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ABSTRACT

"BY ACCIDENT OR DESIGN"

A SEMINAR ON ORIGINS

by

John B. Kurlinski

Adviser: Randall W. Younker

ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University

Seventh-day Adventist Theological Seminary

Title: "BY ACCIDENT OR DESIGN": A SEMINAR ON ORIGINS

Name of researcher: John B. Kurlinski

Name and degree of adviser: Randall W. Younker, Ph.D.

Date completed: November 1998

Problem

Evolution is the only accepted theory taught in the public educational systems and by the scientific community in general. The results of the promotion of this theory have had a negative impact on the church and Scripture in general and is in direct conflict with the message of the Seventh-day Adventist Church. However, the scientific data used to support evolutionary theory are highly suspect. There are credible scientific data that call into question the long-held theory of evolution and in fact support the biblical account of the creation and the flood. The purpose of this project was to write a seminar on origins for the church and community that will build faith in the biblical account of the Genesis creation account, and that can be incorporated into a larger evangelistic series of meetings.

Method

A series of six lectures, entitled "By Accident or Design," was developed and held at the Nampa, Idaho, Seventh-day Adventist Church. Personal evaluation and a participant survey were used to determine the overall effectiveness of this method.

Results

The seminar was well attended by members of the Nampa Seventh-day Adventist Church and other Adventist churches in the Treasure Valley (the greater Boise, Idaho, area). Several members of other Christian churches were also in attendance. The seminar drew from all socioeconomic as well as educational levels in society. It did not draw people from the unchurched population. The seminar was well received by those who attended.

Conclusions

Evidence from the presentation of this series suggests that the topic of origins attracts people. There are issues and questions which many in the church want answers to. These questions are fundamental to Christian faith and personal existence. There is great potential that this seminar held in conjunction with topics on prophecy and finding meaning for today (gospel) will attract people to hear the message of the Seventh-day Adventist Church as given in Rev 14. The series helps to strengthen faith in the Bible and the creation and flood stories.

Andrews University
Seventh-day Adventist Theological Seminary

“BY ACCIDENT OR DESIGN”
A SEMINAR ON ORIGINS

A Dissertation
Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Ministry

by
John B. Kurlinski
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PREFACE

History has always fascinated me. Genealogies are not just lists of names but histories of people who lived in different times. I always wondered what it might have be like to be alive several thousand years ago. I was probably always asking the question "Why?" because I really wanted to know. Knowing brings with it a measure of security, especially knowing the fundamental reason why we exist as humans. The Bible speaks of being created in the image of God for the purpose of having fellowship with Him (Gen 1:26-28; 1 John 1:3-4).

Science has made this world a more comfortable place to live. It has answers to many of my questions. It seems so sure of its answers. But it tells me a different story to my question "why do I exist?" How could I be sure which story was true? My longing has lead me on this journey for some answers. The starting point for me is that their are answers to those who really want to know. There are still a lot of "whys" remaining on my check list.

However, the Bible speaks of a day when many of the "whys" of this world will be answered (1 Cor 13:12). Until then I take comfort in the knowledge that the God of this universe is one who knows all about me and yet still loves me. First, I want to thank You, Lord Jesus, for choosing someone like me, to partake in and share the most meaningful experience of all, Your gracious presence.

I am thankful for the people God has put in my life that reflect this aspect of His image. First of all my wife Barb, who knows me better than anyone and still loves me, thank you! You encouraged me to continue when the temptations to quit were strong. I am grateful for my children who have borne patiently with a dad they want to know better. They are at an age where love is measured in time, and they gave a lot of love to me so I could complete this project. I thank my mother, Dorothy Beardsley, for believing in me and supporting me all the time.

I am also grateful to members of my churches who have also given me the freedom and encouragement that this was a worthy project. Special thanks to Aileen, Eric, and Steve for their support and technical help when scientific technology was quickly losing its credibility with me. Thank you Stan, a kindred spirit in this quest. Your support helped make this seminar happen.

CHAPTER 1

INTRODUCTION AND INITIAL CONSIDERATIONS

The search for meaning is life's
fundamental pursuit.¹

Albert Camus

Purpose of the Project

Wrapped up in mankind's search for the meaning of life is the explanation of its origin. This fundamental understanding of beginnings is the foundation for personal worth and social morality. One of the main tenets of Darwinian evolutionary theory is the concept of the "survival of the fittest" or the process of "natural selection."² It suggests a struggle for supremacy between the various species, even within the species itself. "Survival of the fittest" is also a fit analogy for the often antagonistic debate between the competing scientific and theological propositions explaining the origin of life. Some people have gone as far as to say that it is more than a struggle. It is an all-out war.³

¹Ravi Zacharias concurs with Camus. Ravi Zacharias, *Can Man Live Without God?* (Dallas: Word Publishing, 1994), 7. Colin Mitchell calls this "search for meaning" the "search for a unitary world-view." Colin Mitchell, *The Case for Creationism* (Alma Park, Grantham, England: Autumn House, 1994), 13.

²Darwin uses these terms interchangeably. Robert Maynard Hutchins, ed., *Great Books of the Western World*, vol. 49, *The Origin of the Species by Means of Natural Selection*, by Charles Darwin (Chicago: Encyclopedia Britannica, 1989), 40.

³Michael Behe notes that science and religion have been described as being "at war" from the Huxley/Wilberforce debate in England through the Scopes Trial in the U.S. down to our current day. See Michael Behe, *Darwin's Black Box* (New York: Free Press, 1996), 235-237.

The debate has often become hostile with emotions overriding reason. The conflict manifests itself in many aspects of life. The conflict is carried on in the courtroom and the classroom. It is causing great splits in churches as well as the academic community.¹ In this conflict between science and religion, both sides have at times resorted to exaggerated portrayals and misinformation of their own and the opposition's argument. There is thus a need for open forums of honest discussion of these issues. Truth can stand the test of honest investigation. The purpose of this dissertation is to write and present a seminar on origins for the church and the community to investigate the major issues in the debate, with the goal of providing people with reasonable answers for belief in the biblical account of creation and the flood.

Justification for the Project

Many books, articles, audiotapes, and videos approach the very broad subject of origins from both the scientific and religious perspective. Why write another paper and subsequent seminar on the subject? A seminar is needed to consolidate and simplify the major issues in the debate. The consolidated materials can be presented in a format for the average person who may be neither well versed in the language of science or theology. There are several reasons why I believe there needs to be a seminar on such issues.

The first reason is sociological. The Western educational system teaches only one theory regarding origins, that is evolution. Attempts have been made by various state legislatures to require that the theory of creationism be taught alongside that of evolution.²

¹The Church of the Nazarene is facing such conflict in the administrative and academic bodies. David Redfield, Ph.D., and chairman of the Department of Chemistry, Northwest Nazarene College, informed me of an upcoming conference in Kansas City for professors of science and religion. Topics include: *The Historical/Theological Context of Creation Science*; *The Place and Meaning of Miracles in a World of Natural Laws*; and *The State and Future of Fundamentalism in the Church of the Nazarene and Its Impact on Doing Science and Theology*.

²Philip E. Johnson, *Darwin on Trial* (Downers Grove, IL: InterVarsity Press, 1993), 3.

However, the Supreme Court ruled these attempts as unconstitutional in 1987.¹ Thus, evolution is taught as fact without serious consideration given to its underlying presuppositions or other theories of origin. Public television (PBS) is a promoter for the theory of evolution. Only recently has there been any presentations which would even mention the possibility of other viewpoints.² Moreover, part of the greater sociological implications of this debate involves government funding of education. Large amounts of tax dollars are spent each year in evolutionary-based scientific research in the areas of science and human behavior. Unfortunately, in most issues today there are political ramifications, which involve money.³ Any attempts to receive funding for research into creation theory would be denied based on the establishment clause of the Constitution, which forbids the government from engaging in any activity that would be seen as supportive of any particular religious view. This in particular has come under serious challenge in the courts as previously mentioned.

The second reason for an origins seminar is theological. Confusion and doubt regarding origins impact one's understanding of humanity, sin, salvation, and destiny. The greater question of biblical relevance is called into question. If one allegorizes away the accounts of creation and the flood, then what does one do with the statements found in the New Testament which authenticate these events as historical and real? Jesus and other New Testament writers refer to creation, Noah's life, and the flood as actual events that occurred. See Matt 19:4-6; 24:37-38; Col 1:15-17; Rom 1:20; Heb 11:7; 2 Pet 3:4-6 as

¹Ibid., 6.

²The recent series in 1996 hosted by Bill Moyers, *Back to Genesis*, is the anomaly to the majority of presentations found on both public and network television.

³Johnson, *Darwin on Trial*, 163. Johnson alludes to political consequences that might follow if science were to admit to the naturalistic presuppositions.

just a few examples. Where does one stop? Are we to erase all supernatural events because they do not fit into naturalistic paradigms? Alan Richardson is correct when he states,

The Christian faith is thus an historical faith, in the sense that it is more than the mere intellectual acceptance of certain kind of theistic philosophy; it is bound up with certain happenings in the past, and if these happenings could be shown to have never occurred, or to have been quite different from the biblical-Christian account of them, then the whole edifice of Christian[ity] . . . would be found to have been built on sand.¹

The scriptural mandate as understood by the Seventh-day Adventist Church in Rev 14 charges us to call the world back to the worship of the Creator. Bound intrinsically in the end-time call is the restoration of the Sabbath, which is the climax of the creation narrative of Gen 1-2:3 as well as the hinge or center of the decalogue.²

Thus, some Seventh-day Adventist youth attending the public school system are exposed to this one-sided theory of origins. This exposure, combined with other secular influences, erodes faith. The *Valuegenesis Report* lists a stable Christian school environment where consistent biblical values are taught as one of three major environmental factors in the retention of youth in the church. Consistency in the messages that youth receive is vital.³ When scientific values are presented in a way that lessens faith in revelation, the results can be detrimental for faith. The decline and dropout of youth in the Adventist church could probably be predicted in this current culture. Ellen White noted the fruits of scientific naturalism when she said:

¹Alan Richardson, quoted in Ronald Nash, *Christian Faith and Historical Understanding* (Grand Rapids, MI: Zondervan Publishing House, 1984), 12.

²Jacques Doukan, "The Law of Liberty," *Shabbat Shalom*, April 1996:, 12.

³Peter L. Benson and Michael J. Donahue, *Valuegenesis: Report I: A Study of the Influences of Family, Church and School on the Faith, Values and Commitment of Adventist Youth* (Minneapolis, MN: Search Institute, 1990), 23-24.

Scientific research becomes misleading, because its discoveries are misinterpreted and perverted. The word of God is compared to the supposed teachings of science, and is made to appear uncertain and untrustworthy. Thus the seeds of doubt are planted in the minds of the youth. . . . The youth are drawn into paths which lead away from God and from everlasting life.¹

A third reason for an origins seminar is experiential. My experience as a Seventh-day Adventist pastor has brought me to the conclusion that many church members seem to be confounded by questions from the secular community regarding the biblical account of creation. They are challenged by what they read and view and by what is promoted as the more rational answer for life today. Stephen Jay Gould says

The human species has inhabited this planet for only 250,000 years or so—roughly .0015 percent of the history of life, the last inch of the cosmic mile. . . . The world fared perfectly well without us for all but the last moment of earthly time—and this fact makes us look more like an accidental afterthought than the culmination a prefigured plan. Moreover, and more important, the pathways that have led to our evolution are quirky, improbable, unrepeatable and utterly unpredictable. Human evolution is not random; it makes sense and can be explained after the fact. But wind back life's tape to the dawn of time—and you will never get humans a second time. . . . We cannot read the meaning of life passively in the facts of nature. No higher answer [God] exists. We must construct these answers ourselves—from our own wisdom and ethical sense. There is no other way.²

How does a layman argue with a recognized and respected “expert” in the realms of science? The inability to discuss issues on more than a faith level leaves church members feeling inadequate. There is created an inner tension of loyalty to what they believe as Christians and to what they have learned. This is especially true for those members who either teach in a university setting or have been trained in the scientific method. Physicians and nurses who have been exposed to materialistic philosophy have many honest questions about the authority of Scripture in relationship to science in areas

¹Ellen White, *Christ's Object Lessons* (Mountain View, CA: Pacific Press Publishing Association, 1941), 41.

²Stephan Jay Gould, quoted in David Friend, *The Meaning of Life* (Boston: Little, Brown, 1991), 33.

like creation and the flood.

Having studied in a secular educational system, I sense a need to give a reasonable defense of creation to family, church members, and friends with evidence from more than just a biblical perspective, yet one which incorporates the biblical model. The Apostle Peter admonishes believers to be able to give a credible defense for what they believe, "But sanctify the Lord God in your hearts, and always be ready to give a defense to everyone who asks you a reason for the hope that is in you, with meekness and fear."¹

When one attempts to live, as Gould suggests, from the vantage point of our own wisdom and ethical sense, then one ultimately ends up creating a great tension for morality, hope, and meaning. There are no moral absolutes in the accidental life, no anchor from which to base meaning, and of course no destiny beyond the grave. What needs to be explained to those who live in the tension between "objective science" and "subjective faith" is that science is not exclusively objective and that faith can be based on objective realities as well.

Definition of Terms

Philip Johnson reveals that, for clear communication to occur, definitions must be precise. When talking about evolution verses creationism there exist many meanings in just how one may use a specific term. In order to distinguish exactly what is meant by the terms "evolution" and "creationism" and the subdivisions of these terms, a glossary is included.

Creation: The belief in the creation of matter and life by God, through supernatural means.²

¹1 Pet 3:15. Unless otherwise indicated, all quotations are from The New King James Version.

²God not only initiated this process but in some meaningful way controls it. Johnson, *Darwin on Trial*, 4, n. 1.

Creationism: Belief in creation in general but may still hold to long periods of time. God initiated the processes that we find today. This would include both young-earth and old-earth models.¹

Creation-Science: This term refers to a young-earth, six-day special creation. It is used to mean "sudden" rather than creation by progressive development.²

Darwinism: "Naturalistic evolution, involving chance mechanisms guided by natural selection."³

Evolution: "The process whereby life arose from non-living matter and subsequently entirely by natural means."⁴

Macro-evolution: The process of one species evolving into another entirely different form, through gradual mutations. An example would be that birds were once lizards whose scales evolved into wings.

Micro-evolution: The process where minor changes within a species occur through genetic mutation.

Progressive creationism: Belief in a literal though modified interpretation of the Genesis account whereby God created, but not in six days, sometimes called the "gap theory."⁵

Science: The general view of science as data, interpretation, and opinions about

¹Ibid.

²Ibid.

³Ibid.

⁴Behe, xi.

⁵The "days" of creation are substituted with eons. There is wide discrepancy of the time involved for the creation process. Though time has been lengthened to account for the geologic column, God at various times enters the process and modifies what is in existence.

nature.¹ Viewed as authoritative, especially for evolutionists.

Scripture: The Bible in its received form (Protestant translation).

Theistic evolution: Belief that God initially created matter and primitive life billions of years ago, and evolution is the means by which He chose to develop new, higher forms. Genesis 1-11 is relegated to myth or poetry.

Limitations of the Project

The topic of evolution and creationism forces me to make limitations. These were in the area of technical explanation, restrictions on the scope of the subject, and selection on the number of topics that will comprise the seminar presentation aspect of this dissertation.

The first limitation was in the area of technical scientific research and explanation. I have had only limited exposure and training in various fields of scientific study. My training has been in historical research, political science, biblical languages, and theological study and practices. Training in historical research is valuable to this task because it has taught me how to analyze source material in an open manner. It challenges me to be open and acknowledge my own biases and seek to understand the biases of others. Therefore, I chose the writings of those who have both naturalistic as well as theistic presuppositions in their various fields of expertise. I personally have theistic presuppositions that are elaborated on later.

Education in the areas of biblical languages and theology is also valuable in stating what the Scriptures teach regarding creation. Even in this there are, of course, presuppositions that have a bearing on biblical interpretation. These too will be examined

¹Ariel Roth, *Origins: Linking Science and Scripture*, glossary, 5. This is a preliminary draft of an unpublished manuscript, TMs, July 1996. Permission to cite was given in a letter that accompanied the manuscript. The format is given in chapters and pages with numbering reverting back to "1" at the start of each new chapter.

later in this paper. Having acknowledged my personal limitations in the area of scientific study does not disqualify me from making comments on what scientists write. I agree with Philip Johnson when he states; "Charles Darwin and T.H. Huxley wrote for the general reader. . . . Leading scientific figures have always assumed that nonscientist readers can understand the essential evidence."¹

A second delimitation in this study involved the scope of material researched. Because of the copious volumes of literature on the subject, current major works and articles on the subject are given greater attention. Special consideration was given to volumes that have synthesized the debate.

The third limitation of this dissertation pertains to the presentation of this debate in a seminar format. Since this seminar forms the first third of a greater presentation,² practicality dictates that the length and topics be limited to about six presentations approximately two hours in duration. The following items are the major issues discussed in the seminar presentations: philosophical presuppositions of scientific and theological epistemology; radio-isotope dating; the geologic column and the fossil record; biblical interpretation; biological and biochemical issues; physics and astronomical issues; and the Genesis flood. The end product was to acquaint participants with the issues of origins and to provide believers with a reasonable scriptural and scientific framework for faith in the biblical account of origins.

Method

In order to write and present a seminar on origins, research into the history,

¹Johnson, *Darwin on Trial*, 13-14.

²I foresee a seminar on origins occupying about one third of the dates and material on a greater seminar which would also include a subsection on destiny, and another on meaning of life today.

methodology, and philosophical presuppositions of science and religion as they relate to origins was undertaken. There was also needed an analysis of hermeneutic principles that lead to various interpretations of the creation accounts of Genesis. Along with the biblical study of the Genesis and flood stories, an analysis of the writings of Ellen White gives insight to the Seventh-day Adventist understanding of origins. A suggested framework for approaching the issues of origins was formulated. Chapters 2 through 4 deal with these backgrounds and foundational items. Material from these studies is incorporated in the lecture series.

Chapter 5 discusses an approach to scientific data in light of the historical research. Chapter 6 contains an examination of the biblical account of creation and the writings of Ellen White. Chapter 7 discusses the general parameters that formed the topics discussed in the seminar in light of the method and data. Much of the material covered in this chapter also appeared in the seminar lectures and aided in the selection of audiovisual aids.

After the research was completed, lectures were written along with the various audiovisual aids and handout materials to produce a seminar. A site was chosen and the church and community were invited to attend.

Chapter eight records the description of the actual seminar. It discusses how the seminar was designed and the reasons that influence the presentation of each lecture. Personal reactions to what was taking place were also noted in the description.

A survey was conducted at the end of the seminar in an attempt to measure the results of the presentations as they related to the participant's understanding of the issues regarding creation and evolution. Results from these surveys and my personal evaluation are noted and concluding recommendations given. This seminar will eventually be incorporated into a larger presentation that will also deal with the issues of destiny (prophecy) and the gospel.

The actual seminar lecture notes are included as part of the Appendices because of the limitations of space in the D.Min. guidelines.

