

American Presbyterianism, Geology, and the Days of Creation

By Frank J. Smith, Ph.D., D.D.

I. INTRODUCTION

As we look at this topic, we see that it entails several complex subjects. First of all, we have American Presbyterianism, which in itself is a broad topic about which one could speak for quite some time. Secondly, geology is a complicated and, some would say, speculative, science. And thirdly, much ink has been spilled on how to interpret the days of creation. Now, put all of these subjects together and try to make sense of them, and we see that we may very well have a daunting task in front of us.

However, this present author believes that it is useful and, from both an historical and a theological perspective, quite important to see how these somewhat diverse subjects intersect and relate. The implications are far-reaching, not only because of the foundational nature of Genesis 1 for our interpretation of the Bible, but also because of the interplay between natural and special revelation and the ramifications for epistemology (or, discerning how we know anything for certain).

As noted, we will be concentrating on Presbyterianism in this country. At the same time, we will of necessity also look at Scottish Presbyterianism (and, for that matter, at British Protestantism in general), for there was a trans-Atlantic dimension to the influence of geology on theology. And, as far as this discussion goes, the historical and theological differences between Scottish and American Presbyterianism do not appear to have any direct bearing on the matter before us.

II. TRADITIONAL INTERPRETATIONS OF GENESIS 1

As people of the Book—i.e., the Bible—we naturally turn to Scripture first and foremost. As we interpret Scripture, we realize that we stand in a long line of interpreters who have wrestled with the text, and who

often have insights far exceeding our own. It is useful, therefore, to see what the early Protestant interpretations were of Genesis 1, particularly with respect to the days of creation.

These interpretations, of course, came prior to the alleged findings of the science of geology, and therefore they represent a perspective untainted by those alleged findings. That is not to say that these earlier interpretations are infallible. Nevertheless, they form what we might say in scientific terms are “controls,” in that they are not subject to the same influences which may mold Biblical interpretation today. Moreover, they also constitute unambiguous precedent, and help to demonstrate that later Protestant and Presbyterian perspectives on the days of creation deviate from the earlier views.

Both Martin Luther and John Calvin held to a “literal” six-day creation. Luther criticized some of St. Augustine’s allegorical interpretations. Calvin clearly believed that the earth was only about six thousand years old, and that its creation had occurred in the space of six days.¹

III. PROTESTANT SCIENCE

Many historians, both secular and religious, have traced the rise of modern science to Protestantism. The Protestant Reformation thus is seen to have had

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1. Terry Mortenson, “British scriptural geologists in the first half of the nineteenth century, part 1: Historical Setting”, published in *TJ (Creation Ex Nihilo Technical Journal)* 11 (2): 221–252, and accessed on-line at <http://www.answersingenesis.org/tj/v11/i2/geology.asp>.

not simply spiritual consequences, but to have helped effect a revolutionary view of the world itself.

In the Middle Ages, much of science so-called was based on an Aristotelian model, which was highly speculative and utilized theories rather than hard empirical evidence. Just prior to the Reformation, the Renaissance was one of several movements which fostered an exploration of the world and the use of experimentation.

The Reformation furthered this impulse toward experimental science, and it did so by grounding it upon the Bible and the new inductive approach regarding Biblical interpretation. The Protestant Reformers rejected scholastic theology's speculation, and went instead to the Source itself, viz., Scripture. Instead of numerous meanings to each text, the Reformers said that there is only one basic meaning to each text, and it can be determined by means of what we call grammatico-historical exegesis. That is to say, by looking at the "evidence" of the text, the true Biblical interpreter will read out of that text what God intends to reveal. This is in contrast to eisegesis, in which the interpreter reads into the text what he wants to find.

Protestant scientists advocated a similar approach to the "second book" of God's revelation, viz., natural revelation. Both of these "books"—the book of Scripture and the book of nature—were said to give true revelation from God. And both were properly interpreted not by speculation, but by an inductive approach. In terms of nature (or, we might say, in terms of science), this meant a reliance upon experimentation and therefore upon the proper conclusions drawn from the empirical data.

At the same time as this empirical approach was taking hold, other factors were playing a role with regard to the relationship of science to society at large. Science, which had been freed from the medieval mindset, was seen as being a liberating and democratizing force, not only opening up new vistas of opportunity, but also enabling the common man to acquire what had previously been "forbidden knowledge."

Protestant churchmen welcomed this liberating nature of the scientific enterprise. While they skewered the Romanists in the spiritual realm for their idolatry and superstitions, the scientists were engaged in their own iconoclasm, tearing down the superstitions which had been built up over the centuries.

The history of science, then, should not be viewed as in a vacuum. There were tremendous cultural and societal upheavals which accompanied both the religious reformation and the scientific revolution. The Marxist historian Christopher Hill described seventeenth

century Britain with the famous phrase (which formed the title for one of his books), "the world turned upside down." It was in that context that monumental strides were being made in numerous scientific fields, including chemistry and physics. It was during this time that Francis Lord Bacon particularly developed the inductivist approach to science. Today, we honor his insights with the term, "Baconian inductivism."

Of course, the Protestant fondness for science occurred in an atmosphere which still breathed a Christian worldview. Most European scientists were at least nominally Christian, and therefore had a respect for Holy Scripture. However, even in the sixteenth and certainly in the seventeenth centuries, there were scientists who rejected the normativity of Scripture. In extreme forms, the new scientific view embraced paganism; in others, atheism.

By the nineteenth century, the forces of German rationalistic attacks upon Scripture combined with the philosophy of Kant and others, to erode much support for a Christian approach to science. The church, which had for a long time viewed science as a handmaid, was going to be faced with what historians have referred to as the "warfare" between science and religion.

This war between scientists and Scripture would affect all fields of science: astronomy, biology, chemistry, medicine, physics, etc. It was just as the science of geology was coming into its own, just as it was earning respectability, at the beginning of the nineteenth century, that this war became pronounced. Even at that, however, the tremendous respect which Protestant churchmen had for science—one might say the tremendous deference which they paid to science—led most of them to seek accommodation with the budding science of geology. Rather than rejecting its message, most of the Protestant churchmen reinterpreted the Bible, especially with regard to the days of creation.

IV. RISE OF THE SCIENCE OF GEOLOGY

As we have already mentioned, the science of geology was rising to the fore around the turn of the nineteenth century. The period from 1790 to 1820 has been called the "heroic period" for geology, as it was earning a place at the table.

There were at least two geological issues which impinge on the teaching of Scripture. The first is the age of the earth. The other is the universal flood.

By the 1820s, most geologists had adopted an old-Earth approach; however, they also still held to catastrophism, specifically, the Noachic flood. But that changed

when Charles Lyell published his three-volume *Principles of Geology* between 1830 and 1833. In that significant work, Lyell set forth a radical uniformitarianism, which purportedly explained all of the geological phenomena by means of long-age processes (Mortenson, *Ibid*).

It was in this context that Presbyterian churchmen wrestled with how to reconcile the views of geologists with the teachings of the Bible.

V. EARLY PRESBYTERIAN REACTIONS TO GEOLOGY AND ITS ALLEGED FINDINGS

One of the most influential churchmen in nineteenth century American Presbyterianism was Samuel Miller. A pastor in New York City, Miller was appointed as the second professor at Princeton Theological Seminary a year after it started in 1812.

