of science and creation.2 In spite of the range of exegetical viewpoints in many conservative commentaries, the majority of popular books on science and creation are from the "young earth" viewpoint. Many evangelical theologians do not hold to a strict "24 hour" day, and the majority of evangelical scientists are probably not "young earth" creationists. I am concerned that the views of most evangelicals are shaped by organizations like the Institute for Creation Research, and that the rhetoric against other perspectives seems to be getting worse. I commend this organization for its critique of secular evolution, but most lay evangelicals believe this viewpoint is the only orthodox position. A "young earth" interpretation of Genesis is perceived by much of the evangelical populace as a tenet of biblical faith, even though many Christian scientists and theologians feel that it presents problems intellectually and apologetically.

The ASA has provided a resource and forum for discussion of other approaches to questions of origins, and many valuable books have been written by ASA members that present alternatives to the young earth position. However, this information often does not reach our churches,³ and most of the secular and religious world equates "creationist" with a young earth position. Some estimate that 50% of Christians believe that the earth is less than 10,000 years old, but that only 1% of Christian scientists hold that position.

Several recent publications poignantly illustrate the need for a cooperative response from the evangelical academic community to this widely held position. In his book Creation and Time, ASA member Hugh Ross discusses that issue of the age of the earth and calls for a "lasting peace" among evangelicals. 4 However, this appeal for cooperation has been met with opposition and criticism from young earth creationists.5 This issue has implications for all Christians, not just those who are interested in science. It is one of the central themes of Mark Noll's powerful indictment of evangelical Christianity. 6 Christianity Today recently published an excellent review on this subject that alludes to the broad implications of this issue for evangelicalism.⁷ The participants expressed concern about the failure to adequately address questions of science and faith, but did not offer a specific solution.

Evangelical leaders in both the scientific and theological community need to collectively address this issue in a public format.8 The wisdom from evangelical commentaries needs to be integrated into the content of our popular publications. Evangelical positions on general and special revelation need to be clarified. We need to emphasize that a dogmatic "24 hour day" exegesis of Genesis 1 is not the consensus view among theologians, and discuss the diversity of views among evangelical scientists. We need to support Hugh Ross and others who have attempted to find areas of consensus among all creationists,9 regardless of how old we consider the earth. We need to collectively affirm the central truths of creation ad exhort all evangelicals to practice tolerance within the parameters of orthodoxy. We need to agree to disagree, and focus more on responding to secular evolutionism and naturalism.10

The idea of an Evangelical Creation Network (ECN), similar to the Evangelical Environmental Network (EEN), has recently been proposed as a possible way to begin this effort. This could be an umbrella organization for all organizations that agree about the inerrrancy of Genesis One, and provide a forum for all theologians and scientists who believe in creation. A statement that affirms the essential truths of Creation, but recognizes the diversity of opinions among evangelicals on specifics, could be developed. This would provide a valuable resource for both the secular and Christian community on issues of science and faith.

I believe that there is a "scandal of the evangelical mind" 12 on this issue, and that we need to collectively pursue a more balanced perspective and more "loving" discussion of our differences.

Notes

¹For example, the March 1996 issue of *Perspectives on Science* and Christian Faith has several articles and an interesting editorial (J. W. Haas, "Is Anyone Reading This Journal?") that reflect how much attention has been paid to this issue among ASA members.

²The high school biology textbook, *Of Pandas and People*, is a notable exception but it is not aimed at elementary students.
³See discussion, "ASAers Want Outreach to Churches," ASA Newsletter 37, no. 6 (Nov/Dec 1995).

⁴H. Ross, Creation and Time (Colorado Springs, CO: Navpress, 1994).

5Van Beeber and Taylor, A Report on the Progressive Creationists Book By Hugh Ross, Eden Communications.

⁶Mark A. Noll, *The Scandal of the Evangelical Mind*, (Grand Rapids, MI: Eerdmans Publishing, 1994).

7"The Scandal of The Evangelical Mind," Christianity Today, Aug. 14, 1995.

8Dr. Robert C. Newman is the new Chairman of the ASA Creation Commission. His long-standing leadership in both the theological and Christian scientific communities may provide the opportunity to bring both disciplines together.

the opportunity to bring both disciplines together. 9R. C. Newman, "Scientific and Religious Aspects of the Origins Debate," *PSCF* 47:3 (Sept. 1995), 164-175.

