

by George Marsden

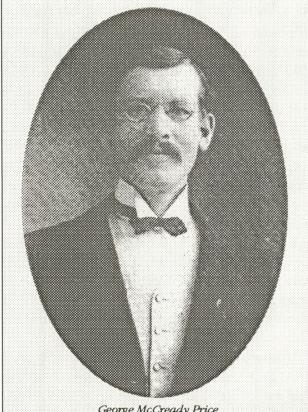
MAGINE YOURSELF DEEPLY COMMITTED TO A community that confirms your experience that its religious faith is the most important commitment that a person can have. Integral to this community is belief in an unerring Bible. Moreover, your community's faith is energized by the conviction that biblical prophecies will be fulfilled precisely by events accompanying the imminent return of Jesus. The whole Bible is correspondingly to be interpreted as literally as possible. Hence the Earth cannot be much more than 6,000 years old. A web of reinforcing factors makes it virtually impossible for you to abandon any of the above beliefs. Accepting an old Earth or biological evolution is therefore out of the question. Your job, as someone fascinated by science, is to use your high intelligence to find an alternative model in which to fit the scientific evidence. The task is difficult, but no more

George M. Marsden is in the Department of History, University of Notre Dame, Notre Dame, Indiana. This review first appeared in Nature, Vol. 360, December 17, 1992, and is reprinted with permission. so than other challenges that scientists have surmounted.

Ronald Numbers, a distinguished historian of science at the University of Wisconsin, understands well the drama and the potential agony of the challenge facing creation scientists. Numbers recounts that he grew up in a family of Seventh-day Adventist preachers but that he eventually came to the devastating conclusion that attempts to explain the geological evidence of a world-wide flood was a hopeless task. Nonetheless, in this monumental history of the young-Earth movement, there is no bitterness or cynicism. Rather, he tells the story with remarkable even-handedness. This feat reflects the unique perspective of one who is no longer an Adventist, yet who keeps on his desk a framed ticket for a 1940s lecture entitled "God's Answer to Evolution," in which his father was the lecturer.

This marvelously detailed, engagingly told and sometimes astonishing history has the intrigue of a Chaim Potok novel. Like Potok's *The Chosen*, in which an Orthodox Jewish boy finds out that his orthodoxy is liberal in the view of his Hasidic neighbors, The Creationists is largely the story of a struggle between the orthodox and the hyperorthodox. One of the remarkable parts of the story is how a small group of flood geologists rose from a marginal position, even among conservative Bible-believing Protestants, to come to represent the best-known creationist viewpoint.

Before 1960, what is today known as "creation science" had only the most meagre support even among the conservative evangelical or fundamentalist communities in the United States. Most earlier fundamentalist leaders had allowed for some accommodation of the geological evidence for an old Earth. Some allowed that the "days" in Genesis might represent aeons. Many others subscribed to a "gap theory" that allowed for vast amounts of time between when the Universe was created in Genesis 1:1 and its being "without form and void" in Genesis 1:2. Even William Jennings



George McCready Price

Bryan, leader of the anti-evolution crusade after the First World War, allowed for an old Earth. Just before the Second World War, almost the only prominent figure who insisted on a young Earth and argued that the biblical flood provided a scientific explanation of geological data was George McReady Price, a tireless lecturer dedicated to vindicating Adventist founder Ellen White's revelation on these points.

During the 1920s, however, most American fundamentalists had become militantly opposed to biological evolution, especially in reaction to those who were using Darwinism to shock people with faith in a literal Bible. Between 1940 and 1960, however, opposition to biological evolution was weakening among fundamentalist academics who were broadening their outlooks and beginning to call themselves "evangelicals." The American Scientific Affiliation, founded in 1941 as an organization of Bible-believing scientists, originally included proponents of a young Earth as well as advocates of an old Earth. During the next two decades, this sizable organization became a forum for accommodations of biological evolution and biblical belief. The small minority of young-Earth proponents felt excluded and resolved to establish an alternative for fundamentalists that would be equally viable scientifically.