A decade prior to his appointment to Princeton, Miller penned a book entitled, *A Brief Retrospect of the Eighteenth Century. Part First; In Two Volumes: Containing a Sketch of the Revolutions and Improvements in Science, Arts, and Literature, During That Period*, published in 1803.² This was a pioneering work in American intellectual history, including being the first history of science in nineteenth century America and the first history of geology by an American author.³ In the introduction to this volume, Miller wrote that “it will probably be acknowledged, that the century of which we have just taken leave has produced an unusual number of revolutions, and at least some improvements,—IN LITERATURE and SCIENCE—in POLITICAL PRINCIPLES and ESTABLISHMENTS—in the MORAL WORLD—and in the CHRISTIAN CHURCH” (Miller, 1.7).

Miller devoted over four hundred pages to subjects such as Mechanical Philosophy, Chemical Philosophy, Medicine, Geography, Mathematics, Navigation, Agriculture, Mechanic Arts, Fine Arts, and Physiognomy. Under the rubric of Natural History, he considered a number of topics, including zoology, botany, mineralogy, geology, meteorology, and hydrology.

He began his thirty-three page discussion of geology by stating: “In the investigation of the natural history of the Earth, little progress had been made prior to the commencement of the eighteenth century.” He ascribed the great progress in geological understanding in the 1700s to a greater understanding of mineralogy, which branch of learning is “the alphabet, by the principles and combinations of which the great volume of geological science must be formed.” Both chemists and mineralogists, as well as “the observations of intelligent travellers,” all contributed to geological knowledge. “And,

although modern times have produced many visionary theories, and crude conjectures on this subject, they have also given birth to some important acquisitions, and much correct philosophy, which will be highly prized by all who study the history and structure of our globe” (Miller, 156).

Miller then dealt with three geological theories which were proposed in Great Britain at the close of the seventeenth century. The first, set forth by the Rev. Dr. Thomas Burnet, was that “the earth was first a fluid heterogeneous mass. The heaviest parts descended and formed a solid body. The waters took their station round this body, and all lighter fluids rose above the water. Thus, between the coat of air, and that of water, a coat of oily matter was interposed. But as the air was then full of impurities, and contained great quantities of earthy particles, these gradually subsided, and rested upon the stratum of oil, and composed a crust of earth, mixed with oleaginous matter.” Eventually, the crust was dried out by the sun and broke into pieces, falling “into the abyss of waters which it had formerly surrounded. This wonderful event was the universal *Deluge*. . . . Islands and rocks are the small fragments, and continents the large masses of the antediluvian crust” (Miller, 157–158).

Miller described this first theory as an “elegant romance,” the product of a man whose work displayed “much learning, and a most vigorous imagination” (157–158).

Similarly, Samuel Miller panned the view of a Mr. Woodward, whose writings, although based on the supposition that the Mosaic history is true, nevertheless pronounced a theory that “was soon found to contradict some of the plainest and most unquestionable facts which geologists observed.” Woodward’s theory was that “all the substances of which the earth is composed were once in a state of solution; that this solution took place at the flood; that on the gradual retiring of the waters the various substances held in solution, or suspended in them, subsided in distinct strata, according to their specific gravities, and that these are arranged horizontally, one over the other, like the coats of an onion” (Miller, 158–159).

The third theory of the late 1600s was from a Mr. William Whiston, who “supposed the earth, in the

2. Samuel Miller, *A Brief Retrospect of the Eighteenth Century. Part First; In Two Volumes: Containing a Sketch of the Revolutions and Improvements in Science, Arts, and Literature, During That Period* (New-York: T. and J. Swords, 1803).

3. Chris Coldwell, “Antiquary: T. & J. Sword. Part Two. Two Large Presbyterian Works,” *The Confessional Presbyterian* 3 (2007) 285.

beginning, to be an uninhabitable *Comet*, subject to such alternate extremes of heat and cold, that its matter, being sometimes liquefied, and sometimes frozen, was in the form of a *chaos*, or an abyss surrounded with utter darkness. This chaos was the atmosphere of the comet, composed of heterogeneous materials, having its centre occupied with a globular, hot, solid nucleus, of about two thousand leagues diameter. Such was the condition of the earth before the period described by Moses as the time of *creation*." The universal flood, according to Whiston, was caused by another comet, whose atmosphere and tail might have engulfed the earth for a considerable time, eventually producing "violent and long continued rains" (Miller, 159–161).

Samuel Miller dismissed these three theories as being "fanciful and untenable," and wrote that they "served little other purpose than to amuse the curious, and excite to new, and, for the most part, unsuccessful modes of speculation on this interesting branch of natural history. Accordingly, the eighteenth century has teemed with plans, almost numberless, for solving the phenomena, and elucidating the internal structure and history of the earth. These plans, to say nothing of the impious nature and tendency of some of them, have, generally, rather resembled philosophical dreams, than the conceptions of waking and sober reason. Their authors, in forming them, have been too often guided by imagination more than judgment; and have laboured rather to support a favourite hypothesis, than to consult the voice of authentic history, or patiently to examine the materials and structure of the fabric which they undertook to describe" (Miller, 161).

It is evident that the venerable churchman was willing to examine all of these theories in light of Scripture; and, having done so, often to have found them wanting as having violated divine revelation.

Miller went on to describe other geological views, this time from the eighteenth century. Some of these theories he described without particular comment as to their consistency with divine revelation; some he described as being hostile to revelation; while others he obviously believed were consistent with the Biblical account.

For example, M. Le Cat "professed to believe the sacred scriptures, and discovered an anxious desire to show that this theory was consistent with them." Nevertheless, "the best judges among his contemporaries, and since that period, have pronounced it equally inconsistent with the structure and phenomena of our globe, and with the Mosaic history" (Miller, 164). Miller wrote of M. Maillet's view that it was an "atheistical and

absurd theory, if it deserve the name, not more hostile to revelation than to all sound philosophy" (165). The Count De Buffon produced a new theory which was inconsistent with revelation and which entailed "visionary absurdities." The theory's "manifest object is to exclude the agency of a Divine Architect, and to represent a world begun and perfected merely by the operation of natural, undesigning causes. That it cannot be reconciled with the sacred history, will appear evident on the slightest inspection; and that it involves the grossest philosophical absurdities has been clearly shown by succeeding geologists" (165, 167). M. P. Bertrand was a "wild and impious theorist" who proposed a theory "in every respect unworthy of a sober mind" (178). On the other hand, Dr. William Worthington's theory combined "great learning and piety, and a considerable share of ingenuity" (168). Mr. Philip Howard "is a firm believer in revelation, and his theory is intended to be perfectly consistent with the sacred history" (177). And Mr. Richard Kirwan "has framed a theory of the earth, which is perhaps the most rational and probable extant" (182).

Miller summed up his overview of geology in these words: "But although there has been, in modern times, ... a wonderful variety of fanciful productions, under the name of geological theories, we are by no means to imagine that little has been usefully done in this department of natural history. Amidst all the splendid rubbish with which it has been incumbered, some precious treasures have been brought to light. Amidst the speculations which have *darkened counsel*, large additions have been made to our knowledge of this important subject" (Miller, 184).

