

‘Sciences of Satanic Origin’: Adventist Attitudes Toward Evolutionary Biology and Geology

by Ronald L. Numbers

“Again and again we shall be called to meet the influence of men who are studying sciences of satanic origin, through which Satan is working to make a nonentity of God and of Christ.” Ellen G. White, *Testimony for the Church*, No. 37.

“ . . . there ought to be no doubt whatever that the popular forms of geology and paleontology should be included as ‘sciences of satanic origin.’ ” George McCready Price, *Theories of Satanic Origin*.

The birth of Seventh-day Adventism coincided with the opening of the nineteenth-century debate over evolution. In 1844, the year of the Great Disappointment, the Scottish author and publisher Robert Chambers anonymously published his *Vestiges of the Natural History of Creation*, the book that first brought the subject of evolution to the attention of the American reading

public. Fifteen years later, on the eve of denominational organization, Charles Darwin brought out his monumental *Origin of Species*. For most American Christians, including many evangelicals, the crucial issue raised by Darwin concerned the argument from design: did evolution by natural selection negate the view of a divinely planned world? Relatively few Americans publicly expressed concern about the impact of Darwinism on the Genesis story of creation, which most observers regarded as being sufficiently vague to accommodate developmental views requiring periods of time well in excess of 6,000 years.¹ Adventists, however, staunchly defended both the historical and scientific accuracy of the first chapters of Genesis.

By far the most influential early Adventist was Ellen G. White, whose visions and testimonies molded the sect’s thinking on matters ranging from diet to eschatology. Like her fellow believers, few of whom had been exposed to the influence of higher education, Mrs. White consistently subordinated science to the Scriptures. “The Bible is not to be tested by men’s ideas of science,” she wrote, “but science is to be brought to the test of this

Ronald L. Numbers, chairman of the department of the history of medicine, University of Wisconsin, is the author of *Creation by Natural Law* (Univ. of Washington Press) and *Almost Persuaded* (Johns Hopkins Press).

unerring standard.” Since Moses had written his account of creation “under the guidance of the Spirit of God,” any theory contradicting it was to be rejected out of hand. So far as she was concerned, Moses had left no doubt that the days of creation were six in number and of 24 hours’ duration, and that the mode of creation had not involved the use of natural laws.²

The editors of the *Review and Herald* shared Mrs. White’s views on the relationship between science and religion. Early in 1859, several months before the publication of the *Origin of Species*, they reprinted an excerpt from a non-Adventist source claiming that “while the Bible does not teach science, when it does refer to science it is always correct.”³ This theme appeared frequently in early Adventist literature.

One of the few warnings against an unreasoning dependence on the Bible in matters of science came from a member of the small educated minority in the church, a physician named John Harvey Kellogg, recently graduated from the Bellevue Hospital Medical College in New York City and serving as professor of physics in the denomination’s newly founded Battle Creek College. Writ-

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ing in 1879 in a small volume entitled *Harmony of Science and the Bible*, Kellogg listed as one of the chief factors responsible for the recurring conflict between religion and science the habit of religionists of “holding the Bible as unimpeachable authority on *all* subjects, as the universal test of truth, and attaching all importance to a particular interpretation of its language.” Though Kellogg apparently believed in a special creation, he expressed a willingness to recognize the

legitimacy of science within its own sphere. “Science deals chiefly with one sort of truths, religion with another class of truths.” If only this division were honored, he thought all conflict would cease.⁴ In an article in the *Health Reformer* in 1874, he called for a “careful scrutiny of the arguments” in favor of evolution and an end to jeers and sneers. While adhering to the special creation of species in the beginning, he conceded that much of Darwin’s theory was based on “indisputable” facts.⁵

Adventists placed their faith in the Bible rather than science because of a deep suspicion of human reason, and nothing seemed to confirm this suspicion better than the science of geology, which depended so crucially on the *assumption* of uniformity. Thus, while the leaders of American thought were discussing the merits of biological evolution, Adventists were often preoccupied with the real or imagined fallacies of geology, which they saw as providing a foundation for organic evolution — both theories going “hand in hand to destroy faith in the word of God.”⁶ Seldom did they miss an opportunity to point a scoffing finger at “the dreamy, incoherent utterances of geologists.”⁷ Uriah Smith, editor of the *Review and Herald*, occasionally led the attack himself. Though he had never attended college, he had no fear of doing battle with the Goliaths of the scientific world. Who, he asked, had “ever proven or tried to prove” the validity of the uniformity principle? “Nobody,” he answered. “Usually it is either ‘presumed that the reader will be convinced’ of the matter, or certain results are ‘supposed to have been effected by such causes as are operating at present.’”⁸

From time to time, Smith opened the pages of the *Review and Herald* to other critics of geology. Their titles alone adequately reveal their message: “The Blunders of Geologists,” “The Uncertainty of Geological Science” and “False Theories of Geologists.”⁹ Typical was the comment of George W. Amadon, the 28-year-old editor of the *Youth’s Instructor*, a periodical for Adventist young people. “No class of scientific men are more hasty and rash in making asser-

tions than some geologists,” he wrote. “As a science it is not demonstrative, and its oracles are contradictory and clash with each other.”¹⁰

Smith and his colleagues regularly reprinted what they considered to be devastating examples of the “extravagant pretensions” and the “absurdity” of geology. In one of these, a Reformed Presbyterian minister in Chicago, Robert Patterson, remarked that to construct the earth’s history from processes currently observable was like measuring “a youth of six feet high, and finding that he grew half an inch last year, [concluding] thence that he was a hundred and forty-four years old.”¹¹ In another, President Joseph F. Tuttle of Wabash College was said to have scored “a capital hit on that popular farce and prime minister of skepticism, geological guess-work,” when he suggested that fossils — particularly human ones — found in geological formations much lower and earlier than usually assigned to men had probably dropped to that level during earthquakes.¹²

Among the sizable group of Adventists to comment on geology, not one had any first-hand acquaintance with the science and few gave any evidence that they had read more than popular accounts of what geologists did. A notable exception was Elder Alonzo T. Jones, a self-taught ex-soldier converted while stationed at Fort Walla Walla, Wash. Unlike many of his colleagues, Jones took geology seriously enough to read Archibald Geikie’s *Textbook of Geology*, one of the most authoritative works in the field, three times through. All this study, however, merely convinced him of the total unreliability of geology, a theme he developed at length in a series of lead articles for the *Review and Herald* in 1883.¹³ Here he accused geologists not only of beginning their reasonings with an assumption, but also of using circular arguments. The most blatant instances of the latter, he thought, were two statements by Geikie on dating. “One of these says that the *relative age of the rocks is determined by the fossils*. The other says that the *relative age of the fossils is determined by the rocks*.” “What is this but reasoning in a circle?” asked Jones. This example and others like it forced him to

conclude that “the only *certain* thing about [geological science], is its *uncertainty*.”¹⁴