CHAPTER 2

A PRIORIES OF THE CURRENT DEBATE ON THE ISSUE OF ORIGINS AND HISTORICAL REFLECTIONS

A Priories and Their Relationship to Historical Interpretation

Donald Chittick correctly suggests that the way to discuss the issues relating to origins with a secular person is to begin with "assumptions and not with the data."¹ Science and Scripture both offer explanations (truths) about our world and ourselves. These explanations are given on two levels. The first level is epistemological. This level is concerned with the *a priories*. These are the lenses by which we interpret the data, the beliefs, and assumptions one uses to make sense of data. This approach is subjective in nature. Beliefs are formed and influenced by culture, education, and experience. Kitty Ferguson rightly points out the "leap of faith" as the starting point for all knowledge.

We must ask whether there is anything about our universe, about ourselves, that we can take for granted—any fundamental we can use as a starting place for the exploration of everything else. If it is difficult to find such a 'still point' . . . then the quest for ultimate truth must begin with a leap of faith . . . faith we can know anything at all.²

¹Dr. Donald E. Chittick, *Evidence for Creation*, cassette produced by Creation Compass, P.O. Box 993, Newberg, OR, 1994.

²Kitty Ferguson, *The Fire in the Equations: Science, Religion and the Search for God* (Grand Rapids, MI: William B. Eerdmans Publishing Company, 1994), 3.

The second level of explanations is based on empirical knowledge. This is knowledge gathered from observation of data. This way of knowing is more objective in nature. Data does impact belief and belief does impact the interpretation of data. An example of the latter could be how belief or unbelief in the existence of God, and revelation of God through Scripture, might greatly impact how one would interpret the age of fossils and how they are formed. Thus, the history of the current debate can be interpreted as a history of the ways of thinking and how the various assumptions affected the interpretation of data. These interpretations formed the two worldviews that are examined in this project. This chapter seeks to show the historical relationship between "experience and experiment" or how subjective and objective ways of knowing and understanding developed within Western science and religion.

This process begins by examining some historical concepts in the early Christian and Greek philosophies which led to the development of modern scientific thinking. It continues by tracing the factors that led to the stagnation of scientific thinking during the Dark and Middle Ages. Finally the rebirth of science during the time of the Reformation and the Enlightenment is explored.

Science's Early Christian Roots

Many understand that science had its beginnings in the Western Judeo-Christian culture. This understanding has been based upon several factors that are examined in this section. These factors include the concepts of law, revelation, creation, and the *Logos* doctrine. In trying to understand why science developed in the womb of Christian culture, Harvard scientific historian Lewis Wolpert offers insightful observations:

The Chinese [he would later include the Egyptians] were fundamentally practical, but they had a mystical view of the world, a view that contained no concept of laws of nature but which was more directed to social ethics whereby people could live together in happiness and harmony. Attitudes of this kind, in contrast to the passion for rationality that characterizes Christianity, perhaps partly account for science's flourishing in the West and its failure in the East even to begin.¹

A case can be made for the importance of Christianity in fostering, in the West, the rationality, in the sense of logical arguments and reasoned discussion, that was necessary for science, and also providing a system in which there was the possibility—even the conviction—that there were laws controlling nature. Such a conviction was unique to Christianity.²

Wolpert acknowledges the importance of the concept of law that resulted in the discovery of natural law. This was fundamental to the development of the scientific methodology.

Like other cultures, the Judeo-Christian culture did not make a great distinction between the natural and the supernatural. There was no separation between objective and subjective ways of knowing. Scripture was authoritative for truth and life. The study of the natural world was a confirmation of the creative power of God (Rom 1:20). Belief in God and His creative power was founded on the belief that God had revealed Himself to mankind in history and can also be known through Scripture. This was the vantage point from which the early Christian would perceive the world.³

M. B. Foster cites two more Judeo-Christian ideas that were foundational to the development of scientific thought in the West:

¹Lewis Wolpert, *The Unnatural Nature of Science* (Cambridge, MA: Harvard University Press, 1993), 46.

²*Ibid.*, 48.

³See Heb 11:1-3 and 6 for this foundational *a priori* of Christian thinking. These *a priories* will be expounded upon later.

The general question arises: What is the source of the un-Greek elements which were imported into philosophy by the post-Reformation philosophers, and which constitute the modernity of modern philosophy? And . . . what is the source of those un-Greek elements in the modern theory of nature by which the peculiar character of the modern science of nature was to be determined? The answer to the first question is: The Christian revelation, and the answer to the second: The Christian doctrine of creation.¹

God as Creator was posited as the primary cause for the natural world, implying a purpose for existence. The material world was "good" (Gen 1:31). The desire for understanding the material world became the pursuit of science. Revelation and the doctrine of creation freed the mind from the superstitious ways of thinking (i.e., Greek/pagan concepts that the material world was evil) and allowed man to examine the natural operations of the world. This would later prove to work against scripture as man sought to explain most activity through natural causes.²

Revelation provided a fixed authority by which to explain all knowledge as well as the principle of law. It is not a great leap to understand that just as God's law was given to govern individuals and nations, there are laws that govern nature. The ideas of order and law that come from the Creator God are *exclusive* to Christianity. These three factors—law, creation, and revelation—form the foundation for Judeo-Christian rationality. Wolpert rightly comments: "The most important aspect of Christian religion alone is its

¹M. B. Foster quoted in Norman L. Geisler and J. Kerby Anderson, *Origin Science: A Proposal for the Creation-Evolution Controversy* (Grand Rapids, MI: Baker Book House, 1987), 38-39.

²*Ibid.*, 51-52.

role in supporting and fostering rational thinking. A key concept in Christian thought is that of order and law as manifested [revealed] by God, the Creator."¹

One final factor that stems out of the biblical revelation that contributed to this rationality which fostered the growth of modern scientific thinking is the "*Logos* doctrine." Ronald Nash defines the *Logos* doctrine as "a cosmic law of Reason that controls the universe as is immanent in human reason."² In Stoical understanding, "*logos*" was nothing more than a metaphysical abstraction, and matter was the necessary forms that helped one understand this cosmic reason. Classical empiricists claimed that at birth the human mind was a *tabula rasa*, a blank tablet. Knowledge and, later, reason arise from the sensory experience of empirical data.

The early Christians on the other hand argued that the human mind is not a blank tablet at birth. Reason, or the divine *logos*, abided in a personal God. The human at birth has at least some inborn categories or knowledge and ability. Otherwise, human knowledge could not exist. Where this reasoning was derived from is explained in the doctrine of man. Humanity was made in the image of God. Their thoughts were a reflection of the rationality of God. Just as the moon reflects the sun so humanity's ability to reason was a reflection of the rationality of the God who made them. We will return to this concept later.

¹Wolpert, 49.

²Ronald Nash, *The Word of God and the Mind of Man* (Grand Rapids, MI: Zondervan, 1982), 60.

At this point we can see how these four factors help to contribute to the rationality that fostered scientific thought. There are those who look elsewhere for the roots of science, and it is to this which we shall now turn.

Science's Early Greek Roots

Though Wolpert, Nash and others like Norman Geisler recognize the importance of Judeo-Christian culture on the formation of scientific thinking; secular scholars posit Greek culture and philosophy as the starting point. They attribute Greek culture in the formation of scientific thinking because it had an alphabet, which had vowel points, thus encouraging literacy, and the city-state, which encouraged democracy and free-thinking.¹ This "free-thinking" leads those who accept Greek culture's influence in the birth of modern science to list a long string of ideas and concepts. Authority in Greek philosophical culture was "reason and necessity."²

Leon Harris, through the eyes of the historical critical method of biblical interpretation,³ views the ancient Hebrew culture in a confused state, and thus relegates

¹Harris sites Burnet, Durant, Fothergill, Clagett, Nordenskiold, and Sarton as those who also trace the origin of science to the early Greek philosophers. Ibid., 29-30.

²Giorgio De Santillana, *The Origins of Scientific Thought: From Anaximander to Proclus, 600 B.C. - A.D. 500* (New York: New American Library, 1970), 291.

³Historical-critical interpretations, also called the "documentary hypothesis" are based on the Cartesian model of "methodological doubt." See Richard Davidson, *Principles of Biblical Interpretation*, unpublished Ms, Andrews University, March 1995, pp. 123-130, for a more in-depth summary of this hermeneutical approach. Using this hermeneutic, the investigator becomes the judge and jury regarding the truthfulness of the texts under study. Under this methodology the possibility for supernatural intervention into worldly affairs is rejected.

the creation accounts of Gen 1 and 2 to myth.¹ Although Harris credits the birth of scientific thinking to Greek culture, he also credits some Christians with contributions, such as Augustine and, later, Thomas Aquinas.²

When examining the contributions of Greek culture, they begin with Thales of Miletos. Thales attempted to explain the world in natural terms, (i.e. explanations that did not rely on myth, metaphysics, or human existence). Wolpert comments:

It [Thales' attempt at explaining the world] expressed the belief that, underlying all varied forms and substances in the world, a unifying principle could be found. The possibility of objective and critical thinking about nature had begun. For the first time there was a conviction that there were laws controlling nature, and these laws were discoverable. . . . It was a *wonderful leap* that was to *free thinking* from the straitjacket of mythology and the grip of relating everything to man [emphasis supplied]."³

The correct conviction of Thales, that unseen laws or principles were involved in the operations of the world, does not reveal where the concept of law which fosters rationality came into being in the first place.

Other Greeks who are cited with ideas that were to later impact the development of scientific thinking are Anaximander (c. 611 -547 B.C.), who imagined modern man as being derived from fish-like mermen. He perceived that these creatures eventually adapted

¹Leon Harris, *Evolution: Genesis and Revelations*, (Albany, NY: State University of New York Press, 1981), 8-28.

²A sixth-century B.C. Ionian obsession with a heresey which claimed that nature is not just a "simple whim of the gods but of natural phenomena which can be understood" was the first recorded idea of this concept. See *ibid.*, 30, for the "Ionian obsession," and 60-72, for the contributions of Augustine and Aquinas.

³Wolpert, 35-36.

to dry land.¹ The ancient historian Herodotus (5th cent. B.C.) speculated that the earth could be tens of thousands of years in age. His use of the historical method—the careful accumulation of data, followed by deciding what conclusions the data support—greatly influenced later historians and philosophers such as Aristotle.² Empedocles (490 -430 B.C.) not only believed in spontaneous generation of life forms but also suggested that the processes of “natural selection” (i.e., survival of the fittest) were in operation throughout all nature.³ This set the stage for Aristotle (384-22 B.C.). He contributed more than all the other Greek philosophers, especially in the area of earth sciences. His views, which I’ll discuss later, have impacted scientific thinking to this day. Aristotle’s propositions also contributed to the development of the idea of uniformitarianism, which would later impact geological thinking.⁴

Though at first glance this list seems impressive, M. B. Foster and Edward B. Davis were not impressed. They argue that modern empirical science did not emerge from a Greek view of nature because, unlike the Greeks, “early modern scientists rejected the belief that nature is necessary, and its forms (of intelligibility) eternal.”⁵

¹De Santillana, 29.

²*Compton's Interactive Encyclopedia*, 1994 ed., s.v. "Herodotus."

³De Santillana, 113.

⁴Davis A. Young, *Christianity and the Age of the Earth* (Grand Rapids, MI: Zondervan Publishing House, 1982), 16. Davis quotes Aristotle's work *Meteorologica* regarding the appearance of fossils and shells on dry land: "These changes [the covering and uncovering of the land by the seas] escape our observation because the whole natural process of the earth's growth takes place by slow degrees and over periods of time which are vast compared to the length of our life." Aristotle, *Meteorologica* (London: Heineman, 1931), 107-09.

⁵Foster and Davis, quoted in Geisler and Anderson, 38.

The Christian view was that nature was not necessary but contingent. They (Foster and Davis) provide insight that would explain why science took so long to develop in the West during the Dark and Medieval Ages: "Only when the Greek concept of necessary forms gave way to the Christian concept of contingent creation did it become necessary to take an empirical route to finding scientific truth."¹

I agree with Foster and Davis's basic premise that modern science comes more from the supernatural roots of Judeo-Christian thinking. The Greek contributions to scientific thinking are more informational in nature. The foundational concepts and methods were delayed in their development due to the Roman Catholic church and the Middle Ages. The decline of the Roman Empire resulted in a world which was preoccupied with coping with reality. The uncivilized nature of the remnants of Rome left little time to search for truth. Harris calls this period "the infanticide of science."² However, other factors temporarily derailed the development of scientific thought. I now turn to examine this period of stagnation during the Dark and Middle Ages.

The Middle Ages

Up until the decline of the Roman Empire, Judeo-Christian thinking was both objective and subjective in nature. This knowing was subjected to the authority of revelation. However, as the early disciples passed from the scene, new methods of interpreting Scripture began to dominate in the church. There began a separation of the

¹Ibid.

²Harris, 57-79

material and the spiritual realms (forms) through the influence of Greek philosophy. This section traces the influences of this digression from the authority of Scripture and the resulting stagnation of scientific thought.

The key factors to be examined are the influence of Greek philosophy through Augustine, the rise and influence of the Catholic Church, and the influence of Thomas Aquinas.

The decline of the Roman Empire as the dominant social force of Western civilization was followed by the ascendancy of the Roman Church. Two men, Augustine and Aquinas, dominate this period as far as scientific thinking is concerned.

Although Augustine and Aquinas were influential thinkers of the Middle Ages, their reliance on Plato (Augustine) and, later, Aristotle (Aquinas), along with a preoccupation of the rulers with the barbarian invasions, impeded the development of scientific thought as well as modified the methods of scriptural interpretation. Augustine and others, influenced by Philo, applied Greek allegory to Scripture, making it speak the language of Greek philosophy.¹

The Neo-Platonic allegorical approach to scriptural interpretation proposed that "the inferior transitory world of the senses is a reflection of the superior world of eternal ideas."² The Scriptures often yielded the literal sense for the allegorical. The literal or natural sense was only the "husk which must be stripped away in order to arrive at the

¹Mitchell, 28.

²Davidson, 118.

kernal, the hidden spiritual meaning."¹ Thus the Scriptures did not contain literal facts about God, the creation of the earth, or the natural or historical world but stories with hidden spiritual meanings or lessons about the superior world of eternal ideas (Greek eternal forms).² Greek dualism was gaining a foothold in Christian thought.

An example of this inroad can be seen in the changing concept of the soul. In Hebrew and early Christian thought, man *was* a soul (see Gen 2:7). The soul was mortal, subject to death because of sin, (Ezek 18:20). It took the combined breath of life from God plus the dust of the earth to make a human. The Greek concept of dualism proported that the soul was part of the eternal forms of the universe. Human beings had an immortal soul which was not the substance of their being. It was spiritual, not material. This dualistic concept, once incorporated as an *a priori* for interpretation, modified scriptural doctrines.

Though Augustine accepted Plato's concepts of the corporeal world (matter), there existed a non-temporal world which Plato called "forms" which Augustine called "eternal reasons."³ This formed the foundation for Augustine's philosophy. Some believe that Augustine, by adapting Greek philosophy to the Scriptures, downplayed the importance of the natural world that was seen as evil. Whether Augustine was the major influence or only one influence, the result of the synthesis of Greek philosophy and

¹Ibid., 119.

²Geisler and Anderson, 38.

³Nash, *The Word of God and the Mind of Man*, 81-82.

Scripture resulted in the natural creation being relegated "only to the human spiritual pilgrimage, not meriting independent inquiry."¹

Christianity became the dominant religion of the Roman Empire in the fourth century, and for the next 1,000 years tolerated little opposition. The chief philosophers were churchmen, especially teachers of theology. Scientific observation was subordinated to church authority.²

During the twelfth century, a revolution took place that completely changed the course of Western philosophy. The writings of Aristotle were translated into Latin and were studied by churchmen for the first time. Thomas Aquinas reintroduced the teachings of Aristotle to the University of Paris, which was Europe's leading intellectual center at the time.³

Aquinas sought to reconcile the doctrines of Christianity with the natural explanations of the world given by Aristotle. Aquinas attempted to settle the conflict between faith and reason by showing that reason could deal with the facts of nature, but that supernatural truths of revelation must be accepted by faith. He believed that human reason was unaffected by the Fall. He thus made reason autonomous from faith in Christian thinking. He said that some truths, such as the existence of God, are both

¹Mitchell, 30. Mitchell's view of Augustinian philosophy is not held by Ronald Nash. Nash credits Augustine with breaking from Platonic ideas regarding the *logos* doctrine, maintaining a Christian aspect of rationality found in God and in humanity. Yet allegory became the main school of scriptural interpretation due to the influences of Augustine. This may reveal an inconsistency in Augustine's hermeneutics and his philosophy.

²Ibid.

³Ibid.

revealed and provable by reason.¹ This separation of reason from faith resulted in what is today the idea of separate domains of knowing.² Belief became the subjective way of knowing, and autonomous reason the objective way.

While theology persisted with Platonic ideas, the natural sciences and other research continued the path Aristotle had pioneered. However, for a time, this emphasis on human reason was overshadowed by a period of invention and discovery as well as religious, political, and social disarray that pushed medieval philosophy and culture into a period of upheaval.³

The Beginning of the Birth Pangs of Modern Science

Though medieval theologians believed in a supernatural cause for the natural world, and God as the primary cause who worked through secondary causes, M. B. Foster explains that the reason science did not develop sooner was that the Reformation "philosophers claimed for reason emancipation from authority of faith, to which it had

¹Ibid. See also Nash, *The Word of God and the Mind of Man*, 111.

²Langdon Gilkey, *Religion and the Scientific Future: Reflections on Myth, Science and Theology* (Macon, GA: Mercer University Press, 1970), 12. Langdon Gilkey falls into the category as one who accepts the scientific theory of long ages as fact. Thus his theology reflects the literary-critical school's hypothesis that religious language is the language of myth, not of fact. Scientific language is the language of factual matters. The Scriptures were earlier religious discourses attempting to explain transcendent universal themes. Though meant originally to be understood as factual by the authors, "science has successfully eradicated, once and for all [these factual understandings] from our discourse" (6).

³Harris, 80.

been so long submitted.”¹

Foster is partially correct. I would say that the freedom that allowed science to flourish following the Reformation was not the freedom from the authority of faith but from the authority of tradition (i.e., the rule of the medieval church).² It was the medieval church which cemented the transfer of the authority of Scripture to the authority of the church.³ It was a return to faith in the Scriptures by early reformers that began to break this dogmatic loyalty to church doctrine and authority.

Since the church was the most powerful influence on society and learning, it was costly to break away from traditional authority in realms of theology or scientific thinking. The courage of those who did venture from the authority of papal tradition resulted in the re-examination of all fields of knowledge, tradition, and authority. As I shall demonstrate, many of the early scientists “worked out their scientific views from the theistic Christian belief in a supernatural creator and doctrine of creation. . . . Though not all were orthodox Christians, many believed that the physical universe gives ample evidence that its origin was the work of a supernatural creator.”⁴

Tragically, by the nineteenth and early twentieth centuries, scientists rejected both the church and Scripture as authoritative. There are several reasons for this rejection.

¹Geisler and Anderson, 39.

²Harris, 80-81.

³Leroy Edwin Froom, *Prophetic Faith of Our Fathers* (Washington, DC: Review and Herald Publishing Association, 1950), 1:478.

⁴Geisler and Anderson, 47.

One reason this rejection occurred was the church's (both Catholic and Protestant) insistence in holding to ideas that the Bible never addressed, such as geocentrism. Other contributors to the rejection of the authority of the Scripture and the church arose from the fall of the political power of the Holy Roman Empire following the French Revolution. This fall, combined with the rise of the modern university, slowly led to the replacement of theological authority with scholastic authority.