Miller then enumerated where the progress had been made. First, "The materials for the formation of a correct and rational theory of the earth have been greatly augmented during the last age. Enlightened mineralogists, practical miners, and patient chemical experimenters, have been engaged, throughout the century, in making accurate observations; in visiting foreign countries; in exploring the bowels of the earth; in comparing the strata of every portion of the globe; in examining their form, direction, extension, and connection; in analyzing their component parts; and in collecting a multitude of facts, which have all tended to throw light on the origin and history of our planet. By means of the useful discoveries which these inquirers have made, we have been furnished with weapons for beating down false theories, and with information enabling us to pursue our investigations further, and with more advantage" (Miller, 184–185).

Secondly, not only have difficulties regarding the acceptance of a universal flood been removed, but “many facts have been brought to light, showing the probability, and even certainty of that mighty inundation” (Miller, 186).

“Finally,” Miller concluded, “the researches of modern geologists have given abundant confirmation to the sacred history, not only with respect to the general deluge, but also with regard to the age of the earth.” Opinions which posited an old earth “were kept in countenance only as long as geology was in its infancy. Every successive step which has been lately taken in the improvement of this science has served to show their fallacy. The investigations of the latest and most accurate philosophers have afforded proof little short of demonstration, that the earth, at least in its present form, cannot have existed longer than appears from the Mosaic account; the absolute falshood [sic] of many positive assertions, and specious inferences, hostile to the scripture chronology, has been evinced; and thence has arisen a new presumptive argument in support of the authenticity of that Volume, which contains the most ancient, and the most precious of all records” (Miller, 188–189).

For Miller, then, there was no question as to the primacy of Scripture over natural revelation and the interpretation which men may place on it. All theories must therefore yield to God’s infallible Word. There is another point as well, viz., that the more that true science is done, the greater confirmation we have that natural history conforms to the Biblical account.

About the same time that Miller published this work, Thomas Chalmers, a noted Scottish churchman, weighed in with his own perspective. In 1843, Chalmers would lead the Great Disruption in the Church of Scotland, leading to the formation of the Free Church of Scotland. In 1804, as a young minister, he postulated the “gap theory” in a sermon to his congregation (Mortenson, *ibid.*).

In 1833, during the time he was pastor of the Tron Church in Glasgow, the *Works of Thomas Chalmers* was published. This volume contained a variety of material, ranging from sermons, to the application of Christianity to commercial and ordinary affairs of life, to the Christian revelation in connection with modern astronomy. The first section was entitled, “Evidences of Christianity”; and one of its chapters was “Remarks on the Scepticism of Geologists.”⁴

Chalmers’ burden, of course, was an apologetic one. He wished to defend Christianity against its skeptical critics, including those who would cast doubt on the

reliability of Scripture. His defense consisted in two basic parts. First of all, “We may deny the truth of the geological speculation; nor is it necessary to be an accomplished geologist, that we may be warranted to deny it. We appeal to the speculations of the geologists themselves. They neutralize one another, and leave us in possession of free ground for the informations of the Old Testament. Our imaginations have been much regaled by the brilliancy of their speculations, but they are so opposite to each other, that we now cease to be impressed by their evidence.” However, the second defense is to discount the notion that the Bible really requires a young earth: “Does he [Jesus] really assert what has been called the Mosaic antiquity of the world? It is true that he gives his distinct testimony to the divine legation of Moses; but does Moses ever say, that when God created the heavens and the earth, he did more at the time alluded to than transform them out of previously existing materials? Or does he ever say, that there was not an interval of many ages between the first act of creation, described in the first verse of the book of Genesis, and said to have been performed at the beginning; and those more detailed operations, the account of which commences at the second verse, and which are described to us as having been performed in so many days? Or, finally, does he ever make us to understand, that the genealogies of man went any farther than to fix the antiquity of the species, and, of consequence, that they left the antiquity of the globe a free subject for the speculations of philosophers?—We do not pledge ourselves for the truth of one or all of these suppositions. Nor is it necessary that we should. It is enough that any of them is infinitely more rational than the rejection of Christianity in the face of its historical evidence” (Chalmers, 47–48).

What we have with Chalmers, then, is, first of all, an attack on the validity of the findings of geology, especially since geologists, despite all their brilliance, have contradicted themselves. However, in the second place, Chalmers was willing to concede that the earth may be much older than is commonly assumed under what has been called “the Mosaic antiquity of the world.” Chalmers was even willing to posit that the description of Creation in Genesis might be something other than creation *ex nihilo*. He certainly was willing to advocate what has been known as the “gap theory”—that is, the

4. Thomas Chalmers, *The Works of Thomas Chalmers, D.D., Minister of the Tron Church, Glasgow* (Philadelphia: A. Towar and Hogan & Thompson, 1833) 45–48.

notion that between verse 1 and verse 2 of Genesis 1, there may have been a gap of millions of years, during which time the geological ages could have occurred.⁵

VI. SITUATION AT MID-19TH CENTURY

By the middle of the nineteenth century, there was widespread acceptance of the alleged findings of geology—a geology which had increasingly rejected the Biblical approach to the history of the earth.⁶

One can see this acquiescence in ministers, in church-related schools, and in pious scientists.

This leads us to ask the question, Why? Why is it that staunch Presbyterians and other Calvinists were so willing to abandon what had been regarded as bedrock truth as found in Genesis 1?

5. For a general overview of the Protestant positions on the question of geology and Genesis, see Nicolaas A. Rupke, "Geology and Paleontology," in Gary B. Ferngren, ed., *Science and Religion: A Historical Introduction* (Baltimore and London: The Johns Hopkins University Press, 2002) 179ff. See also John Hedley Brooke, *Science and Religion: Some Historical Perspectives* (Cambridge: Cambridge University Press, 1991) 234–238, for a discussion of how Buffon's *Epochs of Nature* (*Des époques de la nature*, 1778) tried to harmonize his views with the Biblical account.

6. See Charles Coulston Gillespie, *Genesis and Geology: The Impact of Scientific Discoveries upon Religious Beliefs in the Decades before Darwin* (New York: Harper & Row, 1951).

Ronald L. Numbers says that many conservative Christians "undoubtedly clung to the traditional view that God created the heaven and the earth in six literal days about six thousand years ago." He also quotes an American observer in the middle of the nineteenth century who "estimated that perhaps 'one half of the Christian public' still adhered to this position." See Numbers, "Creating Creationism: Meanings and Uses since the Age of Agassiz," in David N. Livingstone, D. G. Hart, and Mark A. Noll, eds., *Evangelicals and Science in Historical Perspective* (New York and Oxford: Oxford University Press, 1999) 236.

Historian John Dillenberger has suggested that "developments in both geology and biology" were not as readily accepted as the new astronomical views, because of the appearance to many "as another step by which God was being pushed out of the created order. . . . It was not that He could be excluded. No one could prove that. But for all practical purposes, He seemed unnecessary; and that was most damaging" (Dillenberger, *Protestant Thought and Natural Science*, [Notre Dame, Indiana: University of Notre Dame Press, 1988] 216).

7. This information on Henry was gleaned from several sources: Albert E. Moyer, *Joseph Henry: The Rise of an American Scientist* (Washington and London: Smithsonian Institution Press, 1997); Thomas Coulson, *Joseph Henry: His Life and Work* (Princeton, N. J.: Princeton University Press, 1950); and Samuel Rezneck, "Joseph Henry Learns Geology on the Erie Canal," *New York History* 50 (January 1969) 29–42. The information regarding the views of Amos Eaton is from John C. Greene, *American Science in the Age of Jefferson* (Ames, Iowa: The Iowa State University Press, 1984) 247–248. Information regarding the Henry Mountains was gleaned from an article by Roy Webb for the Utah History Encyclopedia, found on-line at <http://www.media.utah.edu/UHE/h/HENRYMOUNTAINS.html>.

