

QUESTIONS STUDENTS ASK ABOUT THE AGE OF THE EARTH

While teaching at Columbia Union College, I one day received the message that someone had an urgent question for me. Stepping out into the lobby, I met a deaf man who had come several miles to see me. Holding a copy of the *National Geographic*, he directed my attention to a picture of the bristlecone pine tree, "earth's oldest living thing." Then he scrawled this question: "I thought the Flood occurred in 2348 B.C. How do you explain these trees living before the Flood?" The caption under the picture indicated that at least one pine had been found dating back

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more than 4,600 years—about 400 years prior to the Flood, according to this man's reckoning.¹

In response I wrote, "I cannot answer your question fully. I do know that these pines are growing on mountains that contain fossil-bearing rocks. If we say that these mountains were uplifted at the time of the biblical flood, then the pines growing on those mountains could not have been growing before the Flood."

The questions asked of Adventist teachers in the area of science and religion are almost without exception prompted by one overriding concern—the desire to bring harmony out of apparent discord and to ward off the supposed threat of science upon one's understanding of Scripture. These students are choking upon a sea of data that seems to challenge the very

anchors of their faith. Our job as teachers is to make sure that their feet are placed upon a rock—the conviction that science and Scripture have but one Author and that the message of both will ultimately prove to be harmonious.

Science and religion questions asked of me in my work as a pastor, teacher, and editor have usually dealt with the topics of the age of the Earth, extinction of dinosaurs or mastodons, giant man tracks, "ape men," and the ice age. By far the most frequently asked questions, however, pertain to the age of the Earth.

Age of the Earth

Q. *Doesn't the Bible limit the age of the Earth to approximately 6,000 years? How do we as SDA's explain the radiometric dating methods that assign an age of millions of years for certain*

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fossils and even billions of years for the crust of the Earth and the moon rocks?

A. This question has three facets: (1) the biblical perspective, (2) the Seventh-day Adventist perspective, and (3) an understanding of the scientific data. Surprisingly, from the *biblical perspective* the age-of-the-earth debate is not a central issue; only when Christianity began to clash with Greek thought did this become a major concern. Nowhere in Scripture do we find a statement that sets forth the time period from Creation to any other major event, such as we find in Josephus: "From the birth of Adam [i.e., Creation] to the time when these things happened [the destruction of the first temple] it was an interval of four thousand five hundred and thirteen years, six months and ten days."² Admittedly Josephus could add up all the generations from Adam through Abraham (Genesis 5 and 11) and combine this with other chronological data in the Old Testament to derive his figure for the age of the Earth, but the primary focus of the Genesis lists of patriarchs is genealogy, not chronology. When the Genesis genealogies were duplicated in 1 Chronicles 1 as well as in the New Testament (Matthew 1; Luke 3), the chronological information was omitted in each case.

The silence of the Bible record regarding the age of the Earth is all the more eloquent when one discovers how many Jewish and Christian authors speculated on the subject in ancient times. The authors and compilers of the Dead Sea Scrolls, the Essenes, circumscribed all of Earth history into 10 490-year cycles and predicted the end of the world exactly 4,900 years after Creation. Incidentally, they also predicted the coming of the Messiah at the end of the eighth cycle, or in 3/2 B.C. according to their calculations.

The oldest rabbinic chronology, *Sedem Olam* (late first century A.D.) had precisely seven 490-year cycles between Creation and the exodus from Egypt.

The early Christian fathers such as Eusebius, Clement of Alexandria, and Hippolytus of Rome, developed chronologies based upon millennial cycles. They believed Christ came to this Earth either 5,000 or 5,500 years after Creation. Thus according to their calculations, the heavenly millennium would

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begin in the year 6000. These writers also wanted to demonstrate that Moses predated Plato and the philosophers, so they could say that Plato must have "borrowed" his ideas from the books of Moses when he visited Egypt! In ancient times the main purpose for assigning a date for Creation was first of all theological—to establish a date for the end of the world, and second, apologetical—to defend Christianity and Judaism from the claims of pagan authors.