How, when, and why did science split from Christian belief since it began with so many theistic pioneers? I need to backtrack here to review for a moment the development of scientific thinking. Then I will proceed with its modern roots and give examples of scientists who practiced their science from theistic foundations.

History of Modern Scientific Thinking Through the Reformation and the Enlightenment

Most scholars agree that modern science is a pursuit of truth through experimentation that relies on natural explanations, those which exclude the supernatural. Though the Greeks charted the course for the development of naturalism as the foundation for scientific thinking, the lack of reasonable evidences for the antiquity of the earth left early Christian thinkers unimpressed and therefore unconcerned. Most Christian thinkers thought the scientific search to understand the antiquity of the earth and the search for natural laws was a rather speculative and unfruitful use of time. Some Christian apologists such as Lactantius (c. A.D. 260-330) were even sarcastic or hostile to inferences drawn by Greeks regarding the sphericity of the earth. The seeds of the conflict regarding genuine inquiry into the physical world in relationship to religion, though dormant, were planted.

It would be nearly a thousand years before they would sprout in the Renaissance.

There were early attempts to reconcile the Greek philosophies with the Old Testament by Philo of Alexandria (c. 20 B.C. - A.D. 40) and later by Origen (c. A.D. 185-254). They attempted reconciliation by treating the Old Testament as religious allegory. This method of biblical interpretation *sidetracked Christian thought* till the reformation, as Gerald Wheeler correctly points out.

To help in the interpretation of biblical allegory, Christians employed the science and philosophy of the ancients. . . . It brought much new knowledge into the western world, but it also put into circulation many concepts antithetical to Christian doctrines and beliefs. Some of the pagan concepts would help lay the intellectual foundation for the theory of evolution even though they themselves may not have been basically evolutionary in intent.¹

Once sprouted, scientific thinking began to impact how Christianity interpreted Scripture, the source for Christian authority. Though attempts at harmony and co-existence reigned in the earlier centuries, eventually harmony gave way to conflict and animosity. Next, I will examine the background of the split between religion and science that occurred during the Reformation and the Enlightenment.

The word "reform" suggests something gone awry or a need for change. The society governed by the Medieval Church was beginning to show signs of stress. The institution which once held the intellectual and social remnants of the Roman Empire together after centuries of barbarian invasion was becoming morally corrupt. Also, new

¹Gerald Wheeler, *The Two-tailed Dinosaur: Why Science and Religion Conflict Over the Origin of Life* (Nashville: Southern Publishing Association, 1975), 34, quoted in Dr. Clyde L. Webster, Jr., *The Earth: Origins and Early History* (Silver Spring, MD: Office of Education, North American Division, General Conference of Seventh-day Adventists, 1989), 26.

ideas and technologies challenged the dogmatic interpretations of the church. Immoral practices, combined with restrictiveness in the approach to knowledge and authority, led to great antagonism with the growing intellectual community.

This restrictiveness was largely due to Aristotelism.¹ Aristotle's views of planetary motion became part the church's teaching about the natural world, though they were not part of correct scriptural teachings of such things.² His view of the heavens and his laws of motion stood in the way of the rise of modern science because incorrect inferences were drawn from the data. The church made these inferences dogma. Thus as R.C. Sproul rightly commented, "Illegitimate inferences led to invalid assumptions, which in turn led to paralysis of progress."³

Those early reformers, both churchmen and scientists, who spoke out against this abuse of authority were persecuted or martyred.⁴ It was Martin Luther who was first successful in making a break from the authority of the early church and the philosophical hermeneutics that distorted biblical interpretation.⁵ The spirit of reformation swept through Europe. Men like Copernicus, Bacon, Kepler, and Galileo proposed scientific

¹Ibid., 27

²Leonard Brand, *Faith, Reason and Earth History: A Paradigm of Earth and Biological Origins by Intelligent Design* (Berrien Springs, MI: Andrews University Press, 1997), 34.

³R. C. Sproul, *Not a Chance* (Grand Rapids, MI: Baker Book House Company, 1994), 114.

⁴Ibid., 34-35; Ellen White, *The Great Controversy* (Mountain View, CA: Pacific Press Publishing Association, 1950), 97-119.

⁵Luther recalled, "When I was a monk, I was an expert at allegorizing Scripture, but now my best skill is only to give the literal, simple sense of Scripture, from which comes power, life, comfort, and instruction." Quoted in Davidson, 121.

ideas that were in direct conflict with accepted church teaching.¹ These events set the stage for new ways of thinking that would lead to the Enlightenment.

The challenge to authority in areas of theology and authority in religious matters led to the challenge of authority in political as well as intellectual realms as well. The lack of unity regarding biblical interpretation and its application to society opened the door for new explanations and ways of viewing nature. Note a few of the scientists and their discoveries.

Francis Bacon (1561-1621) confessed that his motivation to study the natural world came from the command at creation to exercise "dominion" over the world that was made (Gen 1:2). Geisler points out,

Bacon believed that nature, like the Bible, is the revelation of God. And Christians need not fear that any discovery in God's world [science] will destroy their faith in God's Word [Scripture]. . . . One displays the will of God, the other His power."²

For Bacon, true knowledge was a "knowledge of causes." These "causes" or fixed laws could be ascertained through observation.³ Though science grew out of a belief that God is the primary cause for all existence, the shift in science came through Bacon's influence in the study of how God works *in* nature. Truth about the operations of nature

¹Brand, 34-35.

²Geisler and Anderson, 41.

³Ibid., 43.

could thus be known empirically. This fed the desire for certainty that was part of seventeenth century Europe.¹

Copernicus broke away from the geocentric explanations of the solar system for a heliocentric explanation of the solar system.² Later, Galileo popularized this theory, which ran contrary to accepted church teaching, and was tried and convicted of heresy in 1633. Galileo was tried not because of his science but because of his break from interpretations that were applied by the church to some natural phenomena, (i.e., "the sun standing still" of Josh 10:13). Galileo argued,

I do not believe that the same God who gave us our senses, our reason and our intellect, intended that we should neglect these gifts and the information they give us about nature, or that we should deny what our senses and our reason have observed by experiment or logical demonstration, while providing for ourselves other sources of information.³

For Galileo there were two sources for truth, one Scripture and one nature. These two sources do not contradict each other or trespass on each other's territory. As Geisler states, "Galileo's belief in the primary cause [creation] of the world prompted his scientific study of the secondary causes of the natural world."⁴ Isaac Newton (1642-1727) believed that the Judeo-Christian God was the creator of the world who also worked through natural causes. In a letter to Thomas Burnet he stated, "Where natural causes are at hand

¹Ibid., 112. The quest for certainty, combined with the desire not to trespass on divine authority by one's inquiry, caused the scientist to search the *how's* and not the *why's*.

²Brand, 34.

³Ibid., 49.

⁴Ibid.

God uses them as instruments in his works, but I do not think them alone as sufficient for creation."¹

Newton taught that the universe was God's great machine. Scientists could discover the laws by which the machine operated through experimentation.² Thus, the early scientists during and following the Reformation did their science from the Christian foundation of belief in creation and revelation. The return to the early Christian understanding of reason was the power that kept their faith and their methodology united. However, we also see the inception of a method that distinguishes object observation from revelation. Bacon's philosophy, combined with the astronomical theories of Copernicus, Kepler, and Galileo, was strengthened by the improved technology of the telescope. "Seeing" became as important as believing. In fact, "seeing" was used to support belief. Conflicts over various scriptural passages and their interpretation began the gradual erosion of the authority of Scripture leading to the "God of the gaps" mentality, which lingers in the minds of some to this day, especially relating to Gen 1.³ We have even in the early scientists a new epistemology in approaching nature.

¹Ibid., 50.

²Ibid., 51.

³God-of-the-gaps basically states that whatever phenomena which cannot be explained by natural laws are assigned to the workings of God. As time progressed, the gaps became smaller and God disappears from the picture. Brand, 34; Geisler and Anderson, 113-114.

There are many ways of describing this way of knowing. It has been called "objective facts" and subjective beliefs";¹ public facts and private values;² the material world of scientific facts and the spiritual realm of religious belief.³ It is this objective way of knowing, this supposedly "bias-free" approach to knowing, and the philosophical fruit of "Darwinism" that I examine in chapter 3.

¹Lesslie Newbigin, *The Gospel in a Pluralist Society* (Grand Rapids, MI: B. Eerdmans Publishing, 1989), 23-24.

²Lesslie Newbigin, *A Word in Season* (Grand Rapids, MI: Wm. B. Eerdmans Publishing Company, 1994), 70.

³Phillip E. Johnson, *Reason in the Balance: The Case Against Nautralism in Science, Law and Education*. (Downers Grove, IL: InterVarsity Press, 1995), 30-31.

CHAPTER 3

SCIENTIFIC EPISTEMOLOGY AND DARWINISM AS ITS PHILOSOPHICAL FRUITS

This chapter seeks to show how scientific thinking became a separate way of determining truth, apart from religious thinking. First I discuss the foundational assumption of the new scientific thinking that arose after the Reformation. Second, I trace how this developed through the influence of the *Philosophes* who abandoned God and exalted human reason. Finally, I describe the philosophical fruit of these assumptions, a new cosmogony called Darwinism.

Scientific Epistemology

The investigation of empirical questions, which arose from a growth of knowledge to make epistemology scientific, had to shed its grandiose aims and employ scientific methods to answer scientific questions. The first step was to abandon the metaphysical questions. Just as physics does not ask "What is matter?" so epistemology should not ask "What is knowledge?" Therefore, in order to investigate empirical questions, science had to reach "a gentleman's agreement" to discuss only those questions that could be dealt with by certain commonly agreed upon methods.¹ There was a forsaking of the

¹Richard Kitchner, *Piaget's Theory of Knowledge: Genetic Epistemology and Scientific Reason* (New Haven, CT: Yale University Press, 1986), 140-41.

metaphysical questions concerning the nature of knowledge and truth. The focus was to narrow the questions.

Science begins to narrow the question when cosmogony was replaced by cosmology. The emerging principles from cosmological studies were later to be applied to geology then to biology.¹ Geisler and Anderson insightfully summarize this shift in thinking and method as the emergence of modern science.

The early modern astronomers derived their belief from a theistic conviction that there is a primary cause who operates his universe in an orderly and regular way. Nevertheless, by stressing the regularity of nature and the need to observe and experiment, they succeeded in discovering widely applicable laws [secondary causes] which do not require supernatural intervention into the regular operation of the universe. . . . The universe came to be viewed by many as a continuous, unbroken series of physical causes. . . . Modern science . . . with its emphasis on secondary causes [the narrower question] came to reject the need for positing and supernatural cause of events in the natural world.²

This rejection of the supernatural led to the renunciation of revelation over time. The treatment of Galileo and others began to build a wall of distrust between the scientists and philosophers, on one hand, and the church on the other.³

Two philosophical schools began to rise in the 1700s. The first was the agnosticism and skepticism of David Hume⁴ (1717-1776) and Immanuel Kant (1724-1804).

¹Cosmogony was the study of the creation and origin of the universe, the big picture, whereas cosmology deals more with the operations and structure of the universe, a much narrower field requiring less information. It focused the search. This was needed because no one could ever agree on just what metaphysical story was acceptable. Geisler and Anderson, 53.

²Ibid.

³Descartes was one such example. "Remembering Galileo's fate, Descartes was careful to apply his naturalistic approach to origins only hypothetically." See *ibid.*, 54-58.

⁴Hume reacted against the supremacy of human reason seeking to show its limitations. He disagreed with the dogmatic atheism of the *philosophes*. He believed that our most pivotal beliefs about reality are matters that reason is powerless to prove or support. And Hume, like Kant later, questioned God's ability to communicate truth to man and man's ability to attain knowledge about

The second school of thought was atheistic, supported by the *Philosophes*. During the late seventeenth to the late eighteenth centuries in France (a country dominated by papal authority at that time), there arose the *Philosophes*. This was a group of French philosophers such as Diderot (1713-1784), Rousseau (1712-1778), and Voltaire (1694-1778). They believed that knowledge could be acquired through reason and experience alone. They viewed theism as basically unreasonable and superstitious.¹ This view directly challenged the authority of Scripture and its teachings.

During the Enlightenment, the authority of revelation and church tradition was replaced by the use of reason as the best method for learning truth.² Before this time, revelation was viewed as authoritative over nature. But now the roles were reversed.

Nature was now viewed as a machine with universal laws, instead of the second book that revealed God.³ Though revelation had an authoritative role above nature before the Enlightenment, the roles switched. Now nature's laws were not so much revealed as discovered through observation. Diogenes Allen suggests a major reason for this reversal was the concept that what man "needed to know about God must be

God. For Hume, God existed but was unknowable. This way of understanding finds a home in some of the scientific and theistic evolutionists of today. For a discussion of Hume, see Ronald Nash, *The Word of God and the Mind of Man*, 11, 17-24. For Kant's expansion of Hume, see *ibid.*, 25-28. The philosophy of these two men impacted biblical interpretation in Scheiermacher.

¹James Creech, "Philosophes," *The World Book Encyclopedia* (1995), 15:382.

²James Creech, "Age of Reason," *ibid.*, 1:139-140.

³Diogenes Allen, *Christian Belief in a Postmodern World* (Louisville, KY: Westminster / John Knox Press, 1989), 36.

available to all men." "Natural religion" began to replace "revealed religion" such as Christianity.¹

In the course of time, the definition of reasonableness and rationality began to narrow to mean concepts that could be explained only by hard empiricism.² This narrow emphasis in method led to the eventual development of epistemological materialism. This view and method became "an *a priori* adherence to material causes" to explain anything and everything about life in the world.³

Thus at the end of the Enlightenment, the scientific methodology of the early Christian scientists was combined with the atheistic philosophy of the French *Philosophes*, which bore fruit in the scientific epistemology that guided the thinking of Charles Darwin to reject the supernatural in favor of the natural in the development of his theory of natural selection. New assumptions call for new cosmogonies. This new cosmogony impacted not only Charles Darwin but all branches of learning and resulted in what is called a culture of modernism.⁴

¹Ibid., 35-36.

²Ibid., 37.

³Richard Lewontin, "Billions and Billions of Demons," *New York Review of Books*, January 9, 1997, 31.

⁴Modernism has been defined as "a metaphysical doctrine about what is ultimately real and unreal." In 20th-century America it can be understood in the context of naturalism alongside liberal rationalism. Naturalism gives priority to natural science as a way of describing reality. Liberal rationalism provides the social and ethical viewpoint for culture. Modernism is what is accepted by the majority as the acceptable way of interpreting life. Modernism has marginalized religion to the private sector of belief while elevating science to the public view of fact or truth. See Johnson, *Reason in the Balance*, 35-50; Lesslie Newbigin, *A Word in Season*, 66-79.

Darwinian Evolution

What is Darwinian evolution? What did Darwin mean by evolution? And what has it come to mean today? In answer to the first question, it depends upon whom you ask. In this section, I would like to identify the range of definitions for the term evolution. This is followed by a brief story of how Charles Darwin developed the theory. Finally, I examine what the theory's current understanding is today.

Darwinism is the name given to the theory which he made famous, that being evolution. However, does the term "evolution" describe a philosophy, a theory, or a process? Notice just a sample of definitions that are applied to evolution or Darwinism. Richard Lewontin, the Alexander Agassiz Professor of Zoology and Biology at Harvard University, sees the essence of Darwinism as "the replacement of a metaphysical view of variations among organisms with a materialistic view."¹

Phillip E. Johnson, a Harvard graduate and law professor at Berkley University says that Darwinism is "fully naturalistic evolution—meaning evolution that is not directed or controlled by any purposeful intelligence."²

Nils Eldredge is the chairman and curator, Department of Invertebrates, at the Museum of Natural History in New York. He defines Darwinism as an "explanation of

¹Charles Hodge, *What Is Darwinism? And Other Writings on Science and Religion*, ed. Mark A. Knoll and David N. Livingstone, (Grand Rapids, MI: Baker Books House Publishing, 1994), 40.

²Johnson, *Darwin on Trial*, 4.

organic design with the mindless, materialistic, and thoroughly naturalistic process of natural selection."¹

Michael Behe of Lehigh University defines evolution as the "process whereby life arose from non-living matter and subsequently entirely by natural means."²

Charles Hodge was a contemporary of Charles Darwin. He taught at Princeton for over fifty years and was founder of the *Princeton Review*. His book *What Is Darwinism?* was his response to what he saw as a very disturbing concept. Here is his conclusion:

We have thus arrived to the answer to our question, "What is Darwinism?" It is Atheism. This does not mean, as before said, that Mr. Darwin himself and all who adopt his views are atheists; but it means that his theory is atheistic, that the exclusion of design from nature is . . . tantamount to atheism.³

Again, is Darwinian evolution a philosophy, a theory, or a process, or maybe a combination of all three? It depends on what level one is using the term. Therefore we turn to Charles Darwin and try to understand evolution. To understand Darwin, it is important to first put him in the historical context that shaped his life.

The Historical Context and History of Charles Darwin

James Hutton (1726-1797) proposed a controversial approach to geology. Given the empirical nature of science, geological theories could make reference only to presently observable processes. He believed that the geologic processes that were

¹Nils Eldredge, *Macroevolutionary Dynamics* (New York: McGraw-Hill Publishing Company, 1989), 2.

²Behe, xi.

³Hodge, 156-157.

operating in his day did so at the same strength and intensity as in the past. This had unpopular implications because, up until this time, many of earth's features were considered to be the result of the Noachian flood of Genesis.¹ Along with this new approach to geology was the curious questions about *fossils*.

In 1790, William Smith (1769-1839) developed a method for classifying fossils in strata much like archaeologists now date artifacts by using pottery sherds. There was a conclusion that whatever these fossils were, they were originally organic in nature. George Cuvier (1769-1832) proposed the idea of multiple catastrophes as an explanation for the origin of strata, the last being the flood of Noah.² By the early nineteenth century, there was a growing conviction that there was progression in the fossil record, with the simpler forms of life deeper in the earlier strata and more complex, recent forms on the top. This also went against a universal flood theory, which early geologists assumed would have mixed the debris in unstratified layers.³ The combination of geologic strata with the biological fossil record gave what interpreted as a history of life. And that history seemed to be moving from simple to complex.⁴

Jean-Baptiste Lamarck (1744-1829) proposed a basic theme that life emerged from simplest forms and ascended a ladder of increased complexity, driven by an

¹Del Ratzsch, *The Battle of Beginnings: Why Neither Side Is Winning the Creation-Evolution Debate* (Downers Grove, IL: InterVarsity Press, 1996), 15.

²Harold Coffin, *Origin by Design* (Hagerstown, MD: Review and Herald Publishing Association, 1983), 54, 101.

³Ratzsch, 18.

⁴Ibid.

"internal, mechanical, material power of progressively complicating organization."¹

Thus organisms had to adapt through time.

In 1830, Charles Lyell published his book, *Principles of Geology*. Although in 1830, most of the geological community believed in catastrophism, Lyell advocated the concept first proposed by Hutton, which was called "uniformitarianism."² One could say that uniformitarianism actually was predicted by Jesus' disciple, Peter, in 2 Pet 3:4, on the voices of the scoffers who doubted Noah's flood: "All things continue as they were from the beginning of creation." Uniformitarianism suggest that the earth was possibly millions of years old. A copy of *Principles of Geology* accompanied Charles Darwin when he sailed from England on December 27, 1831, aboard the *Beagle*. Darwin's voyage on the *Beagle* lasted for almost five years. He began his journey on the *Beagle* as a believer in revelation.