We can begin to answer this question by considering the life and work of one of the leading scientists of the day. Joseph Henry (1797–1878) was basically a self-educated man whose pioneering work in induction led scientists in 1893 to designate the "henry" as the basic unit of inductance. Henry taught at the College of New Jersey, and in 1846 became the first director of the Smithsonian Institution in Washington, D. C. Henry was an elder in the Presbyterian Church, and he maintained a long-time friendship with Charles Hodge of Princeton Theological Seminary. Henry strongly believed that the Smithsonian should be dedicated to the pursuit and accumulation of knowledge; he didn't have a lot of time for fancy buildings and exhibits. Among the scientific endeavors which Henry commissioned was an 1869 trip down the Green and Colorado Rivers, led by one-armed war veteran John Wesley Powell. After catching sight of some prominent yet isolated peaks in southeastern Utah which were previously unnamed, Powell christened them the Henry Mountains. These rough-hewn mountains are called laccolithic, being the result of igneous rock from volcanic activity thrusting into sedimentary rocks. In 1877, under Powell's direction, Grove Karl Gilbert, a distinguished geologist, wrote *Report on the Geology of the Henry Mountains*—a work which is still regarded as a "standard" in this scientific field.

Henry's own interest in geology was heightened by an 1826 boat trip on the famed Erie Canal which he and others undertook under the tutelage of Amos Eaton. Beginning on May 2nd, the team embarked on a leisurely, horse-drawn cruise on a packet boat teeming with scientific equipment. Henry's keen sense of observation, which he had already displayed in other ventures (such as surveying a path for a "Great State Road" through southern New York), easily wedded with his enthusiasm for life and discovery. Henry's diary helps to chart the progress of the expedition. It also helps us to understand how the youthful scientist was swept up in the discovery of new geological observations. Eaton was a Christian, and he believed that geology would confirm the veracity of Scripture. However, he conceded that six days was a wee bit too brief for the observed stratification to occur, and he appealed to theologians who suggested that each day might be a thousand years.⁷

This trip was important for Joseph Henry, and it is important as we begin to grasp how significant science was for godly, church-going intellectuals. Not only was science important, but, we see that geology was beginning to have an influence on the discussion in the church.

Besides the issue of rocks and stratification, another

factor is that of the problem of the fossils, coupled with uniformitarian principles which prescribed gradual change of the creation (Dillenberger, 213).

Terry Mortenson has suggested that the effects of the Industrial Revolution also helped to break down consensus, even as it fostered and celebrated the role of science in society (Mortenson, *ibid.*).

Another part of the answer may be the influx of ideas that began to question the nature of Scripture, thus casting doubt on the “literal” truth of the first eleven chapters of Genesis. Although many people who adopted old-earth theories still held to the inspiration of Scripture, nevertheless, there was a desire to manifest “reasonableness” so as not to look foolish before a watching world.

And still another part of the answer is the relationship between general and special revelation, and the increasing acceptability of interpreting Holy Writ in light of science or the discoveries of man.

David Calhoun, in his treatment of Princeton Theological Seminary, has noted that Charles Hodge championed this view. “As science advanced the knowledge of the universe Charles Hodge demonstrated an openness to a new understanding of what the Bible teaches. For example, Hodge did not insist on the interpretation of the Old Testament genealogies that fixed the age of the earth at about six thousand years. When William Henry Green stated that ‘the time between the creation of Adam and ourselves might have been, for all we know from the Bible to the contrary, much longer than it seems,’ Charles Hodge was delighted.” Dr. Calhoun continues: “Furthermore, Hodge was willing to concede that if the idea of a long earth history could be established, the first chapter of Genesis could be interpreted accordingly.” Dr. Calhoun also noted that in 1863, Hodge “repeated his view of the harmony between Scripture and science. ‘Nature is as truly a revelation of God as the Bible,’ Hodge wrote, ‘and we only interpret the Word of God by the Word of God when we interpret the Bible by science.’ According to Hodge, Christians must avoid ‘a twofold evil’—neither formulating scientific theories that ignore scriptural truth, nor persisting in scriptural interpretations that conflict with well-established scientific truth. Hodge was quite willing for biblical interpretation to proceed under the guidance of proven scientific findings—although he made it abundantly clear that the theologian had every right to demand that alleged ‘facts’ be verified beyond the possibility of doubt in view of the fluctuations in scientific theory from age to age and place to place.”⁸

The theologians, as represented by Charles Hodge,

were joined by evangelical scientists in fostering a reconciliation between Genesis and geology. In the view of Rodney Stiling, professional scientists, such as Benjamin Silliman and his son-in-law, James Dwight Dana, had not only the academic credentials, but also the spiritual credentials, in order to effect revolution. These were “reconcilers” whose “new views” “became dominant in countless American Bible dictionaries, encyclopedias, handbooks, commentaries, and apologetics works in the latter half of the nineteenth century and in the early part of the twentieth. The views of the deliberate and dedicated ‘Christian’ Geologists thus simply overwhelmed and drowned out those of the uncompromising and at times seemingly unfriendly ‘Scriptural’ Geologists.”⁹

However, this general acceptance of having to re-interpret the Bible to fit the latest scientific theories did not go unchallenged. Among Northern Presbyterians, Gardiner Spring decided “to suspend ... judgment on all questions which put any other construction than that which a sound philology puts upon the Mosaic narrative.”¹⁰

One of the brilliant of Southern Presbyterian theologians, on the eve of the War for Southern Independence, likewise sounded a cautionary note.

A native Virginian, Robert Lewis Dabney had a distinguished career, which ranged from being a pastor to being an assistant to Stonewall Jackson during, as we say in the South, the late unpleasantness. Dabney was a patriot, a professor, and a prophet (in the sense of being insightful and also not being bashful about forth-telling the truth).

The premier Southern Presbyterian magazine at this time was the *Southern Presbyterian Review*, which had been publishing since the 1840s. In a July 1861 article entitled, “Geology and the Bible,”¹¹ Dabney protested that geologists had often evidenced an “arrogant and offensive spirit” in presuming that their new science has

8. David B. Calhoun, *Princeton Seminary*, Vol. I, *Faith and Learning: 1812–1868* (London: Banner of Truth, 1994) 12–13.

9. Rodney L. Stiling, “Scriptural Geology in America,” in Livingstone, Hart, and Noll, eds., *Evangelicals and Science in Historical Perspective*, 187.

10. Gardiner Spring to Benjamin Silliman, 26 July 1854, quoted in Francis C. Haber, *The Age of the World: Moses to Darwin* (Baltimore: Johns Hopkins Press, 1959) 261–262, and referenced in James R. Moore, “Geologists and Interpreters of Genesis in the Nineteenth Century,” David C. Lindberg and Ronald C. Number, eds., *God and Nature: Historical Essays on the Encounter between Christianity and Science* (Berkeley, Los Angeles, London: University of California Press, 1986) 339.

11. For the Dabney and Woodrow material cited in this section, see the Bibliography.

made a definite case for the antiquity of the earth. It is especially presumptuous for them to think that clergymen, just because they have objections to some of these new alleged findings, are somehow less intelligent than a “crowd of London mechanics” to whom a geologist is making a one night lecture in the hopes of convincing them of the seven geologic ages.

