

Science and Religion

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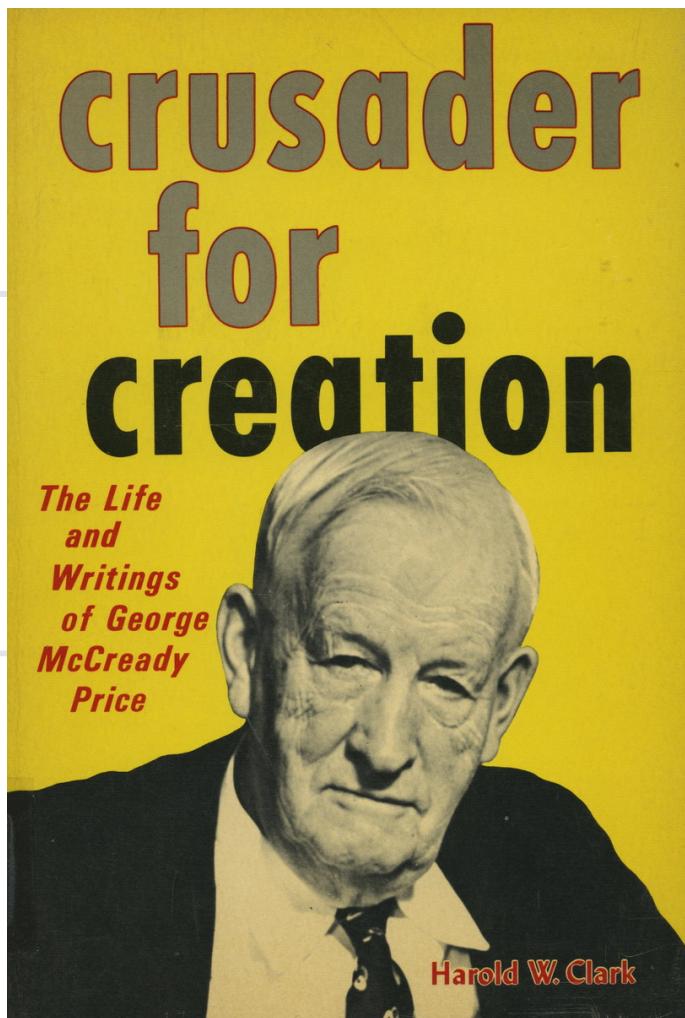
Seventh-day Adventists accept the value of science and seek to understand science, and also accept and seek to understand Scripture. Since its beginning, the church has a history of searching for the appropriate interaction between these two sources.

Introduction

Since its early history, the Seventh-day Adventist Church has had a strong interest in the relation between biblical faith and science. This article will start with a review of that history by considering

Seventh-day Adventist attitudes towards science in general and its relationship to faith. Then the article will focus on various representative examples for Seventh-day Adventist involvement in human health, care for the environment, and the aspect of faith and science that has caused many conflicts among Christians—origins, i.e. explanations for the history of the universe and life on earth.¹

Science may be defined as the human search for understanding nature. Faith involves search for understanding God's revelation and confidence in God-given insights into God's character and His relation to both humans and the world we live in. This article focuses on what Seventh-day Adventists have viewed as the most constructive relationship between faith and science. They have maintained a positive view of science and its practical concepts and inventions, and a belief that faith and science, properly understood, are in harmony.²



G. M. Price.

Photo courtesy of the General Conference of Seventh-day Adventists Archives.

Seventh-day Adventists: Education and Health Care

The Seventh-day Adventist belief in the harmony of faith and science may be seen in their emphasis on Seventh-day Adventist education at all levels. This includes the serious study of science in many Adventist schools. Among the many subjects included in these schools, the link between faith and science has been applied specifically to the understanding of the human condition and health care. Since humans were created as a unified physical, mental, and spiritual organism, it requires Christians to care for their physical, emotional, and mental health as well as their spiritual focus. Care for one's individual health broadens into a concern for public health and bioethics.³

A specific example is the network of universities and medical institutions operated by the Seventh-day Adventist Church. Since God created humans in His image and asks them to care for their bodies and minds, health care has been considered a priority by them since the mid-nineteenth century. Around the world there are many Seventh-day Adventist hospitals, and in recent years Seventh-day Adventist medical schools have been opened in a number of countries on different continents.

The leader among those medical schools has been Loma Linda University School of Medicine at Loma Linda, California, with Loma Linda University Medical Center, a world-class medical center, which has introduced new medical procedures and instruments. For example, Leonard Bailey, M.D., pioneered infant heart transplantation. His most famous procedure was transplanting a baboon heart into human Baby Fae in 1984,⁴ since human baby heart donors were not available. The Baby Fae incident resulted in huge international publicity that led directly to the establishment of an international information network to bring together potential infant heart donors and infants needing a heart. The result has been thousands of infant lives saved, at Loma Linda University Medical Center and at other hospitals. Another example is the vision of physicist/physician James Slater, M.D. at Loma Linda University Medical Center that led to the design and installation in 1990 of the first hospital-based proton accelerator for use in treating cancer.⁵ The center has treated more than 17,500 patients, more than any other proton treatment center in the world. Those are just two examples of the Seventh-day Adventist contribution to medical science.