I did not then in the least doubt the strict and literal truth of every word of the Bible. Whilst on board the *Beagle* I was quite orthodox, and I remember being heartily laughed at by several officers (though themselves orthodox) for quoting the Bible as an unanswerable authority on some point of morality.³

During these five years his views were to change. He observed many patterns and difficulties in fossils, ecologies, growth of coral, vestigial organs, embryonic features, etc., that he thought would be best explained or understood in "organic

¹Ibid., 19.

²Uniformitarianism actually had its origin in France through Benoit de Maillet and Comte de Buffon during the period of 1740-1780. Hutton adopted the theory and published it in 1795. It was Charles Lyell who made the theory popular during the period 1830-34. See Coffin, 102.

³Michael Denton, *Evolution: A Theory in Crisis* (Bethesda, MD: Adler and Adler, Publishers, 1985), 25.

evolutionary terms."¹ This was the result of seeing the evidence through Lyell's theory of uniformity and long geologic ages.² The geographical diversities, with similar yet distinct species, challenged the long-held concept of the fixity of species.³ By the time Darwin reached the Galapagos Islands, all convictions that he still may have held regarding the fixity of species were abandoned. Commenting on the inner island variation he wrote: "The zoology of the Archipelagos . . . will be well worth examining; for such facts would undermine the stability of Species."⁴

Once Darwin accepted the idea that new species could arise in nature from pre-existing species, as seemed to occur on the Galapagos Archipelagos, many of the facts of geographical variation could be explained. This bolstered in his mind the concept that change occurs under simply natural processes. Denton correctly assesses that "the journey on the *Beagle* revealed to Darwin a whole new world that bore no trace of the supernatural drama that Genesis implied, and one which seemed impossible to reconcile with the miraculous biblical framework he himself had accepted when he left England."⁵ Evolution, or "descent with modification" as Darwin called it, seemed to be

¹Ibid., 17.

²Ibid., 24.

³"Fixity of species" refers to a concept widely held before the 19th century that animal and plant species do not change. This static concept in nature was part of church dogma based on a narrow reading of Gen 1 and the use of the term "after their *kinds*." Brand, 94-95.

⁴Denton, 30.

⁵Ibid., 35.

the framework that made sense of his discoveries.¹

Darwin, satisfied with this framework, sought to discover *how* evolution operated in the natural world on a purely empirical basis of a gradual, presently observable process. The mechanism that Darwin fastened on was *selection*. Just as animals were selectively bred for the transmission of desirable traits, so selection of some order must be taking place in the natural world, thus, the term "natural selection." Nature did the selection through the struggle for survival. Competition was the key. Darwin saw this process as the "survival of the fittest."² As Ratzsch summarizes,

Given the empirical facts of spontaneous, heritable, advantageous variations, of the overproduction of the species and the "pruning" of the relatively less fit . . . variations that give adaptive, reproductive advantage . . . over a number of generations become universal in the species.³

During the summer of 1844, Darwin wrote out his first general outline, 231 pages on natural selection. It was published in 1859 under the title, *The Origin of the Species*.⁴ Scientists such as Charles Lyell, Herbert Spencer, and Thomas Huxley popularized Darwin's theory and book in England. Ernst Haeckel and Asa Gray spread the message to Germany and America respectively.⁵ There were mixed reactions from both the religious as well as the scientific and philosophical arenas.

¹Eldredge, 1.

²Ratzsch, 27.

³Ibid.

⁴Ibid., 30.

⁵See Mitchell, 40.

The critical point of acceptance came in the famous debate between Thomas Huxley and Anglican Bishop Samuel Wilberforce at Oxford in 1860. The result of the debate provided an opportunity for science to lecture the church in the eyes of the public. There were detractors to the theory within the scientific community. Cuvier, Linnaeus, and Richard Owen were skeptical of trans-species evolution. Even Darwin's geology professor, Adam Sedgwick, rebuked Darwin, although, the rebuke was religious in nature.¹ However, by the 1850's most biologists rejected evolution. By the 1880s, most biologists accepted evolution. This was due partly to *Origin* and partly to the discoveries of Gregor Mendel's experiments that led to the modern science of genetics. Genetics provided the mechanism that enabled Darwin's gradual evolutionism to work. Mendel's discoveries were to modify Darwin's theory, creating Neo-Darwinism.² Darwinism was here to stay and began to impact how man viewed not only the biological operations in nature but would soon be applied to prehistoric interpretation and eventually the origin of life itself.

I have thus far traced the history and development of religious and scientific ways of thinking from about 300 B.C. to the establishment of modernism. R. C. Sproul refers to it as "the epistemology of irrationalism."³ Modernism was defined as a

¹Ibid.

²Ratzsch, 35, and Mitchell, 42-43.

³R. C. Sproul, *Not a Chance* (Grand Rapids, MI: Baker Book House, 1994), 18.

philosophy based on naturalism and empirical methodology. This arose through the exaltation of human reason apart from the authority of revelation. This ultimately bore fruit in Darwinian evolution. This new epistemology, applied in the theory of evolution has impacted our world in many ways. Chapter 4 deals with how this cosmogony called evolution, has impacted scriptural interpretation in general as well as its theological understanding.

CHAPTER 4

BIBLICAL HERMENEUTICS AND THE IMPACT OF EVOLUTION ON INTERPRETATION AND SOCIETY

Darwinian evolution is accepted today as the most valid explanation for the origin of life by the majority in the scientific community. Naturalism and empiricism have impacted not only education and society but biblical interpretation as well. This chapter looks at the history of biblical interpretation in light of the *Logos* doctrine. Second, the chapter analyzes the assumptions of both evolutionary science and biblical creationism. Finally, it notes the implications and the impact that evolutionary assumptions have had on theology and society.

The *Logos* Doctrine in Historical Interpretation

In this section I define the Christian concept of *logos* in contrast to the Greek understanding as a foundational assumption for historical understanding. Then I trace its use and abandonment in Christian history. God communicated to Israel's leaders. The role of the prophets was to lead God's people in obedience to truth. The record of this communication and revelation is found in the Torah. The Torah was not only the revelation of God and His actions in history as it concerned Israel, but was also a revelation of objective truths that explained the reason for existence and functioned as a guide for all experience. Communication and revelation are found in the Torah. Nash calls

this the *Logos* doctrine.¹ This doctrine implies that man, who was made in God's image, "was capable of knowing His mind and will and has made information about His mind and will available in revealed truths."² Like Carl F. H. Henry, Christians in the biblical tradition³ affirm that

The God of the Bible is a rational God; that the divine Logos is central to the God-head and is the agent of creation and redemption; *that man was made in the divine image for intelligent communion with God; that God communicates His purposes and truths about Himself in biblical revelation; that the Holy Spirit uses truth as a means of persuasion and conviction; and that Christian experience includes not simply a surrender of the will but a rational assent to the truth of God.*⁴

The question arises, "How can the human mind know the divine *Logos*?"⁵ The early Christians continued the OT belief that humanity had significance because mankind was made in God's image.⁶ Through the guidance of the Holy Spirit, human reason was capable of understanding the will and knowledge of God (John 16:13; 1 Cor 2:1-5).

¹Nash, *Word of God, Mind of Man*, 56.

²*Ibid.*, 14.

³Biblical tradition means following the *Logos* doctrine leading to four hermeneutics that arise from Scripture: (1) The Bible only over all sources of authority. (2) The totality of Scripture as inspired by God. (3) The unity and harmony of Scripture among the various parts means Scripture is its own expositor. (4) Spiritual things are spiritually discerned. Right understanding comes through the Spirit of God who inspired the Scriptures. See Davidson, 3-4.

⁴Carl F. H. Henry, "Reply to the God-Is-Dead-Mavericks," *Christianity Today*, May 27, 1966, 894.

⁵*Ibid.*

⁶Nash, *The Word of God and the Mind of Man*, 59.

The Greeks used the word *logos* as a synonym for mind or reason. They regarded human *logos* as an extension of the Reason that permeates the entire cosmos. This heavenly reason was neither personal God nor being but a metaphysical abstraction.¹

For the Christian, Jesus Christ is that heavenly *logos* (John 1:1-3). The human mind can know the mind of God through revelation, both the written and the incarnate Word (John 1:14; 2 Tim 3:15-16). Thus Jesus was the necessary condition for "the existence of the world, human knowledge and human redemption."²

The implications of this *Logos* doctrine are foundational for the Christian approach to knowing the material world and are intricately linked to the Bible as the authoritative revealer of truth. Nash summarized it well when he wrote:

The concept of *logos* comprehends at once the interrelationship of thought, word, matter, nature, being, and law. . . . Christians believe the rational world is the projection of a rational God who objectifies His eternal thoughts in the creation [through *Logos* both written and Incarnate] and who endows the human creature, the apex of His creation, with the image of God which includes a structure of reason similar to God's own reason.³

Thus, it is vital for the Christian to maintain the *Logos* doctrine as the foundation of human reasoning. Nash, rightly I believe, shows how Augustine preserved this fundamental doctrine for the church through the Dark Ages despite what seems to be an apparent conflict with the allegorical method of interpretation which he employed. Nash is insightful regarding the relationship between the *Logos* doctrine and proper theology

¹Ibid., 60.

²Ibid., 66.

³Ibid., 68-69.

by saying, "Recovery from faulty epistemology . . . requires a return to the Logos doctrine."¹

Following the biblical tradition of interpretation, the historical-literal sense as well as the deeper typological meanings of OT Scripture were maintained by the early church. It was when this method was abandoned by the majority after the first century that errors in truth, doctrine, theology, and spiritual life began to overtake the church.²

Biblical authority was undermined during the decline of the Roman Empire through to the Middle Ages by the Roman Catholic Church. The Bible was translated into Latin and forbidden to the common man. Biblical authority was replaced by the authority of the church and church tradition. But the *Logos* doctrine formed a corrective in the reforms of Luther and others. They broke away from Greek philosophical reasoning and returned to the rationality of the Bible and biblical hermeneutics.³

However, the exaltation of human reason by Aquinas, followed by the Copernican Revolution, caused many to throw off all external authority. This led to empiricism, deism, agnosticism, and the atheism of the Enlightenment. Science and its method became authoritative for truth, and its methods were applied to biblical interpretation. This limited the authority of revelation. This decline in authority was enhanced by the development of

¹Ibid., 56.

²For an in-depth study of the causes and results of this departure, see Davidson, 116-138.

³Ibid., 123.

historical-criticism as the new hermeneutic for interpreting Scripture and its many offshoots that are prevalent even today.¹

The development of the historical-critical method was a reaction against the philosophy and the science of the Enlightenment. The basic presupposition of the historical-critical method is the principle of *criticism*, used in the technical sense of Descartes' methodological doubt.² This refers to the autonomy, thus authority, of the one doing the interpretation or evaluation of the Scripture. The interpreter judges the truthfulness of the text.

Another principle of this method is the use of analogy.³ Present experience was the criterion for evaluation based on empirical phenomena. An example could be the parting of the Red Sea. Since there are no current dividing of seas or oceans occurring in the natural world today, the event described in Exodus probably was regarded as a myth or hyperbole to describe the escape from Egypt. This concept was applied across the board to all "miraculous" events, in effect removing all supernatural attestations from hermeneutical principles and methodology.

These hermeneutics, derived from science, are used to try to harmonize the claims of science and the claims of Scripture. This has led to the concepts of theistic evolution and progressive creationism that are dealt with in their own right later in the paper.

¹Ibid., 123-138.

²Gerhard Hasel, "The Origin of the Biblical Sabbath and the Historical Critical Method," *Journal of the Adventist Theological Society* 4, no. 1 (Spring 1993): 27. Edgar Krentz is a modern advocate of this method.

³Ibid., 26.

Historical-criticism has expanded to include "form criticism, redaction criticism, traditional history and canon criticism."¹ In every case, human reason is the ultimate arbiter of truth. Man is no longer a creature in the image of God able to know God. God now must conform to the reason of humanity.

Thus Darwinism and scientific methodology have had a tremendous impact on biblical hermeneutics. How one approaches the Scriptures impacts interpretation. I now analyze the specific assumptions of science and religion. After this analysis I discuss the impact of the scientific method and evolution on theology and doctrine.

Science: Presuppositions, Strengths, and Limitations

This section begins with a brief explanation of the levels of science and the methods employed at each level. I will first identify, then illustrate, what is meant by levels of science. This is the context from which I will then make an analysis of the presuppositions, strengths, and limitations of science.

E. Nagel, a philosopher of science, has classified scientific theories or generalizations into three levels: high, middle, and low.² Low-level science is the level of research or data. It has been described as the level of empirical research and includes such things as classifying, identifying, dating, etc.³ The middle level deals with the theories that have been proposed from the data, attempting to explain the regularities and

¹Davidson, 125.

See E. Nagel, *The Structure of Science: Problems in the Logic of Scientific Explanation* (New York: Harcourt, Brace, and World, 1961) 79-105; and L. S. Klein, "A Panorama of Theoretical Archaeology," *Current Archaeology* 18 (1969): 1-42.

³Nagel, 80.

processes. This is the level that attempts to bridge the low-level and high-level theoretical propositions. High-level theories, or generalizations, have been defined as the abstract rules that explain the relationships among the theoretical propositions and the major categories of phenomena. This level is the most subjective. Theories such as the search for "the theory of everything" or Darwin's general theory of evolution are examples of this theory.¹

A way to illustrate these levels and the methodologies involved in each would be to examine the work of a paleontologist who has extracted from site a fossil fish. His methods of extraction, identification, and classification are very empirical. After he has completed the field work he begins to do mid-level science as he seeks to reconstruct from all the data he has collected the type of diet that fish may have had, the ecology of the lake of sea in which that fish lived, and how it might fit into Darwin's general theory of evolution. At this level the paleontologist is using empirical data and subjective speculation. And the most speculative, the high-level science, occurs when he attempts to reconstruct the fossil fish's existence in the Darwinian evolutionary schema.

The point is this: the further one gets away from the lowest level the more subjective and the less empirical become the methods which the scientist might employ. Scientists who seek to discover the origin of life or the origin of the universe are working not on level one but level three. One question that should be asked is, "Should scientific conclusions be derived deductively from the high-level concepts, or, should they construct their conclusions inductively from the data and low-level generalizations?" If one starts at

¹This is a theory that unites all theories of universal complexity. See Ferguson, 30-33.

the highest level and works down in Darwinian fashion, then evolutionary theory will affect how the scientist interprets the data more than empirically based science.

Thus, it is necessary to examine then the presuppositions, strengths, and limitations of science, especially the more philosophical levels of science.

All knowing begins with *a priories*. As Kitty Ferguson states so succinctly, "The quest for ultimate truth must begin with a leap of faith. Not faith that we are capable of complete understanding. Faith that we can know anything at all."¹ As stated earlier, there is no such thing as a *tabula rasa*, a clean unbiased slate from which we begin the journey. Anyone, to have a conscious thought, must begin by trusting some idea about the universe that may have never been proved, even if that starting point is that I exist and I am a rational creature. Scientists and theologians have at least five assumptions. These are as follows:²

1. Rationality. The universe has pattern, symmetry, and predictability.
2. Accessibility. The universe is investigatable.
3. Contingency. Things could have been different from the way we have them.
4. Objectivity. Reality exists; there is something material to study.
5. Unity. The universe operates by underlying laws which do not change.

These five assumptions of science could all have God inserted into them.

Rationality reflects the dependability of God. Accessibility reflects the mind of man made in the image of his Creator. Contingency reflects God's choice to create in this particular

¹Ferguson, 3.

²Ibid., 8-9.

manner. Objectivity reflects that there is a truth behind every fact, and that truth is God and His wisdom. Unity reflects the one system of logic, the one mind, the common Designer of all. Evolutionary scientists add several more assumptions that are not found in theology (the scriptural account of creation of life in Gen 1).

6. Natural. There is no supernatural. If there is, it is beyond scientific methods.

7. Uniformitarianism. The universe is very old, in contrast to a young creation.¹

It is possible to have an old universe and a young earth in a biblical model, which I refer to later.

8. Gradualism.² Life has evolved slowly, by micromutations, over extended periods of time.

It would be well to examine these additional presuppositions to note any strengths or weaknesses in the light of evolutionary theory. The first is the *a priori* of naturalism.

When scientists speak of naturalistic evolution they are referring to a purely materialistic process that has no direction or reflects no conscious purpose. Gaylord Simpson defined evolution as it relates to man as an objective phenomenon that can be explained by "purely naturalistic or . . . materialistic factors. . . . Man is the result of a purposeless and natural process that did not have him in mind."³ When this concept is

¹Johnson, *Darwin on Trial*, 69.

²Ibid., 137. Uniformitarianism was suggested by James Hutton and others to explain the geological features of the earth's surface. Since they were under an empiricism that ruled out the supernatural, only natural explanations could be offered. As a result of this method and *a priori* the earth's surface could only be explained by small changes which were *currently* occurring, uninterrupted over vast periods of time. See Denton, 24.

³Johnson, *Darwin on Trial*, 116.

applied to science in general it states that the only path to knowledge is the natural path. There are no forces outside a closed system of material causes and effects; there is no God. That is why Charles Hodge called Darwinism atheism in its essential nature.

This *a priori* narrows the realm of possible explanations for truth to phenomena that can be tested empirically. This restriction of reason seems flawed because there are things which cannot be measured. Questions of ultimate origin or the "banger" of the Big Bang Theory are beyond empirical investigation. Subjective feelings, altruism, existence of reason, the "why" of life can be met only with silence.

Thus, if one removes the concept of the possibility of the supernatural we are left with nagging questions such as the one that Stephen Hawking mused about in his book, *A Brief History of Time*. "Why does the world go to all the bother existing?" Is there a meaning and is there a God beyond the reaches of the scientific method but not beyond the reaches of human reason?¹ The final conclusions are tentative. There are no absolutes, even in the naturalistic laws which are held up as absolutes upon which other *a priori*, like uniformity, depend.

Thus, naturalism can help to explain how things may operate in nature but would not be useful in determining ultimate origin or cause. An example of one such area would be the effectiveness of intercessory prayer on the healing process and how it functions. There are controversial scientific studies that suggest that intercessory prayer on behalf of

¹Stephen Hawking, *A Brief History of Time: From the Big Bang to Black Holes* (London: Bantam Press, 1988), 174, quoted in Ferguson, 9.

others without their knowledge or participation is helpful. How this works is best explained by the existence of God.¹

The chief Achilles' heel of naturalism is that it has no "fixed point" to begin the quest for ultimate truth. It attempts to place man somehow above creation for the purpose of observation. This vantage point does not exist. Human beings are part of the nature they seek to understand. Concepts like evil do not exist under naturalism. It becomes just an indispensable dynamic of change.²

Likewise the concept of the origin of information is beyond the capacity of the human mind. A. E. Wilder-Smith's discussion of the necessity of information is outside matter itself, since matter cannot organize itself. It is akin to the *logos* doctrine of Scripture. Science lacks this fixed point.³

The second *a priori*, uniformity, comes from the science of geology. It is also derived from the empirical method. There is the idea that since we were not witnesses of past events, i.e., the Big Bang, or the beginning of life, we must study the past through the eyes of the present. When science embraced the concept of uniformity and long ages, it impacted greatly how mankind viewed life. It was this assumption above all others that prompted Darwin to arrive at his theory of evolution.