¹⁰Dr. Phillip Johnson has led the way in critiquing the scientific establishment for treating Darwinism as fact rather than theory, and discussing the pervasiveness of naturalism as "the established religious philosophy of America." His two books on these issues, *Darwin on Trial* and *Reason in the Balance*, are published by InterVarsity Press.

¹¹D. W. Munro, "The Executive Director's Corner," ASA Newsletter 38, no.1 (Jan/Feb 1996).

12Noll, Ibid.

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Response to Kline

In regard to Meredith Kline's article, "Space and Time in the Genesis Cosmogony" (PSCF 48:1, March 1996, 2-15), I have several comments. This article raises many methodological questions, not just for biblical exegetes but also for all those who seek a way of relating their faith and

their science. The two most prominent are: What constitutes a "good" or "valid" interpretation; and how does a non-expert evaluate competing interpretations?¹

I speak here as a professional exegete (formerly an engineer) who has focused on the scientific study of the biblical languages from the perspective on contemporary linguistic semantics and text linguistics. These methods are based on the study of how language works to communicate; and hence can offer guidance in how we should interpret acts of communication, such as written texts. I believe that these tools, carefully applied, would help restore theology to a (Thomistic) "scientific" status: by this I mean, it would help to diminish the widespread impression that "there is no way to decide upon one 'correct' meaning of, say, a poem or story or a work of art"2 and by implication, of a biblical passage. I am currently at work on a model to describe the interpretative process (whether of natural science, social science, or exegesis), that takes into account the personal involvement of the observer, and the way the observer correlates conclusions in one realm (say, physics) with those in another (say, theology).3 Of course, in theology the issue of one's personal commitments comes into play much closer to the data than in physics, and the tools of analyzing language are not so easily reduced to equations, so we will hardly eliminate all competing interpretive schemes (any more than the natural sciences do), but at least we will make the issues clearer. I hope that one benefit of this model will be a delineation of how one who is not expert in a particular discipline can come to responsible conclusions about the subject matter of this discipline, especially about how it relates to other realms of study.

The editor of *PSCF* has declared "a moratorium of articles related to interpretation of early Genesis," so I will have to content myself with asserting some things in this letter, which I will only later be able to argue. Professor Kline criticized a few points of an article of mine in his notes 24 and 26.4 Now, his own argumentation depends upon the acceptance of his "two register" scheme and its consequences on the interpretation of the passage. This in turn depends on accepting his interpretations of various verses used to support his two register scheme (many of which are debatable); and it also involves one in questions of directionality in applying imagery (i.e., he seems in-



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different to questions of whether a supporting passage was written before or after Genesis 1, and what implications that will have on our use of it in interpretation. And finally, his approach is what is called a "top down" hermeneutic: he starts by assuming the validity of his big picture, and interprets all detail in the light of it (even to the point of relegating the "evening and morning" refrain to the status of "simply a detail in the creation-week picture"5). All of this produces something quite complicated and hard to follow, even for the biblical specialist, and this raises the obvious question: what kind of communication was this from Moses to his audience?

A text linguistic approach, on the other hand, would lead us to treat the intra-textual relationship (i.e. how the details of the text relate to the overall workings of the text)6 and the extra-textual relationship (e.g., genre; communicative function; communicative intent in light of social conventions). It is my view that this kind of hermeneutic would go a long way toward clearing up some traditional difficulties, such as the grammatical relationship of Gen. 1:1-2 to the rest of the chapter (e.g., when does the first "day" begin; is this ex nihilo?); the relationship of the prominence of the sixth "day" to the communicative intent of the passage; what we are to make of the unusual features of the seventh "day;" how we connect this passage with Gen. 2:4-25 (indeed, how do we know where the passage boundaries are, and what role do we give to putative sources in interpretation?); and what kind of referentiality (connection with the "real world") this passage is supposed to have (including: Is it properly called a "cosmogony" at all? Do the words "literal" and "figurative" have any useful meaning in this discussion?). I think further, that in the interests of being scientific, a good method would make clear its grounds and assumptions, and the means by which its results are to be correlated with conclusions in other realms of study.