The prestige of science brings a high degree of influence in the modern world, and Seventh-day Adventist cofounder and prophetic voice Ellen G. White (1827–1915) encouraged her fellow Adventists to realize the importance of that influence. She stated, "A knowledge of science of all kinds is power, and it is in the purpose of God that advanced science shall be taught in our schools as a preparation for the work that is to precede the closing scenes of earth's history."⁶

The power referred to here is the power of influence. As long as the Bible is the guide in one's use of science, one can safely foster this influence rather than fear it. Many Seventh-day Adventist scientists have had successful careers in various fields of science, in academic institutions, or in industrial organizations.

Seventh-day Adventists and Care for the Environment

At creation, the Creator asked humans to care for their environment. Humans in general, including Christians, have largely neglected to render support for earth's environment. The earth is their home, and their lives and health are dependent on the maintaining of a healthy environment on earth. This includes controlling pollution as well as caring and protecting the animal life around us because our very lives require a balanced and stable ecology for us and our animal neighbors. There is also an ethical component: biblical values require Christians to be kind to both people and animals. Animals have emotions, and they suffer if treated with cruelty or they prosper if treated kindly. Professors at some Seventh-day Adventist colleges and universities are active in promoting care for the environment. At Loma Linda University, two of the most active biologists in this field are Steven Dunbar, Ph.D., and William Hayes, Ph.D. Dunbar edited the book *Entrusted*, a work on environmental care.⁷ The book includes three statements on care for the environment voted by the General Conference of Seventh-day Adventists.

Seventh-day Adventists and Origins

The Seventh-day Adventist Church has always encouraged a positive interaction between the science of origins and divinely given insights. Seventh-day Adventists believe that God created humans and the natural world they live in. God knows the history of the creation and what has happened since then, and the Seventh-day Adventist Church, as an organization, takes seriously the history recorded in the Bible, as do most of its church members. That concept has been their guide while the scientific understanding of origins has gone through turbulent years since the beginnings of the Seventh-day Adventist Church.

Throughout its history, the Seventh-day Adventist Church has held to the belief that life was created in a literal seven-day creation week a few thousand years ago, followed later by the global flood described in Genesis 6-9. The historical summary of how Seventh-day Adventists have dealt with questions about origins will be preceded with a brief survey of the philosophical changes in recent centuries, to provide a broader context for this subject.

Since the beginning of the Enlightenment era, philosophers have drifted away from confidence in ancient sources of authority, especially the authority of the Bible.⁸ Many of the early, great scientists were Christians who saw their work as following God's thoughts after Him.⁹ That began to change, however, and in the 1800s naturalistic thinking was in the air, and ideas about evolution were appearing even before Charles Darwin (1809-1882) entered the scene.¹⁰ In the fall of 1844 Darwin wrote an abstract of his theory of evolution, yet he did not publish the theory until 1859, when his book *The Origin of Species* was published.¹¹ In October 1844 another book was published, *Vestiges of the Natural History of Creation*, which is recognized as one of the most important influences preparing readers for the acceptance of Darwin's theory.¹² Meanwhile, Charles Lyell's (1797-1875)

books had launched geology as an organized science,¹³ based on his chosen, culturally derived philosophy of long ages of slow, gradual geological history.¹⁴ These developments transpired during the very time when the Millerite movement experienced its great disappointment of October 22, 1844 and when the Seventh-day Adventist Church emerged. Therefore, as the Bible was preparing Christians for the approaching second coming of Christ, science was entering a time of more serious rejection of biblical concepts of creation.

Design in Nature

What does nature teach about God? The answer to that question depends largely on a person's assumptions. The Intelligent Design movement has taken a very technical approach.¹⁵ The nature of living organisms, the biochemistry of life, is scientifically unexplainable unless there is an intelligent designer behind it. However, persons who begin with the assumption that there has not been any divine influence in nature will argue that they simply have not found the originating cause yet. The Intelligent Design movement takes the position that it is sufficiently clear that without intelligent design, life could never have come into existence. That movement does not deal with the question of who the designer is. In fact, what is visible in nature cannot explain who God is. This is where the book of nature and the book of revelation part company. Nature can show the necessary existence of an absolutely awesome designer, but to know anything helpful about that designer, one needs the revelation of His character and love that is found in the Bible. Intelligent Design is one aspect of the creation/evolution discussion. The following sections address broader perspectives on origins.

Response by Seventh-day Adventists and other Christians to Charles Darwin and Charles Lyell

Along with many other Christians, a number of Seventh-day Adventist scientists played an influential role in the study of the relationship of faith and science as related to the subject of origins. The denomination has provided direct financial support for study of this relationship since the mid-1900s. During the late 1800s many Christians, with some prominent exceptions, did not seem to know what to do with scientists' developing views of long geological ages instead of the biblical global flood a short time ago. There were not many significant Bible-based responses among most Christians.¹⁶ The Seventh-day Adventist confidence in the Genesis account, encouraged by the work of Ellen White, kept them much closer to the understanding of a literal one-week creation followed by a global flood, a few thousand years ago.