On the other hand, Dabney lamented, the attitude of churchmen has also been unwise, for they have too often been ready to concede positions on the basis of attacks by science which has not yet been proved. “It will be time enough . . . for us, as professional expositors of the Mosaic history, to settle and proclaim a plan for expounding it in harmony with geology, when geology has settled itself.”

Dabney noted that “all truths are harmonious *inter se*.” He also noted that there were significant differences between Scriptural employment of phenomenological language in describing things in nature according to their popular appearance, and things that are more essential in nature. For one thing, “the reference to physical facts in the record of creation is not merely subsidiary to the narrative or statement or some theological truth, but is introduced for its own sake.” Indeed, “creation is not only a physical fact; it is a theological doctrine.” Secondly, “the fact of creation had no apparent phase, different from its true scientific one, like the seeming dome of the skies, the rising of the sun, the stable earth; for the simple reason, that it had no human spectators. Hence, there could be no popular mode of representation, different from the true scientific *rationale*, as there was no people to observe the apparent phenomena and describe them.” Third, it is essential to maintain the independence of special revelation from natural science. “The position to which [geologists] consign God’s Word is that of a handmaid, dependent, for the validity of the construction to be put upon its words, upon their permission.” Dabney boldly asserted that that view is “intrinsic rationalism.” It is “baptized infidelity”—such as Socinianism, Neologism, and Abolitionism—which exalts “the conclusions of the human understanding over the sure word of prophecy.”

Dabney insisted that the burden of proof rested with the geologist who was asserting an hypothesis hostile to the Mosaic record. “We are not bound to retreat until he has constructed an absolutely exclusive demonstration of his hypothesis; until he has shown, by strict scientific proofs, not only that his hypothesis *may be* the true one, but that it *alone can be* the true one; that it is impossible any other can exclude it.” Dabney then

pointed out various examples of uncertainty in the work of geologists.

The author invoked Lord Bacon in proving that an application of inferences “can never raise more than a meager probability of the correctness of its conclusions, where it is not supported by some better canon of induction.” Dabney wrote: “As to the origin and history of nature in the past, [reasonings] are valid no farther back than we can be assured of the absence of the supernatural; and we know not how such assurance can be gained by us, save by the testimony of human experience, or of inspiration. This conclusion does, indeed, curb the arrogance of human science, but it does not affect in the least any part of its legitimate dominions, or of its practical value to mankind. It does, indeed, disable us from determining the age, date, and origin of the structures nature presents to us, but it does not prevent our discovering the laws of those structures; and the latter is the discovery to which the whole utility of science belongs.”

Dabney concluded: “Once admit a Creator and a creation, and the validity of all inferences from the seeming analogies of nature, as to origin of things, is vitiated the moment we pass back of the authentic light of historical testimony. Once admit a Creator and a creation, and nothing is gained, in logic, by attempting to push back the creative act.”

Dabney’s perspective would not go unchallenged. James Woodrow, who was destined to be one of Dabney’s antagonists over several decades of doctrinal dispute, championed what he considered to be the cause of science.

Woodrow was a noted Southern Presbyterian scientist, minister, and seminary professor. He was the uncle of another famous Woodrow—Woodrow Wilson. In the 1870s and 1880s, he would become embroiled in the evolution controversy, as he was finally forced to reveal publicly that he believed that the evolution of Adam’s body was probably true. That controversy was more than a decade away. However, the genesis for that conflict can be discerned in the debate over geology.

In April 1863, Woodrow responded to Dabney with an article entitled, “Geology and Its Assailants.” He said that the first mistake of anti-geologists regarding the nature of geology is that they assume that it is cosmogony (or at least geogony). Geology has been placed in a dilemma: if it attempts to approach close to the “mysteries of creation” through “probable conjecture,” it is viewed as “impiously presumptuous, and it is falsely represented as requiring its conjectures to be received as certainties.” Or, “if it modestly confine itself to rigid

reasoning and ascertainable truths, it is angrily driven away as grossly atheistic.”

This difference of perspective led to an exchange of articles between Dabney and Woodrow in the 1870s in the *Southern Presbyterian Review*. In a letter to Dabney, Woodrow put the crux of the matter this way: “Dr. Dabney insisting that the *absence* of the supernatural must be proved before the law of uniformity [i.e., causality] may be applied; we insisting that the *presence* of the supernatural must be proved before we are debarred from applying it. We maintain that the former principle leads inevitably to universal skepticism, and that the latter leads inevitably to the knowledge of the truth.”

If Woodrow was right in his views, then the door would be open for biological evolution, not to mention all kinds of other instances where “science” could influence the church’s view of creation. Thus geology was the first battleground in the war between two different views of science—a war that would culminate in the nineteenth century in the fight over evolution.

VII. INTEREST IN GEOLOGY IN PRESBYTERIAN CIRCLES

Interest in geology remained strong in Presbyterian circles throughout the nineteenth century. For the sake of time, we will only touch upon one time period, and that within the Southern Presbyterian tradition, in order to illustrate this point.

One of the popular periodicals in nineteenth century Presbyterianism was the *Christian Observer*—a publication which is still publishing today, as the oldest such periodical. Consider several of the articles which appeared in the *Christian Observer* in a several month period in 1867.

One writer worried that failure to affirm the existence of various animals whose remains have been found, would impeach the character of God. “If those bones never had life, they are a standing untruth in the volume of nature which God’s own hand has written!” In point of fact, “[t]he witnesses are innumerable—the evidences incontestable; and they all plead for time—time.” The author contended that the multiplicity of species seen in geological strata “passed out of existence long prior to the Adamic period. Hence no members of any existing species have been found entombed with them.”¹²

Three weeks later, the same writer spoke of these creatures from the past, including “Maſtodan” [sic], various fishes, and Megatherium. The next week, he showed how geology leads to the goſpel: “Were it not

for the promises of God, the rocks would only proclaim degradation and death to man—they would ſpread the mantle of eternal night over him. Ah, the records of the rocks are cold, dark, cheerless, hopeless as the grave. Indeed, they are the graves of the paſt. Marvel not, then, that infidelity rejecting God’s only promises, can write on the grave of man, as on the graves of the ante-Tertiary monſters, ‘Death an eternal ſleep.’ Let any one reject Chriſt, and he rejects the promises, and hence, the blackneſs of darkneſs forever hangs over him—a night of death—a night of eternity, that will know no morning—no day-ſtar of hope. Ah! it will be a night of deſpair!”¹³

In the summer of 1867, “S.S.” began a series of articles on “The Ages.” In the firſt article, he laid out the iſſue as being one of honeſty: unless theſe ſpecies actually lived over a long period of time, God would have been a deceiver of thousands. The writer ſet forth the poſition that the “day” of Genesis 1 was actually a long period of time, and he based this belief on ſeveral factors. For example, Chriſt and His apoſtles frequently referred to the “ages,” which “appear to be God’s measurements of eternity.” The Bible often uſes the word “day” in a non-literal ſenſe. The traditional argument, regarding God’s reſt on the ſeventh day, begs the queſtion, ſince it is the law of proportionality which is being ſet forth, and His Sabbath could be viewed as continuing. If Genesis 1 is deſcribing events that occurred within only 144 hours, then why would it be important to ſtate that it did not rain during that period? Various traditional cosmogonies in heathen nations mention that “the demiurgic or creative days were of long duration”; and Origen thought of them as metaphorical. The book of Hebrews makes mention of the Son of God Who made the *aionas*, a term which would comport well with underſtanding the “day” of Creation as being a long period of time. And, it was poſſible that there was a “vaſt period of time . . . before the commencement of the firſt age.” “In that dark,

12. “S.S.,” “Wonders in the Earth. Monſters of the Pre-Adamite Earth,” *Christian Observer and Presbyterian Witness*, Vol. XLVI, n. 18 (May 2, 1867) 1

13. “S.S.,” *ibid.*, Vol. XLVI, n. 21 (May 23, 1867) 4; and n. 22 (May 30, 1867) 4.