One of these days I hope to write such a comprehensive text linguistic study of this passage. My 1994 article includes some of this, but not enough. There I concluded that the "days" of the creation week are an anthropomorphism to describe God's activity (an exegetically-based articulation of a view found in Augustine, and even earlier). In so far as Gen. 12 touches on time, we are not linguistically able to eliminate completely all succession in the days;7 however, since that succession is itself part of the anthropomorphic description, there will always be uncertainty as to how this related to "the experience and knowledge of us earthbound men" (Augustine's phrase). I further tried to suggest that therefore empirical investigation, and not exegesis, can help us learn such things as how long ago God created the universe; what kind of overlap there is between the various "days" of the creation week; to what extent items of a particular "day" have been classed together for logical rather than chronological reasons (clearly not an exhaustive list).8 I did not try in any extensive way to translate my exegetical conclusions into the kinds of statements that could be "tested:" I am still thinking about that.

Non-theologians will perhaps smile condescendingly at us, though, when they realize that there are similarities

in the cash values of these two exegetical schemes for practicing scientists.9 However, I contend that the methods behind the two schemes do have important differences, and hence consequences. Further, I find many of the ideas associated with the two register scheme unconvincing and diversions from the text itself. One important difference for the ASA context is this: Profess Kline's view is explicitly non- (or even anti-) concordist, at least for Gen. 1 (I think his last footnote makes it clear that his position is more concordist for Gen. 2-3); while my own conclusions, though they could perhaps be construed in a non-concordist (e.g., complementarist) way, lend themselves more to a mildly concordist mode. I want to be careful about what this entails, however (which is why I am still thinking about "testable" ways of stating my conclusions). 10 On this I welcome input.

Notes

¹For example, I claim an expertise in biblical studies, and I differ from Professor Kline in some significant ways: how are, say, other ASA members, who for all their commitment to the Bible are mostly not experts in the technical disciplines behind exegesis, to decide between us (or to go with someone else, or to decide it's okay not to decide)?

²Richard D. Alexander, "A Biologist's Approach To Human Nature," in Michael Bauman, Ed., Man and Creation (Hillsdale: Hillsdale College Press, 1993), 191-207, at 193. He contrasts religion, as a part of the humanities, with science, which he

sees as being more objective.

³In some ways my model resembles that of W. Jim Neidhardt, "Realistic Faith Seeking Understanding," *JASA* 36:1 (March 1984), 42-45, especially his diagram on p. 44. However, his model lacks the explicit component of *correlating* (or better, *contextualizing*) that a comprehensive model needs.

⁴D. John Collins, "How Old Is the Earth? Anthropomorphic Days in Genesis 1:1-2:3," *Presbyterion* 20:2 (1994), 109-130. I

consider it a great honor to be taken notice of at all by someone of his stature!

⁵Kline, 10. In my own article (p. 118), by contrast, I found this refrain to be a key contributor to my interpretation (as well as strong evidence against the usual literalist claim that this refrain establishes the ordinary day view).
⁶This would include a "bottom up" use of the details (e.g.,

This would include a "bottom up" use of the details (e.g., lexical and grammatical) to build a big picture, and to refine or even overthrow our preliminary perception of the big

picture.

7This, of course, is a strong difference between my conclusions and Kline's: however, even though I express in a footnote a willingness to consider a phenomenological interpretation of "made" in day 4, to which Kline apparently took strong exception (see his p. 8 and note 26; I think he took my footnote as indicating my settled position, which it does not), I am not sure that in practical terms it actually produces as large a gap as his amount of text might suggest.

One of my concerns was to show that, at least under certain conditions, it is not a denial of biblical authority to allow empirically gained knowledge a role in interpretation, but

an application of it.

9Cf. Kline's note 47 with my conclusions. I don't think they are identical though; but of course a lot depends on what one means by "evolutionary"! But this also involves more

issues than just the interpretation of Gen. 1.

¹⁰I suppose the conclusions themselves could go with a strongly concordist approach such as Robert Newman's or High Ross', but they do not require that. A lot depends on what kind of "speech art" Gen. 1 is supposed to be, and what kind of space-time claims it is making. Conclusions on that question, though, should be the result of study and not the starting point of it.

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Contact the book review editor if you would like to review one of these books. Please choose alternate selections. Richard Ruble, Book Review Editor, *Perspectives on Science and Christian Faith*, 212 Western Hills Drive, Siloam Springs, AR 72761

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