White's initial published statement supporting the belief in a literal six-day creation and seventh-day Sabbath, followed later by a global flood that devastated the earth, was published in 1864,¹⁷ just five years after the publication of Darwin's book. She also maintained that the Bible gives a short time span since the creation, and only through Bible history can we correctly understand the history of life on earth. The concepts in her 1864-statement were republished in a variety of books and articles over the next sixty years. That acceptance of the

Bible as the correct source of earth's history was generally followed by other Seventh-day Adventist authors.¹⁸ A book chapter by Alberto Timm on the history of Adventist protology is a helpful introduction to the history of Seventh-day Adventist thought on this topic.¹⁹

Already early on, the Seventh-day Adventist understanding of creation history departed from the views of some other conservative Christian groups in one respect—the age of the universe.²⁰ The Adventist understanding of the great controversy story was an important factor in this thinking that the universe existed long before the creation event on earth as described in Genesis. Other worlds existed, along with the angels, and Lucifer's rebellion predated the creation of life on earth.

Pioneering Biblical Geology – George McCready Price

Early in the twentieth century a Seventh-day Adventist school teacher named George McCready Price (1870-1963) was the first to begin a serious attempt at reinterpreting the field of geology, based on insights about earth history given in the book of Genesis and in the writings of Ellen White.²¹ Price's work was the primary influence presenting Christians with an alternative to the belief, common even among Christians, that the geological record with its fossils accumulated over long ages. His concept, flood geology, is the belief that the biblical flood was a real, geologically significant episode, producing much of the geological record in a rapid, catastrophic event. Price had no training or field experience in geology, but even today the professional community of geologists recognizes, with sarcasm, Price and White as the leaders in developing the concept of flood geology. In the last decade I was present at two annual meetings of the Geological Society of America with a session on the history of creationism, which credited Price and White as the originators of modern flood geology.

Price rejected several core ideas about geological theory. Price can be rightly appreciated for launching this new, biblical understanding of geology, but as can be expected in such a pioneering effort, it is now clear that he did not get everything right. He proposed that the order of vertebrate fossils, which appears like an evolutionary sequence, was not really true, but was invented by evolutionists to support their theory. It is true that the sequence of fossils in the rocks does not always conform to the expected evolutionary sequence, and everyone agreed on that. In some locations they are in a very different order in the rocks. The point of contention was the explanation for this lack of harmony between theory and fossil evidence. Accepted geological explanation was that some very large masses of older rock, with their fossils, had been pushed, or overthrust over younger rocks, making the fossils appear to be out of order. Price rejected that concept of overthrusts and insisted that the fossils never were in the "proper" sequence. Price also did not believe there was an ice age.

Price's writing was the primary influence on protestant creationists John Whitcomb, Th.D., and Henry Morris, Ph.D., authors of the important book *The Genesis Flood*.²² That book was widely influential among Evangelical

Christians, the primary factor spreading belief in Price's flood geology as the best foundation for understanding the relation of the Bible and geology.²³

Other Seventh-day Adventist Scientists as Leaders in Study of Origins

Other scientists, including some Seventh-day Adventist scientists, took up the task of developing and improving a biblical view of the science of origins. Biologist Frank Marsh, Ph.D., a faculty member at Union College in the 1940s and 1950s wrote several books that have been influential among creationists inside and outside of the Seventh-day Adventist Church.²⁴ During the same era Harold Clark, Ph.D., a student of Price, came to the teaching position at Pacific Union College formerly held by Price. He initially taught what he had learned from Price, but he spent time in field study of the geological evidence. Clark maintained Price's commitment to Genesis as a reliable description of creation and the flood, but he recognized that some corrections were needed in Price's interpretation of the geological evidence. Clark proposed his ecological zonation theory, explaining that the sequence of vertebrate fossils was not the result of evolution, but the animals were buried during the flood in their normal ecological sequence. Those living at low altitudes, or in the oceans, before the flood were killed and buried first, and those living at higher elevations, including birds and mammals, survived longer and were buried higher in the geological record. This encouraged acceptance of such ideas as overthrusts and a predictable order for the fossils, while still maintaining belief in the Genesis account of creation and the flood. Clark's theory does not answer all questions about the fossil record, but it was an insightful contribution. Clark recognized that the awesome earth movements in a global flood provide a realistic explanation for large masses of rock being pushed and "overthrust" over other rock bodies. He also recognized that there was an ice age. He proposed that it did not occupy long ages, but was a fairly brief event.²⁵

In the decades that followed, Seventh-day Adventist scientists continued Clark's and Marsh's example of careful study of geological and biological evidence, combined with recognition of the reliability of Scripture. Most Seventh-day Adventist scientists have recognized that it is of critical importance to keep these two concepts together: careful, in-depth scientific research, and equally careful Bible study, while maintaining the Bible as our standard for determining basic truths about the history of life and the earth. They recognize that they still do not understand everything, but careful study and confidence in Scripture will keep them going in the right direction.

²⁶ A literal one-week creation has continued to be an essential part of the foundation for Seventh-day Adventist belief in the God of creation: the God who created us and thus has the right to redeem us and to ask for our worship.