Most Adventists understandably refused to admit harboring any hostility toward what they liked to call “true science,” that is, science based upon “facts” and in agreement with the Bible. They directed their criticism solely at “science falsely so-called,” hypothetical science in conflict with revelation.¹⁵ Scientific theories and hypotheses regarding the history of the earth were acceptable only under the severest restrictions. In formulating them, scientists were not to “assume any condition of the world, the existence of any agents, or the occurrence of any events, the reality of which they cannot demonstrate; and all their assumptions and reasonings must be consistent with all the facts, and all the laws of nature, which the question affects.”¹⁶ It did not disturb Adventists that these stipulations also ruled out as unscientific all supernatural explanations of the creation of the world. They happily transferred the entire question of origins from the sphere of science to the realm of faith.¹⁷

In defending their extreme Baconian view of science, many Adventists revealed an anti-intellectual prejudice, not uncommon among Americans with little education. In 1872, the *Review and Herald* reprinted an address by the Presbyterian minister John Hall, in which he warmly thanked scientists for collecting so many useful facts, then denied them an exclusive right to interpret what they had discovered. “When they come to reason upon these facts,” he said,

they use just the same kind of mind that God has given me; and I endeavor to use my mind upon these facts aright, just as truly as they claim to use their minds upon the facts. Hence. . . I claim the right to reason upon them just as truly as they can claim it; and I do not think the less of myself if in many instances I draw conclusions from the facts that have thus become common property that are not the conclusions that they venture to draw!¹⁸

Most Adventists could not have agreed more.¹⁹

Adventist opposition to developmental

theories, both organic and inorganic, focused not on the uncertain status of these ideas but on their apparent conflict with revelation. The Bible clearly stated that God made the world in “six natural days,” and Adventists rebelled at the thought of sacrificing this divine truth “on the altar of geological speculation.” Few spelled out the implications of such a sacrifice more sharply than David Nevins Lord, a New York millenarian and former editor of the *Theological and Literary Journal*. Genesis and geology, he asserted, are mutually contradictory. If the geologists are correct, the Mosaic record is false and God is a liar. And “it is impossible that God should not have spoken the truth.” The decision to accept or reject geology thus took on tremendous theological significance. “If founded on just grounds, [geology] disproves the inspiration, not only to the record in Genesis of the creation, but of the whole of the writings of Moses, and thence, . . . of the whole of the Old and New Testaments, and divests Christianity itself of its title to be received as a divine institution.”²⁰

Compounding the difficulty of harmonizing any developmental view with the Bible were the statements of Ellen White. Writing in *Spiritual Gifts* in 1864, she claimed to have seen in vision the actual creation of the world. Specifically, she saw “that the first week, in which God performed the work of creation in six days and rested on the seventh day, was just like every other week.”²¹ For many Adventists, the rejection of her testimony would have been tantamount to repudiating God’s own word.

Adventists especially feared anything that might weaken their arguments for observing the seventh-day Sabbath as a memorial of creation. And theories of evolutionary development threatened to do just that. According to Ellen White, “the infidel supposition, that the events of the first week required seven vast, indefinite periods for their accomplishment, strikes directly at the foundation of the sabbath of the fourth commandment.”²² Her husband, James, president of the General Conference, likewise warned that any deviation from the traditional view

of creation would undermine the doctrine of the Sabbath along with the rest of the Bible. If the days of creation were assumed to be long, indefinite stretches of time, then

the period of man’s toils and cares before a day of rest, is also immense, covering millions of years. And if the last day of the first week, the day on which Jehovah rested from his work, was another immense indefinite period, the weekly Sabbath of the Old and New Testaments, which was made for man and commanded in the moral law to be kept holy, is also an immense period of time.

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Such ideas, making the Bible seem absurd, obviously could not be tolerated.²³

The only accommodation to an expanded timescale Adventists ever entertained was the possibility of allowing an extended period of time between an initial creation of inorganic matter “in the beginning,” depicted in the first verse of Genesis 1, and a later six-day creation about 6,000 years ago. In the opinion of at least one Adventist, a midwestern minister named J. P. Henderson, this view did “no violence to a single statement in the Bible.”²⁴ Yet, despite its innocuousness, this compromise never gained much popularity among Adventists until the late 1890s, when both the *Review and Herald* and *Signs of the Times* came out in support of an old-earth theory. Still, the prevailing attitude remained that earlier expressed by J. N. Andrews, who insisted that there was “blank nothing” prior to the week of creation: “Even the materials which subsequently formed the worlds had no existence.”²⁵

Their strict adherence to a literal reading of Genesis prevented Adventists from adopting even the most theistic of evolutionary ideas and thus separated them from the mainstream of American thought. Well before 1859, educated Americans had reinterpreted Genesis to make room for the advancement of science. During the 1830s and 1840s, Edward Hitchcock of Amherst College influenced many to embrace a view similar to that advocated by Elder Henderson, with the significant difference that Hitchcock's disciples allowed for the appearance of a succession of plants and animals prior to the Mosaic creation. In the following decades, the educated often found it more reasonable to assume that the six days of Moses represented not 24 hour periods, but long intervals, a compromise advocated by scientific notables like Yale's Benjamin Silliman and James Dwight Dana and Princeton's Arnold Guyot.²⁶ Either of these interpretations permitted the orthodox to adopt a theistic brand of evolution without seeming to depart from the intended revelation.

Adventists also ran counter to prevailing theological currents in America when they insisted upon miraculous special providences as the mode of creation. By the second half of the nineteenth century, the religious leaders of America, including many evangelicals, were placing less emphasis on supernatural interventions in the natural order and more on God's general providence through the secondary laws of nature. Thus, without difficulty, they could explain evolution simply as God's way of creating with natural laws.²⁷ Adventists, however, saw evolution as restricting, if not altogether abolishing, God's role in the work of creation. It "is the last and most plausible attempt of infidelity to vote the throne of the adorable Creator vacant," wrote one author in the *Review and Herald*.²⁸ Another described it as "only an attempt to eject God, and to postpone him, and to put him clear out of reach."²⁹

Because of the allegedly impious tendencies of evolution, Adventists commonly labeled it "atheistic" or "infidel," and its founders and supporters fared not better. The *Review and Herald*, for example, unapologetically published Thomas Carlyle's

description of Darwin as an unintelligent atheist and reprinted a statement that "all the leading scientists who believe in evolution, without one exception the world over, are infidel."³⁰ The fact that theistic evolution had won widespread acceptance in the Christian world — "almost all-pervading in the orthodox and evangelical churches, schools, and colleges" — carried no weight with Adventists. It was merely additional evidence of the apostasy afflicting the nation's leading churches, explained W. H. Littlejohn, president of Battle Creek College.³⁴

Nontheological considerations played a secondary, but significant, role in the Adventist resistance to organic evolution. Human vanity rebelled at the prospect of relinquishing an honored position at the head of created beings only to be herded together "with four-footed beasts and creeping things," over which man had formerly had dominion. Darwinism, complained one unhappy critic, "tears the crown from our heads; it treats us as bastards and not sons, and reveals the degrading fact that man in his best estate — even Mr. Darwin — is but a civilized, dressed up, educated monkey, who has lost his tail."³² For those who believed they had been created in the image of God himself, the demotion was indeed humiliating.