SDA Viewpoint

From the *Seventh-day Adventist viewpoint* the age of the Earth has served a useful theological and apologetical function as well. After William Miller had preached several years someone attacked his date of 1843 for the world's end by suggesting that the accepted chronology (Archbishop Ussher's) would not permit the end of the world until 154 years later, or some 6,000 years after Creation (4004 B.C. + 1906 A.D. = 6,000 years.)³ This caused Miller to reevaluate Ussher's chronology. As a result, he found about 150 "missing years" in the period of the judges. His revision of Ussher's chronology appeared for the first time in the 1842 edition of his book.⁴

Early Seventh-day Adventist pioneers such as J. N. Andrews, Hiram Edson, James White, and G. W. Holt all spoke of Earth's history in terms of 6,000 years and the end of the millennium as 7,000 years after Creation.⁵ This appears to be a holdover of the firmly held Millerite belief that the world would end and the millennium would begin 6,000 years after Creation. However, the pioneers were quick to reject Miller's chronology and his idea that the 6,000 years ended in 1843 or 1844.⁶

Andrews authored a six-part series in the *Review and Herald* entitled, "The Great Week of Time," in which he equated the six days of Creation with the 6,000 years of history and the seventh day of rest with the millennial rest.⁷ As late as 1899 one of the editors of the *Signs of the Times* (probably M. C. Wilcox) responded to a reader's inquiry as to the legitimacy of identifying the six days of Creation with the 6,000 years by saying, "Your idea of the 6,000 years of earth's history and the 1,000 years of Sabbath rest, seems to be borne out by the ancient types."⁸

Two years later the editor of the *Review and Herald* (Uriah Smith) soundly rejected any parallelism between the six days and the 6,000 years and told the reader who had raised this question that such an idea "is but conjecture and tradition."⁹

In that same year Dr. O. C. Godmark in a *Youth's Instructor* article entitled, "The Age of Our World," argued, "Our world was five thousand nine hundred and ninety-eight years old in the year 1900 A.D."¹⁰ While not explicitly stated, this would imply that the author believed the world would end by the year 1902 A.D., at which time the heavenly millennium would begin.

A recurring feature of the 6,000-year statements among SDA pioneers was the conviction that the present world would last no longer than 6,000 years from Creation week. In fact, they probably felt that it would be *less* than 6,000 years, for Romans 9:28, they reasoned, suggests that the Lord will finish His work and cut short the allotted time in righteousness!

Not only has the 6,000 years been used as a pillar to support the concept of the nearness of the end, but also as a

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bulwark to guard against the dangers of Darwinian evolution. While there are literally dozens of such statements in SDA literature, I have selected two typical statements, the first by D. T. Bourdeau in 1867, the second by J. O. Corliss in 1880:

And in our judgment there can be no greater and more dangerous abuse of Geology, than the idea which makes this science teach that our world is more than six thousand years old; that there was a pre-Adamic age consisting of immense periods of time, represented by the six days of creation.¹¹

But we are told that there is inscribed on nature's tablets the record that our globe in its present state is the result of evolution, and that instead of being only about six thousand years old, as related in the Bible, it has existed through myriads and millions of ages.¹²

In Adventism a belief in the 6,000-year concept has come to mean a belief in the teaching of Creationism. A rejection of this concept presumes the acceptance of some form of evolution. However, such is a false dichotomy, especially when one considers that the 6,000-year concept was originally incorporated into Adventism as a tool to determine not so much the date of Creation as the date of the world's demise.

Scientific Aspects

Finally, we must look at the issue of the age of the Earth from its *scientific aspect*. This does not mean that science has the last word. Unfortunately, this is an area where more heat than light is generated within Adventist circles. Nearly all the commonly used dating methods, such as uranium/lead, potassium/argon, rubidium/strontium, fission track, radiocarbon, and paleomagnetic, yield ages for the Earth, its minerals, and its organic matter much greater than the Biblical time period of a few thousand years.