Seventh-day Adventist Institutions and Their Role in Origins

Towards the middle of the twentieth century, belief in evolution was growing in its influence in the American educational process. Various Christians took up the task of responding to this challenge, as individuals and as

organizations. These efforts, in general, were private efforts, not sponsored by specific denominations. The Seventh-day Adventist Church took a more direct approach, with church money and organizational support to develop an appropriate response to the scientific challenges. A part of the Seventh-day Adventist response, in the 1950s, was to open the Geoscience Research Institute at Andrews University, with Frank Marsh as its first director. The Geoscience Research Institute consists of several scientists who lead the church's study and education efforts in relation to origins. They spend much of their time giving lectures and organizing conferences, but also conducting original scientific research. Other directors of the Geoscience Research Institute have included Richard Ritland, Ph.D., Robert Brown, Ph.D., Ivan Holmes, Ph.D., Ariel Roth, Ph.D., and James Gibson, Ph.D. Since its beginning the Geoscience Research Institute has been a global influence among Seventh-day Adventist institutions, especially in the topic of origins.

In 1961 a group of basic science faculty in the Loma Linda University School of Medicine proposed the launching of a new department, a non-medical department of biology, offering masters and doctoral degrees. This plan was the brainchild of physiologist Elwood McCluskey, Ph.D., and was quickly approved by the basic sciences faculty and the university administration. The new department accepted its first graduate students in the fall of 1962. The first full-time chair of this department was Ariel Roth, followed by Leonard Brand, Ph.D. Three others served as chair for short sessions. The current chair is Suzanne Phillips, Ph.D. Two goals for this department were to prepare biology faculty for Seventh-day Adventist colleges who were educated in a creationist environment, and also to study and improve our understanding of faith and science concepts. About 1979 this biology department added geologists to its faculty and in time offered doctorates in both biology and geology. By 2018 the department, now known as the Department of Earth and Biological Sciences had 91 alumni who are or have been faculty in Seventh-day Adventist and other Christian educational institutions, and many alumni in other employment, inside and outside of the church. The Loma Linda University educational experience in origins was strengthened in about 1980 when the Geoscience Research Institute moved from Andrews University to Loma Linda. This encouraged more synergistic and mutually supportive interactions between the two organizations, and several Geoscience Research Institute staff teach classes in the Department of Earth and Biological Sciences.

Members of the Geoscience Research Institute staff have published books or edited collections of articles by various authors.²⁷ There are some Adventists who, in common with some other Christians, do not think that dinosaurs ever existed. Geologist Elaine Kennedy, Ph.D., who was in the Geoscience Research Institute, has written an excellent book for young people, giving reasons to believe in the existence of dinosaurs, a concept that is compatible with the Bible.²⁸

Among Christians, Loma Linda University, with its Department of Earth and Biological Sciences, is recognized as the only university where students can earn doctoral degrees in biology or geology and study with faculty who maintain a high view of Scripture, believing the biblical account of a factual, literal creation and flood. The

Seventh-day Adventist Church is the primary denomination that has put real money into its belief in creation, with the Geoscience Research Institute and the Loma Linda University Department of Earth and Biological Sciences, both of which are still active today. The Geoscience Research Institute leads the denomination's worldwide planning and educational work in origins, and supports the Department of Earth and Biological Sciences as it prepares scientists and teachers for service in their respective fields. The Geoscience Research Institute and Department of Earth and Biological Sciences are respected by other Bible-believing Christians. One such scholar told me that he always respected Geoscience Research Institute and Department of Earth and Biological Sciences because he knows we will not "tell lies for Jesus."

Research in Origins by Seventh-day Adventist Scientists

Since the late 1960s a group of geologists and biologists from Geoscience Research Institute and Department of Earth and Biological Sciences have been involved in scientific research that seeks better understanding of selected types of geological and paleontological evidence that were difficult to explain in ways compatible with Genesis. This work has uniformly found that such use of biblical insights and questions produces research findings that fit better with the Genesis account, and are more scientifically coherent than previous theories. Increasing numbers of Creationist scientists, in other denominations, are also active in this type of research.

The first and perhaps the best-known example of this research was the study of the Yellowstone fossil forests, begun by Geoscience Research Institute staff members. The Yellowstone experience is also an example of conflicts within the church over the relation between science and the Bible. There have been individuals in the church who tried to direct Geoscience Research Institute staff members away from the Seventh-day Adventist commitment to a literal biblical view of creation and earth history. In the late 1960s Richard Ritland, who at the time was Director of the Geoscience Research Institute, began studying these "forests" of fossil tree stumps and logs on the mountainsides of northern Yellowstone National Park. These assemblages of fossil trees looked like they grew on the series of horizontal volcanic layers that form the mountains in that area, and Ritland and others argued that these were ancient forests that grew there and were fossilized in the position where they grew.²⁹ There were many layers of them, one above the other. The standard explanation was that a forest grew, then was killed and buried by a volcanic eruption. Then another forest grew on top of its remains and was in its turn killed and buried by another eruption. There were at least sixty of these (probably many more), and many layers had large trees, so the total time for all of this, according to Ritland and others, was much too long to fit into a biblical time scale. In the 1970s this was being argued as a primary evidence that geological history was much too long for an earth history of a few thousand years, and so people thought the Bible was wrong about creation and the flood a short time ago. Ritland's persuasive ability led some individuals to give up their confidence in Scripture because of this evidence. Harold Coffin, also in the Geoscience Research Institute, could see that the accepted explanation for these fossil forests was not compatible with the scriptural account of history, and he was convinced there must also be a better geological explanation. Coffin, Clyde Webster, Ph.D.,

