

by young-earth advocates, and demonstrate why the conventional understanding is more in keeping with the nature of God. If I knew of a journal that offered an award for the paper with the most effective communication written for a most difficult target audience, I would submit this paper!

The above carbon-14 old-age dating is also consistent for very old ages as are obtained from U/Pb radiometric age dating that has been applied to glacial tillites that occur in the recent Ice Age, in the Paleozoic Era, and then farther and farther back in the Precambrian to very old ages. See <http://www.csun.edu/~vcgeo005/Nr40tillites.pdf>. Early life on Earth had anaerobic bacteria that produced methane as a waste product, but when cyanobacteria evolved that had photosynthesis as part of their metabolism, oxygen was released as a waste product, which was a poison for the anaerobic bacteria. Therefore, the earth experienced its first mass extinction as increased amounts of oxygen killed the anaerobic bacteria. Life then evolved to produce organisms that could tolerate oxygen, but these organisms combined oxygen with carbon in their metabolism and produced carbon dioxide as a waste product. But this waste product had subsequent consequences. Methane in the early atmosphere absorbed the sun's heat and kept the earth warm, but when carbon dioxide began to increase in the atmosphere, cooling occurred that may have produced a "snowball" Earth because tillites can be found at the earth's equator. All these changes certainly cannot have happened in 6,000 to 10,000 years as is promoted for the age of the earth by young-earth creationists, if the natural laws that the Creator also produced are obeyed.

Davidson and Wolgemuth should be congratulated on demonstrating the trustworthiness of scientific dating methods, and showing that the young-earth creationists have no logical basis for claiming a very young age for the earth.

Lorence G. Collins
ASA Member

About the "Literal" Interpretation of Genesis Chapters 1 and 2

I have a suggestion, or request, for our ASA community's discussion of the interpretation of the creation accounts in the Bible, primarily, of course, Genesis 1 and 2. We often use the term "literal interpretation," referring to the opinion that the days of creation were consecutive 24-hour days, and therefore that the creation of the earth and the entire universe occurred only about 120 hours before the creation of Adam,

a few thousand years ago. This is commonly called young-earth creation, or YEC.

Whatever we call this interpretation, I propose that we cease calling it "the literal" interpretation. This is what the advocates of this view claim for it, thus implying that all other interpretations are not literal, but are something else, and claiming a sort of high ground in the competition for legitimacy. We do not need to concede this mantle to them.

What does the account literally tell us? It says God caused the earth to sprout. How long does that ordinarily take? Is there any indication in the text that this was done nearly instantaneously, in a few hours at most, with a mature botanical ecosystem and soil appearing from nowhere on top of previously bare inorganic rock? Can this be called literal interpretation? It says God planted a garden, again sounding somewhat slower than instantaneous completion.

If the sun, moon, and stars were not created until the fourth day, how was there light and dark, evening and morning on the first three days? And what does "the heavens and the earth" mean in verse 1? At what point on the globe was evening and morning observed? All these points have been debated for centuries, and I am not advocating any particular conclusion, only pointing out that whatever conclusions have been proposed, have all been heroic exercises of logical gymnastics. Such explanations may be right or wrong, but they cannot be called simple literal interpretation.

On this account, Adam had a prodigiously busy and productive first few hours of existence. From a blank slate of memory, he learned a language, learned to care for the garden, observed a large number of animals and formed meaningful names for them, and observed that they came in pairs and he did not. This is equivalent to a whole series of doctoral dissertations. Then he had to learn to fix his own lunch. No wonder he needed a nap in the afternoon and was happy to acquire a wife to help him. Is this seriously what we think Moses thought and meant when he wrote this account? Is this what the contemporary first-generation Israelite listeners thought when they heard it in the wilderness? Can we call this "literal" interpretation with a straight face?

So, whatever our various preferred interpretations are, and what we call them, let's stop conceding to the solar-day recent-creation viewpoint the claim of "literal" interpretation. There is no such thing as a simple, literal interpretation of the creation accounts, so let's retire this label. Of course, that raises the question of what label to replace it with.

Book Reviews

Is there another term that is suitable, respectful, and avoids any pejorative feeling? That rules out “naïve,” “wooden,” and “unscholarly,” and such terms are no more accurate than literal, so these cannot be considered as progress. We already commonly refer to YEC, and the advocates themselves use that label; will that do? However, YEC carries extensive baggage of the entire young-earth scenario, including Flood geology and claims of scientific verification of all this. We need a term that refers specifically to the interpretation of the biblical creation texts. Is there a better suggestion? Perhaps there really is nothing more compact and intelligible than “seven solar-day interpretation.”

I hope this simple suggestion can clarify our discussion of this topic.

David Newquist
ASA Member

What Was Missing

I wish to suggest what was missing in Keith Miller’s excellent article, “Doubt and Faith in Science and Religion,” (*PSCF* 70, no. 2 [2018]: 90–100). Only in the last paragraph is the Holy Spirit briefly mentioned. Essentially every church service mentions the Holy Spirit, but it is too rare that much is said about what the Holy Spirit actually does. There is the belief that a discussion of this is subjective and mysterious. Yes, it is mysterious but definitely not subjective. I think that because of the Holy Spirit the rise of modern science was dominated by Christian scientists.

The primary function of our having the Holy Spirit is to better see what is God’s will and purpose for us, and to strengthen our faith. In addition the Holy Spirit gives us better insight and understanding of both the Bible and God’s work in creation. This is critical in the study of science and religion, and I am certain this helped me in my scientific research. We can see things around us much more clearly. I can see the Holy Spirit at work when I am on the same wavelength with my fellow Christian, as we understand and identify with every word spoken. When there is disagreement and conflict I wonder if I am out of tune with the Holy Spirit, or is it my fellow Christian, or both of us. We should never force our ideas upon our fellow Christian, but be humble and receptive, letting the Holy Spirit work in each of us.

William Wharton
ASA Fellow

Author Response

I want to thank William Wharton for his comments. My article was intended to address the comparison of science and religion with regard to faith and doubt more broadly than a consideration of Christianity alone. I agree fully that the Holy Spirit is essential in guiding us into spiritual truth and providing correction from error. I also believe that one of the primary ways in which the Holy Spirit does that is through the Body of Christ—that is, through the spiritual gifts and witness of the Christian community.

Keith B. Miller
ASA Fellow

An Appreciation

I am just sending you a short note to thank you for this journal. I look forward to receiving it each quarter. It is so well done and full of compelling articles that really provide comprehensive insight into the faith-science conversation. Information from each issue enriches my research and lectures. And thank you as well for the valuable book reviews.

Scott Flaig
ASA Member



A Call for Book Reviewers

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