old earth and that organic fossils and rock strata were laid down by the flood of Noah. Cambridge scholars, Thomas Burnet (1635–1715) and William Whiston (1667–1752), put forward theories on how the Noahic flood laid down the earth's surface structure (Porter, 1977, see p. 23). Burnet's *Sacred Theory of the Earth*, was originally published in 1681 and Whiston's *A New Theory of the Earth*, was released in 1696.

Physician and geologist John Woodward (1665–1722) invoked the Flood to explain the strata and fossils in *An Essay Toward a Natural History of the Earth* (1695). Alexander Catcott (1725–1779), in his *Treatise on the Deluge* (1768), invoked geological arguments to defend the Genesis account of a recent creation and a global flood that produced the geological record, and Richard Kirwan (1733–1812) advocated flood geology in his *Geological Essays* (1799). Yet, there were also some geologists at this time who believed the earth was much older than mankind, and that the Noahic flood was largely a geological nonevent (Mortenson, 1997).

In the latter part of the eighteenth century, as a result of Enlightenment thinking, geological study became increasingly secularized. Thus, in 1785, and before examining the evidence, James Hutton, a deist, proclaimed: "The past history of our globe must be explained by what can be seen to be happening now.…No powers are to be employed that are not natural to the globe, no action to be admitted except those of which we know the principle" (Holmes, 1965, pp. 43–44). According to Davis Young (1982), the "accumulating evidence from nature pointed in the direction of the vast antiquity of the Earth and forced theologians to take a much harder, more penetrating look at the biblical record than ever before" (p. 13). Therefore, Thomas Chalmers in 1804 declared that "the writings of Moses do not fit the antiquity of the globe" and several years later published a book containing a "gap theory" interpretation of Genesis 1:1–2 (Lewis, 1989, p. 453).

Hutton's theory was essentially uniformitarian—the operation of slow and gradual physical processes, and he, too, believed the Noahic flood was a geological nonevent. In 1802, John Playfair (1748–1819), a Scottish clergyman and mathematician published *Illustrations of the Huttonian Theory of the Earth*, which repackaged Hutton's views in a more digestible and less overtly deistic format. Playfair made no attempt to harmonize his views with Scripture, nor did he attribute any geological significance to the Noahic flood (Mortenson, 1997).

Nevertheless, in the 1820s, old-earth catastrophist (or diluvial) geology was generally accepted by most geologists and academic theologians. William Buckland (1784–1856) was the leading geologist in England in the 1820s. Although he believed the earth was very old, in his 1820 work *Vindiciae Geologicae*, he argued that geology was consistent with Genesis and offered numerous convincing proofs of the global catastrophic Noahic flood (Mortenson, 1997). However, Buckland's convictions about the truth of Scripture soon began to waiver. In his personal correspondence in the 1820s, he confessed to viewing geological data as more reliable and superior to textual evidence in determining Earth's history (Rupke, 1983, p. 41–47).

Prompted by the writings of another Scottish minister, John Flemming, Charles Lyell (1797–1875), a lawyer by training, revived Hutton's ideas in his famous three-volume work, *Principles of Geology* (1830–1833). Like Hutton, Lyell was not concerned with harmonizing his views with Scripture, but saw himself as "the spiritual savior of geology, freeing the science from the old dispensation of Moses" (Porter, 1976, p. 91).

Although Buckland had been a great defender of catastrophism, he changed

his mind in light of Flemming's and Lyell's criticisms, and he too eventually concluded that the Noahic flood was tranquil and geologically insignificant (Buckland, 1836, see pp. 16, 94–95).

Adam Sedgwick (1785–1873), Buckland's counterpart at Cambridge University, also advocated old-earth diluvialism. In 1825, he wrote:

> The sacred record tells us—that a few thousand years ago 'the fountains of the great deep' were broken up—and that the earth's surface was submerged by the water of a general deluge; and the investigations of geology prove that the accumulations of alluvial matter…were preceded by a great catastrophe which has left traces of its operation in the diluvial detritus which is spread out over all the strata of the world.
>
> Between these conclusions, derived from sources entirely independent of each other, there is, therefore, a general coincidence which is impossible to overlook, and the importance of which it would be most unreasonable to deny. The coincidence has not been assumed hypothetically but has been proved legitimately, by an immense number of direct observations conducted with indefatigable labour, and all tending to the establishment of the same general truth (Hallam, 1989, p. 43).