Those who rejected the evolutionary history of life necessarily had to provide an alternative explanation of the fossil record, and here Adventists invariably turned to the Noachian Flood for virtually all solutions to their geological and paleontological problems. Encouragement to do this came from Ellen White, who wrote that if individuals would only recognize "the size of men, animals and trees before the flood, and . . . the great changes which took place in the earth," they would have no trouble accepting the "view that creation week was only seven literal days, and that the world is now only about six thousand years old." She believed that the recent findings of earth scientists were providential, designed by God to "establish the faith of men in inspired history."³³

Following her lead, the editors of the *Review and Herald* widely publicized any new discoveries that might conceivably corroborate the occurrence of the flood.

Adventists adopted a similar approach in defending Mrs. White's explanation of the multiplicity of species: amalgamation. According to her,

Every species of animal which God had created were [sic] preserved in the ark. The confused species which God did not create, which were the result of amalgamation, were destroyed by the flood. Since the flood there has been amalgamation of man and beast, as may be seen in the almost endless varieties of species of animals, and in certain of men.³⁴

This statement in *Spiritual Gifts* (1864) — especially the allusion to human races — understandably raised questions in the minds of some readers. Which races of men did Mrs. White have in mind? And did she mean that some races were partially animal? Critics charged her with teaching that Negroes were not members of the human race. But as Uriah Smith pointed out in *The Visions of Mrs. E. G. White* (1869), a book warmly recommended by James White, such accusations were unfair. The mere possession of some animal blood, Smith argued, did not strip one of humanity, because individuals were human if they had “any of the original Adamic blood in their veins.” On the other hand, no one familiar with “the wild Bushmen of Africa, some tribes of the Hottentots, and perhaps the Digger Indians of our own country, &c.” could reasonably doubt the validity of Mrs. White's view, thought Smith. “Moreover, naturalists affirm that the line of demarkation between the human and animal races is lost in confusion. It is impossible, as they affirm, to tell just where the human ends and the animal begins.”³⁵

Smith also appealed to contemporary science to corroborate Ellen White's statements about the size of man and animals before the flood. Referring to the recent discovery of what had erroneously been identified as huge human bones, he reported that evidence

is now almost daily coming up fresh from the bosom of the earth — evidence from

the discovery of organic remains, sufficient to show beyond a sane doubt, that at some period in the past there existed on this earth a class of gigantic men and animals, in comparison with which the present species are but pigmies.³⁶

Despite their tendency to subordinate science to the Scriptures, Adventists did not hesitate to employ the growing authority of science when it served their purposes.

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Throughout the nineteenth century, Seventh-day Adventists could turn to no scientists of their own, except for a few physicians. Thus, the appearance of the first Adventist “scientist,” George McCready Price, represents a new phase in the history of the denomination's attitudes toward science.

Price was born in eastern Canada in 1870. When his widowed mother joined the Adventist church, he, too, embraced that faith. During the early 1890s, young Price attended Battle Creek College in Michigan for two years and subsequently completed a teacher training course at the provincial normal school in New Brunswick.³⁷

The turn of the century found him serving as principal of a small high school in an isolated part of eastern Canada, where one of his few companions was a local physician. The doctor and the teacher enjoyed discussing scientific matters, and the former almost succeeded in making an evolutionist of his fundamentalist friend. On at least three occasions, Price nearly succumbed to evolution, or at least to what he always considered its basic tenet: the progressive nature of the fossil record. Each time he was saved by prayer — and by reading Mrs. White's book *Patriarchs and Prophets*, which attributed the fossil record to the Noachian Flood.³⁸ As a result of this experience, he decided on a scientific career championing what he called the “new catastrophism,” in contrast to the old catastrophism of the French scientist Cuvier.

By 1906, Price was living in southern California and working as a handyman at the Loma Linda Sanitarium. That year he published a slim volume entitled *Illogical Geolo-*

gy: *The Weakest Point in the Evolution Theory*, in which he confidently offered a \$1,000 reward “to any one who will, in the face of the facts here presented, show me how to prove that one kind of fossil is older than another.” Essentially, he argued that Darwinism rested “logically and historically on the succession of life idea as taught by geology,” and that “if this succession of life is not an actual scientific fact, then Darwinism . . . is a most gigantic hoax.”³⁹ Throughout his life, Price saved his sharpest barbs for uniformitarian geology, since, in his opinion, “the modern theory of evolution is about 95% due to the geology of Lyell and only about 5% to the biology of Darwin.”⁴⁰

Readers of Price’s book responded in widely divergent, but predictable, ways. The head of a theological seminary in Ohio wrote that he had never read anything clearer and more convincing on the subject,⁴¹ while David Starr Jordan, president of Stanford University and an authority on fossil fishes, told Price frankly that he should not expect “any geologist to take [his work] seriously.”

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Jordan conceded that Price had written “a very clever book,” but went on to describe it as “a sort of lawyer’s plea, based on scattering mistakes, omissions and exceptions against general truths that anybody familiar with the facts in a general way cannot possibly dispute. It would be just as easy and just as plausible and just as convincing if one should take the facts of European history and attempt to show that all the various events were simultaneous.”⁴² Jordan’s suggestion

that Price obtain some “direct contact with problems regarding fossils”⁴³ penetrated the weakest spot in the creationist’s armor: his lack of any formal training or field experience in geology. (Price apparently *observed* field work for the first time at age 63.) Price was, however, a voracious reader of geological literature, an armchair scientist who self-consciously minimized the importance of field experience. “It has long been notorious,” he once said, “that field naturalists are often mere children when attempting to handle the larger problems of science.” Darwin was an excellent example.⁴⁴

During the next 15 years, Price taught in several Adventist schools and authored six more books attacking evolution, particularly its geological foundation. Although not unknown in fundamentalist circles before the early 1920s, he did not begin attracting widespread national attention until then. Shortly after the fundamentalist controversy entered its anti-evolution phase, Price published his *New Geology*, the most systematic and comprehensive of his two dozen or so books. In it, he restated his “great law of conformable stratigraphic sequences. . . by all odds the most important law ever formulated with reference to the order in which the strata occur.” According to this law, “Any kind of fossiliferous beds whatever, ‘young’ or ‘old,’ may be found occurring conformably on any other fossiliferous beds, ‘older’ or ‘younger.’”⁴⁵ To Price, so-called “deceptive conformatives” (where strata seem to be missing) and “thrust faults” (where the strata are apparently in the wrong order) proved that there was no natural order to the fossil-bearing rocks, all of which he attributed to the Genesis flood.