Here again it is tempting to set up a false dichotomy: either the Bible is right and science is wrong, or the Bible is wrong and science is right. Could it be that the One who is the Author of both science and the Bible has planted

enough truth on both sides of the issue that one should not fall into the trap of setting up a false dichotomy? In other words, science could be both right and wrong on the question of the age of the Earth, and our interpretations of biblical chronology could have elements that are both correct and incorrect.

I believe the Bible record is right in displaying a continuous genealogical chain between Adam and Noah and then between Noah and us, illustrating the truth that we are "all of one blood." In the light of the cross there is no superior race, no inferior nationality. The biblical record is right in not inserting any subhuman being, anthropoid ape, or hominid into that genealogical chain. It is also correct in rejecting the idea that there are a seemingly endless number of generations between Adam and us. In other words, the interjection of millions of years or even hundreds of thousands of years into this genealogical chain would negate its meaningfulness.

In conclusion, every question in the area of science and religion should be viewed as a challenge, but not to a verbal duel or intellectual debate. We should put each issue into its proper perspective before attempting to give a strictly scientific answer.

A Plea for Understanding

This article then is a plea for understanding—for us to truly respect the convictions of our students, many of whom firmly believe in the 6,000 years and who clearly equate a rejection of this concept with the acceptance of evolution. Second, it is a plea to students to realize that we do not have all the answers or the last word. They must see that we too are sincerely attempting to find harmony between God's Word and His works. □

FOOTNOTES

¹ Edmund Schulman, "Bristlecone Pine, Oldest Known Living Thing," *National Geographic* (March 1958), pp. 354-372.

² Josephus, *Antiquities of the Jews*, X.viii.5 (Loeb Classical Library).

³ *Midnight Cry*, 1:5 (November 22, 1842).

⁴ William Miller, *Views of the Prophecies and Prophetic Chronology*, Joshua V. Himes, ed. (Boston: Joshua V. Himes, 1842).

⁵ *Review and Herald* (Oct. 21, 1851), p. 45; (March 23, 1852), pp. 105-108; (Dec. 3, 1861), pp. 1, 2.

⁶ *Ibid.* (March 1851).

⁷ *Ibid.* (July 1 through August 21, 1883).

⁸ *Signs of the Times* (September 20, 1899), p. 610.

⁹ *Review and Herald* (August 13, 1901), p. 523.

¹⁰ *The Youth's Instructor* (Sept. 19, 1901), p. 290.

¹¹ *Review and Herald* (Feb. 5, 1867), pp. 98, 99.

¹² *Ibid.* (Feb. 19, 1880), pp. 116, 117.

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pulverizing kidney stones so that surgery is not required.

Other advances in science that affect human lives include laser surgery, genetic research, organ transplants, prosthetics, and cryosurgery.

The Space Age has also impacted upon the field of education. Because of its extremely complex structure, the human brain has consistently resisted inquiry by the neuroscientist. To say the least, progress in understanding how the brain functions and how learning and memory take place has been disappointing. However, this is beginning to change. After a tremendous expenditure of time, money, and effort some progress has been made. Through the work of men like Nobel Laureate Roger W. Sperry of the California Institute of Technology we are beginning to understand how the brain functions. His experiments involved people who had the two hemispheres of the brain surgically separated due to severe injury or disease. All the literature involving right and left brain function has its roots in these experiments. Though our knowledge is still scanty, its significance is enormous.

Using the latest experimental data, teachers now know more about how the brain processes information than at any time in the past. We are now able to adapt our teaching methods to facilitate learning for individual students. In addition, we have at our disposal powerful tools in all areas of teaching that enable us to reach a degree of sophistication that until a few years ago was impossible. The computer, video camera and playback equipment, and the photocopy machine are a few of the instruments that can make it easier for us to do better work with less effort, enabling teachers to spend more time doing what they do best—teaching.

Technology helps us open the marvels of science to students. As we do so, we can help inspire them to find new and better uses for high-tech discoveries—perhaps a vaccine for AIDS, better yields for food crops, or a manned rocket to explore Earth's solar system. □