does not explain why in 4:1a, when Adam fathered Cain, the article is used with his name, but not in 4:25, when the same Adam fathered Seth. Nor does he say why 5:1-5 omits the article consistently (5 times) for the same Adam with whom Genesis 2-4 is dealing. From Genesis 6 onward, "man" cannot denote Adam any more, yet in virtually every case in the rest of Genesis we read *ha'adam*, the same form used for Adam in Genesis 2-4.

Nelson claims that the transition from singular to plural in Gen. 1:27, "in the image of God he created him; male and female he created them," is explained by the story of the creation of Eve in 2:21–23, implying that therefore in 1:27, "him" refers to Adam and "them" to Adam and Eve. This is not compelling. It looks like circular reasoning. Starting with a belief that Adam was the first man, he concludes that 1:26–27 must refer to Adam, and from this, he concludes that "male and female he created them" in 1:27 must refer to Adam and Eve. Similarly, some translations of 1:27 incorrectly talk of a man and a woman, whereas "male and female" are generic terms. So "them" can be the same collective entity as "him," which is plural in essence.

A given form of an expression is no guarantee that it always designates the same entity. The context has to be considered within the sentence, the paragraph, the book, the whole Bible, ancient culture, and language flexibility.

One crucial case of context sensitivity is the question of the extent of the geographical frame. Gen. 1:1–2:4a is a creation story, referring to the entire universe, the Earth, and life as a whole. On the other hand, 2:4b–4:16 deals with the history of God's personal dealing with Adam and his family.<sup>3</sup> This second section of Genesis is clearly centered in southern Mesopotamia, the land of Sumer of the fifth millennium BC, as evidenced by the four rivers of 2:10–14.<sup>4</sup>

Between Gen. 2:4b and 12:3, there is no obvious break in the narrative, the geographical context gradually widening toward the northwest, before Abraham goes to Canaan. Nothing in this long story deals with the whole Earth. In particular, this applies to Noah's flood, its farthest northwestern reach being near Cizre on the upper Tigris, at the edge of the low hill country part of Urartu (Ararat).<sup>5</sup>

#### Notes

<sup>1</sup>P.G. Nelson, "Adam and Eve," *Perspectives on Science and Christian Faith* [*PSCF*] 60, no. 1 (2008): 71.

<sup>2</sup>P. Rüst, "Early Humans, Adam, and Inspiration," *PSCF* 59, no. 2 (2007): 182–93.

<sup>3</sup>Gen. 2:4 constitutes a symmetric bridge linking the two parts in a manner indicating a temporal succession, rather than an expansion; cf. A. Held and P. Rüst, "Genesis Reconsidered," *PSCF* 51, no. 4 (1999): 231–43.

<sup>4</sup>C.A. Hill, "The Garden of Eden: A Modern Landscape," *PSCF* 52, no. 1 (2000): 31–46.

<sup>5</sup>C.A. Hill, "The Noachian Flood: Universal or Local?" *PSCF* 54, no. 3 (2002): 170–83.

Peter Rüst ASA Fellow CH-3148 Lanzenhäusern Switzerland E-mail: paraske@aneste.ch

### Does the Bible Really "Declare" the Earth Young?

In the recent response (*PSCF* 60, no. 1 [2008]: 35) to the essay review of Randy Isaac on Radioisotopes and the Age of the Earth, Larry Vardiman, a physicist at the Institute for Creation Research and a member of the RATE group, said, "... the apparent conflict between the billions of years of earth history commonly espoused by conventional science and the thousands of years declared by Scripture seems to be resolvable." This sentence raises a question: Does the Bible really declare the earth young?

Unfortunately, I did not find any biblical sentence that declares the earth young or the earth old. The Bibles that the RATE Group used would be the same as others. I believe, therefore, that the RATE Group should correct the phrase "declared by Scripture" with "declared by young-earth creationists" in the sentence. There can be many interpretations for a single declaration of the Bible. Of course, the young-earth argument is just an interpretation. An interpretation should not be confused with the biblical declaration.

#### Paul S. Yang

Director, Vancouver Institute for Evangelical Worldview and Worldview Studies Program of ACTS Seminaries Trinity Western University 7600 Glover Road Langley, BC V2Y 1Y1, Canada shyang@twu.ca

## Can Science Make the "Breath" of God Part of Its Subject Matter?

Graeme Finlay (*PSCF* 60, no. 2 [2008]: 103–14) reflects on how the randomness of natural processes achieves God's creative purpose. Finlay indicates:

To the Christian it is axiomatic that each one of us is a created being (Ps. 139). Scientifically, we are the product of random genetic process. Theologically, we are the outcome of loving divine purpose. Molecular randomness (in scientific terms) and createdness (in theological terms) inevitably go hand-in-hand.