Yet, several years later, after the first volume of Lyell's *Principles* was published in 1831, Sedgwick too abandoned this view.

> Bearing upon this difficult question, there is, I think, one great negative conclusion now incontestably established—that the vast masses of diluvial gravel, scattered almost over the surface of the earth, do not belong to one violent and transitory period. It was indeed a most unwarranted conclusion….We saw the clearest traces of diluvial action, and we had, in our sacred histories, the record of a general deluge.
>
> To seek the light of physical truth by reasoning of this kind, is, in the language of Bacon, to seek the living among the dead, and will ever end in erroneous induction. Our errors were, however, natural, and of the same kind which lead many excellent observers of a former century to refer all the secondary formations of geology to the Noachian deluge. Having been myself a believer, and, to the best of my power, a propagator of what I now regard as a philosophic heresy, and having more than once been quoted for opinions I do not now maintain, I think it right, as one of my last acts before I quit this Chair, thus publicly to read my recantation….We ought, indeed, to have paused before we first adopted the diluvian theory (Sedgwick, 1831, pp. 312–314).

Thus, Lyell's *Principles of Geology* became highly influential and sounded the death knell for both old-earth and young-earth diluvialism. By the mid to late 1830s, virtually all geologists accepted Hutton's and Lyell's uniformitarian convictions. The only significant exceptions were the so-called "scriptural geologists" in Great Britain—men such as George Young (1777–1848), George Fairholme (1789–1846), William Rhind (1797–1874), John Murray (1786?–1851), Andrew Ure (1778–1857), and Granville Penn (1761–1844). These men opposed Hutton's and Lyell's uniformitarian theories as well as the catastrophic theories of William Buckland, Georges Cuvier, William Conybeare, and Adam Sedgwick. Despite the title ascribed to them, it is important to note that the scriptural geologists' objections to an old earth were often based on actual geological information and observation, not just on Scripture. In fact, contra Davis Young and others, many of the scriptural geologists had significant geological knowledge, and a few were just as knowledgeable and capable as any of the leading geologists at that time (Mortenson, 1997).

Nevertheless, the arguments presented by the scriptural geologists were completely ignored. Historian Charles Gillespie (1951) condescendingly suggested that "their errors cannot have seemed sufficiently damaging to science to merit professional refutation because no one bothered to refute them" (p. 163). Indeed, as Mortenson (1997) has documented, responses to the scriptural geologists by their contemporaries amounted to nothing more than cavalier dismissal and *ad hominem*.

Thus, the old-earth uniformitarian views of Hutton and Lyell soon became the consensus among virtually all geologists, including those who held conservative evangelical views. However, the cost of accepting such views meant the subordination of Scripture to geological data. Rudwick (1986) observed:

> Traditionally, non-biblical sources, whether natural or historical, had received their true meaning by being fitted into the unitary narrative of the Bible. This relationship now began to be reversed: the biblical narrative, it was now claimed, received its true meaning by being fitted, on the authority of self-styled experts, into a framework of non-biblical knowledge. In this way the cognitive plausibility and religious meaning of the biblical narrative could only be maintained in a form that was constrained increasingly by non-biblical considerations. (p. 306.)

This is clearly demonstrated by the response of the New England clergy in the United States. In 1849, *Bibliotheca Sacra*, the leading New England journal, published a paper by Cuvier in which he argues both for a recent creation of the earth and a universal deluge. Because of Cuvier, New England clergy rejected the old-earth views as well as Lyell's uniformitarianism (Hannah, 1983). However, Hannah (1983) noted that the New England clergy apparently misinterpreted Cuvier as defending a young

earth. Cuvier was actually an old-earth catastrophist and believed the earth had experienced periodic catastrophes each of which left an impact in the geological record. Thus, in his paper, Cuvier was simply referring to the most recent catastrophe.