who was another Geoscience Research Institute scientist, and a group of Department of Earth and Biological Sciences faculty and graduate students began a careful study of those fossil forests. Their research was more extensive, and was high quality research, published in several papers in the professional geology research journals. They found that the evidence was not consistent with forests growing where they were fossilized. It can be argued that the many trees evidently grew somewhere else and were transported by water into the area where they were deposited and covered by a series of volcanic eruptions.³⁰ This successful challenge to conventional interpretations of geological formations and fossils was followed by a number of such research projects.³¹ In each case the researchers allowed biblical insights to suggest new questions and new ideas, and to motivate research that found better explanations, more consistent with the evidence and with a biblical understanding of earth history.

Through time, other institutions besides Geoscience Research Institute and Department of Earth and Biological Sciences have become involved in this type of work. A Christian family of cattle ranchers in Wyoming have a very large concentration of dinosaur bones on their ranch. They wanted this dinosaur bonanza to be studied by creationist scientists, and beginning in 1997 Arthur Chadwick, Ph.D. from Southwestern Adventist University became the director of this long-term research project, along with a number of Seventh-day Adventist and other collaborators. They pioneered precise quarry methods far advanced from what was being done in any other fossil quarry.³² So far at least twenty-six thousand fossils have been collected and catalogued in the museum at Southwestern Adventist University in Keene, Texas. Personnel from other institutions have become involved in this work, including Southern Adventist University and Loma Linda University. The work on this seemingly inexhaustible dinosaur deposit is far from finished. The annual DinoDig project provides educational experiences for numerous students and other volunteers.

Several other creationist Christian schools have also begun offering academic degrees in earth science fields, including Liberty University, Cedarville University, and the Masters University. It is rewarding to see the increasing numbers of Bible-believing students and faculty who attend scientific meetings like the Geological Society of America and others.

Sharing Insights in the Topic of Origins

The Seventh-day Adventist Church has also put its resources into the area of faith and science in other ways through the years. Beginning in 1971 an annual weekend gathering was launched, called Biblical Research Institute Science Council (BRISCO). These annual sessions were organized by the Director of Geoscience Research Institute and met almost every year until 2001. They were long weekend gatherings of leading Seventh-day Adventist scientists and theologians, some church administrators, and occasional scholars from other Protestant denominations. They met at locations that could involve instructive geological field trips, along with presentations of many talks on faith and science topics, followed by constructive dialogue. The purpose

was to encourage the development of our understanding in issues of faith, geology, and biology as they relate to a biblical view of origins.

Examples of the locations of these sessions were Yellowstone National Park, Mount St. Helens, the fossil reef at Carlsbad, New Mexico, fossil trees at the Bay of Fundy in Nova Scotia, the volcanic fields of Hawaii, the Bridger and Green River Formations in Wyoming with their fossil fish and turtles, and many others. These sessions, with their in-depth discussions of many topics were crucial in the growth of the church's understanding of the subject of faith and science during three decades. They were a central part in the education of many Seventh-day Adventist scientists, preparing the way for advanced geological research, and informing many college teachers on these topics.

In 1974 the Geoscience Research Institute began publishing a periodical called *Origins*, that continued publication into the first decade of the twenty-first century. This journal was a strong influence among the Seventh-day Adventist educational community, and was respected by many Christians outside of the Seventh-day Adventist denomination. In addition, one prominent secular university geology professor told Ariel Roth that *Origins* was the most scientific of all the creationist publications. *Origins* is one example of the leadership of Geoscience Research Institute in encouraging continuing commitment to a truly biblical view of creation, a short time for life on earth, and a catastrophic global flood. Geoscience Research Institute stays in touch with educators and pastors in all world divisions of the Seventh-day Adventist Church, and maintains a website (<https://www.grisda.org/>) with a large amount of information on origins that is available to anyone.

In the early 2000s denominational leadership organized a series of three influential Faith and Science Conferences, under the leadership of a specially chosen committee. Two of these, in 2002 and 2004 were International Faith and Science Conferences. In 2003 each Seventh-day Adventist world division held its own conference. These were the largest such conferences on origins the General Conference of Seventh-day Adventists has sponsored. These conferences produced many papers, some of which were published. The invited members at these conferences included some who did not accept the Seventh-day Adventist denominational understanding of origins. Consequently, the invitees left with a better understanding of intra-denominational controversies and the theological issues involved. At the end a statement of affirmation of Seventh-day Adventist beliefs on origins was produced and endorsed by the General Conference Executive Committee.

