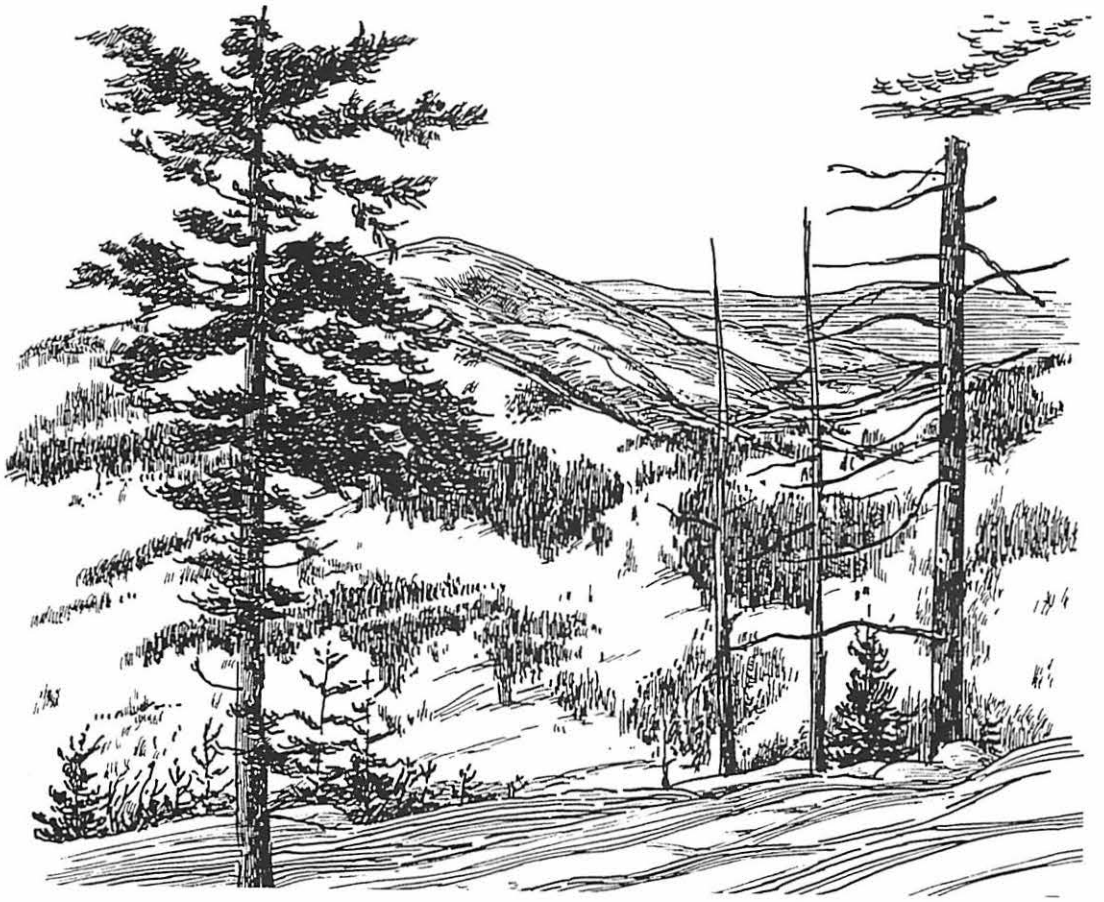
Finding the Harmony Between Faith and Science In College Classes

BY NORMAN L. MITCHELL



The Seventh-day Adventist Church perceives its mission as spreading the good news of the gospel to the world. It understands the gospel to include instructions for the highest development of the physical and intellectual faculties of its adherents. The church believes that spiritual values can best be nurtured in healthy bodies and cultivated intellects. For these reasons, it expends a significant portion of its resources in establishing and maintaining an impressive medical and educational work around the world. Why? Because teaching is seen by the church as just as valid a ministry as preaching. One of its founders expressed this conviction by saying, "In the highest sense the work of education and the work of redemption are one."[1]

Because of this elevated emphasis on education and mental development Seventh-day Adventist scholars are expected to rank among the best in their disciplines and to earn the respect of thought leaders in both the secular and religious arena. We assume that if educated people of the world can be led to respect the scholarship of Adventist educators, it should not be difficult to get them to think seriously about the SDA religion. Similarly, if students

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are confident about their teachers' competence in the sciences, they are more than likely to feel confident about the religion of their mentors. This can influence them to make their teachers' faith their own.