Megatherium, which means “great beaſt,” is a giant, extinct mammal, ſimilar to a tree ſloth. As an hiſtorical curioſity, a Megatherium Club, comprised of moſtly ſelf-taught amateur ſcientiſts who were attracted to the Smithsonian’s ſcientific collection, operated from 1857 to 1866; the members “were eventually thrown-out of their [Smithsonian Caſtle] ſuites by the inſtitution’s ſecretary, Joſeph Henry, who diſapproved of the way members held ſack races in the Great Hall and periodically ſerenaded his daughters” (Wikipedia).

unnumbered period, the first age began, that is, the first day of Moses—the first genesis day.”¹⁴

Later during this series, “S.S.” demonstrated his attempt to harmonize geology and Genesis; and later still, he wrote that “perfect harmony exists” between the two kinds of revelation (natural and special). “That theory that arrays nature against the Bible—God against himself, so that his kingdom is divided, cannot be true. It dishonors God, and perils souls.”¹⁵

This perspective was challenged by those who advocated the traditional view, and those who wanted to reconcile geology with Genesis by means of the “gap” theory. The material which was published in the church press on geology is literally voluminous.

Several things become evident from this extensive material. One, geology remained a greatly controverted topic for discussion. Two, there was a tremendous amount of scientific interest not only among the clergy, but also amongst the laity. These articles, many of which dealt with very technical scientific terms and matters, appeared in the popular church press. Three, most Southern Presbyterian writers on the subject willingly accepted a belief in the great antiquity of the earth. Four, their acceptance of this view was because of the seeming facts of geology, the rejection of which, they felt, would be unscientific and would subject them and the church to ridicule and scorn. Five, the methodology of trying to reconcile Genesis and geology varied from the theory that there were many creations or beginnings before the Genesis account, to the theory that much time elapsed between the first two verses of Genesis, to the thesis that “day” really meant “age.” Six, the widespread acceptance of the world’s great age did not lead most of these churchmen to accept evolution. Seven, they utilized their geologic positions for apologetic purposes, both in trying to defend the faith and in reaching out evangelistically.

VIII. THE 20TH AND 21ST CENTURIES

As the church entered the twentieth century, she faced modernist attacks not only from outside, but from within. Increasingly, churchmen abandoned the fundamental or foundational doctrines of the Christian faith.

14. “S.S.,” “Time of the Creation. The Ages,” *Christian Observer and Presbyterian Witness*, Vol. XLVI, n. 26 (June 27, 1867), 1.

15. “S.S.,” “The Ages—No. 4, History of the Creation,” *Christian Observer and Presbyterian Witness*, Vol. XLVI, n. 33 (August 15, 1867) 1; [“S.S.”], “The Work of Creation. The Ages—No. 5,” *Christian Observer and Presbyterian Witness*, Vol. XLVI, n. 35 (August 29, 1867) 4.

In such a milieu, the issue of the length of the days of creation, not to mention numerous other doctrines, paled in comparison to the life-and-death issues of the nature of Scripture and the gospel itself. Accordingly, as Presbyterians and other mainline Protestants went through the modernist-fundamentalist controversy, there was not much discussion on the days of creation—a topic, after all, which most folks thought had been settled long ago.

Furthermore, especially after the expulsion of the leading conservatives by the Northern Presbyterian Church in 1936, and the full triumph of higher-critical views of Scripture, the issue of the days of creation would seem like a quaint topic, at best.

As the Orthodox Presbyterian Church (founded 1936) took its place among the manifestations of Christ’s Bride, it is clear that the issue of the length of the days of creation was a non-issue. People with both a day-age view and a literal view were welcomed into the OPC’s ministerial ranks.

Within a couple of decades, Meredith Kline, an OPC minister serving as a seminary professor, popularized within OPC circles what is known as the “framework hypothesis.” Basically, Professor Kline advocated the view that the days of Genesis 1 are not to be taken literally, but rather are a poetic device in order to put forth God’s creative acts.

In the first years of the new millennium, the OPC General Assembly had a study committee on the issue of creation. The formation of this committee came about especially because of controversies which have arisen in Northern California and Southern California Presbyteries with regard to the days of creation, particularly the acceptability of the framework hypothesis.

In 1937, a split occurred in the denomination which became known as the OPC, when a group of men and churches left in order to form the Bible Presbyterian Church. The BPC itself suffered a schism in 1956; both groups retained “Bible Presbyterian Church” in their names, but the majority changed its name to Evangelical Presbyterian Church in 1961. Four years later, this denomination merged with the Reformed Presbyterian Church in North America, General Synod, to form the Reformed Presbyterian Church, Evangelical Synod (RPCES).

The RPCES, particularly through its professors at the denominational Covenant Theological Seminary, had been largely influenced by the day-age view. R. Laird Harris and others championed the position that the days of creation were eons of time, rather than literal days.

The Reformed Presbyterian Church of North America (RPCNA), a denomination often known by the nickname “Covenanter,” has in the last several years wrestled with the doctrine of creation. The RPCNA Synod decided in 2002 that “Current studies on the ‘original intent’ of the Confession on the creation days support the view that ‘days of ordinary length’ are meant in the expression ‘in the space of six days.’” However, the Synod also said “that variant views are held within the church, and have hitherto not been the ground of either denying ordination or instituting discipline.”¹⁶

The Presbyterian Church in America (PCA) was formed in 1973, mostly by people seceding from the Presbyterian Church in the United States (PCUS), or Southern Presbyterian Church. At her first General Assembly, the PCA gave a rationale for its ecclesiastical separation. Among the items mentioned was the acceptance of evolution. However, not mentioned was the issue of the length of the days of creation.

It is probable that the vast majority of the laity, as well as the vast majority of the ministers and other officers, held to a “literal” six-day creation. On the other hand, there was no test of orthodoxy on the point.

The fact that this issue was not viewed as a test of orthodoxy was highlighted by the “joining and receiving” effected between the PCA and the RPCES in 1982. In the discussions leading up to the union, the day-age positions by prominent RPCES churchmen—which positions were in print and should have been known by those charged with investigating the compatibility of the two churches—did not merit a mention.

The first time that issues of Genesis and geology came to the attention of the General Assembly was in 1994 with regard to a complaint from Eastern Carolina Presbytery. The complaint asked that the higher court reverse the licensure exam of a man who, among other things, did not believe in a universal flood. The Standing Judicial Commission (SJC) ruled that although this man’s views were unusual, he was orthodox in a number of ways, and therefore declined to overturn the licensure. The General Assembly voted to ratify that decision.¹⁷

The same year, the Assembly took exception to the minutes of New River Presbytery (most of West Virginia and a portion of Virginia), for approving a teaching elder whose views on creation were not clear. New River responded by saying that the minister in question does not believe that it is “scientifically impossible for God to create the universe in six days since He is omnipotent”; however, he also does not believe that the Word of God sets forth “such a scientific plan” regarding creation.