In 2010 the General Conference of Seventh-day Adventists appointed another group to take the lead in yearly discussions and planning regarding faith and science. This group is called the Faith and Science Council, consisting of theologians, scientists, and church leaders. The membership includes the Geoscience Research Institute staff and some science faculty from several Seventh-day Adventist universities and the members of the Biblical Research Institute. The Faith and Science Council meets twice each year to plan the denomination's approach to advancing its understanding of origins and communicating this to a wide audience. This council

plans and acts. It plans and publishes books and other publications, supports original research relevant to the Seventh-day Adventist understanding of origins, provides financial support for students and teachers with an interest in learning more about origins topics, and organizes educational conferences, often on a large scale. Beginning in 2014 these included conferences for teachers and pastors in each Seventh-day Adventist world division. As of 2020, there have been nine of these conferences, with over thirty-one hundred participants, and others are in the planning stage. The work of the Faith and Science Council is supported by generous donors who have confidence in the biblical account of origins.

The Faith and Science Council is producing a series of books that are free for download on the internet, and copies are being mailed to a long list of Christian pastors in other denominations. The book *The Genesis Creation Account and its Reverberations in the Old Testament* has been published, along with a popular version called *He Spoke and it Was*.³³ Others in the planning are a similar book on creation in the New Testament, *The Genesis Creation Account and its Reverberations in the New Testament*, a book on hermeneutics, *Biblical Hermeneutics: An Adventists Approach*,³⁴ and another on theodicy.

In many parts of the world there is only limited published material on faith and science available, and in many countries few persons can afford to buy books, especially books published in the U.S.A. The Faith and Science Council is seeking to overcome this problem and make published material readily available worldwide. In 2016 a third edition of the book *Faith, Reason and Earth History* was published by the Faith and Science Council.³⁵ That third edition of *Faith, Reason and Earth History* is both a printed book and a digital version that is available free, anywhere in the world. It is used as a textbook in a number of Seventh-day Adventist and other Christian colleges and universities. In 2018 the Faith and Science Council approved the publication of four smaller faith and science books by the same plan.³⁶ The Faith and Science Council has also supported the publication of the books written by Geoscience Research Institute staff (see above).

The Seventh-day Adventist Fundamental Belief in Creation

At the General Conference Session in 2015 a revision of the church's fundamental belief number six, on creation, was approved, among some other revisions, affirming a commitment to a literal seven-day creation, a short time ago.³⁷ The revisions clearly eliminated the possibility of reading theistic evolution (God created by the process of evolution over many millions of years) into the statement. Protestant creationist friends remarked to me that Seventh day Adventists are the only denomination that, as a denomination, is staying with the literal seven-day creation week described in the book of Genesis. Other denominations are moving rapidly to acceptance of theistic evolution. The church members in those denominations are not all accepting theistic evolution, but their leaders and scholars are quite consistently going that way.

There are groups of persons in the Seventh-day Adventist denomination who do not accept a literal creation week and a literal global flood, only thousands of years ago. However, when denominational representatives from the world meet in the periodic meetings of the global church (the General Conference sessions), there is a very strong support for the church's accepted doctrine on a literal interpretation of the Genesis account of origins. A survey published in 2019 reported that 86 percent of respondents agree that God created the world in six days of twenty-four hours each in the relatively recent past. Seven percent were not sure, and seven percent disagreed.³⁸ Those who reject this literal interpretation of Genesis may be increasing, at least in some locations, but their objections have been much less public and vocal during the last decade or two.

Conclusion

From the beginning of the Seventh-day Adventist denomination, in the mid-1800s it has maintained that the book of Genesis gives a true description of a literal six-day creation and a global catastrophic flood, all occurring within the last few thousand years. Although the denomination does not specify an official view of the age of the universe, it is comfortable with an old universe with a satanic rebellion long before the recent creation of life on earth.

Seventh-day Adventist scholars have joined other creationist leaders in developing and proclaiming Bible-based views of origins and earth history. Seventh-day Adventist leadership in this effort are especially seen in the strong inspired leadership of Ellen G. White, in the early work of George McCready Price in developing the concept of flood geology, and in later establishment of church institutions such as the Geoscience Research Institute and the educational work of the Department of Earth and Biological Sciences at Loma Linda University.

This firm commitment to a literal interpretation of the Genesis account of origins is influenced by the foundational role of a literal creation in virtually all other biblical doctrines. For example, the reason God can rightly ask for our worship is because He is our Creator. There has not been uniform agreement on this belief in a literal Genesis account of history, but a vast majority of the global church membership has always been true to this foundational church belief.

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NOTES

1. While Seventh-day Adventist scholarship has been particularly strong in the area of human health, other areas of science like biology, physics, chemistry, archeology or theology have also a long-standing history in Adventist education where Adventists have made significant contributions.