Adventist students must be thoroughly educated in the arts, the humanities, and the sciences. But they must also understand how the knowledge they are gaining relates to life.

This need for thoroughness is particularly important in the biological and physical sciences with which religion has traditionally been in conflict. In order that students may understand what scientists are saying and be able to defend their faith against the onslaughts of scientific dogma, they must know and understand the facts of science.

To understand how scientists think, students must be able to distinguish between questions to be asked of science and questions to be asked of religion. This does not imply that science and religion are mutually exclusive. All science is based on natural laws, which Christians understand to originate with God. However, science, by its very nature, cannot deal with anything that cannot be tested and measured. Since a "thus saith the Lord" is not measurable by the scientific method, it must be accepted by faith. This in no way diminishes the validity of such statements.

The problem arises when Christians allow their belief in God to be conditioned by some supposed fact of science. This may lead them to deny the possibility that certain types of scientific phenomena could ever occur. As Biologist William Keeton asserts, "Those who make the existence of any deity stand or fall upon some supposed fact about the universe risk having science destroy their deity."[2] One of my colleagues expressed it this way: "If scientific investigation is harmful to faith, either the faith or the investigation is faulty."

Daily Confrontation

Adventist college students are almost daily confronted by scientific statements that conflict with their religious instruction. There is hardly a textbook in biology that does not use evolutionary theory as a basis for its thesis. The physical as well as the biological sciences build much of their dogma on the assumed evidence of long geological ages. This stands in strong contrast to the short chronology advocated by most creationists.

Perhaps the pivotal issue is evolutionists' claim that man, like all other organisms, is the product of a long sequence of evolutionary processes. The doctrine of Creation is the cornerstone on which all Christian belief rests. It is difficult to get students excited about their divine destiny unless they are convinced of their divine origin.

The Christian science teacher must preserve this conviction without dimin-

ishing the excitement of scientific discovery. To do so, he or she must encourage students to engage in critical thinking and careful investigation of both science and Scripture. Students need to understand the difference between *what the Bible declares to be true* and *what the popular view interprets it to be saying.*

Based on the biblical statement that Joshua commanded the sun to stand still, the medieval church thought the sun rotated around a fixed Earth, located at the center of the universe. When Galileo proposed a contrary view, he was forced to recant, thus sparking a major controversy between science and religion. Tradition claims that as Galileo arose from his knees he was heard to mutter, "Eppur si muove" ("It moves anyway"). Reason cannot be suppressed by dogma. It is interesting to note that in spite of Joshua's misconceptions about science, God honored his faith and lengthened the day.

Jacob's faith was similarly rewarded in spite of his misunderstanding of the principles of genetics.[3] His cattle produced speckled offspring, not because of his superstition but because God controlled the pattern of mating. The lesson here is important for those who would discredit the scientific validity of the Bible due to careless or partial reading of Scripture.

The Teacher's Responsibility

A major responsibility of the Christian teacher is to help students distinguish between fact and assumption. For instance, denying that evolution of species has taken place among living things means closing one's eyes to the obvious. Numerous varieties of domesticated animals and plants are continually being produced by cross breeding within species. However, to claim that life arose by a process of spontaneous generation is an assumption that is not subject to critical scientific investigation.

The assumption that advocates of creationism cannot do good science is without foundation. Hypotheses based on the statements of Scripture can be developed and tested just as are those based on the speculations of unobserved evolutionary probabilities.