Although *The New Geology* pleased many fundamentalists, it scarcely improved Price’s reputation among practicing scientists. Charles Schuchert of Yale, in reviewing Price’s book in the journal *Science*, accused the creationist not only of “harboring a geological nightmare” but of outright dishonesty in appropriating a number of his illustrations from other authors.⁴⁶ (In a heated exchange with the editor of *Science*, Price protested his innocence and threatened to sue for libel, but the affair was never satisfactorily resolved.⁴⁷)

Despite attacks from the scientific establishment, Price's influence among non-Adventist fundamentalists grew rapidly. By the mid-1920s, the editor of *Science* could accurately describe Price as "the principal scientific authority of the Fundamentalists,"⁴⁸ and Price's byline was appearing with increasing frequency in a broad spectrum of religious periodicals: *The Sunday School Times* and *Moody Monthly* each published about a dozen of his articles, and such diverse journals as *Bibliotheca Sacra*, *Catholic World*, *Princeton Theological Review* and *The Bible Champion* eagerly sought his literary services.⁴⁹

Through his numerous articles and books, Price significantly altered the course of fundamentalist thought, slowly but perceptibly steering it in the direction of the traditional Adventist interpretation of Genesis. Prior to the appearance of Price on the fundamentalist scene, many evangelicals had compromised with the teachings of modern science. As late as 1910, for example, the editors of *The Fundamentals*, the series of pamphlets whose publication often marks the beginning of the so-called fundamentalist movement, chose George Frederick Wright, a clergyman-geologist from Oberlin College, to write on evolution and religion. His selection is surprising in retrospect, because Wright was one of the best-known Christian Darwinists in the United States, having long promoted a theistic view of evolution. Although he faithfully defended the Bible's historical accuracy, he saw no conflict between Genesis and geology and no reason to insist on a worldwide flood. It was not until after World War I, when Price emerged as their scientific spokesman, that fundamentalist leaders began insisting on a 6,000-year-old earth and a universal deluge.

On the eve of the Scopes trial in July 1925, in which a high school biology teacher in Dayton, Tenn., was found guilty of violating a state law prohibiting the teaching of evolution in public institutions, the high-priest of fundamentalism, William Jennings Bryan, invited Price to assist the prosecution as an expert witness.⁵⁰ Price was a logical choice, being both an acquaintance of

Bryan's and the best-known scientist in the fundamentalist camp. Unfortunately, Price was teaching at the time in an Adventist college outside London and could not attend the trial. Instead, he wrote Bryan a letter advising him to avoid any *scientific* arguments and to charge the evolutionists with being un-American for compelling a parent to pay taxes "to have his child taught something that he utterly repudiates and considers anti-Christian."⁵¹

At one point during the epic trial, Clarence Darrow asked Bryan if he respected *any* scientist. When Bryan named Price, Darrow scoffed: "You mentioned Price because he is

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the only human being in the world so far as you know that signs his name as a geologist that believes like you do. . . every scientist in this country knows [he] is a mountebank and a pretender and not a geologist at all." Eventually, Darrow browbeat the broken old man into conceding that the world was indeed more than 6,000 years old and that the six days of creation had probably been longer than 24 hours each — departures from strict fundamentalism that Price never forgave.⁵²

While Bryan and Darrow matched wits in Tennessee, Price busily prepared for a showdown in London with Joseph McCabe, a prominent evolutionist and former Jesuit. The debate, held September 6 in Queen's Hall, was by all accounts a fiasco. Shortly after the event, Price complained to a friend in the United States that "during my last 15 minutes I was heckled and interrupted a great deal, and was not permitted to finish as I might have done. At one time, I suppose a thousand people were on their feet at once,

yelling and arguing with me or with their next-seat neighbours. It was a lively time.”⁵³ The *New York Times* reported that “interruptions became so frequent that half the audience seemed to be on their feet arguing among themselves. One young woman. . . shouted so determinedly at [Price] that at last he sat down.” After such harsh treatment, it is perhaps understandable why Price thought the English were “prejudiced” against him and his views.⁵⁴

His experience at the conservative Victoria Institute in London did little to change his mind. Although the Institute awarded him its Langhorne-Orchard Prize in 1925, for an essay on “Revelation and Evolution,” many members resented the North American’s attempt to export the fundamentalist controversy to England, where science and religion were coexisting in relative harmony. One of the Institute’s scientists sharply rebuked Price for attempting “to drive a wedge between Christians and scientists,” as had been done in America. The editor of the Institute’s transactions advised his colleagues that it would be foolish for British Christians to launch a new crusade against evolution simply because Price thought they should. After all, even a literal reading of the first verses of Genesis provided ample opportunity for accommodating long-term geological developments.⁵⁵

Late in 1928, as the fires of fundamentalism burned dim, Price returned to the United States. He continued to preach his “new catastrophism,” but came to realize by the late 1930s that he was fighting for a lost cause. Not only was the public losing interest in his crusade, but even his own students were beginning to defect. The most traumatic defection was that of Harold W. Clark, who had studied with Price in 1920 and then succeeded him as professor of geology at Pacific Union College in northern California. Later, Clark earned a master’s degree in biology from the University of California.

In his early scientific writings, like *Back to Creationism* (1929), Clark followed his mentor closely, but the more he observed, the more he questioned Price’s views. Eventu-

ally, he broke with Price on three major points: glaciation, stratification and tectonics.⁵⁶ Beginning with the summer of 1929, Clark devoted his vacations to studying glaciation in the mountains of the West, and the evidence he saw convinced him that, contrary to Price, there had indeed been extensive glaciation, that ice had once covered large portions of North America.⁵⁷

In the summer of 1938, he visited the oil fields of Oklahoma and northern Texas and received what he later described as a “real shock.” For years, he had unquestioningly accepted Price’s topsy-turvy view of the fossil record, but the order and system he observed in the Southwest convinced him that strata followed a predictable sequence. Other investigations persuaded him that the evidence for overthrusts was “almost incontrovertible.”⁵⁸

By 1940, Clark had substituted a non-Adventist text for Price’s *New Geology* in his course at Pacific Union College and was describing Price’s book as “entirely out of date and inadequate in its handling of its problems.”⁵⁹ When Price learned of this, he exploded, angrily accusing his former student of suffering from “the modern mental disease of univervisty-itis” and of currying the favor of “tobacco-smoking, Sabbath-breaking, God-defying” evolutionary geologists.⁶⁰ Although Clark continued to believe in a literal six-day creation and universal flood, his acceptance of the geologic column was sufficient evidence for Price to conclude that he was satanically inspired.