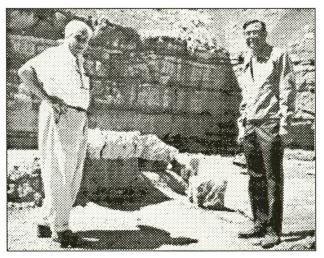
Central in the ensuing transformation of flood geology into an influential national movement was Henry Morris. Morris, who is described by Numbers as a person of ability and integrity, was a fundamentalist fascinated by prospects for literal fulfillments of biblical prophecies. Unhappy with views of the Bible that did not take it at face value, he dedicated himself to defending a young Earth, adopting flood geology much like Price's. Receiving a Ph.D. in hydraulic engineering from the University of Minnesota in 1950, he held an important position in engineering at Virginia Polytechnic Institute until 1969, when he felt forced out because of his fundamentalist views. In the meantime, the landmark for the launching of his alternative movement was the publication with John Whitcomb, a biblical scholar, of *The Genesis Flood* (1961), a volume that eventually sold more than 200,000 copies. The book helped to spark the formation in 1963 of the Creation Research Society under Morris's leadership.

T ot happy with the narrow sound of the term "flood geology," Morris referred to his movement as "creation science." Throughout the 1960s, creation scientists emphasized frankly the biblical basis for their views. During the 1970s, however, the strategy shifted. One of the explanations for the surge in popularity of the movement was that by the 1960s biological evolution had been reintroduced into U.S. public schools and was seen by fundamentalists as one part of a new relativizing of American public values. In the midst of the conservative backlash of the 1970s, creation scientists attempted to insert their views into public schools as an alternative to evolutionary views. This public strategy necessitated shifting emphasis to the scientific, rather than the biblical, basis of their conclusions. Furthermore, their characteristic view of sciences shifted from a Baconian objectivism to appeals to the views of Karl Popper and Thomas Kuhn, which emphasized that equally valid science may proceed from alternative viewpoints.

In order to win legislative approval, flood geologists now claimed for themselves the term "creationists," ignoring the fact that every other type of Christian believed in some form of creation as well. To the biblical literalists, however, all views that said that God used evolutionary processes as a means of creation were inconsistent. Therefore, they argued, there were only two real options: evolutionism and "creationism," meaning flood geology. Incredibly, in 1980 the legislatures of Arkansas and Louisiana adopted this "twomodel" view, mandating the teaching of "creationist" (in Arkansas specifically young-Earth) models alongside evolutionary views. Although those laws were struck down in the courts, the creation-science movement has continued to flourish at the local level. Moreover, polls show that nearly half the U.S. population will affirm recent creation of humans. Creationscience arguments have also been exported world-wide to new churches where biblicist "either/or" arguments have strong appeal.

Numbers does a marvellous job of telling this story, particularly the internal history of the creation-science movement. His research is superb, bringing in much previously uncited correspondence. Even when he is describing some of the questionable activities of some of the more marginal figures who have been part of the movement, his tone is evenhanded, letting the facts speak largely for themselves.

N umbers does not spend a great deal of time analyzing the reasons for the astonishing success of the movement. One factor he mentions is the populist appeal. American evangelicalism has long had a democratic rhetoric, appealing to people to decide for



Louis B. Leakey, discoverer of early man in Kenya's Olduvai gorge, and his friend Molleurus Couperus, professor emeritus of medicine at Loma University and Spectrum's first editor.

themselves. In American folk religion there is also a tremendous reverence for the Bible, literally interpreted. Creation scientists have been able to validate their arguments and to win legislative support by appealing to this popular base. The movement also has other political connections, which Numbers only mentions. Creation science typically has been closely associated with a broader conservative religious-political package. Morris, for instance, has long been a friend of Jerry Falwell. Numbers is, however, clear on the general point that creation science is a reactive movement. As in Bryan's time, the perception that evolutionary naturalism is undermining all traditional values is one impetus for promoting stark alternatives.

One lesson implicit in this history is that some scientists too have been guilty of posing stark alternatives. Evolution has often been used to ridicule any traditional faith. Some secularists have been all too ready to accept flood geologists' claims to speak for all "creationists" and then to dismiss even more nuanced arguments that belief in a creator might be a useful hypothesis for understanding the Universe. Those who insist that nothing could ever be clarified by positing the existence of a higher intelligence are in a formal sense something like creation scientists. They are so committed to a community that finds this secular faith immensely useful that they are convinced that they *must* be able to find an exclusively naturalistic explanation for everything.

Unless we suppose that natural science of the past century has somehow settled all such issues, we might expect that in the future there would be wider acceptance of a variety of hypotheses about the possible relationships of natural phenomena to higher creative intelligence. Those who insist on the extremes, however, may delay any such evolution of scientific thought.