¹Peter Jaret cites the research of Herbert Benson of Harvard and David Larson at the National Institute for Healthcare. Peter Jaret, "Can Prayer Heal?" *Health* 12:3 (March 1998): 48-54.

²Ellen Meyers, "The Breakdown of Philosophy and the Modern Evolution-Creation Debate," *Creation, Social Science, and Humanities Quarterly* (Summer 1994): 22-23.

³A. E. Wilder-Smith, *The Scientific Alternative to Neo-Darwinian Evolutionary Theory* (Costa Mesa, CA: Word For Today Publishers, 1987), vii-viii.

Piling one assumption upon another and calling it fact seems to be a very precarious foundation to build a theory upon. If one item is proven not to be true, the whole theory is in danger of falling apart. We will see later in the paper that this is the case today for the scientists who challenge evolution. For now, this assumption of uniformity lacks both compelling logic and compelling evidence that present processes have functioned at current rates throughout time.

Lastly, the *a priori* of gradualism in evolution is built upon uniformity. What needs to be explained here is the concept of analogy, because macromutations or saltations (jumps or miracles) are not visible in any current processes.

Darwin proposed that natural selection worked very gradually over long periods of time. In fact he stated "If it could be demonstrated that any complex organ existed which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down."¹ Darwin stated this because micromutations are visible and normal within species. Evidence is lacking that large-scale change has ever occurred naturally. Microbiologists challenge the validity of natural selection, demonstrating that gradual processes do not allow for the changes that are needed for the development of diversity and complexity found in cellular life today.²

Darwin built his concept of descent with modification by comparing the similarities of gross anatomy called comparative morphology.³ This way of viewing, for example, the

¹Charles Darwin, *Origin of the Species*, 6th ed. (New York: New York University Press, 1988), 151.

²Behe, 26-30. A more in-depth study is provided later in this paper.

³Coffin, 353.

bone structure was used to "prove" evolutionary development. The flipper of a whale, the foreleg of a frog, the wing of a bird, the foreleg of a dog, and the arm and hand of a man have basically the same structure. "Darwinists equate analogies from gross anatomy as proof of common ancestry."¹

In defense of Darwin, he did not understand cellular structure and complexity in the way we understand life today with the aid of advanced microscopy, etc. Thus, this method of science, empirical in that Darwin observed in nature these similarities, is not proof that one of these creatures actually evolved into another by gradual modification over long periods of time.

In summary, the methods of applied science, i.e., observation, experimentation and analogy, have allowed scientists to gain a vast amount of information in which to understand and describe how our world functions. These methods are useful in discovering and analyzing current processes but are shortsighted in their approach to studying and explaining the past. Many of the *a priories* of science and knowing in general could apply to religion as well. Sciences' defense and the reliance on philosophical naturalism seems both unscientific and illogical if the goal of science would be to give the best explanation to a given situation. The desire to keep God and the supernatural out of any equation is shortsighted. Now I examine the theological implications and the impact of scientific method and the philosophy of naturalism on Western society.

¹Johnson, *Darwin on Trial*, 93

Theological Implications

Hermeneutical changes alter scriptural understanding. This was true when Greek allegory was introduced into the church during the time of Origen. Now scientific naturalism came to stunt or sidetrack the recovery of the Reformation during the great religious awakening of the 1800s. This section traces some of the theological implications that have resulted through the adoption of scientific hermeneutics.

The first consequence of naturalism and evolutionary theory has been a change in the way some theologians interpreted Scripture. This raised the question of authority for truth. What is true, the scientific or scriptural? The first casualty from a scriptural perspective is the level of confidence in the veracity one has in revelation and supernatural phenomena. We explored the rise of the agnosticism of such people as Hume and Kant in light of empiricism.¹ This directly challenged the foundation of man's ability to know God or anything about God at all.

The erosion of biblical authority led to a second consequence, the redefinition of Christian doctrine. Over time, almost every doctrine of the Scriptures was scrutinized under the method of empiricism. This led to a gradual skepticism that eventually would renounce a straightforward reading of Genesis 1 as a factual historical event. Once one abandons this primary supernatural understanding, others supernatural descriptions fall in a domino-like manner. Notice how a rejection of the Genesis account of origins affects

¹Geisler and Anderson, 99-101.

the foundation of the rest of Scripture, for once one reinterprets or relegates a portion of Scripture under the heading of myth, it impacts all the rest of interpretation.

If one abandons a theistic and straightforward reading of the story of Genesis, evolution becomes the only explanation for life. If Gen 1-3 is not literal in meaning, then there is no accounting for what the Bible calls sin. Sin becomes the transgressions of the fickle whims of a given society. There is no accounting for death other than it is necessary for life. Evil is not the cause of death. Science may be able to describe some causes but not reasons. The Bible teaches that death is the result of sin. If there is no sin, because there was no fall, no disobedience, then logically there is no need of a Savior. That makes Jesus' death at Calvary a patriotic martyrdom by an enlightened zealot, not the atonement for the sins of the world. One could go on and on. Thus we can see why Charles Hodge calls Darwinism, atheism.¹

Prayer becomes the crutches of superstitious people or the babbling of fools. Religion would actually be evil because it claims to promise eternity and cannot deliver. Marx would call it the opiate of the masses. The Bible would become a book of lies or advice. And the best advice it could offer is to "eat and drink" because "all is vanity and chasing after the wind."

The change in hermeneutical principles has led to the redefinition of Christian doctrine in the churches today. This has led most churches to abandon creation account as a factual historical event.

¹Hodge, 156.

Naturalism and evolution have impacted theology so much so that the historian R. Halliburton, Jr., predicted in 1964 that a "renaissance of the [creation] movement is most unlikely."¹ Some have even ventured to predict the demise of the Bible.

The Bible no longer has unique authority for Western man. It has become a great but archaic monument in our midst. . . . Only in rare and isolated pockets—and surely these are rapidly disappearing forever—has the Bible anything like the kind of existential authority and significance which it once enjoyed throughout much of Western culture.²

While it is true that liberal denominations with historical-critical hermeneutics have declined in the past twenty years, conservative evangelical churches have increased rapidly. Many books and scholars have taken up the concept of creation, and the movement, though small, is robust. Books by these scholars from both religious and scientific points of view have challenged the science and the theory of evolution and naturalism. Science apparently is good at some things but prophecy regarding human behavior is not one of them. It becomes quite clear that if a person, church, or culture, for whatever reason, disregards the authority and explanation of Scripture then one is left with the authority and explanation of naturalism or whatever other authority they choose. It would be appropriate at this juncture to examine the strengths and limitations of the presuppositions of modern science and its method.

¹Roth, 1:5.

²Gordon Kaufman, "What Shall We Do with the Bible?" *Interpretation: A Journal of Bible and Theology* 25 (1971): 95-112.

Impacts of Scientific Method and Naturalism on Western Society and Religious Belief

Science and its method are regarded highly in the world and well they should be. Scientific testing is used by the courts of law to help settle disputes. It has helped produce technology that has led to computers, space vehicles, genetic engineering, and a whole list of achievements that have benefitted mankind. It has the perception of being able to accomplish whatever it sets out to do.

Of course, there is a downside to science. It has been used to produce toxic chemical weapons and nuclear weapons of mass destruction. It owes no allegiance to the forces of good or evil. This section discusses some of the direct or indirect influences of scientific thinking on Western society in general. These include authority and morality. In the light of its successes it is held up to be the ultimate authority in telling what is to be held as true or factual. As science has answered many questions, religion has been relegated from the public lectern to the pulpit.

One of the ways in which science has influenced religious belief, especially Western culture, is in the arena of authority. Science is held up as the authority for determining public facts. Religion is set aside in the realm of private belief or faith.¹

¹This separation of authority has been made publicly evident in the recent pronouncements of Pope John Paul II. He has issued an encyclical which has endorsed evolution "as fully compatible with Christian faith. The human body most likely evolved gradually but the soul is immediately created by God in each person." See Jeffrey Scheler, "The Pope and Darwin," *Time*, November 4, 1996, 12. This same view is also shared by Behe, a Roman Catholic, who personally confirmed his belief in evolution and God in a phone conversation when discussing his recent book. Michael Behe, telephone interview by author, Nov. 14, 1997.

This privatization has gradually eroded the voice that religion has had in society, even in defining morality. Though science has no way of defining or discovering morality, it has influenced the moral debate by taking behaviors that were once regarded as sin and explained them in terms of disease, or genetically inherited behavior. Behaviors that were once socially unacceptable now are publicly accepted through the redefinition of the behavior in scientific terms. Philosophical naturalism can only appeal to the *tabula rasa* on which to "graffiti" any moral standards.¹

Whose morals standards? Stephen Jay Gould recognizes these implications when he comments:

Our appearance looks more like an accidental afterthought than the culmination of a prefigured plan. . . . We cannot read the meaning of life passively in the facts of nature. We must construct these answers [morality] ourselves—from our own wisdom and ethical sense. There is no other way.²

In essence he is saying, "Life is an accident. . . . We have no meaning. . . . We must construct moral answers for ourselves. . . . There is no other way."

Neil Postman, commenting on the life that the "god" of science has left us unable to provide the answers we truly need, saying,

But in the end, science *does not provide* the answers most of us require. Its story of our origins and our end is to say the least, unsatisfactory. To the question, "How did it all begin?" science answers, "Probably by an accident." To the question, "How will it end?", science answers, "Probably by an accident." And to many the accidental life is not worth living. . . . And to the question, "What moral instructions do you give us?", the science-god maintains silence. . . . In the end, [it is] no god at all.³

¹Zacharias, 55.

²Friend, 33.

³Neil Postman, "Science and the Story We Need," *First Things* 69 (January 1997): 31.

There is no reason to distinguish between good and evil because science is neither moral nor amoral. Morality is based on the concept of a moral law. This presupposes a moral Lawgiver.¹

Stephen Gould is willing to yield this issue of societal morality to the church. He sees the need for morality and religion to placate man's fears and insecurities. But he himself is above such needs.² The redefinition of morality in society has removed the concept of "sin" from the vocabulary of public-speak. The media report facts as value-neutral. The removal of "sin" from the public vocabulary has diminished the authority of religion on what it proclaims as truth in society. Phillip Johnson shows the fallacy of separating "scientific facts" from religious values by stating, "The validity of religious morality is inextricably linked to the validity of the factual propositions that support it."³

The scientific point of view of sexuality says that it is just a natural biological drive that attempts to ensure the survival of the species with no respect for the concept of the institution of marriage. The religious perspective of the Bible says that man was an intentional creation and intended sexual intercourse to be confined to a monogamous martial relationship.

This type of thinking and teaching relegates religious speech to the church. It is forbidden in the public educational system because it falls under the category of "belief" not "fact." Though science would uphold what they call universal natural laws, the laws

¹Zacharias, 182.

²Stephen Jay Gould, "Nonoverlapping Magisteria," *Natural History* (March 1997): 16-22 and 61-62.

³Johnson, *Reason in the Balance*, 31.

that govern society are based on the group consensus of that society. Revelation never occurred because there is no revelation from God that is occurring today that is empirically testable. Everything in society is relative because there is no "still point" from which to judge right from wrong. Thus, in this atmosphere, religious teaching, including that on origins, is private belief not public fact.

Although this separation of "private knowledge versus public knowledge" has occurred in Western culture, due primarily to the emphasis on scientific philosophy and method, some scientists do not see it as something that should necessarily be encouraged.¹ They do not deny the facts of science nor can they deny the facts of religious experience. Both ways of knowing are based on levels of faith.² The approach to obtaining that particular knowledge differs with each discipline. Though fairness demands that all should be taught, prejudices prescribe that only the side of science be held as true in the public forum.

Scientific Achievement

Scientific achievement has caused other branches of knowledge to adopt its method. An example of this would be the rise of questions in historical interpretation during the nineteenth century. There were attempts to make history scientific, i.e., objective and empirical in nature. "Is objectivity in history possible?" Ronald Nash reveals

¹Ferguson, 242.

²Ferguson argues that there is no such knowledge as truly objective, scientific knowledge. See *ibid.*, 35-88.

that scientific method caused the rise of positivism and idealism.¹ Nash explains the assumptions of the historical positives.

The nineteenth-century positivists sought new methods that would put history on a firm scientific basis . . . [by] assuming that there are universal laws that govern social activity and the regularity of human conduct can be discovered by statistical means.²

This new methodology impacted the way the church has related to the Scriptures. From the time of Galileo until today, many things that were once taught as the result of God's direct involvement are understood to be the workings of natural law. This has caused some to question the validity of Scripture's description of the natural world. Criticism became one method of scriptural interpretation. This de-emphasized the supernatural, internal claims of a divine aspect of authorship.

This approach led to the ideological school of historical interpretation. This school of thought emphasized the role of subjective interpretation of history.³ It was not just brute facts that mattered. It was the interpretation or explanation of facts that was important. The quest was not for objective facts but the explanations of the phenomena that were vital. This did not necessarily help biblical interpretation. It led to the inner-self focus of existentialism. This too de-emphasized the historical factual nature of biblical events.

The implications for Christianity in general are very serious. Christianity is based on specific historical events as being factual as revealed in Scripture. The abandonment of

¹Nash, *Christian Faith and Historical Understanding*, 19-20. Chapters 2 and 3 of this book trace the impact of the scientific method on the social sciences.

²Ibid., 20-21.

³Ibid., 29-44, explains the reaction of the idealist to the positivists.

any one event, such as creation, the flood, or the resurrection, makes the whole system suspect. This is indeed the case in many circles. This further contributed to the loss of influence of the church in society.

The exaltation of the authority of science in the arena of public fact that has impacted social morality has led to a war in the courtroom over the voice of religion in the education of society. One of the hotly debated issues is the issue of origins as presented in science classes in the United States. The theory of evolution, as the only theory of origin taught in public schools, is being challenged by creationists on school boards who wish to at least get a disclaimer inserted into biology books stating that evolution is "only one theory" about the origin of life.¹ Evolution, as the explanation of origins, has been challenged not only in the southern Bible-belt states but across most states.²

In most of these debates there is often more "heat than light" generated. Both sides of the issue fail to understand or perceive the other side's viewpoint. The question arises, "Is there a way to approach the issue of the origin of life that allows both objective and subjective knowledge to be presented?" Throughout history many of the early scientists were Christian in their religious beliefs and saw no conflict between the Scriptures and the sciences.³ I would like to offer a methodological proposal as a basis for a discussion of origins in the current culture today.

¹Jill Nelson, "Creationism: The Debate Is Still Evolving," *USA Weekend*, April 18-20, 1997, 12.

²*Ibid.*

³Geisler and Anderson, 39-40. They list 15 prominent scientists throughout history who were Christians.

CHAPTER 5

A SUGGESTED APPROACH TO THE USE OF DATA REGARDING ORIGINS

Evolutionists say creationists' theories or views are nothing more than religion and not true science. Creationists respond by saying that evolution is a myth or a religion also unsupported by science. Evolutionists claim that science does not involve the supernatural, and the creationists respond by saying that evolution is incurably and unjustifiably naturalistic. Geisler and Anderson offer a "still point" or a starting point for the debate to allow both creationists and evolutionists a point by which to examine the data in favor of any theory of origins. This chapter defines and examines this starting point they call "origin or singularity science."¹ I believe it provides the neutral ground for honest dialogue between the supporters of each side.

Origin science is a method of scientific study about the past that does not occur today. It is in contrast to modern science, which focuses on regularities. These regularities are those laws in physics or chemistry that have recurring patterns which are observable in the present. Theories are tested against these laws of mid level and high

¹Geisler and Anderson, 15.

level science. Those theories which do not measure up to the patterns are said to be falsified. However, these present patterns should not be applied to past events that are not observable today such as the origin of the universe or life, or the origin of major new forms of life. Unfortunately, the origin of life has been interpreted by naturalistic science deductively through the eyes of evolutionary theory. These types of events, which have not laid down any pattern and are not occurring today. Therefore, the subject of the origin of life should be studied inductively or forensically because no reoccurring law today can adequately explain this type of singularity.

A science of the past, such as historical geology or archaeology, cannot explain unobservable singularities without the principle of uniformity (analogy).¹ Thus Geisler and Anderson point out the difference between current "operational" science, which is observable and measurable, with a science that deals with that which is unobservable to us today.

Operational science deals with regularities and secondary (natural) causes. Origin science deals with singularities and primary (possibly supernatural) causes.² Their proposal is summed up best in the following:

Our proposal, then, is that there are two basic kinds of scientific explanations: primary causes and secondary causes. Likewise, there are two basic kinds of events: regularities and singularities, *either of which may occur in the past or present*. It is clear that natural [secondary] causes are the only legitimate kinds of causes to posit for regularly recurring pattern of events. However, singularities, whether past or present, can have a primary or supernatural cause. But whether

¹Ibid., 14.

²Ibid., 15.

they have a supernatural or natural cause, past singularities come within the province of origin science. [emphasis supplied]¹

Therefore, when dealing with primary causes, origin science functions more at the lower level of science and inductively considers the data that would apply to singularities rather than interpreting the data from a Darwinian perspective.

This approach allows for the addition of teleological discussions to enter the debate and broadens the definition of science to include not only "how" something objectively operates but "why" it might exist. It seems to me to be a return to the original framework of early scientists, like Bacon or Newton etc., who do their science from the broadest platform to consider both the supernatural causes or origins as well as the laws of present operation. It answers the subjective cry for meaning without ignoring the objective desire for facts. Truth is neither the exclusive realm of subjective experience nor the objective realm of data. This approach, for instance, could allow for objective studies on the effectiveness of intercessory prayer and the reports of miracles of healing to be considered as evidence of supernatural operation or intervention in the material world. Beyond visible observation does not mean beyond truth or experience.

The old scientific idea of absolute empirical certainty has proved to be unrealistic. The best science can do, Karl Popper has written, is at best tentative.² He and others recognize the limits of the narrow approach to science that stresses only naturalistic explanations.³

¹Ibid., 16.

²Roth, 20:5.

³Ibid., 8:11.

Just how would this approach apply to the debate over the creation or evolution of life on earth? Origin science would proceed much like investigating a homicide case. Gather all the evidence and place forth all plausible hypotheses of what might have happened. Though an event like the creation of the universe is not reproducible, all models still involve a level of faith. Naturalistic science's search for the beginning has been somewhat of a nightmare. Astrophysicist Robert Jastrow comments that the notion of a beginning, i.e., a big bang, has theistic implications. "Three lines of evidence—the motions of the galaxies, the laws of thermo-dynamics, and the life story of the stars—pointed to one conclusion: all indicate the Universe had a beginning."¹ The issue is not whether the Big Bang theory is correct but that it points to regularities of the past that point to a singularity in origin.

This approach would not be contradicted by the scriptural evidence for creation. Thus, both science and Scripture may be more in harmony than some naturalistic scientists would like the rest of the unscientifically educated world to believe.

Naturalistic science has had almost 150 years of conjecture and yet has been unable to find a satisfactory mechanism for the model of origin of life. It would be well to review these unrepeatable past events from a biblical perspective and see if the evidence might support the historical accuracy of the biblical accounts.

The goal of the rest of this paper is then to first give the biblical account of creation and the flood. This is followed by an examination of the writings of Ellen G. White. Finally, the evidence from the various scientific areas of geology, biology,

¹Geisler and Anderson, 117.

physics, astronomy, and paleontology is applied to the model presented from the Scriptures.