A human being is a physical/nonphysical/supernatural entity, which is quite consistent with the Christian notion of humans as body/mind/spirit (Matt. 6:22, Rom. 12:2, 1 Cor. 2:11). Scientific study of the human genome cannot access the nonphysical in humans. The notions of life, consciousness, and rationality lie at the foundation of the humanity of humankind, but cannot be reduced to the purely physical. The latter somewhat contradicts the assertion that "Genetic mechanism in all its happenstance has produced the genetic basis of humanness."

Consciousness is a moment-by-moment awareness of our temporal existence and surroundings. Human knowledge has access only to snapshots and flashbacks of reality. God is the being forever conscious and thus eternal that does not exist in time. God has no history and so he experiences the whole of reality as an eternal "Now."<sup>1</sup> God is the supernatural or divine being that is omniscient and sustains His creation (Heb. 1:3). It is not

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clear, however, how God's action in spacetime can form part of a strictly evolutionary description of humans.

The Apostle Peter needed the Father in order to know the true nature of Jesus (Matt. 16:16-17). Perhaps the supernatural in humans actually mediates between the nonphysical mind (knowledge of who Jesus is) and the physical body (flesh and blood) and exercises the free will we possess. Science does not deal with the nonphysical and less so with the supernatural aspects of humans. Thus no development in evolutionary theory, qua scientific theory, can ever shed light on the true nature of humans, which can only be understood by knowing Jesus the Christ.

Verbs usually connote an action with temporal duration, which is not applicable to God. Certainly, God does not acquire knowledge as we do. He just knows. His knowledge is not temporal. However, for us, embedded in spacetime, our description of nature in terms of deterministic or probabilistic laws will give us only the physical aspect of the whole of reality. A complete understanding will include the supernatural, which is inaccessible to scientific inquiry no matter how science is defined. Therefore, if evolutionary theory is unadulterated science, then it cannot account for the true nature of a human being.

Of the different kinds of knowledge needed to study the whole of reality, only metaphysics and theology address the ontological question of existence while science deals only with the physical aspect of nature.<sup>2</sup> These issues are paramount when attempting to forge a solid integration of evolution with the Christian faith. Ascribing the genomic structure and temporal development in nature to "God's faithful dealings with his creation" may be satisfying to a Christian, but contrived to an unbeliever.

'Then the Lord God formed man of dust from the ground, and breathed into his nostrils the breath of life; and man became a living being" (Gen. 2:7). Physical science has successfully developed paradigms to study nonliving "dust." However, can science make the "breath" of God part of its subject matter? Is the concept of life so elusive that it becomes scientifically indefinable? Perhaps the inability of nonliving matter to detect and identify life as well as consciousness indicates that only life itself can "detect" and know life. Similarly, only self can "detect" and know self. Consciousness presupposes rationality, rationality presupposes life, and life presupposes God. Human rationality and consciousness are used to know nature and God, yet paradoxically humans may be unable to formulate a scientific theory either of life or of self.

#### Notes

<sup>1</sup>C. S. Lewis, Mere Christianity (New York: Macmillan Paperback edition, 1978), 145.

<sup>2</sup>Moorad Alexanian, "Teaching, Propaganda, and the Middle Ground" (Letter), Physics Today 11 (2000): 80.

Moorad Alexanian ASA Member Department of Physics and Physical Oceanography University of North Carolina Wilmington Wilmington, NC 28403-5606 alexanian@uncw.edu

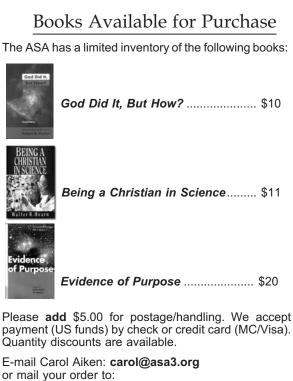
## AI, Scripture, and Hardware

I found two problems in Russell C. Bjork, "Artificial Intelligence and the Soul" (PSCF 60, no. 2 [2008]: 95-102). He cited a usual translation of Psalm 8:4-5. This is the only time among the 2606 occurrences of *élohim* that the King James version translates it as "angels." This follows the LXX [Septuagint] and is commonly adopted by other translations. A proper translation should indicate that human beings are a little below God, a thought that better fits 1 Peter 1:12. Why should the greater yearn to look into the state of the lesser?

From this it follows that strong AI expects the production of an image of the fallen image and likeness of God. Would this produce a mortal apparatus? An immortal one? Or would the possibility of exchanging parts and updating programs give it improved and unending existence? There is also a vital difference between a device that can perform a range of specific tasks more rapidly and accurately than humans can, and one that can self-consciously make moral decisions well or poorly. Can the machine comprehensively improve on the imitated person?

As a bonus, one may ask whether digital hardware, the current option, can ever adequately emulate analog wetware, even if this is all there is to consciousness.

David F. Siemens, Jr. ASA Fellow Canyon Institute for Advanced Studies dfsiemensjr@juno.com



ASA **PO Box 668** Ipswich, MA 01938-0668  $\odot$