2. L. James Gibson, "Faith and Science," in *Andrews Bible Commentary: Light. Depth. Truth*, ed. Ángel Manuel Rodriguez (Berrien Springs, MI: Andrews University Press, 2020), 57-76; Leonard Brand, "Faith, Science and the Bible," in *Biblical Hermeneutics: An Adventist Approach*, ed. Frank M. Hasel (Silver Spring, MD: Biblical Research Institute/Review and Herald Academic, 2020), 179-209.
3. See the article on "Bioethics" in the *Encyclopedia of Seventh-day Adventists*.
4. Larry Kidder, "Stephanie's Heart: The Story of Baby Fae," *Loma Linda University Health*, September 8, 2016, accessed October 20, 2020, <https://news.llu.edu/patient-care/stephanie-s-heart-story-of-baby-fae>.
5. Loma Linda University Cancer Center, accessed October 20, 2020, <https://protons.com/why-choose-loma-linda/our-center>.
6. Ellen G. White, *Fundamentals of Christian Education* (Nashville, TN: Southern Pub. Assn., 1923), 186.
7. Steve Dunbar, L. James Gibson, and Humberto M. Rasi, eds., *Entrusted: Christians and Environmental Care* (Mexico: Adventus - International University Publishers, 2013). The following statements were approved and voted by the Seventh-day Adventist General Conference ADCOM: "Caring for Creation—A Statement on the Environment" (1992); "A Statement on the Environment" (1995); and "Statement on Stewardship of the Environment" (1996). See Dunbar, Gibson, and Rasi, *Entrusted*, 265-268.
8. Nancy Murphrey, *Theology in the Age of Scientific Reasoning* (Ithaca, NY: Cornell University Press, 1990), 2-12.
9. N. R. Pearcey and C. B. Thaxton, *The Soul of Science: Christian Faith and Natural Philosophy* (Wheaton, IL: Crossway Books, 1994), 23-30.
10. P. J. Bowler, *Charles Darwin: The Man and His Influence* (New York: Cambridge University Press, 1990); Pearcey and Thaxton, *The Soul of Science*, 97-112.
11. Charles R. Darwin, *On the Origin of Species* (London: John Murray, 1859).
12. R. Chambers, *Vestiges of the Natural History of Creation* (London: John Churchill, 1844).
13. Charles Lyell, *Principles of Geology, Being an Attempt to Explain the Former Changes of the Earth's Surface, by Reference to Causes Now in Operation*, 3 vols. (London: John Murray, 1830-1833).
14. Stephen Jay Gould, "Toward the Vindication of Punctuational Change," in *Catastrophes and Earth History: The New Uniformitarianism*, eds. W. A. Berggren and J. A. Van Couvering (Princeton, NJ: Princeton University Press, 1984), 9, 10.
15. W. A. Dembski, *Intelligent Design* (Downers Grove, IL: InterVarsity Press, 1999); W. A. Dembski and S. McDowell, *Understanding Intelligent Design: Everything You Need to Know in Plain Language* (Eugene, OR: Harvest House Publishers, 2008).
16. Ronald L. Numbers, *The Creationists* (Berkeley, CA: University of California Press, 1992), 4.

17. Ellen G. White, *Spiritual Gifts: Facts of Faith*, vol. 3 (Battle Creek, MI: Steam Press of the Seventh-day Adventist Pub. Assn., 1864), 90-96.
18. For example: Frank L. Marsh's unpublished paper "SDA Philosophy of Geology," 1963, 17 pages. While we study nature, our guiding light is Ellen G. White's statement that "apart from Bible history, geology can prove nothing."
19. Alberto R. Timm, "Seventh-day Adventist Protology, 1844-2015: A Brief Historical Overview," in *Meeting with God on the Mountains: Essays in Honor of Richard M. Davidson*, ed. Jiri Moskala (Berrien Springs, MI: Seventh-day Adventist Theological Society, 2016), 683-718. See also Frank M. Hasel, "Ellen G. White and Creationism: How to Deal with Her Statements on Creation and Evolution – Implications and Prospects" *Journal of the Adventist Theological Society* vol. 17/1 (2006): 229-244, esp. 232-234, and 235-240.
20. Richard M. Davidson, "What Does the Bible Say About Origins?," in *Choose You This Day: Why It Matters What You Believe About Creation*, eds. Leonard R. Brand and Richard M. Davidson (Nampa, ID: Pacific Press, 2013), 30-45; Ariel Roth, "The Fourth Day: Wrestling with the Genesis Creation Account," *ARH*, February 19, 1998, 22-25; Ariel Roth, "[Editorial] The Fourth Day: Wrestling with the Genesis Creation Account," *Signs of the Times*, July 7, 1998, 22-25; Ellen G. White, *Patriarchs and Prophets* (Mountain View, CA: Pacific Press, 1958), 36, 37.
21. George McCready Price, *Illogical Geology* (Los Angeles, CA: The Modern Heretic Co., 1906); George McCready Price, *The New Geology* (Mountain View, CA: Pacific Press, 1923); George McCready Price, "How Old Is the Earth?," *Ministry*, December 1948, 16-18; George McCready Price, "The Impending Crisis," *Signs of the Times*, August 9, 1949, 8-15. The prediction of 2 Peter 3 still applies to our situation. H. W. Clark, *Crusader for Creation: The Life and Writings of George McCready Price* (Mountain View, CA: Pacific Press, 1966).
22. J. C. Whitcomb, Jr. and H. M. Morris, *The Genesis Flood* (Philadelphia: The Presbyterian and Reformed Publishing Co., 1961).
23. Numbers, *The Creationists*, 184-213.
24. Frank L. Marsh, *Fundamental Biology* (Lincoln, NE: The Author, 1941); Frank L. Marsh, *Variation and Fixity in Nature* (Mountain View, CA: Pacific Press, 1976); Frank L. Marsh, *Evolution, Creation, and Science* (Washington, D.C.: Review and Herald, 1944); Frank L. Marsh, *Studies in Creationism* (Washington, D.C.: Review and Herald, 1950).
25. H. W. Clark, *The New Diluvialism* (Angwin, CA: Science Publications, 1946); H. W. Clark, *Genesis and Science* (Nashville, TN: Southern Pub. Assn., 1967).
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27. Ariel A. Roth, *Origins: Linking Science and Scripture* (Hagerstown, MD: Review and Herald, 1988); Ariel Roth, *Science Discovers God: Seven Convincing Lines of Evidence for His Existence* (Hagerstown, MD: Review and Herald, 2008); Elaine Graham-Kennedy, *Dinosaurs: Where Did They Come From and Where Did They Go?* (Nampa, ID: Pacific Press, 2006); L. James Gibson, *Origins* (Nampa, ID: Pacific Press, 2012); L. James Gibson and Humberto M. Rasi, eds., *Understanding Creation: Answers to Questions on Faith and Science* (Nampa, ID: Pacific Press, 2011).