Clark repeatedly tried to placate Price, but to no avail.⁶¹ In 1941, Price filed formal heresy charges against Clark with the Pacific Union Conference. A specially appointed committee of leading Adventists met in San Francisco to investigate Price’s charges, but the results proved inconclusive.⁶² Nevertheless, Price continued his vitriolic attacks on Clark, which culminated in late 1946 (or early 1947) with the publication of a pamphlet entitled *Theories of Satanic Origin*, unmistakably aimed at PUC’s geologist.⁶³

Price’s conduct in this affair undermined his position as the church’s most respected spokesman on scientific matters and created sympathy for Clark, who was about to offer

the denomination a new flood paradigm.⁶⁴ To explain paleontological evidence in terms of the Biblical record, Clark developed a theory of ecological zones, which held that the various fossil-bearing strata represented the different ecological zones of the antediluvian world. He published this theory in 1946 in a volume called *The New Diluvialism*, the

“Marsh insisted on using the historic Adventist interpretations of the Bible and the writings of Ellen White as the foundation of his scientific investigations.”

first really constructive effort by an Adventist to make sense of the geological record. Until this time, Adventist writers had devoted most of their energy to poking holes in the prevailing scientific theories.⁶⁵

The 1940s marked the eclipse not only of Price’s geological views but his biological ideas as well, particularly those relating to speciation. In *Genes and Genesis* (1940), Clark took issue with the “extreme creationism” of Price, who insisted on the special creation of all known species (as defined by the Swedish naturalist Linnaeus). Although he believed that no new “kinds” had appeared since the creation, Clark agreed with Darwin that natural selection had indeed produced many new “species.”⁶⁶

Four years later, another young Adventist scientist, Frank Lewis Marsh, published a more sophisticated treatment of the species question in *Evolution, Creation, and Science*. Marsh, a former student of Price’s at Emmanuel Missionary College, was apparently the first Adventist to earn a doctoral degree in biology, having received a Ph.D. from the University of Nebraska in 1940.⁶⁷ Like Clark, he rejected the Linnaean theory, advocated by Price, that all species had originated by separate creative acts. Zoologists, he pointed out, had identified thousands of species of dry-land animals, yet Adam had been able to name all the newly created ani-

mals in one day. Thus, it seemed unreasonable to equate the “kinds” of Genesis with the species of the twentieth century. To reduce the confusion, Marsh suggested calling the originally created types *baramins*.⁶⁸

Despite the rise of Clark and Marsh, who themselves disagreed on the limits of speciation and the role of amalgamation, Price continued to influence Adventist science until his death in 1963 at age 93. During the last decades of his life, he worked closely with a small but growing community of Adventists in southern California interested in problems related to creation and evolution. As early as 1936, this group had urged the General Conference to sponsor field work in areas like the Grand Canyon, but the expense of such a program apparently frightened the Takoma Park brethren.⁶⁹ Rebuffed, Price and his friends in Los Angeles area organized the Deluge Geology Society in 1938 to collaborate “in the upbuilding of a positive system of faith-building science.” Between 1941 and 1945, they published *The Bulletin of Deluge Geology and Related Sciences*, mailed to over 200 subscribers.⁷⁰ As described by Price, the society consisted of “a very eminent set of men. . . . In no other part of this round globe could anything like the number of scientifically educated believers in Creation and opponents of evolution be assembled, as here in Southern California.”⁷¹ Among the active members of the group were several physicians, including Cyril Courville and Mollurus Couperus, and Benjamin F. Allen, an amateur geologist and frequent contributor to *Signs of the Times*.

A schism in 1945 between the physicians and Allen resulted in the disbandment of the original group and the creation of the Society for the Study of Natural Science, composed largely of the same membership, except for Allen. Until 1948, this organization published *The Forum for the Correlation of Science and the Bible*, edited by Couperus. During this time, *The Forum* devoted considerable attention to the age of the earth, with Price and Couperus arguing for an earth “probably older than two billion years” and Clark defending the “ultra-literal view. . . that the matter composing the earth was spoken into existence as the first step in the six-day crea-

tion process.”⁷² By 1947, this organization was dying for lack of interest.⁷³

A major breakthrough for Adventist science occurred at the 1947 Autumn Council. The General Conference Committee, concerned that the church still lacked a single Ph.D. in geology or paleontology, voted “that arrangements be made to send two mature, experienced men of proved loyalty, to take special studies in [geology and paleontology] in qualified institutions for advanced study.”⁷⁴ The closest to being a professional paleontologist was Richard Ritland, who had recently received a doctorate from Harvard University in biology, with considerable emphasis on paleontology and comparative vertebrate anatomy.

Within a year, the General Conference had selected its candidates for advanced study: the mature and experienced Frank Lewis Marsh and P. Edgar Hare, a young chemistry teacher from Pacific Union College who wanted to enter the field of geochemistry.⁷⁵ Marsh enrolled at Michigan State University; Hare, at the California Institute of Technology. Together, they represented the Research Division of the General Conference Department of Education, to which a third member, Ritland, was added in 1960.⁷⁶

Before long, the Research Division, renamed the Geoscience Research Institute and moved to Berrien Springs, Mich., split down the middle. Marsh insisted on using the historic Adventist interpretations of the Bible and the writings of Ellen White as the foundation of his scientific investigations. Hare and Ritland, on the other hand, expressed a willingness to reinterpret the Biblical account of creation and writings of Mrs. White if the scientific evidence so indicated, an “open-minded” approach their colleague regarded as “satanic.”⁷⁷ Marsh could not understand, for instance, “why [as he thought] both Hare and Ritland and most of the SDA chemistry and physics teachers in our colleges insist on believing in the radioactive timeclocks even after it is known that they place Creation Week hundreds of millions of years ago. The Bible gives us. . . only a few thousand years since Creation Week.”⁷⁸

When Hare’s research on amino acid ratios in marine shells yielded a much greater age than that traditionally accepted by the church, he candidly advised the General Conference of the potential problem. He also mentioned the impossibility of working harmoniously with Marsh, who believed “the only value of laboratory research is to corroborate the conclusions one reaches by a study of the Scriptures and Spirit of Prophecy.”⁷⁹ The following year, President R. R. Figuhr notified Hare that he was free to remain with the Carnegie Institution in Washington, since the primary purpose of the Berrien Springs institute was to read, write and study — “looking for inconsistencies in the evolutionary writings that appear” — rather than do original research.⁸⁰ When Hare subsequently left the Geoscience Research Institute, his position went to Harold Coffin, a traditionally minded biologist who shifted the balance of opinion in Marsh’s direction.