This situation quickly changed, however, and by the mid 1850s *Bibliotheca Sacra* began publishing articles clearly influenced by uniformitarian geology. Most clergy became convinced by the new "facts" and accepted either the day-age theory or the gap theory (Hannah, 1983).

This change in position appears to have occurred with virtually no opposition, even though a radical reinterpretation of the Genesis account was required in order to maintain the doctrine of inerrancy. John D. Hannah shows that this painless transition was largely the result of the influence of Benjamin Silliman, a geologist at Yale College, where the clergy of that time were trained. In 1829, Silliman affirmed that the Genesis account was strictly compatible with the facts of geology and paleontology, but a decade later he could only assert that the correspondence between the two was approximate. Wishing to maintain his deep religious commitment as well as the integrity of geology, he reinterpreted the Genesis account in terms of a day-age view and instilled the same thinking into a generation of clergymen. Moreover, when Silliman retired, he was succeeded by James Dwight Dana, his former student and son-in-law, who continued to propagate the same old-earth views (Hannah, 1983).

Others who held to old-earth views due to their convictions about the geological data included George S. Faber (1773–1854), who advocated the day-age view in his *Treatise on the Genius and Object of the Patriarchal, the Levitical, and the Christian Dispensations* (1823). Hugh Miller (1802–1856) in *Testimony of the Rocks* (1856) interpreted the six days as being six geological ages, as did F. de Rougemont, G. P. Pianciani, Delitzsch, Gultler, Secohi, and Pesnel (Lewis, 1989).

As noted above, Thomas Chalmers (1780–1847) in his *Evidences of Christianity* (1813) proposed the gap theory interpretation, which postulates that there was a long period of time between Genesis 1:1 and 1:2. This interpretation was later taken up by G. W. Pember in 1876 and was greatly popularized by the notes of the *Scofield Reference Bible* and by Harry Rimmer in *Modern Science and the Genesis Record* (1937). James Murphy (1887) and Herbert Morris (1871) also defended the gap theory in their writings.

Another view was to treat the Genesis account as merely a description of the creation of the garden of Eden. This "local creation" theory was proposed by John Pye Smith (1774–1851) in *On the Relation Between the Holy Scriptures and Certain Parts of Geological Science* (1840), and more recently by Sailhamer (1996).

Yet another nonliteral way of dealing with the six days is the "days of revelation" or "pictorial-day" theory, which argues that the Creation did not actually occur in six days but was merely *revealed* in six days. Advocates include P. J. Wiseman (1958) and Bernard Ramm (1955, see pp. 218–229).

Note also that the change in thinking about Creation and the Flood was aided by the introduction of critical biblical scholarship and liberal theology. Lindberg and Numbers (1986) pointed out that:

> professional geologists, who embraced Charles Lyell's admonition to study geology 'as if the Scriptures were not in existence,' joined professional biblical scholars, who adapted Benjamin Jowett's advice to 'interpret the Scriptures like any other book'…In this version of the encounter between Genesis and geology, critical biblical scholarship played as important a role in fostering scientific geology as did empirical investigation. (p. 13.)

Darwin and Evolution

Some commentators deny that evolutionary theory had anything to do with the change in views regarding the days of Creation, and the age of the earth. Forster and Marston, for example, claimed that the shift came as a result of the empirical geological evidence alone.

> It should be noted that this was all before Darwin published the Origin of Species in 1859, and that virtually all the geologists involved rejected evolution—including Charles Lyell. There was no sense in which evolution was assumed by those who constructed the geological column, and, as we will show in a later section, some of the key geologists were evangelical Christians (Forster and Marston, 1999, p. 219).

However, both Hutton and Lyell were deists and therefore rejected the notion of a personal creator God. In essence, the laws of nature became their God. In fact, in an unpublished paper written in 1794, Hutton clearly advocated a form of evolution by natural selection (Pearson, 2003). Lyell too, although he objected to *Lamarckian* evolution, eventually came to accept Darwinian evolution (Mortenson, 1997).