At the 1995 Assembly, held in Grapevine, Texas, the Committee on Review of Presbytery Records recommended that the response not be found satisfactory because “the Presbytery does not give us a statement that they will not in future approve for ordination a candidate with exceptions that deny fundamentals of our system of doctrine such as Creation in six days (LC 15, Exodus 20:8–12).” However, a substitute motion prevailed, 315–229, that New River’s response be found satisfactory (M23GA, 197).

Two years later, the review committee recommended that New Jersey’s minutes have exception taken to them because of this affirmation by the lower court: “We affirm that one natural interpretation of Genesis One is the 24-hour day exposition. We deny that the 24-hour-day interpretation is the only possible interpretation.” However, the Moderator ruled that exception out of order because “it is not a serious irregularity (BCO 40–3), nor has General Assembly made a determination that there is only one possible interpretation to the length of days in Genesis 1” (M25GA, 211).

The series of Affirmations and Denials from New Jersey came before the General Assembly the next year by means of complaint. The complaint argued that the Resolution of Affirmations and Denials denies “the plain and ordinary sense of the creation account as revealed in Genesis One,” viz., the literal 24-hour view.

The Standing Judicial Commission (SJC) was greatly divided on the issue. The majority voted to deny the complaint as it held that “New Jersey Presbytery acted within its constitutional authority.” The SJC stated: “Past actions of our General Assembly have affirmed, as we affirm in our decision now, that on matters touching

16. “Report of the Committee to Study the Midwest Presbytery Report on Creation,” *Minutes of the One Hundred Seventy First Synod of the Reformed Presbyterian Church General Assembly* (Pittsburgh, Pa.: [RPCNA], 2002) 136–138; see also the dissent on the matter (138–139), in which sixteen commissioners wrote: “By this committee stating in their report that ‘the Midwest Presbytery declaration does express what was almost certainly the intent of the Confession of Faith’ regarding the earth being created in six literal days, and Synod being then unwilling to affirm the position of the Midwest Presbytery, we believe we are sending a confusing and dangerous message to the church of our Lord Jesus Christ. God’s Word forbids double-mindedness (James 1:7–8; Psalm 119:113).”

17. Presbyterian Church in America, *Minutes of the Twenty-Second General Assembly of the Presbyterian Church in America* (Atlanta, Ga.: Office of the Stated Clerk of the Presbyterian Church in America, 1994) 88ff. PCA Minutes hereafter noted as M22GA, etc. In light of David Hall’s later insistence that the Confessional phrase “in the space of six days” be interpreted to mean six calendar days, some might find it ironic that he was one of the three-member panel of the SJC which voted not to sustain the complaint.

on issues of doctrine, liberty is granted to the courts to discuss, deliberate and resolve questions of doctrine. We affirm that New Jersey Presbytery, as a court of the church, acted within its constitutional bounds to resolve this question of doctrine and that it did so consistent with past renderings of the General Assembly.” A minority report was filed by nine SJC members; that report stated: “The language of the Confession, our constitutional standard, is quite clear and the original meaning of ‘day’ as a 24-hour day is even admitted by the act of New Jersey Presbytery.”

The General Assembly sat for an hour, listening to the majority and the minority present their sides. The court then voted, by about a two-to-one margin, to approve the majority report.¹⁸

It bears noting that this Assembly was held in downtown St. Louis, a few blocks from Busch Stadium during a time when Mark McGwire was lighting up the scoreboard with home runs. During the presentation of the minority report, the Rev. David Hall offered “two hard-to-get Cardinals tickets” to anyone who could produce one Westminster divine who held to a view other than creation in six calendar days. (The tickets were never claimed.)

The controversy generated by this case prompted the same General Assembly (1998) to erect a Creation Study Committee (CSC). The CSC was charged with studying “the exegetical, hermeneutical, and theological interpretations of Genesis 1–3 and *the original intent of the Westminster standards’ phrase ‘in the space of six days.’*”¹⁹

In the meantime, Greenville Presbyterian Theological Seminary’s first annual spring theology conference, held in March 1999, dealt with the subject, “Did God Create in Six Days?” A couple of hundred people packed into the seminary’s chapel to hear presentations of the four major views—six calendar days, day-age, framework hypothesis, and analogical day. The analogical day position was a relatively new one in conservative Presbyterian circles, having recently been championed by Dr. Jack Collins, a professor at the PCA’s Covenant

Theological Seminary, St. Louis. This position says that the days “are God’s work-days, which are analogous, and not necessarily identical, to our work days, structured for the purpose of setting a pattern for our own rhythm of rest and work.” Furthermore, “The six ‘days’ represent periods of God’s historical supernatural activity of preparing and populating the earth as a place for humans to live, love, work, and worship.” The analogical day position says: “These days are ‘broadly consecutive’: that is, they are taken as successive periods of unspecified length, but one allows for the possibility that parts of the days may overlap, or that there might be logical rather than chronological criteria for grouping some events in a particular ‘day.’” “Genesis 1:1–2 are background, representing an unknown length of time prior to the beginning of the first ‘day’: verse 1 is the creation *ex nihilo* event, while verse 2 describes the conditions of the earth as the first day commenced.” For the proponents of this position, “Length of time, either for the creation week, or before it or since it, is irrelevant to the communicative purpose of the account.”²⁰

The CSC gave a preliminary report to the 1999 General Assembly. At that same meeting, Dr. Joseph Pipa, President of Greenville Presbyterian Theological Seminary, offered a personal resolution which was adopted by the General Assembly in modified form. The resolution specifically acknowledged that in 1970, the Presbytery of Central Mississippi of the Southern Presbyterian Church (the bulk of which became the PCA’s Presbytery of Mississippi Valley) recognized “different interpretations of the word ‘day’ and do not feel that one interpretation is to be insisted on upon the exclusion of all others.” The resolution made several declarations, including: “That Genesis 1 and 2 is an historic, self-consistent, and true account of God’s creation of the universe and mankind in six days”; “That Genesis 1 and 2 do not represent a mythical account of creation without reality in space and time”; and “That the eight fiat acts of Genesis 1 were discrete, supernatural acts, and describe the creation of all kinds” (*M27GA*, 96–97, 179–80).

The Creation Study Committee gave its final report at the 2000 General Assembly. Besides laying out the four major views current in the Reformed world—calendar day, day-age, framework hypothesis, and analogical day—the Committee recommended that its report be distributed to all sessions and presbyteries of the PCA, and made available to others who requested it, for study. The CSC also recommended that “the Assembly declare its sense that in order to permit careful and prayerful contemplation of this matter, no further action of any kind with respect to this report

18. *M26GA*, 103ff. The minority report also noted a point essentially overlooked by the majority, viz., that the Presbytery’s Resolution allowed for biological evolution (although not for human evolution).

19. *M26GA*, 191. This action came in response to an overture from Central Carolina Presbytery. The words in italics were added by amendment upon motion from the floor. The main motion carried, 521–371. Also before the Assembly was an overture from Westminster Presbytery, which likewise called for a study committee on creation; Westminster’s overture, however, also explicitly rejected views other than creation in six 24-hour periods (see below).

20. This summary may be found in *M28GA*, 169.

be taken by the General Assembly for a period of at least two years.”