Through the early 1960s, Marsh, who directed the institute, urged the General Conference to endorse his conservative views. President Figuhr, however, apparently felt “that this discussion [regarding the age of the earth] has gone on during the 40 years that he’d been in the ministry, and he didn’t think that it really amounted to much; it wasn’t something that we should put too much time on.”⁸¹ In 1964, the General Conference retired Marsh, who attributed his fall to “a no-holds-barred process of indoctrination” carried on by his “open-minded” colleagues. A consolation appointment in the Andrews University Biology Department seemed to him little better than “banishment into the farthest corner of Siberia.”⁸²

Marsh’s successor, Ritland, did indeed prove to be more “open-minded” than his predecessor. Unlike Marsh, who allowed his understanding of the Bible and the writings of Ellen White to determine his science, Ritland believed that God had revealed Himself both through nature and the Scriptures. Apparent conflicts between the two revelations might just as easily result from misreading the written work as from misinterpreting the natural record. Using this approach, Ritland

prompted many Adventist scientists and not a few administrators to reevaluate their attitudes toward geology and paleontology and to abandon the notion that the Noachian flood explained virtually the entire geological record.⁸³ In his book *A Search for Meaning in Nature* (1970), he emphasized the positive evidence of design in the world rather than the negative aspects of modern science.⁸⁴

This approach, however, proved too liberal for the administration of Robert H. Pierson, who soon after his election to the presidency in 1966 made his position clear: "In our controversy with proponents of the evolutionary theory," he declared in the *Review and Herald* in 1968, "we must keep in clear perspective — the Bible and the Spirit of Prophecy are not on trial."⁸⁵ It soon became evident that Ritland's days as director were numbered, that Marsh was now more attuned than he to the pulse of the church. In 1971, Ritland, finding it increasingly difficult to function within the constraints imposed by the administration in Takoma Park, resigned his position as director of the Geoscience Research Institute and joined Marsh in what was becoming an Adventist Siberia, the Andrews University Biology Department. The church's brief experiment with "open-mindedness" thus came to an end.

Under its new director, Robert H. Brown,

the Institute quickly swung into line behind the Pierson administration. Those scientists who resisted the revival of the White-Price-Marsh philosophy soon found themselves without a platform or, worse yet, without a job. A serious problem remained, however. Because the church had never adopted a creed, identifying orthodoxy — and heterodoxy — sometimes proved difficult. To remedy the situation, church leaders, working with the Institute's trustees and staff, in 1976 drew up a formal "statement on creation," affirming the denomination's commitment to Ellen White's interpretation of Genesis. The opening paragraph of a widely circulated draft read:

In harmony with the basic position of the Seventh-day Adventist Church regarding the divine inspiration of the Scriptures, we accept the historical accuracy of the book of Genesis (including chapters 1-11) as providing the only authentic account of the divine creation of this earth and the creation of life upon it in six literal days, of the fall of man, of the early history of the human race and that of the Noachian Flood of worldwide dimensions.⁸⁶

Clearly, Adventist leaders as late as the mid-1970s still considered evolutionary biology and geology to be "sciences of satanic origin."

NOTES AND REFERENCES

1. Ronald L. Numbers, *Creation by Natural Law: Laplace's Nebular Hypothesis in American Thought* (Seattle: University of Washington Press, 1977), pp. 105-118. Roughly the first half of the following essay appeared originally in my article, "Science Falsely So-Called. Evolution and Adventists in the Nineteenth Century," *Journal of the American Scientific Affiliation*, 27 (March, 1975), 18-23, and is reprinted with the permission of the editor, Richard H. Bube.

2. Ellen G. White, "Science and Revelation," *The Signs of the Times*, (March 13, 1884), 161; *Spiritual Gifts: Important Facts of Faith, in Connection with the History of Holy Men of Old* (Battle Creek, Mich.: Seventh-day Adventist Publishing Association, 1864), p. 93.

3. "Science and the Bible," *Advent Review and Sabbath Herald*, 14 (Feb. 24, 1859), 107. This statement is attributed to a Dr. Cumming, probably Dr. John Cumming, the Scottish divine known for his studies of Biblical prophecies. Hereafter the *Advent Review and Sabbath Herald*, better known as the *Review and Herald*, will be cited as *R & H*.

4. J. H. Kellogg, *Harmony of Science and the Bible on the Nature of the Soul and the Doctrine of the Resurrection* (Battle Creek, Mich.: Review and Herald Publishing

Association, 1879), pp. 10-11, 28-29. Later Kellogg seems to have become a theistic evolutionist. See Richard W. Schwartz, *John Harvey Kellogg, M.D.* (Nashville: Southern Publishing Association, 1970), p. 190.

5. [John Harvey Kellogg], "Evolution," *Health Reformer*, 9 (May 1874), 159. See also "Darwinism," *Ibid*, 8 (Dec. 1873), 381.

6. A. T. Jones, "The Uncertainty of Geological Science," *R & H*, 60 (Aug. 21, 1883), 530.

7. "Geology and the Bible," *R & H*, 26 (Oct. 17, 1865), 157.

8. [Uriah Smith], "False Theories of Geologists," *R & H*, 59 (Sept. 5, 1882), 568. Smith had attended Phillips Exeter Academy for several years, but financial considerations had prevented him from going on to college.

9. "The Blunders of Geologists," *R & H*, 26 (Oct. 24, 1865), 161-62; Jones, "The Uncertainty of Geological Science," p. 529; [Smith], "False Theories of Geologists," p. 568.

10. [G. W. Amadon], "The Skeptic Met," *R & H*, 16 (Sept. 4, 1860), 121.

11. "Geological Chronology," *R & H*, 35 (Feb. 8,

1870), 51. Reprinted, with an introduction, from an article by Patterson in the *Family Treasury*.

12. "That Old Skull," *R & H*, 36 (Oct. 25, 1870), 146. Reprinted from a work by Tuttle.

13. A. T. Jones, "The Uncertainty of Geological Science," *R & H*, 60 (Aug. 7, 1883), 497-98; (Aug. 14, 1883), 513-14; (Aug. 21, 1883), 529-30. The following year Jones published another series on "'Evolution' and Evolution," *R & H*, 61 (Mar. 11, 1884), 162-63; (Mar. 18, 1884), 178-79; (Mar. 25, 1884), 194-95.

14. Jones, "The Uncertainty of Geological Science," pp. 513, 530.

15. J. O. Corliss, "Geologists vs. the Mosaic Record," *R & H*, 55 (Feb. 19, 1880), 116-17; Ellen G. White, "Science and the Bible in Education," *The Signs of the Times*, 10 (Mar. 20, 1884), 177; Stephen Pierce, "Does the Bible Agree with Science?" *R & H*, 38 (Oct. 3, 1871), 121; and Jones, "'Evolution' and Evolution," p. 195.