It is just as reasonable to postulate that new species arose from basic types as recorded in Genesis as to say they arose from a continuous line of primitive ancestors. Similarly, evolutionists use comparative anatomy as strong evidence of their claim that living organisms evolve similar structures from a common evolutionary ancestry. However, such similarities may also be explained on the basis of their having a common Designer.

Thus, the major difference between evolution-based and creationist science teaching is one of interpretation rather than factual information. People with common beliefs tend to share a common way of seeing and interpreting. Thus, while the facts of science do not change, the interpretation of some of that data may be very different.

A major advantage for the Christian scientist is having a point of reference from which to judge the validity of the evidence provided by nature. Scripture is clear in its claim that "the universe was formed at God's command, so that what is seen was not made out of what was visible."[4] Whenever the claims of science seem to conflict with the word of Scripture, the Christian scholar must lead his or her students to reexamine the evidence and critically evaluate the basis for such claims.

One of the most perplexing problems faced by Christian science teachers is reconciling the apparent age of the Earth, commonly accepted to be many millions of years, with that implied by the biblical record. But the validity of the claims for such ages is not beyond question. One must make certain that the methods of measurement are based on valid assumptions.

The radiometric method of carbon 14 dating assumes that the ratio of C12 to C14 has always been constant. Current evidence strongly indicates that this may not have been so, since ratios are now known to be changing within historical times. Experts in the field now quote their dates as C14 years rather than actual years, indicating the lack of equivalence between the two. The method is therefore successful for determining relative age, rather than actual age.

Similarly, radioactive decay methods for dating rocks assume a consistent radioactive decay rate. But if the decay is caused rather than spontaneous, its rate would change. Also, the potassium/argon method of dating is based on the assumption that no argon existed in the sample at the beginning. However, if argon was present—as may happen when it is trapped by a volcanic lava flow—the clock would be set with much argon present and would falsely indicate great age.

Reexamining the Evidence

Reexamination of the evidence has recently proven effective in invalidating some well-established methods of arriving at long geologic ages. Layers of superimposed mudflows called varves found in glacial lakes were formerly believed to be laid down annually at each spring thaw. More than 150,000 such layers occur in some glacial lakes which have therefore been dated as having a corresponding age. Current evidence derived from sediment traps shows that these layers may be laid

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down by underwater currents at the rate of two per day. Therefore, this method of dating has had to be discredited.

The use of Scripture as a point of reference provides the Christian teacher with another interpretation for geological formations that is as valid as those offered by evolutionists. The Bible speaks of a great Flood that covered the whole Earth with water. Flood geology provides a reasonable and scientific explanation for much of the geologic formation of the Earth and does so without the requirement for long ages of time. It also fits in well with the known facts about the fossil record of extinct life forms preserved in the rock layers. Scientists generally accept the theory that most fossils are found in sedimentary rocks, which were laid down in water. To preserve fossils, they must be buried rapidly. This can be done most effectively by sediment carried by water.

A Progressive Sequence Model

The sequential occurrence of fossils in the various rock strata from simple forms to the more complex forms does pose a problem for creationists. But, as proposed by Harold Clark and supported by many qualified scientists, this stratigraphic arrangement may represent an ecological zonation rather than an evolutionary history. This model postulates that organisms were buried by the Flood in progressive sequence according to their ecological habitats.[5]

The Flood model also provides a much more satisfactory explanation for the discontinuity of the fossil record. The evolutionary model would predict a gradual and progressive sequence of intermediate life forms with no gaps in between, except as certain fossils were not preserved. Instead, fossils show distinct groups of organisms with clear lines of demarcation. This, of course, is exactly what would be expected if God created organisms "according to their kind" and allowed for variation within those basic types. And it is to the credit of a wise Creator that He endowed each living thing with the genetic capabilities to adapt to an ever-changing environment in order to survive. The result is the evolution of new species within the basic Genesis kinds and the marvelous array of exotic creatures that now inhabits our Earth. It is interesting that present evolutionary dogma, in responding to the evidence of discontinuity in the fossil record, now advocates catastrophism as a possible explanation. In fact, the Darwinian theory of natural selection is rapidly incorporating the current theory of punctuated equilibrium recently proposed by Stephen Gould of Harvard fame and Niles Eldredge of the American Museum of Natural History.[6]