Moreover, it has long been recognized that Darwin did not invent the idea of evolution. As Livingston (1997) noted, "That idea was already common currency in embryological thought and in theories of social development long before Darwin's imaginative synthesis" (p. 282). Indeed, Bergman (2001) has shown that evolutionary ideas can be traced as far back as Thales of Miletus (640–546 BC), who was apparently the first to advance the idea that life originated in water and held views of biological evolution similar to those of modern times. Anaximander (611–547 BC), a student of Thales, developed

these ideas further and concluded that humans evolved from fish. Greek philosopher Empedocles (493–435 BC) believed that chance was responsible for the entire process of human evolution. He also advocated spontaneous generation, gradual evolution by trial-and-error recombination, and natural selection as the primary mechanism of evolution. Also, Aristotle (384–322 BC) claimed humans are the highest point of a long, continuous "ascent with modification" of life.

In France, Charles De Secondat Montesquieu (1689–1755) developed a modern theory of evolution, and Benoit de Maillet (1656–1738) held that birds, mammals, and humans evolved from fish. His book on evolution was published posthumously in 1748. Georges-Louis Leclerc, Comte de Buffon, included discussions of evolutionary concepts in his *Historie Naturelle*, a forty-four volume encyclopedia describing everything known about the natural world. He also published *Les Epoques de la Nature* (1788) in which he openly suggested that the planet was much older than the 6,000 years proclaimed by the church and discussed "uniformitarian" concepts very similar to those that were later formulated by Charles Lyell. John-Bapiste Lamarck (1744–1829) proposed four laws of gradual evolutionary transformation in his *Philosophie Zoologique* (1809). Étienne Geoffroy St. Hilaire (1772–1844) also discussed evolutionary concepts in *Philosophie Anatomique* (1818) (Bergman, 2001).

In Britain, Erasmus Darwin (1731–1802), Charles Darwin's grandfather, published a theory of evolution in *Zoonomia* (1794–1796), and the concept of natural selection was developed by William Charles Wells in 1813 and later by Alfred Russell Wallace (Bergman, 2001).

Therefore, the ideas Darwin presented in *Origin of Species* were nothing new. Darwin's book was, however, highly successful in popularizing evolution by bringing it to the attention of educated people. Earlier theories of evolution apparently were not well received because at the time of their publication, the Bible and historic Christian doctrine still enjoyed a position of authority in the academy and society in general. But with the Enlightenment came autonomy, naturalism, materialism, scepticism, and liberalism, so when Charles Darwin published his ideas in 1859 the ground was fertile and the people receptive. Indeed, all 1250 copies in the first printing were sold immediately. Some copies were sent to known sympathizers, and the rest were sold to the trade, with orders for more (Desmond and Moore, 1994, see p. 477). Thus, the academy in particular was fertile ground for Darwin to push his ideas.

While theistic evolution theories are now frequently rejected by evangelical theologians and philosophers (Lane, 1994a, 1994b; Harbin, 1997; Moreland and Reynolds, 1999, pp. 219–248), this was not always the case. In fact, the church's response to Darwin appears to have been mixed. Charles Hodge (1874) of Princeton Seminary declared that Darwinism was tantamount to atheism. However, Hodge primarily objected to Darwinian evolution. He and many of his Princetonian colleagues were not totally opposed to theistic evolution. A. A. Hodge, A. H. Strong, R. A. Torrey, and B. B. Warfield also accepted the possibility of theistic evolution (Ramm, 1955, pp. 200–201). B. B. Warfield (1968) stated that evolution can supply "a theory of the method of the divine providence" (p. 238).

Scottish theologian James Orr (1960) felt that biological evolution was "extremely probable, and supported by a large body of evidence" (p. 99). Elsewhere, he wrote: "'Evolution,' in short, is coming to be recognized as but a new name for 'creation'" (Orr, 1972, p. 346).

George Frederick Wright (1838–1921), a teacher at Oberlin College who became editor of *Bibliotheca Sacra* in 1883, and Harvard botanist Asa Gray (1810–1888) were highly influential in convincing the North American Protestant community that Darwinism and Calvinism were quite compatible. Many who initially opposed Darwinism, such as James D. Dana, eventually accepted the idea even if in some modified form (Hannah, 1983).