CHAPTER 6

VARIOUS INTERPRETATIONS OF THE GENESIS STORY OF CREATION AND THE WRITINGS OF ELLEN WHITE

The Bible begins with an origin statement. "In the beginning, God created the heavens and the earth" (Gen 1:1). What follows in the first two chapters is the account of that period of God's creative activity. The rest of the Bible affirms the veracity and historicity of that event.¹ This chapter does not present a detailed exegesis of each verse but offers the various interpretations proposed by diverse schools of theological interpretation. Specific exegesis is offered to highlight the strengths or weaknesses of these schools of interpretation. The various interpretations of the first two chapters of Genesis fall into two major subheadings. There are the non-literal interpretations and the literal interpretations. The biblical examination is followed by an examination of the writings of Ellen G. White.

Non-Literal Interpretations of Gen 1 and 2

The non-literal interpretations understand chaps. 1 and 2 as either mythology, poetry, symbolism, and/or theology. Those who hold to such views see the creation

¹See Exod 16:25-26; 20:8-11; Isa 40:26,28; Jer 10:12-16; Pss 33:6,9; 90:2; 102:25; John 1:1-3; Acts 17:24; Rom 1:20 Col 1:16; Heb 1:2; Rev 4:11.

accounts as non-historical accounts for purposes other than conveying the cause, process, or time of the creation of the world. These chapters do not describe a literal event, nor were they intended to do so. This is generally the view taken by the interpretive schools of higher criticism advocated by scholars such as Herman Gunkel and B. S. Childs.¹

This school of interpretation was influenced by the philosophy and science of the Enlightenment that rejected the supernatural. The weaknesses in these interpretations fail to include the literary intentions of Gen 1-11. Evidence suggests that the author intended the creation account to be taken as literal.² One line of evidence is the use of the Hebrew word for generations, *toledoth*. The word is used to describe what is "produced or brought into being by someone else."³

Throughout the first eleven chapters of Genesis, the author intends the reader to understand the creation event as a historical act of God just as he intends the reader to understand the genealogies as historical people. The writers in the New Testament attest to the literal interpretation of the creation event as well as the flood story in Gen 1-11.⁴

A second major area of difficulty for the non-literal interpretations of the creation narrative is the issue of literal verses for non-literal days. The term for "evening and morning" found throughout the six days of creation signify a twenty-four-hour period. If

¹Richard Davidson, "In the Beginning: How to Interpret Genesis 1," *College and University Dialogue* 6, no. 3 (1994): 9-11.

²*Ibid.*, 10.

³R. Laird Harris, Gleason J. Archer, Jr., and Bruce K. Waltke, eds., "Toledoth," *Theological Wordbook of the Old Testament*, 2 vols. (Chicago: Moody Press, 1980), 1:380.

⁴See Matt 19:4-5; 24:37-39; Luke 3:38; Rom 5:12; 1 Cor 6:16; 11:8-9, 12; 15:21-22; Eph 5:31; Heb 11:7; 2 Pet 2:5; Jude 11, 14 and others not included in this list.

they were symbolic, then the time period of Exod 20:8-11 would not make sense nor would as the references to the time functions of the sun and moon.¹ The doctrine of creation is also understood as a polemic against the other Near-Eastern mythologies of origin that deified nature.² Warren Gage suggests that the scientific theories of origin resemble in some ways the ancient pagan cosmogonies. He wrote,

The doctrine of creation is the cornerstone to biblical revelation. . . . Scripture teaches that *creation is everlastingly distinguished from its Creator and ever dependent upon him*. . . . Those who follow presently popular "scientific" alternatives to biblical creationism inevitably find themselves transferring these two universals [creation is separate from and dependent upon the Creator] from the Creator to the creation, for to accommodate their theories they ascribe a practical eternality to creation (cf. the numberless ages are presupposed by secular cosmogonies) and invest the impersonal universe with notions of purposive progress (cf. the teleology implicit in natural selectivity). Thus the creation itself is invested with the eternal power and divine person of the Creator and the glory of the incorruptible God is changed for the image of man, birds, beasts and creeping things. . . . Their reasoning and their new science merely perpetuates the ancient mysteries. . . . The idolatry of yesterday has become the secularism of today and the dawn of the modern scientific age finds the sun rising upon nothing new.³

The non-literal interpretations on Gen 1 and 2 also make the assumption that the poetry negates the historicity. However, Bible writers often wrote in poetry to underscore the historicity of an event.⁴ An example of this would be the poetry of David commemorating the death of Saul and Jonathan in 2 Sam 1:19-27.

¹See Gerhard Hasel, "The 'Days' of Creation in Genesis 1: Literal 'Days' or Figurative 'Periods / Epochs' of Time," *Origins* 21/1 (1994): 5-38.

²*Ibid.*

³Warren Gage, *The Gospel of Genesis: Studies in Protology and Eschatology* (Downers Grove, IL: InterVarsity Press, 1984), 76, n. 1.

⁴Davidson, "In the Beginning," 10.

While Gen 1-2 presents theologies; "doctrines of God, Creation, man, Sabbath and so on," theology is not necessarily opposed to historical fact.¹ In fact, biblical faith finds revelation primarily rooted in historical events. Nash correctly states, "Certain historical events are held to be part of the Christian religion itself."² Biblical theology is rooted in factual history.

There are some who interpret the creation story as merely symbolic. One example of this can be found in the Tyndale Old Testament Commentaries, *Genesis*, by Derek Kinder. In his commentary on the creation account, Kinder supposes a possible "day-age" theory. However, the primary motive in the symbolic account is not the process of creation but the institution of the week as the rhythmic cycle of work and rest.³ Kinder, himself, raises possible objections to these interpretations by way of implication. "Does God (He) trade inaccuracies, however edifying?"⁴

There are slight variations of non-literal interpretations of Genesis. These include such categories as saga, myth-and-ritual, hymn, poem, parable, story, theology, and metaphorical narrative. These categories are founded on the "analogy" theory which takes the literal "day" as a metaphor.

Gerhard Hasel makes several observations regarding the non-literal views of creation texts which need to be noted. There is no consensus on just which literary genre

¹Ibid., 10-11.

²Nash, *Christian Faith and Historical Understanding*, 11.

³Derek Kinder, *Genesis: An Introduction and Commentary*, Tyndale Old Testament Commentaries (Downers Grove, IL: Inter-Varsity Press, 1967), 54-58.

⁴Ibid., 58.

is being employed by the author of Genesis. This raises questions concerning the validity of the method of form criticism and its assumptions. Second, the use of this method of interpretation is used to remove the authority of the text, yielding it to science. This removes the text from the factual historical realm.¹

I would reject the non-literal interpretations as constructs that have been superimposed over the Biblical texts. The bias of the interpreters may vary but the end result is a reading that denies what the text implies, which is a literal creation that explains the origin of the universe in general and man in specific. This is what the author intended his readers to understand.

Literal Interpretations

The literal interpretations of Gen 1-2 fall into three basic categories. The first is the "ruin-restoration" or "active-gap" theory.² The second is the "passive gap theory." The third is a straightforward reading of the text. These three literal interpretations hinge on the meaning of Gen 1:1, 2. Each literal interpretation deals with the Hebrew terms *tohu* and *bohu*. These words are translated "without form" and "void" describing the "unformed and unfilled" state of the earth.

The first interpretation mentioned is called the "ruin-restoration" or "active-gap." This theory states that God, millions of years ago, created a perfect world. This perfect world was ruined by Satan (Isa 14:12-17) when sin entered the universe. God judged this rebellion and the sinful earth was ruined. In this scenario Gen 1:2 would read, "the earth

¹Hasel, "The Origin of the Bible Sabbath and the Historical Critical Method," 17-18.

²For "active-gap" interpretation see Arthur Constance, *Without Form and Void* (Brockville, Ontario, Canada: By the author, 1970); and Davidson, *In the Beginning*, 11.

became without form and void.”¹ This is offered to explain much of the geologic column. One slight variation of this view has Gen 1:1 beginning with the word “*when*,” “When God created . . .”² This suggests that creation took place long ago with possible recreations after Satan ruined the earth.

These interpretations can be rejected on grammatical grounds as they superimpose concepts not found in the grammar of the text. The earth *was*, not *became* without form and void.

Two other literal interpretations are also offered for Gen 1-2. The first of these is the “passive gap” theory. This theory views Gen 1:1-2 as an independent clause. Under this interpretation the main point is that God created the universe at some time in the distant past. In the forming of the earth and the creation of life on the earth, God used the raw materials from that first creative act. This theory could posit a “big bang” beginning of the universe millions of years ago and the creation of life occurring in the recent past, 6,000 to 10,000 years ago. Under this interpretation, the earth’s raw materials lay in a dormant “unformed and unfilled” state.³

The last interpretation of this passage, the most commonly understood one, is the traditional or straightforward reading of the passage. This reflects the natural flow of these verses without contradiction or omission. Davidson has summarized the flow of thought as follows:

1. God is before all creation (vs. 1).

¹Ibid., 9.

²See for examples, New American Bible, New Jewish Bible, New English Bible.

³Davidson, “In the Beginning,” 11.

2. There is an absolute beginning of time with regard to this world and its surrounding heavenly spheres (vs. 1).
3. God created the heavens and earth (vs. 1), but they were at first different than now, they were "unformed and unfilled" (vs. 2).
4. On the first day of the seven-day creation week, God began to form and fill the *tohu* and *bohu* (vs. 3–following).
5. The "forming and filling" creative activity of God was accomplished in six successive literal twenty-four-hour days.
6. At the end of creation week, the heavens and the earth were finally finished (Gen 2:1). What God began in vs. 1 is now completed.
7. God rested on the seventh day, blessing and sanctifying it as a memorial to creation (Gen 2:1-4).¹

The passive-gap and traditional interpretations leave one question unanswered, that is, "When did the absolute beginning of Gen 1:1 occur?" Was it at the commencement of the seven days or a time prior to that? The answer impacts the understanding of the Precambrian portion of the geologic column. If one sees the beginning as the time of the seven days of creation, then God created matter (viewed from a scientific perspective based on radiometric dating) with apparent age. If the beginning was further in the past, say billions of years, then the radiometric dating of the Precambrian layer would reveal the approximate age of the earth.

There does seem to be some conflict under the passive gap in relating how the creation of the sun fits into the account of the fourth day record. A conservative exegesis

¹Ibid.

of Gen 1-2 allows room for either the passive gap or the traditional understanding of the creation account. I agree with Davidson's final analysis when he says, "The biblical text calls for a *short* chronology for *life* on the earth. There is no room for any gap of time in the creation of life on this earth: it came during the third through sixth literal, successive 24-hour days of Creation week."¹

My conservative understanding of origins of the earth and life begins with the *a priori* of faith. Heb 11:3 is the starting point: "By faith we understand that the world was created by the word of God." This *a priori* is also based on the *a priori* that "God exists" and "rewards those who seek Him" (Heb 11:6). This means that the biblical doctrine of creation, founded on divine revelation, is accepted preimmanently from the standpoint of faith. This creation, whether completely worked in seven days or created in two stages—one occurring in the distant past (Gen 1:1—passive gap) followed by the recent creation of life in seven days—was done *ex nihilo*. This means that "that which is seen was made out of things which do not appear" (Heb 11:3 and Gen 1:1). Matter and life originated in the mind and the will of God.²

Creation and Evolution in the Writings of Ellen G. White

Seventh-day Adventists accept the ministry of Ellen White as a gift from God to His end-time church.³ She claimed to be God's messenger for those living in the last days

¹Ibid., 12.

²See Rev 4:11; Col 1:17; and Acts 17:28.

³Ministerial Association, General Conference of Seventh-day Adventists, *Seventh-day Adventists Believe . . .* (Hagerstown, MD: Review and Herald Publishing Association, 1988), 224.

of earth's history.¹ Her impact on the formation of the Seventh-day Adventist Church and my role as a pastor of this church behoove me to examine her writings regarding science, creation, evolution, and the flood.

Ellen White was not opposed to science rightly practiced. She taught that a proper study of the natural world, rightly understood, would confirm what was recorded in the Scriptures and would enhance the knowledge of God. Nevertheless, much of the science practiced, she viewed as the result of the workings of Satan since it was founded on godless philosophy.

The following examples reveal her attitude about the proper relationship of science to the acquisition of knowledge:

1. "Rightly understood, both the revelations of science and the experiences of life are in harmony with the testimony of Scripture to the constant working of God in nature."²
2. "Satan can impart scientific knowledge, and give men chapters upon philosophy. He is conversant with history and versed in worldly wisdom."³
3. God is the foundation of everything. All true science is in harmony with His works; all true education leads to obedience to His government. Science opens new wonders to our view; she soars high and explores new depths; but she brings nothing from her research that conflicts with divine revelation. Ignorance may seek to support false views of God by appeals to science; but the book of nature and the written Word do not disagree; each sheds light on the other.

¹Ellen G. White, *Selected Messages*, 3 vols. (Washington, DC: Review and Herald Publishing Association, 1958), 1:32.

²Ellen G. White, *Education* (Mountain View, CA: Pacific Press Publishing Association, 1903), 130.

³Ellen G. White, *Manuscript Releases*, 21 vols. (Sliver Spring, MD: Ellen G. White Estate, 1981), 3:355.

Rightly understood, they make us acquainted with God and His character by teaching us something of the wise and beneficent laws through which He works.¹

Ellen White expounded on the limitations and dangers of science to religious faith when it was practiced without reference to God. Her statements stemmed from her understanding of the fallen nature and the finiteness of man that lowered the dignity of man from the intentions of the Creator. In the study of science, as generally pursued, there are dangers equally great.

4. Evolution and its kindred errors are taught in schools of every grade, from the kindergarten to the college. Thus the study of science, which should impart a knowledge of God, is so mingled with the speculations and theories of men that it tends to infidelity.²
5. When consideration is given to man's opportunities for research; how brief his life; how limited his sphere of action; how restricted his vision; how frequent and how great the errors in his conclusions, especially as concerns the events thought to antedate Bible history; how often the supposed deductions of science are revised or cast aside; with what readiness the assumed period of the earth's development is from time to time increased or diminished by millions of years; and how the theories advanced by different scientists conflict with one another, --considering all this, shall we, for the privilege of tracing our descent from germs and mollusks and apes, consent to cast away that statement of Holy Writ, so grand in its simplicity, "God created man in His own image, in the image of God created He him"? Gen 1:27.³

Ellen White believed and taught that God was the creator of the world and mankind was the crown of that creation. Included in this understanding was a refutation of theories which interpret the days of creation to allegorical ages. How God accomplished this feat is beyond the searchings of science. She was well aware of the

¹Ellen G. White, "Science and the Bible in Education," *The Signs of the Times*, March 20, 1884, 3-4.

²White, *Education*, 227.

³Ibid., 130.

evolutionary theories of Darwin and other scientists (unnamed infidel geologists) though she made no reference to Darwin by name. The following quotes summarize many statements to this affect.

By the word of the Lord were the heavens made; and all the host of them by the breath of His mouth." "For He spake, and it was done; He commanded, and it stood fast." Psalm 33:6, 9. The Bible recognizes no long ages in which the earth was slowly evolved from chaos. Of each successive day of creation, the sacred record declares that it consisted of the evening and the morning, like all other days that have followed. At the close of each day is given the result of the Creator's work. The statement is made at the close of the first week's record, "These are the generations of the heavens and of the earth when they were created." Genesis 2:4. But this does not convey the idea that the days of creation were other than literal days. Each day was called generation, because that in it God generated, or produced, some new portion of His work.¹

Infidel geologists claim that the world is very much older than the Bible record makes it. They reject the Bible record because of those things which are to them evidences from the earth itself that the world has existed tens of thousands of years. And many who profess to believe the Bible record are at a loss to account for wonderful things which are found in the earth, with the view that creation week was only seven literal days, and that the world is now only about six thousand years old. These, to free themselves from difficulties thrown in their way by infidel geologists, adopt the view that the six days of creation were six vast, indefinite periods, and the day of God's rest was another indefinite period; making senseless the fourth commandment of God's holy law. Some eagerly receive this position; for it destroys the force of the fourth commandment, and they feel a freedom from its claims upon them. They have limited ideas of the size of men, animals, and trees, before the flood, and of the great changes which then took place in the earth.²

Without Bible history, geology can prove nothing. Relics found in the earth do give evidence of a state of things differing in many respects from the present. But the time of their existence, and how long a period these things have been in the earth, are only to be understood by Bible history. . . . When men leave the Word of God in regard to the history of Creation, and seek to account for God's creative works upon natural principles, they are upon a boundless ocean of uncertainty.

¹Ellen G. White, *Patriarchs and Prophets* (Mountain View, CA: Pacific Press Publishing Association, 1958), 112.

²Ellen G. White, *The Spirit of Prophecy*, 4 vols. (Battle Creek, MI: Seventh-day Adventist Publishing Association, 1969 facsimile), 87.

Just how God accomplished the work of Creation in six literal days He has never revealed to mortals. His creative works are just as incomprehensible as His existence.¹

Arthur White revealed that it was less than five years after the publication of *Origins*, by Darwin, that Ellen White proposed to write the third volume of *Spiritual Gifts* to address this issue. The first part of the book was to deal with the issue of creation and the flood. He stated that it would contain "matter . . . from the Creation—the six days of Creation, the size and glory of the first pair, the Fall, and the Flood."²

Ellen White understood the current surface of the earth to reflect the results of the flood. This event was in consequence of man's disobedience of God's law and the dishonor shown God by man.

But I looked upon deep gorges, the seamed and cleft rocks, the varied shapes and structures, and then thought how the people had brought all this curse upon themselves because of ingratitude to God and disobedience to His law. The torrents of rain descending from the heavens above, the fountains of the great deep broken up, the trees which men had enjoyed and idolized, uprooted and swept away with the inhabitants, the groves, the palaces, the costly works to satisfy the pleasure lovers—all swept away. . . . Here before me were the evidences of the destruction of the old world by a flood because the law of God was not observed.³

All the current geological features from the formation of coal beds to the fossils contained within the strata, were the results of the activity of the wind, water, upheaval and burial that resulted in the Noachian flood. The flood was linked to the sin of man.

¹Ellen G. White, *Spiritual Gifts*, 4 vols. (Hagerstown, MD: Review and Herald Publishing Association, 1945), 3:90-93.

²Arthur White, *Ellen G. White, vol. 2, The Progressive Years, 1862-1876* (Hagerstown, MD: Review and Herald Publishing Association, 1992), 79.

³Ellen G. White, *Manuscript Releases*, 21 vols. (Silver Spring, MD: Ellen G. White Estate, 1981), 10:369.

Thus we see a consistency in the basic veracity of the first ten chapters of the book of Genesis. The Seventh-day Adventist Church has accepted these basic premises. Note the following.

