

COMMUNICATIONS

FESTSCHRIFT

TO THE EDITOR:

Let me congratulate you on the purpose of the *Festschrift* honoring Rabbi Walter S. Wurzbarger. Rabbi Wurzbarger is one of our most respected Jewish minds, a person of great commitment, a man of faith who has inspired all of us. To know him has been one of the great joys of my life, and I have listened with special care to his comments and opinions. His writings have always been a source of great inspiration for me.

(RABBI) LEON KLENICKI

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TO THE EDITOR:

In the recent *Festschrift* (*Tradition*, 24:2) honoring a distinguished and gifted editor of *Tradition*, Rabbi Sol Roth creatively analyzes the "*Torah Im Derekh Eretz*" approach propounded by Rabbi Samson Raphael Hirsch. Declaring the term *derekh erez* to be as ambiguous as the definition he chooses, he cites Hirsch's Commentary to Genesis 3:24, and, quoting Hirsch, defines *derekh erez* as culture. Dr. Roth is quite correct to include in that rubric all the achievements of human civilization . . . science and technology, ethics and politics, the literary, musical and plastic arts" (p. 123).

However, in Dayyan Grunfeld's translation of Hirsch's essay "Religion Allied to Progress," reprinted in *Judaism Eternal* (volume II, page 236), Hirsch defines his terms literally, and perhaps more sharply, when he writes that "our aims also include the conscientious promotion of education and culture, and we have clearly expressed this in the motto of our congregation: *yafah*

talmud Torah im derekh erez (an excellent thing is the study of the Torah combined with the ways of the world)."

Rabbi Walter S. Wurzbarger has suggested that at the University of Bonn, Hirsch was probably influenced by Hegel and other German idealists who passionately believed in the concept of *Zeitgeist*, the "spirit of the age." *Derekh erez*, the ways of the world, are, in this view, evolutionary and forever in flux, tied to a dialectical process of thesis antithesis and synthesis in contradistinction to which the values and truths of Torah remain timeless and eternal.

Those who are open to *Torah u-Madda*, and, in Roth's own words, "cultural progress," have been enriched by his conclusions, and we can all be grateful to Rabbi Wurzbarger for his brilliance and creative contributions to this journal, the world of scholarship and Jewish life.

RAPHAEL Z. SCHWARTZ

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FIRST DAY OF CREATION

TO THE EDITOR:

I found interesting Nathan Aviezer's comment that "the creation of the world has now become accepted by all leading cosmologists," Stephen W. Hawking among them (*Tradition*, Summer 1989, 24:4, p. 66). Hawking had the following to say in his *A Brief History of Time*:

The Catholic Church had made a bad mistake with Galileo when it tried to lay down the law on a question of science, declaring that the sun went around the earth. Now, centuries later [in 1981], it had decided to invite a number of experts to advise it on cosmology. At the end of the conference the participants were granted an audience with the pope. He told us that it was all right to study the evolution of

the universe after the big bang, but we should not inquire into the big bang itself because that was the moment of Creation and therefore the work of God. I was glad then that he did not know the subject of the talk I had given at the conference—the possibility that space-time was finite but had no boundary, which means that it had no beginning, no moment of Creation. I had no desire to share the fate of Galileo. . . . So long as the universe had a beginning, we could suppose it had a creator. But if the universe is really completely self-contained, having no boundary or edge, it would have neither beginning nor end; it would simply be. What place, then, for a creator? (pp. 116, 141)

JACK FEINHOLTZ

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NATHAN AVIEZER REPLIES:

Let me assure the reader that Professor S. W. Hawking, one of the world's foremost cosmologists, is not in the habit of making erroneous statements about science. However, when writing a book for non-scientists, one tends to simplify. And if the author happens to be an avowed atheist (as Hawking is) who likes to mix cosmology with God (and that's certainly the way to add spice to one's book), then what comes out may be technically correct, but quite misleading.

The current theory of cosmology, which has recently been buttressed by a wealth of scientific evidence, tells us that a unique event (the "big bang") occurred in our universe about 15 billion years ago. However, the details of exactly what happened at that instant in the past, commonly called "time zero," remain unknown. But cosmologists do know what happened a split second after time zero. That particular

instant, called the Planck time (after Nobel laureate Max Planck), plays a central role in modern cosmology.

At the Planck time, the size of the *entire* universe was *submicroscopic* (only a tiny fraction of an inch in diameter). In this primeval tiny universe, there were no molecules, no atoms, no nuclei, no protons and no neutrons. However, within a very few minutes after the Planck time, the submicroscopic primeval universe developed extremely rapidly ("exploded") into our present universe.

As Professor Joseph Silk notes: "The physical conditions [at the Planck time] were so extreme that it seems entirely appropriate to regard the Planck time as the moment of the creation of the universe" (*The Big Bang*, 1989, p. 113). Adopting this view, it follows that Hawking's statement about what may have happened *before* the Planck time (when time itself loses its usual meaning) is completely *irrelevant* to any discussion of the biblical text. The question that *is* relevant to our discussion is whether one can point to an occurrence in the past which can reasonably be termed "the creation of the universe." In the view of leading cosmologists, the answer is clearly positive. This is quite sufficient to establish the consistency between the biblical text and modern cosmology.

It is my thesis that modern science provides new and illuminating insights which can contribute significantly to our understanding of the opening chapter of the Torah. Of course, the truth of the Torah cannot be *proved* by modern science; it remains a matter of faith. But one can demonstrate the *absence of contradictions* between current scientific knowledge and the biblical account of creation.