Both Wright and Gray were theistic evolutionists who argued that developmentalism did not stand against Christianity, and that evolution provided proof for God's existence through design. Wright's pioneering labors, both in writing and in gaining a hearing for Gray among his fellow clergymen, were instrumental in causing Christianity and evolution to be viewed as being compatible (Hannah, 1983). James R. Moore (1979) wrote, "Christian Darwinism in America was as much the special creation of George Frederick Wright (1838–1921) as of Asa Gray…No two Christian men on either side of the Atlantic were more determined to advance the cause of Darwinism" (pp. 280, 283).

Twentieth Century to the Present

In regard to Creation and the age of the earth, evangelicals today generally hold to either "young-earth creation" or "old-earth progressive creation." Those who hold the young-earth view interpret the Genesis Creation account as plain, descriptive, historical narrative. Those who hold to old-earth progressive view, on the other hand, interpret the Genesis account in a couple of different ways. Advocates of the day-age view understand the Creation days to be long periods of time, in the order of millions of years. This idea is widely held by Christians who are also practicing scientists, as well as several notable theologians, including Buswell (1962), Stigers (1976), Kaiser (1992), Archer (1996), and Harris (1999).

The other major old-earth interpretation is the "literary framework view," which is now probably the most widely held view among theologians and commentators. This interpretation was first advocated by Arie Noordtzij from the University of Utrecht in *God's Word and the Testimony of the Ages* (1924). Noordtzij understood the days as merely an artistic or literary device; therefore they have no correspondence with actual, physical days. Major expositions of this view have been produced by Kline (1958, 1996), Blocher (1984), Mark E. Ross (1999), and Irons (2001).

Although the young-earth creationist position is now the minority view even among evangelicals, it still has a significant following and is held by a significant number of practicing scientists. In addition, the doctrinal statements of the Lutheran Church, Missouri Synod (*Brief Statement of Doctrinal Position*, Article 5) and the Wisconsin Evangelical Lutheran Synod (*Creed*, Article II.1–2) explicitly affirm creation in six days. Three Baptist bodies have confessions that affirm belief "in the Genesis account of creation," and one of them, the New Testament Association of Independent Baptist Churches, adds: "The six days of creation in Genesis Chapter One were solar, that is twenty-four hour days" (Lavallee, 1993).

Recent and current young-earth creationist theologians and commentators include Berkhof (*Systematic Theology*, 1930), Hepp (*Calvinism and the Philosophy of Nature*, 1930), Mueller (*Christian Dogmatics*, 1934), Leupold (*Exposition of Genesis*, 1942), Pieper (*Church Dogmatics*, 1950), Hoeksema (*Reformed Dogmatics*, 1966), Whitcomb (Whitcomb and Morris, 1961), Davis (*Paradise to Prison*, 1975), and Kelly (*Creation and Change*, 1997) (See Endnote 2).

Summary

Although Lewis (1989) noted that interpreters have never been of one mind, it is clear that the literal day view was, before the nineteenth century, the predominant view. This point is also acknowledged by Blocher (1984, see p. 36), Young (1987, see p. 4) and Youngblood (1991, see p. 41). Yet there appears to be a surprisingly strong resistance from numerous commentators to this obvious conclusion, including Ross (1994), Ross and Archer (2001, see pp. 68–70), and Forster and Marston (1999). Hall (1999b) lamented:

> The record of history is abundantly clear on this; yet, it is like extracting molars to convince some theologians to surrender an opinion that is in conflict with actual history. One has to question the tenacious resistance, especially when it is confronted with so much factual information. Why, I asked, would fine and godly theologians fight against history with so much energy when the case against it was so clear? The answer must provide interesting information about method. (p. 276.)

Lewis (1989) also noted that "the interpretation given has never been in isolation from the general approach to Scripture of the individual interpreter" (p. 455). Indeed, it appears that the acceptance of an ancient earth, the minimization of the impact of the Noahic flood, the rejection of the traditional reading of the Genesis account, and its reinterpretation to fit in with the new geology, were all the result of a general trend away from Scripture as the final authority in matters of history, and toward the acceptance of scientific investigation as the most reliable record of historical information and truth in general. This can be seen, for example, in the activities of the Geological Society of London founded in 1807. The society was dominated from the beginning by those who believed in an ancient earth, and the relationship of the Genesis account to geology was never discussed in its public communications (Mortenson, 1997), presumably because its members had little regard for its authority in matters relating to history and the natural world.