The Origin of Life

All of the many explanations except that of divine creation are based on spontaneous processes that have extremely marginal probabilities. In his article on one such theory, H. P. Yockey stated, "One must conclude that, contrary to the established and current wisdom a scenario describing the genesis of life on earth by chance and natural causes which can be accepted on the basis of fact and not faith has not yet been written."[7]

Frank B. Salisbury in his treatment of the same subject made this observation: "We can try to write Shakespeare by piling computers on top of each other and letting them rearrange letters of the language, but a much better way is to let Shakespeare apply his intelligence to the job."[8]

Adventist scientists believe with Dr. Salisbury that God has a better way. Good science is also on their side. Since life is a high-energy nonspontaneous process, the origin of life by spontaneous generation contradicts the law of entropy and is therefore highly improbable.

Setting the Stage

The distinction between science teaching in a Christian college and in a secular college can be seen more in what is experienced than in what is taught. The structure of the atom, the laws of genetics, or the principles of magnetism do not vary according to where they are taught.

Most Adventist science professors spend very little of their teaching time trying to resolve conflicts between science and religion. But imperceptibly they instill in their students a sense of wonder and appreciation for the beauty of the magnificent design that is so evident in nature. They lift up God as the moving cause behind the universe and set the stage for reflective thinking and critical analysis. Because they teach that God reveals Himself through nature as well as through Scripture, students develop a respect for nature and an appreciation for its intricacies. The realization that everything comes from God makes all life sacred and worthy of being preserved and protected. The commonality of faith and practice in a Christian college allows for greater freedom of expression and a deeper understanding of the message of nature.

Informed Christian students do not become despondent over the ugliness and the sometimes stern relentlessness of nature because Inspiration reveals that it is the Enemy who has bespoiled the perfection of the original creation. "Only in the light that shines from Calvary can nature's teaching be read aright. . . . in brier and thorn, in thistle and tare, is represented the evil that blights and mars."[9]

Christian students do not have to doubt the miraculous because it cannot be explained by known laws of science. They believe in a God who created an orderly universe using natural laws, some of which we have come to understand, others we have yet to discover. Best of all, they have a heightened sense of self-worth, knowing they are sons and daughters of God rather than distant cousins of an ape. Integrating science and religion in a Christian college is not only intellectually stimulating but spiritually satisfying as well. □

FOOTNOTES

[1] Ellen G. White, *Education* (Mountain View, Calif.: Pacific Press Publishing Assn., 1903), p. 30.

[2] William Keeton, *Biological Science* (New York: W. W. Norton Co., Inc., 1980), p. 6.

[3] Genesis 30 and 31:10-12.

[4] Hebrews 11:3, NIV. From *Holy Bible: New International Version*. Copyright © 1978 by the New York International Bible Society. Used by permission of Zondervan Bible Publishers.

[5] Harold Clark, *The New Deluge* (Mountain View, Calif.: Science Publications, 1946), pp. 37-93.

[6] Robert T. Bakker, "Evolution by Revolution," *Science 85*, 6:9 (November 1985), pp. 72-80.

[7] Hubert P. Yockey, "A Calculation of the Probability of Spontaneous Biogenesis by Information Theory," *Journal of Theoretical Biology*, 67 (1977), pp. 377-398.

[8] Frank B. Salisbury, "Doubts About the Modern Synthetic Theory of Evolution," *The American Biology Teacher*, 33:6 (September 1971), pp. 335-354.

[9] White, p. 101.