The entire surface of the earth was changed at the Flood. A third dreadful curse rested upon it in consequence of sin. As the water began to subside, the hills and mountains were surrounded by a vast, turbid sea. Everywhere were strewn the dead bodies of men and beasts. The Lord would not permit these to remain to decompose and pollute the air, therefore He made of the earth a vast burial ground. A violent wind which was caused to blow for the purpose of drying up the waters, moved them with great force, in some instances even carrying away the tops of the mountains and heaping up trees, rocks, and earth above the bodies of the dead. . . . The earth presented an appearance of confusion and desolation impossible to describe. . . . At this time immense forests were buried. These have since been changed to coal, forming the extensive coal beds that now exist, and also yielding large quantities of oil.¹

Some may challenge Ellen White's understanding of geological processes because of a statement she made regarding the burning of coal or oil under the surface of the earth contributing to earthquakes, explosions, and volcanic activity.² Though no one knows the cause of all these activities, there is evidence that seems to reflect this possibility.³ In conclusion, it must be noted that Ellen White had no training in science and never held herself as an authority. She opposed much of the so-called science of her day, and as the Lord's messenger, reflects the biblical accounts of creation and the flood as actual events that closely reflect the words written by Moses.

¹White, *Patriarchs and Prophets*, 107-109.

²Ibid.

³Arial Roth, in a conversation, recalls that this type of phenomena has occurred which would not only reflect the past theories but also is found to be true in some areas of the world today, like Burning Mountain in Australia. Interview by author, June 3, 1998.

I believe that a passive-gap or straightfoward interpretation of the creation account in Genesis is in harmony with the teachings of Ellen White. I will now turn to discuss some of the issues in the debate on origins.

CHAPTER 7

ISSUES BETWEEN SCIENTIFIC AND THEOLOGICAL UNDERSTANDINGS REGARDING ORIGINS

Early man was impressed by sun, moon, and stars. These objects were deified. Man has often worshiped what he did not understand. In ancient Egypt, for instance, Ra, the sun god, rides the cosmos. The sun was considered the source of life. Evolutionists claimed to have debunked that myth as well as the biblical myth of creation. However, creationists offer other viewpoints. In a time when ancient astrologers thought they knew about how many stars there actually were, the Bible writers said that the stars were as numerous as the sand on the seashore thousands of years before Galileo. Galileo was dumbfounded by their number. Was the Bible making a factual statement or was it meant to be symbolic? One common objection to a creation model is that it is not scientific. If a creationist proposes God, as the Creator, scientists argue that He cannot be examined in the laboratory so the proposition is invalid. But can the creation model be examined and its statements about life and its origin be substantiated?

This chapter examines the scientific data in light of the competing claims of evolution and creation, mindful that neither is provable by hard data alone. However, faith should be reasonable. Peter said, "Always be prepared to make a defense to anyone who calls you to account for the hope that is in you (1 Pet 3:15).

The data are presented in a narrowing pattern, beginning with the origin of the universe, the origin of life and species, the fossil record, and finally concluding with the origin of man.

The Origin of the Universe

For centuries humanity has pondered the identity and existence of the stars. The Greeks and later the Romans believed that the stars always existed. Matter was eternal. The Bible on the other hand teaches another story. It speaks of a God who is eternal and the universe as we know it coming forth by His power, *ex nihilo*. Today, most scientists accept the big bang theory as the beginning of our universe. This section discusses the big bang theory, illustrates a few of the difficulties with the theory, then concludes with how the theory relates to the evolutionary debate.

The theory is based on the discoveries of the 1920's astronomer Edwin Hubble. The Hubble telescope is named after him. Hubble measured the receding movements of galaxies from the earth by means of spectroscopy. These measurements are called redshifts.¹ These results led Hubble to conclude that the universe is expanding. The galaxies are moving farther away from each other. If this is true, that means that at one time they were much closer together. It followed logically that back in distant time the entire universe as we know it would have been in the same place. From this theory developed the theory of black holes made popular by the work of Stephen Hawking and Roger Penrose.²

¹Fred Heren, *Show Me God* (Wheeling, IL: Searchlight Publications, 1995), 114. Galaxies coming towards the earth are called blueshifts. See pages 114-124.

²Ferguson, 24.

As far as the Big Bang goes, if the theory is true, all matter was at one time crushed into an infinite point of infinite density and infinite space-time curvature where no light can escape.¹ At some specific time this infinite point of matter exploded. The universe began with a great singularity.² Science is mute concerning exactly what the conditions were that led to this big bang. When asked where that point of infinite density came from, science can only offer speculations. Precisely when the bang occurred is also uncertain. Initial guesses placed it about 15-20 billion years ago. Today most astronomers are settling for 12 billion years.³ This assigned age assumes of course that the theory and the dating are accurate and may not be in conflict with the Genesis account of creation.⁴ This date fits nicely into evolutionary theory because it allows enough time for the beginning and evolution of life and man. It was a singularity that just "happened" by chance.

However, the Big Bang theory is not without its detractors and problems. The universe seems to show evidence of design. Scientists, however, suggest that the Big Bang created itself; it just happened. The complexity and organization of the universe, especially our solar system could not just happen. Matter and energy never organize

¹Ibid., 22.

²A singularity is an unreproducible happening. Not only is the age of the universe something difficult to determine, some like Alan Guth speculate on the possibility of more than one universe. See Gregg Easterbrook, "What Came Before Creation?," *U.S. News and World Report* July 20, 1998, 45-50.

³William Cook, "How Old Is the Universe," *U.S. News and World Report*, August 25, 1997, 36.

⁴Gen 1:2 has the world in an unformed and unfilled state.

themselves without the input of information from the outside.¹ If you explode a bomb in a junkyard the scraps of metal will not organize themselves into a new car no matter how often you repeat the experiment.

J. P. Moreland lists twenty-five parameters of the universe that must be carefully fixed for any type of life to exist.² These parameters suggest that the universe was fine-tuned rather than an accident of chance. Order does not arise out of disorder. Also at odds with the Big Bang theory are the counter-clockwise orbits and rotations of some planets and moons. Scientist's also theorized that the moon would be deep in cosmic dust, but when the Apollo astronauts landed there they found very little dust on the lunar surface.³ One of the major challenges to evolution in general is the second law of thermodynamics. Issac Azimov describes it as "the amount of available work you can get out of matter in the universe which is constantly decreasing."⁴

This rate of decreasing work is called entropy. It is a measure of the level of increasing disorder and change in the universe. Illustrations of this are numerous. Our bodies wear out and cars rust. Left to themselves all things break down and become simpler not more complex. A glass of water seeks room temperature, hot things get cool, cool things warm up. When all is one temperature—all work ceases. This is a challenge to

¹Wilder-Smith, viii.

²J. P. Moreland, *The Creation Hypothesis: Scientific Evidence for Intelligent Design* (Downers Grove, IL: InterVarsity Press, 1994), 160-163.

³Mitchell, 64.

⁴*Origins: How the World Came to Be* (Mesa, AZ: Films for Christ, 1995), video recording.

evolution and those who apply evolutionary theory to the Big Bang. Evolutionary theory teaches that things and life are increasing in complexity. It suggests that solar systems, like ours, are being formed with precise orbits, and life is evolving and getting more complex. Matter and energy will never accomplish this without information.

The Big Bang theory has impacted the debate of evolution and creation. Both sides use it in their argumentation. Theists say that it proves that God exists, He is the source of this singularity. Evolutionists deny the existence of God and say that matter has always existed and have attempted to "wormhole" their way out of the singularity issue.¹ They point to the long ages as proof that the Genesis account of creation is myth.

One of the greatest impacts of the Big Bang theory on theology has been to strengthen the theories of Theistic Evolution and Progressive Creation. These theories attempt to blend the Genesis account of creation with the theory of the Big Bang and evolutionary development of all life. God set things in motion and carefully guides the process: however, it is an evolutionary process. The difference between theistic evolutionists and progressive creationists is the stress on evolution (theistic evolutionists) or gaps in the six days of creation (progressive creationists).² Great attempts have been made to link naturalistic science with Scripture. This type of reasoning, which attempts to please both communities, fails.

The reason for this failure lies in the fact that "these intermediate views

¹See Easterbrook, 48; Ferguson, 106-109.

²For a detailed discussion see Roth, chapter 21.

compromise both naturalistic science and the Bible.”¹ Theistic evolution implies that somewhere, along the life-death struggle for survival, an ape- or chimp-like creature evolved to an accepted state of being. Then God inserted a soul or called it a creature made in His image.

Theistic evolution forces several unbiblical implications. It implies that God has allowed suffering and a terrible dog-eat-dog struggle for existence to go on for billions of years before the entrance of sin. This ignores the biblical texts that say death was the direct result of sin (Gen 3; Rom 6:23). This theory also assumes the Greek dualistic claim of the immortality of the soul in contrast to the holistic approach regarding the nature of man found in the Scriptures (Gen 2:7).

The implications also affect prophetic interpretation. If one assumes that God created in the manner described by theistic evolution or progressive creation, what then does one do about the recreation of the earth and the resurrection? Will God recreate the new heaven and new earth in the same manner in which He created it according to these perspectives? When one abandons one supernatural event, i.e., the creation of life on earth in seven literal days (for the sake of evolutionary theory), how can one then propose the scriptural veracity of other supernatural events like the incarnation, resurrection, or recreation? It is logically untenable. It makes Jesus and Paul liars when they make reference to the Genesis account of creation. According to the book of Romans, decay and death were not present on this planet until the fall of the human race (Rom 8:20). Entropy is one of the implied results of the fall.

¹Ibid., 21:1. There are 23 different theories about the Big Bang and the origin of our solar system. See video recording *Origins* cited earlier in this chapter.

The Big Bang is as much a cosmogony as a cosmological theory. It is a story much like evolution. Evolution suggests that life arose when a primordial cell developed in a pre-biotic soup. The Big Bang suggests a story of a primordial atom exploding into a universe. All the matter was supposedly sitting in space for an indefinite period of time until it became unstable and exploded into the universe we know today. Though interpretation may allow for a "big bang" in Gen 1:2 and the formation of this solar system from pre-existing matter He created in that "big-bang," the Scriptures affirm that God is the author of life which He created on this planet in the six days of Genesis. One argument against the Big Bang being a godless happening comes from teleonomy (information that organized the universe).¹ Teleonomy does not reside in matter itself. It resides in life. And where you find life, you find teleonomy (information or purpose). It comes from outside our universe, not from within. We turn now to discuss the origin of life itself and the origin of species.

The Origin of Life and Species

Life in all forms is very complex. Just what is it? The definition and origin of life are an enigma that has no clear scientific answers. A cell is made of non-living molecules and atoms. What makes a cell alive? The answer to this question has been most illusive. For something to be said to be alive there must be a minimum of chemical organization. Yet this has not been reproduced by experimentation. Life runs on chemistry but it is more. The question to ask is: "Could life originate by merely chance chemical reactions?"

This section examines the various theories regarding the origin of life and the development of species from the evolutionary prospective, and then evaluates the

¹Wilder-Smith, viii.

plausibility of these scientific hypotheses. Most evolutionary scientists define life as matter evolving by natural selection. During the Middle Ages it was thought that life arose out of dead organic matter. Frogs came from slime and mud and maggots arose from decaying meat. The theory was called spontaneous generation. The theory was falsified by an Italian named Redi. However his work was unnoticed.¹

Louis Pasteur later proved that life arose from life. Yet the theory of evolution has retreated back to spontaneous generation when it postulates that life can somehow arise from non-living matter. The main theory is called the Oparin hypothesis.²

A. I. Oparin, a Russian biochemist, suggested that the world was once very different than we find it today. He believed that some pre-biotic soup such as Darwin's warm pond allowed life to gradually evolve over long periods of time. His hypothesis has been the guiding paradigm that has shaped all the theory of life research during the twentieth century.³

The Oparin hypothesis, sometimes called the RNA first model, was catapulted to stardom through an experiment by Stanley Miller in 1952. Miller was able to produce amino acids, the building blocks of RNA and DNA, by passing some ammonia, methane, hydrogen, and water vapor through an electrical charge. However, the importance of these experiments has fallen in stature due to the consensus that the early atmosphere was not the ammonia, methane, hydrogen mixture he hypothesized, but rather one that

¹Roth, 4:2.

²Moreland, 181.

³Ibid., 182.

contained nitrogen, carbon dioxide, and water vapor. These chemicals are actually detrimental to the pre-biotic pool's formation of amino acids.¹

This diluting of the pre-biotic soup theory has led to several other hypotheses on how life may have arisen. These include the clay-based origin of life proposed by A. G. Cairns-Smith, the hydro-thermal sea-vent theory, and the metabolism-first theory.² These have all proved to be unsatisfactory. The failure to come up with a solid answer to this question has even led to the concept that life on earth came from outer space via a comet or other forms of intelligent life. Francis Crick suggested this possibility and called it "pan-spermia." This would sound like a miracle if it came from the mouth of a theologian. Phillip Johnson states, "When a scientist of Crick's caliber feels he has to invoke undetectable spacemen, it is time to consider whether the field of pre-biological evolution has come to a dead end."³

The stumbling block to prebiological evolution has been the issue of information. The chemical substances that make up DNA are not self-organizing. At the most fundamental level, energy applied to matter cannot produce living, reproducing cells. There is a need for information to instruct the cell or multicellular organism just how to function. It was the mathematicians who eventually threw the monkey wrench into the various pre-biological hypotheses. During a symposium entitled "Mathematical

¹Ibid., 184.

²Ibid., 193-95.

³Johnson, *Darwin on Trial*, 111.

Challenges to the Neo-Darwinian Interpretation of Evolution," the inability of unguided trial and error to reach anything but trivial ends in the biological realm was exposed.¹

Living organisms are complex systems. The odds of putting together just one rung in the complex DNA double helix is ten to the eighty-seventh power. There are only ten to the twenty-fifth-power seconds according to scientists when they date the age of the earth. The solution seems inevitable, the cell must have a designer. Michael Behe calls the theoretical method that supports the design theory, "irreducible complexity."² The lack of self-organizing tendencies in matter, as well as the immense complexity of information needed to have life, has left the origin of life an unsolvable mystery beyond the reach of science.

One question that persists is, Why does naturalistic evolution still prosper since the empirical evidence for the origin of life by random chance is weak or non-existent? One finds articles still supporting these "warm pond ideas" in *National Geographic*, PBS *Nature* series, science sections of mainstream magazines, and in the classes of modern universities today. Denton correctly points to a phenomenon of culture that reveals the answer. "Sociologists point out . . . the plausibility of any theory or world view is largely dependent upon the social support it receives rather than its empirical content or rational consistency."³ These accepted theories have as their foundation the *a priori* of naturalism. The admittance of a designer and author for life would be tantamount to admitting that evolution is nothing more than a twentieth-century scientific myth. Most

¹Denton, 314.

²Behe, 39.

³Denton, 75.

scientists find the possibility of facing a reality beyond the natural world unacceptable. The irony is that most biochemists use the vocabulary of intelligent communication to describe the coding and decoding of information as well as the library of instructions that occur within a single cell. Why not postulate life to be the product of an intelligent creator? The cell's chemistry did not put itself together. There had to be a designer who could conceive of the information that was needed to make a cell, then assemble it in a way that it could reproduce itself. Gen 1:1 says that God was that outside intelligence who did such a thing. The information of DNA is not resident in inorganic matter. Information has to be injected into matter. One needs the wisdom and the sense of beauty and technical know-how to accomplish this feat.

The complexity of trying to discover how life evolves only gets more complicated when attempts are made to explain how species came into existence. Did all life evolve from one, single-celled creature? Was the first life-form a plant or an animal? Should the history of living things come from a single tree or a forest of trees, each with potential for great variation? Charles Darwin had a strong belief in the idea of progress. Things developed from simple to complex, or at least he thought they did. According to Darwin, the origin of the species resulted from life undergoing small variations, caused by environment or external forces, and that these changes led to new species. He came to this conclusion after his trip on the *Beagle*.

Prior to the voyage Darwin believed in the fixity of species based on the biblical concept of "after their kind" (Gen 1:12, 21, 24). However, things he observed on his journey suggested that species in fact do change.

The question is, How much change can occur? Darwin made three fundamental propositions. The first is species can change. Over long periods of time, species undergo change through what he called "descent with modification." Second, Darwin suggested that this process can account for nearly all the diversity of life we find today. This diversity could have come from a very small number, perhaps even one ancestor. Life evolved from the simple to the complex. Third, this process was guided by natural selection or "survival of the fittest."¹ Mendel's theory of genetics made Darwinism impossible until the discovery of mutations.

Sometimes mutations take place: This was thought to be the vehicle for the progression that evolution suggests. Darwin believed that changes were guided by natural selection. He was unaware of the mutational process. Johnson summarizes the neo-Darwinist theory. "The hypothesis, to be precise, is that natural selection (in combination with mutation) is an innovative evolutionary process capable of producing new kinds of organs and organisms."² Leonard Brand calls this theory megaevolution.³

The hypothesis is supported by various lines of evidence. These are: homology, embryological recapitulation, vestigial organs, hierarchical nature of life, and the gradation of complexity, fossils, and biogeography.⁴ The appropriate question to ask at this juncture is: Do these lines of evidence confirm this hypothesis?

¹Johnson, *Darwin on Trial*, 15-16.

²Ibid., 25.

³Brand, 127.

⁴For a detailed discussion of these lines of evidence see Brand, 128-145, and Moreland, chapter 6.

Before we look at some data in response to this question there is one contribution by Darwin that we can acknowledge. Natural selection can prevent the drift downwards but cannot cause species to drift upwards. It maintains the best of the species. An Eskimo saying can apply, "The wolf keeps caribou strong." It removes the weaker and diseased animals from the herd. Thus natural selection prevents drifts downward and upwards as well and works toward the maintenance of a healthy (survivable) species. The lines of evidence for the evolutionary theory of speciation fall under the general category of observation of similar pattern, or structure, or examples of "evolution in action."

Supporting evidence of the latter would be examples such as the evolution of drug-resistant strains of bacteria, the color changes that have occurred in the peppered moth due to industrial pollution, and Darwin's finches.

The former would be structural analogies of fossil bones, or comparing together the embryos of fish, amphibians, and man, or comparing the skeletal structures of a hand, flipper, bat wing, and a dog's leg. Evolutionists state that these similarities point to common origin and descent with modification. Creationists could just as easily say that these examples point not so much to common ancestry as much as they refer to common design. The fossil record will be discussed in a later section.

The contemporary biological examples like the peppered moth are held up as "evolution in action." These micromutations always occur within species. Evidence of macroevolution, where a reptile egg hatches a bird, or the change from legs to wings, is completely absent. Johnson presents Pierre Grasse's response to this evidence:

The "evolution in action" . . . is simply the observation of demographic facts, local fluctuations of genotypes, geographical distributions. Often the species concerned have remained practically unchanged for hundreds of centuries!

Fluctuation as a result of circumstances, with prior modification of the genome, does not imply evolution, and we have tangible proof of this in many panchronic species (i.e. living fossils that remain unchanged for millions of years)¹

Mutations almost never improve the species. According to some research, 99 percent of mutations are harmful, and 90 percent are lethal.² We can maintain mutations in the laboratory but they are usually lethal to animals.

One area of science that has challenged evolutionary theory in general, and the origin and development of species in particular, comes from biochemistry. Biochemistry attacks evolutionary theory on three levels: complexity, integration of complexity, and aesthetics.³ Evolution's modern supporters, like Dawkins and Gould, make their case by arguing on the level of gross anatomy. But the devil is often in the details. Behe points out this flaw, revealed by biochemistry.