This same lack of respect for scriptural teaching appears to have also affected society in general. Livingston (1997), citing the work of Frank Miller Turner, pointed out that there was competition for cultural power in nineteenth-century English society between the old-fashioned clergyman and the new enthusiastic scientific professional. Thus, society was also witnessing a conflict between scientists and theologians. During the Victorian era cultural power progressively passed out of the hands of the elitist clergy and into the hands of the professional scientists who became the new elite. Consequently, when people encountered agricultural or medical or social problems, they progressively turned to science and scientists rather than to the church (Livingston, 1997).

Hannah (1983) summarized the whole situation nicely when talking about the change in attitudes of the New England clergy:

> The theory of creation changed categorically from 1856 to 1880 for [New England] clergymen, as did the place of the Genesis account in religious orthodoxy. While it was accepted in the 1840s as describing six consecutive twenty-four hour days of creation, by the 1850s it was viewed as explicative of origins but within a Day-Age mode. By the 1870s, however, the Genesis account was perceived as truth but not a delineation of central creation truth. Hopkins says of the Genesis account: "If this has any claim to credence, it cannot be a history of cosmogony. The creation which it designates must have been some other and some minor creation." Reinterpretation of traditional cosmology because of claimed advances in science makes it evident to the observer in the 20th century that uniformitarian and evolutionary science not only asserted its freedom

from special divine revelation but triumphed over it in the hearts of many…[In the 19th century] science appeared to speak with the inerrancy that we accord to Scripture alone. It behooves us to remember to be cautious not to neglect the exegesis of Scripture and the qualitative gulf between special and general revelation. (pp. 57–58.)

Endnotes

1. Note by G. Howe, assistant editor: The "scriptural geologists," mentioned here (see Mortenson, 2004), deserve further comment. Mortenson (2004) was reviewed by Michael Oard (*CRSQ* 42:67) and by Don Ensign (*CRSQ* 42:68). The book introduces seven scientists from early nineteenth-century England who were defending the young-earth Creation and the global Flood views long before the twentieth-century resurgence of interest in creation science. Mortenson devoted a whole chapter to each of these workers: Granville Penn, George Bugg, Andrew Ute, George Fairholme, John Murray, George Young, and William Rhind. After being subjected to considerable opprobrium in their day, they have been largely ignored by both creationists and macroevolutionists. It is well to recognize that their significant contributions antedate the creationist writings of George M. Price by about 100 years and the founding of the Creation Research Society by over 120 years. Historians like Numbers (see Numbers, 1993) ought to redress this omission in their future writings.
2. Note by G. Howe, assistant editor: As Kulikovsky implies, these are but a representative few from the large group of creationist commentators and theologians. I would like to add the name of Stephen Boyd, physical scientist and theologian, whose important mathematical research supports the assertion that the days of Genesis were indented to be understood by the reader as real "solar" days. A non-technical summary of his studies is reported in chapter 11 of DeYoung, D. 2005. *Thousands…not Billions.* Master Books, Green Forest, AR, and a technical summary in chapter 9 of Vardiman, L., Snelling, A.A., and Chaffin, E.F. (editors). 2005. *Radioisotopes and the Age of the Earth.* Institute for Creation Research (Santee, CA), and the Creation Research Society (Chino Valley, AZ).

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Book Review

The Politically Incorrect Guide to Darwinism and Intelligent Design

by Jonathan Wells

Regnery Publishing, Washington, DC, 2006, 283 pages, $20.00.

This anti-Darwinian and pro-intelligent design book arguably is the most powerful contemporary and easily understandable text favoring these positions. Yet the work is scholarly with a respectable index and 47 pages of references and notes. Currently a battle is raging, and we are "in the midst of a major scientific revolution" (p. 207) which portends the collapse of Darwinism and the rise in the importance of Intelligent Design. From commencement to its conclusion, this book is a "revelatory experience" and should be on every library shelf.

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