28. Graham-Kennedy, *Dinosaurs*.
29. R. M. Ritland and S. L. Ritland, "The Fossil Forests of the Yellowstone Region," *Spectrum* 6, nos. 1-2 (1974): 19-66.
30. H. G. Coffin, "The Yellowstone Fossil 'Forests,'" *Origins* 24, no. 1 (1997): 5-44; Leonard Brand, "The Explanation for the 'Yellowstone Fossil Forests': An Uncompleted Research Project," *Origins*, no. 65 (2018): 75-80.
31. See descriptions of these projects in Leonard Brand and Arthur V. Chadwick, *Faith, Reason and Earth History*, 3rd ed. (Berrien Springs, MI: Andrews University Press, 2016), chapter 19, <https://www.adventistlearningcommunity.com/faith-reason-earth-history>
32. J. Woods and Arthur Chadwick, "Development of an On-line Database with GIS Connections for Vertebrate and Other Fossils," in *Collaboration for the Dissemination of Geologic Information Among Colleagues*, ed. A. Fleming, Proceedings, vol. 36 (Alexandria, VA: Geoscience Information Society, 2007), 53-69; Arthur Chadwick, M. Silver, L. Turner, and J. Woods, "The Application of Digital Reconstruction Techniques in Taphonomy of an Upper Cretaceous Dinosaur Site in Wyoming," *Journal of Taphonomy* 13 (2016): 1-16; Bethania C. T. Siviero, et al., "Tails and Trauma: Paleopathology Analysis of Pre-mortem Trauma in *Edmontosaurus annectens* Bones within a Monospecific Bone Bed Form the Lance Formation (Maastrichtian), WY," *Palaios* 35, no. 4 (2020): 201-214; M. A. McLain, et al., "Tyrannosaur Cannibalism: A Case of a Tooth-traced Tyrannosaurid Bone in the Lance Formation (Maastrichtian), Wyoming," *Palaios* 33, no. 4 (2018): 164-173.
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34. Frank M. Hasel, ed., *Biblical Hermeneutics: An Adventist Approach* (Silver Spring, MD: Biblical Research Institute/Review and Herald Academic, 2020).
35. Brand and Chadwick, *Faith, Reason and Earth History*.
36. Leonard Brand, *Creation? Really? A Conversation on Origins* (Nampa, ID: Pacific Press, 2019); Leonard Brand and A. Oliver, *God, Science, Friends: And God's Love for Us* (Nampa, ID: Pacific Press, 2019); Leonard Brand, *Genesis and Science: Where is the Evidence Going?* (Nampa, ID: Pacific Press, 2019); Leonard Brand, *Secrets Uncovered: Stories From a Christian Fossil Hunter* (Nampa, ID: Pacific Press, 2020).
37. "God has revealed in Scripture the authentic and historical account of His creative activity. He created the universe, and in a recent six-day creation the Lord made 'the heavens and the earth, the sea, and all that is in them' and rested on the seventh day. Thus He established the Sabbath as a perpetual memorial of the work He performed and completed during six literal days that together with the Sabbath constituted the same unit of time that we call a week today. The first man and woman were made in the image of God as the crowning work of Creation, given dominion over the world, and charged with responsibility to care for it. When the world was finished it was 'very good,' declaring the glory of God. (Gen. 1-2; 5; 11; Exod. 20:8-11; Ps. 19:1-6; 33:6, 9, 104; Isa. 45:12, 18; Acts 17:24; Col. 1:16; Heb. 1:2; 11:3; Rev. 10:6; 14:7)." See "Fundamental Beliefs: Creation," Seventh-day Adventist Church World Church, accessed October 20, 2020,

<https://www.adventist.org/beliefs/fundamental-beliefs/humanity/creation/>.

38. *Adventist World*, October 2019, 5 (based on a 2018 General Conference global membership survey), accessed October 20, 2020,

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