16. [D. N. Lord], "The Structure of the Earth," *R & H*, 55 (Feb. 12, 1880), 99. Lord was an evangelical editor known for his writings on science and religion and on the fulfillment of Biblical prophecies.

17. See, for example, R. F. Cottrell, "The Antiquity of Man," *R & H*, 45 (Jan. 21, 1875), 29; and Jones, "The Uncertainty of Geological Science," p. 530.

18. "Turning the Tables," *R & H*, 39 (Apr. 9, 1872), 130. This article was taken from an address by the Rev. John Hall, a Presbyterian minister and writer.

19. See, for example, "Too Knowing for Faith," *R & H*, 60 (Nov. 8, 1877), 148; and Corliss, "Geologists vs. the Mosaic Record," p. 116.

20. [Lord], "The Structure of the Earth," p. 98. Uriah Smith made an equally strong pronouncement in "Giving Way," *R & H*, 60 (Oct. 23, 1883), 664.

21. Ellen G. White, *Spiritual Gifts*, p. 90.

22. *Ibid.*, p. 91. E. J. Waggoner, an Adventist physician and minister repeats Mrs. White's views in *The Literal Week* ("Apples of Gold Library," No. 18; Oakland, Calif.: Pacific Press Publishing Co., 1894), p. 2.

23. [James White], "The First Week of Time," *R & H*, 55 (Feb. 12, 1880), 104-105.

24. J. P. Henderson, "The Bible.—No. 7," *R & H*, 64 (July 5, 1887), 419. In 1860, the editors of the *R & H* reprinted a passage from *The Bible True*, by the Presbyterian minister William Plumer, advocating a similar interpretation; "Geology," *R & H*, 16 (July 3, 1860), 49. Dr. Kellogg, in his early years, also seems to have leaned toward this view; see *Harmony of Science and the Bible*, p. 20.

25. J. N. Andrews, "The Memorial of Creation," *R & H*, 24 (Apr. 7, 1874), 129. See also D. T. Bourdeau, "Geology and the Bible; or, a Pre-Adamic Age of Our World Doubtful," *R & H*, 29 (Feb. 5, 1867), 98; and "The Creation of Light," *R & H*, 34 (Sept. 28, 1869), 112.

26. Numbers, *Creation by Natural Law*, pp. 88-104.

27. *Ibid.*, pp. 77-87.

28. P. R. Russel, "Darwinism Examined," *R & H*, 47 (May 18, 1876), 153.

29. DeWitt Talmage, "Evolution: Anti-Bible, Anti-Science, Anti-Commonsense," *R & H*, 60 (Apr. 24, 1883), 261. Talmage was an immensely popular and controversial minister in the Presbyterian church.

30. "Carlyle on Darwin," *R & H*, 51 (Jan. 17, 1878), 19; Talmage, "Evolution," p. 261.

31. W. H. Littlejohn, "The Temple in Heaven," *R & H*, 62 (Feb. 24, 1885), 116. Uriah Smith explained the "defection of leading Christians . . . to the ranks of the evolutionists" as being the result of Satanic influence; "Giving Way," p. 664. On the widespread teaching of evolution in American colleges, see "Do Our Colleges Teach Evolution?" *Independent*, 31 (Dec. 18, 1879), 14-15.

32. Russel, "Darwinism Examined," p. 153. See also Adolphus Smith, "Science, Falsely So Called," *R & H*, 42 (July 8, 1873), 31.

33. Ellen G. White, *Spiritual Gifts*, pp. 92-95. See also Waggoner, *The Literal Week*, p. 3.

34. Ellen G. White, *Spiritual Gifts*, p. 75.

35. [Uriah Smith], *The Visions of Mrs. E. G. White: A Manifestation of Spiritual Gifts According to the Scriptures* (Battle Creek: SDA Publishing Association, 1868), pp. 102-104. Regarding this work, James White wrote: "I felt very grateful to God that our people could have this able defense of those views which they so much love and prize, and which others despise and oppose. This book is designed for a very wide circulation." James White, "New and Important Work," *R & H*, 32 (Aug. 25, 1868), 160.

36. [Smith], *The Visions of Mrs. E. G. White*, pp. 74-75. See also D. T. Bourdeau, "Geology and the Bible; or, a Pre-Adamic Age of Our World Doubtful," *R & H*, 29 (Feb. 5, 1867), 98-99.

37. For Price's biographical information, see Harold W. Clark, *Crusader for Creation: The Life and Writings of George McCready Price* (Mountain View, Calif.: Pacific Press, 1966).

38. G. M. Price to H. W. Clark, June 15, 1941 (Price Papers, Heritage Room, Andrews University Library). See also George McCready Price, "Some Early Experiences with Evolutionary Geology," *Bulletin of Deluge Geology*, 1 (Nov., 1941), 77-92.

39. George McCready Price, *Illogical Geology: The Weakest Point in the Evolution Theory* (Los Angeles: Modern Heretic Co., 1906), p. 9.

40. G. M. Price to Martin Gardner, May 13, 1952 (courtesy of Martin Gardner).

41. William G. Moorehead to G. M. Price, Nov. 6, 1906 (Price Papers).

42. David Starr Jordan to G. M. Price, Aug. 28, 1906 (Price Papers).

43. David Starr Jordan to G. M. Price, May 5, 1911 (Price Papers).

44. G. M. Price to Harold W. Clark, Nov. 20, 1941 (Price Papers).

45. George McCready Price, *The New Geology* (Mountain View, Calif.: Pacific Press, 1923), pp. 637-638.

46. Charles Schuchert, Review of *The New Geology*, by George McCready Price, *Science*, 59 (May 30, 1924), 486-487.

47. George McCready Price, Letter to the Editor, *ibid.*, 63 (Mar. 5, 1926), 259; G. M. Price to J. McKeen Cattell, Mar. 22, 1926 (Price Papers).

48. *Science*, 63 (March 5, 1926), 259. On Price's reputation, see also Martin Gardner, *Fads and Fallacies in the Name of Science* (New York: Dover Publications, 1957), p. 127.

49. G. M. Price to Molleurus Couperus, Nov. 1946 (courtesy of Molleurus Couperus).

50. William Jennings Bryan to G. M. Price, June 7, 1925 (Bryan Papers, Box 47, Library of Congress).

51. G. M. Price to William Jennings Bryan, July 1, 1925 (Bryan Papers, Box 47).

52. L. Sprague de Camp, *The Greatest Monkey Trial* (Garden City, N.Y.: Doubleday, 1968), pp. 401-402. For Price's view of Bryan's performance, see George McCready Price, "What Christians Believe About Creation," *Bulletin of Deluge Geology*, 2 (Oct. 1942), 76-77.