Instead, upon amendment from Dr. Frank Barker, the following was adopted: “That since historically in Reformed theology there has been a diversity of views of the creation days among highly respected theologians, and, since the PCA has from its inception allowed a diversity, that the Assembly affirm that such diversity as covered in this report is acceptable as long as the full historicity of the creation account is accepted.” A substitute, moved by David Hall, was defeated. That substitute said: “With charity toward all our members and with fidelity to the original authors of our confessional standards, our understanding is that, until evidence to the contrary is found, the Westminster divines intended the confessional phrase ‘in the space of six days’ to specify that the six days of creation were days of normal duration with evening and morning. Accordingly, for the peace of the church, any future candidates who differ with this original meaning should request an exception to this sense of the Confession until documentation that the Westminster divines held other views is firmly established. We also urge courts of original jurisdiction to make these future determinations with care, charity, honesty, and impartiality” (*M28GA*, 119ff).

The position taken by the 2000 PCA General Assembly, though not Constitutionally binding, has influenced at least one PCA presbytery to acquiesce in that position. Covenant Presbytery (which covers north Mississippi, west Tennessee, and most of Arkansas) decided to reverse itself and to vote that a non-literal view of the days of creation is not an exception to the Confessional Standards. This reversal is all the more remarkable when one considers that two years prior to this most recent action, Covenant Presbytery had rebuked Mississippi Valley Presbytery for being soft in a number of areas, including, six-day creation.

However, the General Assembly action did not deter Westminster Presbytery (upper east Tennessee and southwestern Virginia) from maintaining its position, viz., not only that literal days are intended by the Confessional teaching, but also that no one who takes an exception to the Standards on this point will be admitted to the Presbytery.

In point of fact, the action by Westminster Presbytery was in accord with the action of the 2001 PCA General Assembly. That Assembly answered in the negative three overtures on the matter of exceptions. Two of them—from Calvary (upstate South Carolina) and Mississippi Valley Presbyteries—would have required exceptions,

and utilized much of the language which David Hall had proposed at the previous Assembly. The overture from New River Presbytery would have specifically provided for Presbyteries and Sessions to define any other view than that of calendar day as being an exception to the Standards. In answering these overtures in the negative, the Bills and Overtures Committee gave the following grounds: “It is the prerogative of the lower courts to determine if a man’s view is an exception to the standards” (*M29GA*, 193ff).

IX. THE CRITICAL ISSUES

We trust that this article has proven to be of some interest. But the question remains, Is it merely a matter of intellectual curiosity, or is it a matter of prime importance how the church deals with these issues?

We would suggest that it is a matter of prime importance, and that in several respects.

First, we are dealing with the very first chapter of the Bible, and therefore the most foundational of concepts. Apart from God being the Creator, we cannot understand or appreciate the gospel. Indeed, we cannot know God. Has He therefore revealed truly and clearly what transpired at the beginning? Is the account in Genesis fully historical and historically accurate? If the account of Genesis 1 is not fully historical, what does that do to other accounts in Scripture? Can we rely on them as being true history? Does God’s special written revelation need to be interpreted by means of natural revelation? Is it proper to do so?

Those who have witnessed the theological and spiritual disintegration of the Christian Reformed Church of North America (CRCNA) over the past couple of decades may be aware of the fact that once a church admits the validity of natural revelation interpreting special revelation, there is no stopping place on the way to a full-blown rationalism and ultimately liberalism. The acceptance of women’s ordination, and most particularly the advocacy of homosexuality within the CRCNA, have come about because of a different hermeneutic, one which calls for factors outside of Holy Writ being able to bear upon ethical matters.

The relationship between geology and the days of creation is a subset of the relationship between science and Scripture, which, in turn, is a subset of the relationship between natural revelation as a whole and special revelation. How one conceives of those relationships is of crucial significance with regard to what one will believe and how one will act.

X. CONCLUSION

Several conclusions can be drawn from this material. The first is that historically there has been a tremendous amount of interest in science among Presbyterians, and that that interest has stemmed from two convictions: one, that all of created reality forms natural revelation which truly reveals something of God and His workings in the world, all for His glory; and two, that science is a handmaid to religion, particularly with respect to apologetics, supporting and bolstering the claims of Christ.

A second conclusion is that the Scottish Common Sense Realism, which was the dominant philosophy among Presbyterians, had become Scottish Common Sense Rationalism. The difference can be perceived by looking at the different approaches fostered by Samuel Miller, on the one hand, and Charles Hodge on the other. Hodge was willing to interpret Scripture by means of nature. Miller found various scientific theories wanting, in light of Scripture.

Parenthetically, we wonder if Samuel Miller's nonsense, bold declamation of some of the geological speculations as being "splendid rubbish" and consisting of "false theories" and "specious inferences" would be well-received in contemporary evangelical circles. Somehow, it just doesn't seem "loving." And it certainly is not politic, not to mention politically correct. Today, we are witnessing evangelicals tip-toe around, not wanting to give offense to a skeptical and unbelieving world, and willing therefore to engage in discussion about outlandish theories, which discussion only serves to give those speculations credibility. However, Miller impresses us as someone who is so in tune with the glory of God and His Word, that he was willing to declaim theories which reflected man's rebellion against divine revelation. Indeed, to use language that has become utilized particularly in Van Tillian apologetics, Miller was willing to answer the fool according to his folly, as well as not to answer the fool according to his folly.

The relationship between natural and special revelation is thus perhaps the key in understanding how geology impacts Presbyterian views of the days of creation. In other words, is it appropriate for geology to interpret Holy Writ?

The view of historian James R. Moore is that Francis Lord Bacon's two books approach was actually a political-type compromise—a consensus that was destroyed when geologists started to question traditional interpretation of the history of the earth. Between 1830 and 1860, the Baconian compromise was put in jeopardy, and there was a rift between Scriptural geologists

who believed that Genesis interprets nature, and harmonizers, who believed that nature interprets Genesis (Moore, 322ff).

But how is it, then, that both proponents and opponents of the attempted harmonization between geology and Genesis could appeal to Lord Bacon? To some extent, the reason is because each side took something from Bacon. The harmonizers believed that natural revelation could shed light on Scripture. The exegetes argued that what was being promulgated did not constitute a true induction, in that it was speculative and not genuinely based on experimentation.

In 2001, the PCA General Assembly answered in the negative an overture from North Georgia Presbytery which would have urged presbyteries, sessions, and church members "to explore ways by which the scientific evidence of general revelation can be objectively studied and validated so that the church can move toward a unified understanding of how God created the universe and brought the earth into existence." Among the grounds cited by the Bills and Overtures Committee was the following: "Using general revelation to determine doctrine is contrary to *WCF* I.6" (*M29GA*, 198).

Of course, not all of those who would identify themselves as conservative American Presbyterians would agree with the stance of that General Assembly's Bills & Overtures Committee. In the on-going discussion of the days of creation in denominations such as the OPC and PCA, perhaps the issue that will most determine the outcome, not only of this discussion but of other matters as well, will be which approach these churches take on the relation between natural and special revelation; or whether, in the final analysis, geology really has anything to do with Genesis 1 after all.²¹ ■

21. Davis Young has suggested a new paradigm for the relationship between geology and Genesis. See his "Scripture in the Hands of Geologists (Part One)" *Westminster Theological Journal* XLIX, no. 1 (Spring 1987) 1–34, and "Scripture in the Hands of Geologists (Part Two)," *Westminster Theological Journal* XLIX, no. 2 (fall 1987) 257–304.