53. G. M. Price to E. S. Ballenger, Sept. 28, 1925 (author's personal collection). Regarding the debate, see *Is Evolution True? Verbatim Report of Debate Between George McCready Price, M.A., and Joseph McCabe* (London: Watts, 1925).

54. "Shout Down American in Evolution Debate," *New York Times*, Sept. 7, 1925, p. 5; "Says Millions Here Oppose Darwinism," *ibid.*, Sept. 8, 1925, p. 9. Two of Price's disciples, Francis D. Nichol and Alonzo L. Baker, had recently debated the evolutionist Maynard Shipley in San Francisco; see Alonzo L. Baker, "The San Francisco Evolution Debates, June 13-14, 1925," *Adventist Heritage*, 2 (Winter 1975), 23-31.

55. Discussion of George McCready Price, "Revelation and Evolution: Can They Be Harmonized?" *Journal of the Transactions of the Victoria Institute*, 47 (1925), 183, 187. See also George McCready Price, "Geology and Its Relation to Scripture Revelation," *ibid.*, 46 (1924), 97-123.

56. Harold W. Clark, "What Is 'Flood Geology'?" *Naturalist*, 26 (Summer, 1966), 10-11; personal interview with Harold W. Clark, May 11, 1973.

57. Harold W. Clark to Richard M. Ritland, June 2, 1963 (courtesy of Richard M. Ritland).

58. *Ibid.*; interview May 11, 1973.

59. Harold W. Clark to G. M. Price, [Apr. 9, 1940] (Price Papers).

60. G. M. Price to Harold W. Clark, Apr. 21 and June 9, 1940 (Price Papers).

61. Harold W. Clark to G. M. Price, Apr. 23, April 30, and Aug. 14, 1940 (Price Papers).

62. Harold W. Clark to G. M. Price, Oct. 20, 1944 (Price Papers); Glenn Calkins to the Members of the Committee Appointed to Listen to Professor George McCready Price and to Professor H. W. Clark, April 6, 1941 (Publishing Department Papers, General Conference of Seventh-day Adventists). Price insisted that he had not filed a charge of heresy, but "a charge of slander, of legal libel" (G. M. Price to Harold W. Clark, Oct. 23, 1944 [Price Papers]).

63. Although Price did not mention Clark by name, he did refer to Clark's publications (George McCready Price, *Theories of Satanic Origin* [Loma Linda, Calif.: Published by the author, n.d.]). A letter that accompanied copies of the pamphlet further identified the target as a professor "from our college at Angwin" (George McCready Price to Fellow Workers, n.d. [courtesy of Molleurus Couperus]).

64. L. E. Froom to G. M. Price, July 12, 1942 (Price Papers).

65. Harold W. Clark, *The New Diluvialism* (Angwin, Calif.: Science Publications, 1946). In 1944, Clark wrote: "Unfortunately, most of our attention up to this time has been directed toward the negative aspects of the problem. We have been intent on finding the flaws in the evolution theory, but have neglected to build up a positive creationism which would give one a definite concept of the creation

doctrine in relation to the data of the various sciences." Harold W. Clark, "The Positive Aspects of Creationism," *Ministry* (May 1944), p. 5.

66. Harold W. Clark, *Genes and Genesis* (Mountain View, Calif.: Pacific Press, 1940).

67. For biographical information, see Frank Lewis Marsh, "Life Summary of a Creationist," unpublished MS, Dec. 1, 1968 (courtesy of F. L. Marsh).

68. Frank Lewis Marsh, *Evolution, Creation and Science* (Washington: Review and Herald Publishing Association, 1944). On the differences between Marsh and Price, see Frank L. Marsh to G. M. Price, Sept. 5, 1943 (Price Papers). Despite their disagreements, Price praised Marsh's book (G. M. Price to Harold W. Clark, Oct. 23, 1944 [Price Papers]).

69. Clark, *Crusader for Creation*, p. 58.

70. "Bulletin Mailing List, etc.—1944, 1945, 1946" (Courtesy of Molleurus Couperus). *The Bulletin of Deluge Geology and Related Sciences* appeared in five volumes between June 1941, and December 1945. In 1946, it was superseded by *The Forum for the Correlation of Science and the Bible*, which continued until 1948 under the editorship of Molleurus Couperus.

71. G. M. Price to H. W. Clark, Oct. 23, 1944 (Price Papers).

72. George McCready Price, "In the Beginning," *The Forum*, 1 (1946-1947), 9; Molleurus Couperus, "Some Remarks Regarding the Radioactive Time Estimation of the Age of the Earth," *ibid.*, 2 (1947-1948), 119; Harold W. Clark, "In Defense of the Ultra-Literal View of the Creation of the Earth," *ibid.*, 1 (1946-1947), 11.

73. Molleurus Couperus to H. W. Clark, May 8, 1947 (courtesy of Molleurus Couperus).

74. Minutes of the Autumn Council, Oct. 25, 1957, 226th Meeting, General Conference Committee, Vol. 19, Book 5, p. 1004 (Archives, General Conference of Seventh-day Adventists).

75. Minutes of the 259th Meeting of the General Conference Committee, Apr. 24, 1958, *ibid.*, p. 1156.

76. Minutes of the 108th Meeting of the General Conference Committee, Jan. 21, 1960, Vol. 20, Book 3, p. 511.

77. Marsh, "Life Summary of a Creationist," p. 5a.

78. Frank L. Marsh to G. M. Price, March 14, 1962 (Price Papers).

79. P. Edgar Hare to Richard Hammill, Feb. 7, 1963 (courtesy of P. Edgar Hare).

80. R. R. Figuhr to P. Edgar Hare, Feb. 5, 1964 (courtesy of P. Edgar Hare).

81. Personal interview with Frank Lewis Marsh, Aug. 30, 1972.

82. Marsh, "Life Summary of a Creationist," pp. 5b-5c.

83. Personal interview with Richard M. Ritland, May 7, 1973. For evidence of Ritland's influence, see G. M. Price to F. L. Marsh, Jan. 10, 1960 (courtesy of F. L. Marsh), and H. W. Clark to F. L. Marsh and Others, Nov. 19, 1960 (courtesy of R. M. Ritland).

84. Richard M. Ritland, *A Search for Meaning in Nature: A New Look at Creation and Evolution* (Mountain View, Calif.: Pacific Press, 1970).

85. *R & H*, Oct. 10, 1968, p. 23, quoted in Marsh, "Life Summary of a Creationist," p. 5c.

86. "Tentative Creation Statement," *SPECTRUM*, 8 (Jan. 1977), 58.