Biochemistry has demonstrated that any biological apparatus involving more than one cell (such as an organ or a tissue) is necessarily an intricate web of many different, identifiable systems of horrendous complexity. . . . The arguments (of evolutionists) . . . fail because they never discuss what is contained in the system over which they are arguing.⁴

Scientists, like Behe and Roth, point to systems such as the human eye, the blood-clotting cascade, and the immune system as so complex and precise that there is no probability of these systems to ever occur or develop by chance.⁵ Individual systems (organs) as well as sub-cellular systems (mitochondria) not only are complex, but they are

¹Pierre Grasse as quoted in Johnson, *Darwin on Trial*, 27.

²Mitchell, 126.

³Moreland, 28-31.

⁴Behe, 46.

⁵*Ibid.*, 93, 94; Roth, 4:6.

integrated into larger systems that make up complicated multicellular creatures. There is no such thing as simple life.

One key ingredient missing from the origin-of-species arguments is the issue of information. Additional information would be needed for a creature with scales or skin to develop feathers. No evidence is provided as to where teleonomical processes originate or how they function.

In conclusion, the origin of life and the origin of species lack the evidence to prove that they could occur by chance. The family trees that are constructed to show the evolutionary ascent of creatures from a single cell are taxonomic in nature. They are silent about phylogenic relationships.¹ The evidence speaks of intelligent design. Similarities on the level of gross anatomical observations fall apart when one examines the vast differences in the biogenetic makeup of creatures and the conditions that would allow for their formation and evolution. The biochemical processes that would constitute a pre-biotic soup and the biochemical processes that are involved in cellular structure and development do not occur randomly in nature. It takes the addition of information from outside matter for these things to occur. Matter never organizes itself nor is it capable of transforming itself without the injection of information. Roth correctly summarizes that "biological systems defy spontaneous origin by random events."²

Two last lines of evidence need to be considered: the origin of fossils and the evidence used to support the evolution or origin of mankind.

¹Leo R. Van Dolson, ed. *Our Real Roots* (Washington, DC: Review and Herald Publishing Association, 1979) 92.

²Roth, 8:15.

The Origin of Fossils

One area of evidence for evolutionary theory mentioned in the previous section is the fossil record. At this point I will examine the interpretation of the fossil record. This involves examining how they were formed, are dated, and how they relate to the theory of evolution. Any evidence of life from the remote past is considered to be a fossil.¹ Fossils come in many forms, from insects trapped in resin, a mineralized shell, foot imprint in rock, to skeletal remains. Though there are many types of fossils, fossilization is a rare event. Most tracks and remains of organisms break down and leave no knowable traces of their existence.

Fossils are generally classified into four groups based on the method of preservation: petrification, carbonization, unchanged (i.e., frozen), and molds and casts.² Elaine Kennedy explained the conditions that are required for fossilization. She says that,

fossilization requires fast burial to prevent scavenging by animals or by aerobic and anaerobic bacteria. A reducing environment is not helpful for preservation in most cases. For example, it has been found that leaf preservation requires that leaves need to be dropped in the water before they start to dry up. A bacterial film has to be formed before mineralization can occur; however, sediments must bury the leaf before the bacteria destroy the leaf.³

Fossils occur almost exclusively in sedimentary rock, though some fossils are cast in lava or frozen like the mammoths. Most fossils are found in the geologic column, that is, the sequential layers of rock forming the earth's crust.

¹Ibid., 9:1.

²Coffin, 222-223.

³Geologist, Elaine Kennedy, interview by author, 19 August 1998, Yellowstone National Park.

In general, fossils found in the lower layers are animals of simple structure while those in the upper layers are more complex. Several features of the fossil record should be noted at this juncture. Fossil identification can be a very subjective science.

Paleontologists have identified many plain pieces of rock fossils. One such treatment on this phenomenon listed sixty-nine descriptions of "fossil organisms" that are now believed to be of non-biological origin.¹

A second feature to note is that it is very rare to find any type of microscopic fossil below the Phanerozoic (all strata above the Precambrian). The Precambrian layers contain mostly small filamentous fossils that are considered by evolutionists as the earliest forms of life.² The nearly biologically empty Precambrian layer gives way to layers that exhibit what is termed the "Cambrian explosion." The geologic column ascends from almost nothing to abrupt appearance of many forms of life with no trace of gradual evolutionary processes. The Cambrian Burgess Shale has yielded over 73,000 specimens, some with great complexity like the trilobites with simple and compound eyes.³

There are several other interesting features to note about fossils in the geologic column. Many fossil beds give the appearance of mass extinction. Certain fossils are found at one level and do not appear in ascending layers. Many causes have been proposed for this phenomenon including flooding, volcanoes, and meteors. Ninety-five

¹Ariel Roth discusses the problem of these pseudo-fossils in Roth, 9: 4-6.

²Ibid., 8.

³Ibid., 9; Coffin, 230-231.

percent of all fossils are marine fossils. One report identifies a four-square-mile area where more than "a billion fish" were killed and densely packed in sediment.¹

The fossil record is one of the major evidences cited in favor of evolution. It is assumed that life arose and evolved and species have become extinct over long ages. The main reason why fossils are so appealing is the sequencing from simple to complex just as Darwin predicted. The deeper one goes in the geologic column the simpler the forms of fossils appear. This is especially true for the vertebrates. The sequence goes from fish to amphibians, amphibians to reptiles, reptiles to mammals and birds.² It has been hailed as the "final court of appeal when evolution is brought before the bar."³

Before discussing evidence which may challenge the strength of the fossil record as it relates to evolution, a brief discussion of dating fossils would be appropriate. How are fossils dated? It depends whom you ask. The two basic methods are through fossil indexing and radiometric dating.

Fossil indexing is similar the dating of archaeological data by using potsherds. The fossil record was originally dated on the assumptions of evolutionary theory. Ascending through the column there is the appearance that things evolved from simple organisms to more complex organisms. If you took a fossil to a paleontologist, he or she might begin by identifying the nearest ancestral relative and cross indexing this information with a book on geologic strata where these fossils were known to be found. Then he or she

¹John E. Reptski, "Fish of the Upper Cambrian of North America," *Science* (July 1978), 529-531.

²Johnson, 76-80.

³Roth, 11:1.

would apply the date from the strata. The rock dates the fossil and the fossils also are used to date the rock. Radiometric dating (potassium-argon specifically) has been used with the index and even has expanded the original dates assigned to the strata.¹

The ages of geological dates are based on radiometric dating. Several methods are employed depending on the material being dated. These include radio-carbon (Carbon-14), potassium-argon, rubidium-strontium, and uranium-lead. While Carbon-14 dating is used to date the remains of living organisms, the others, such as potassium-argon, are used to date inorganic material. Often tests reveal dates that correlate. However, it is well to keep in mind that sometimes material is dated with widely different dates. The choice of the correct date is left to the one doing the dating.²

It is also interesting to keep in mind that the age of the fossils and the rock in which they are found can have two widely different dates. Potassium-argon is not necessarily reliable. One example from a lava flow, historically dated to 1801 in Hawaii, gives a date of 1.1 million years by the K-Ar method. The reason for the differences of the dates is the influence of hydrostatic pressure.³ One wonders if "hydrostatic pressures caused by the waters of the flood could result in sequences of increasing date with depth?"⁴

Thus we see that the dating of fossils and rocks that form the geologic column is not as objective or accurate as presented. When dealing with the evolutionary model

¹Ibid., 14:20.

²One sample yielded four C-14 dates with a variance of 17,000 years; see Roth, 14:19.

³Ibid., 20.

⁴Ibid., 21.

based on the geologic column in general and the fossil order specifically, there are several points of contention which challenge the interpretation given to these lines of reasoning.

A key factor to consider is the assumption of long ages. Were the layers of sedimentary rock laid down over long periods of time? Traditional geology assumed this was the case. Today, however, evidence for catastrophic causes for the geologic column are challenging traditional thinking. J. Harlan Bretz pointed to clear evidence of catastrophism in the Pacific Northwest. It took the field of geology forty years to recognize his work.¹ Also pointing to rapid deposition is the now accepted process of turbidity currents. These are underwater mud and sediment flows of rock, sand, silt, and clay which are laid down rapidly.² These challenge the old conventional gradualism. However, science which now accepts these processes does not re-evaluate its theory as it relates to time.

The assumption that a global flood would jumble debris together is not necessarily true. While the surface of flood waters may be violent, below the surface, sedimentary depository processes are well-ordered.³

Two other factors to consider that relate to deposition of debris from a flood, such as the Genesis flood, are the factors of buoyancy and motility.⁴ Motility is an organism's ability to escape rising waters.

¹See *The Great Floods: Cataclysms of the Ice Age*, video recording produced by Washington State University in cooperation with Coulee Dam National Recreation Area, National Park Service. Contact the number for the National Park Service for information.

²Roth, 13:3-4.

³Brand, 276.

⁴Coffin, 81; see also Roth, 10:7-8.

Another factor that challenges the evolutionary interpretation of the fossil record is the issue of missing links or transitional forms that Darwin said would exist. Because of their philosophical commitment to evolutionary theory and the realization that gradual mutation and the lack of intermediaries cannot account for the diversity found in life today, Nils Eldridge and Stephen Jay Gould suggested punctuated equilibrium. Their theory suggested a pattern of sudden bursts of new life forms followed by long periods of stasis.¹ While Eldridge and Gould say the Cambrian explosion and other examples of rapid speciation in the fossil record are due to punctuated equilibrium in small isolated groups, Brand argues that the Cambrian explosion is not so much a record of the first appearances of life but the first burials during a catastrophe like the Genesis flood.² Living fossils, such as the coelacanth and forams, are evidences that point to weaknesses in the evolutionary interpretation of the fossil record.³ Even the formation of coal is difficult to explain under the evolutionary model of gradualism.⁴

One explanation offered by creationists for the orderly sequencing of the fossil record is ecological zonation.⁵ This theory is based on how the Genesis flood may have destroyed various levels of landscape by the gradually rising waters of the flood. The

¹Denton, 193.

²Brand, 172.

³Johnson, *Darwin on Trial*, 76, and Coffin, 79-80.

⁴Coffin, 41-53.

⁵For a more in-depth discussion of the strengths and weaknesses of this theory see Brand, 279-283, and Roth, 10:9-14.

more complex motile creatures and changing flora would have lasted longer and thus be buried in higher layers on the geologic column.

In 1981, and later updated in 1987, Gould published an article on the evolution of man based on fossil sequencing of primate discoveries. He challenged creationists by saying, "Would God—for some inscrutable reason, or merely to test our faith—create five species, one after the other, to mimic a continuous trend of evolution?"¹ To which Johnson replies,

That way of putting the question makes it sound as if Darwin proposed his theory because the presence of an abundance of fossil intermediates between apes and humans required some explanatory hypothesis. Of course what actually happened is that the theory was accepted first, and the supporting evidence was discovered and interpreted in the course of a determined effort to find the "missing links" that the theory demanded. The question this sequence of events raises is not whether God has been planting fossil evidence to test faith in Genesis, but whether the Darwinist imagination might have played a role in construing the evidence which has been offered to support Darwin's theory.²

A recent article in *National Geographic* seems to carry on the Darwinist imagination in the formation of cellular walls by means of sea foam bubbles.³ Explanations such as these and what is offered by way of transitional forms in the fossil record point more to metaphysics than to science.

Just what is the evidence for the origin of mankind? I will now examine some of the data suggested by evolutionists for their theory.

¹Gould quoted in Johnson, *ibid.*, 82.

²*Ibid.*

³See Richard Monastersky, "The Rise of Life on Earth," *National Geographic*, March 1998, 48-72.

The Origin of Man

A great deal of money, time, and energy has been invested from the time of Charles Darwin to the present day searching for fossilized ancestral remains of ancient man. It is a history of controversy, fraud, and questionable scientific method. Despite a less than stellar history, many still accept the reconstructed skulls and bones of supposed ancient human finds as facts that confirm evolutionary theory. Museum reconstructions, based on scanty fossil evidence, have had a powerful influence on public thought. This section will examine the science and the evidence offered by evolutionists for the descent of man from ape-like creatures.

Within the paleoanthropological community there is fierce competition and rivalry. There is tremendous pressure to produce evidence to obtain further research grants. There is also great controversy within this scientific community on the interpretation of various discoveries. Roger Lewin in his book *Bones of Contention* emphasizes that controversy is much more severe in this field than in other areas of science for some of the reasons mentioned above. S. L. Washburn, an anthropologist from the University of California at Berkeley, states: "It is useful to regard the study of human evolution as a game, a game with uncertain rules, and with only the fragments to represent the long-dead players. It will be many years before the game becomes a science, before we can be sure of what constitutes the 'facts'."¹

¹S. L. Washburn quoted in Roth, 7:5.

Roger Lewin, speaking on paleoanthropology, adds that it is "a science that is often short on data and long on opinion."¹ Phillip Johnson commenting on the science of the search for human origins says, "Its history has been more heavily influenced by subjective factors than almost any other branch of respectable science."² Harold Coffin comments, "It is doubtful that any phase of paleontology—indeed, any science—has suffered from such a lack of careful scientific study and has endured so many heated controversies as has the study of ancient man."³

Since the time of Darwin, those who hold to a philosophy of materialism have been almost driven to confirm the evolutionary theory. Worldwide fame and reward await those who can present plausible evidence. Early pressure to find empirical evidence was so great it led to one fraud, the Piltdown man, and many overzealous claims that later had to be retracted, such as the Nebraska man.⁴ Though most are honest, the pressure remains. This is why there is such fierce competition today between the likes of Loius Leakey and Donald Johansson. A questioning of *Lucy* discoverer, Donald Johansson, revealed that the important knee joint displayed for *Lucy* was found "60-70 meters lower in the strata and two to three kilometers away!"⁵

¹Roger Lewin, *Bones of Contention* (New York: Simon and Schuster, 1987), 20.

²Johnson, *Darwin on Trial*, 82.

³Coffin, 268.

⁴Piltdown man was an early fraud, protected from close scrutiny by the British Museum that was held up for 40 years as proof of an intermediate to modern man. The Nebraska man, discovered by Harold Cook, was nothing more than a single, ancient pig tooth.

⁵Paul Taylor, *The Illustrated Origins Answer Book* (Mesa, AZ: Eden PProductions) 91.

Though evolutionists attempt to compare the morphology of fossil remains to modern humans, they still fall short on explaining how some ape-like creatures ever developed the sophistication that is modern man. Large differences between man and animals exist especially in brain anatomy and function. Evolutionists cannot adequately explain the processes that would cause this doubling of cranium capacity and intelligence that accounts for the development of creativity or language to occur.¹ The fossils presented as proof of early mankind are, to say the least, highly suspect.

Scientists have through the years brought forth various fragments and skeletons they say are ancient ancestors of modern man. These are presented in a general chronological order of their discoveries.

Remains of Neanderthal man were first unearthed near Dusseldorf, Germany, in 1856. He was considered to be a semi-erect subhuman. More recent studies point to other possibilities. These studies point to arthritis, rickets, and syphilis as the factors contributing to his poor posture.² Scholars today classify Neanderthal man as fully human, in no way qualifying as one of the connecting links. The same holds true for Cro-Magnon man (1858). This once early candidate was said to have done magnificent artistry and sculpture in the caves of France and Spain.³

The Java man was a supposed link discovered by a Dutch physician named Eugene Dubois, in 1891, along the banks of the Solo River in modern Indonesia. He proclaimed

¹J. P. Moreland discusses the issues regarding the origin of language, see chapter 7.

²Mitchell, 154; Coffin, 270-271.

³Mitchell, 155.

that he was going to go and look for primitive man.¹ He found a skull cap and one year later, fifteen meters away, a human femur and two molar teeth. In 1898 he discovered a premolar tooth which he included with his first finds. He proudly proclaimed these finds *Pithecanthropus erectus*, or erect ape-man. An age of 500,000 years was assigned by evolutionists. What Dubois concealed for thirty years was that he had also discovered at the same level two human skulls known as the Wadjak skulls. Later he confessed that the skulls were most likely from a large gibbon-like ape. The discovery of human skulls at the same level along with a human femur makes the true identification very doubtful. The skull cap and molars have been assigned to an ancestral ape, not human.²

Fragments of about thirty skulls and mandibles were discovered near Peking in the 1920s and 30s. These disappeared during World War II. The skull fragments reveal more than accidental damage. The specimens were quite similar to Java man, though the cranial capacities were somewhat larger. There is controversy surrounding this entire find because of the disappearance of the original skulls. The only evidence today is found in models made by Franz Weidenreich. Because the only bones that were found were skulls, it is often considered that these were either trophies that were brought into the cave quarry or the remains of hunters who eat only the heads of large macaques, or baboons killed and eaten by quarry workers.³

¹Ibid., 150-151.

²Coffin, 273, 274.

³Mitchell, 153.

Some data suggest that *Homo erectus* (i.e., Java and Peking Man fall into this category) may have lived as recently as 27,000 years ago. That would have made it a contemporary of *Homo sapiens* for 500,000 years.¹

During the last fifty years the focus of most paleoanthropologists has been in Africa. A number of fossil skulls and bones have been found. Three discoveries in east Africa, *Zinjanthropus*, *Lucy*, and *Skull 1470*, have all been classified under the heading of *Australopithicus*. Solly Lord Zuckerman and Charles Oxnard studied all the fragments and concluded that the *australopithicine* fragments are unique and not related to anything living today, man or ape. They may have been ancestral to orangutans.² *Lucy* was considered probably nothing more than an ape.³ Though Richard Leakey classified *Skull 1470* as *Homo habilis*, his co-author, Alan Walker, assigned it to the *australopithicine* group. It is doubtful whether any of them walked upright as claimed by their founders. The only thing that seems certain is that the *australopithicines* are from an extinct primate type.⁴

Despite these difficulties the sequential line between ape and man is still promulgated today.⁵ In light of the contentiousness of scientists, the sparse data, and subjective interpretation, combined with the higher characteristics of the human mind, the evidence

¹C. C. Swisher III, "The Latest *Homo Erectus* of Java: Potential Contemporaneity with *Homo Sapiens* in Southeast Asia," *Science*, November 1996, 1870-1874.

²Mitchell., 149.

³Ibid.

⁴Roth, 7:9.

⁵Johnson, *Darwin on Trial*, 82, n. 4.

proffered for the descent of man is very weak. I agree with Phillip Johnson, who states, "I do not accept the alleged hominid species as independently observed data that can confirm the Darwinian model."¹

Though creationists are not united in the interpretation of the primate and human fossils, there is some general agreement. Small *australopithecines* are from an extinct created primate type. Neanderthals are considered post-flood humans. The differences are over the classifications of *Homo habilis* and *Homo erectus*. Some place *Homo erectus* as human, others do not, while there is still much to learn about *Homo habilis*.²

It seems strange that if the world is as old as evolutionists claim it is, if life originated and evolved over millions of years, and if man has been on this planet for at least a half million years, then why is the historical record only about five to six thousand years old? It seems odd to me that all the advances of humankind have occurred in such a short period of time. The fossil record begins with fantastic leaps in time with relatively few human or sub-human fossils. I believe the geological strata and the fossil record point to the plausibility of a world-wide flood in relatively recent history.

Having completed a basic overview of the theories of origins, I would like to summarize the discussion to this point before describing the seminar that was written and conducted based on this study.

Summary

There is a close relationship between Scripture and Christian faith. The latter is

¹Ibid., 85.

²Roth, 7:12.

founded on the reliability of the former. Scripture makes historical claims that God created this world, and that this world went through a great world-wide catastrophe known as the Flood. Many biblical writers, including Jesus Himself, wrote and spoke to the historicity of these events. This paper has traced man's understanding of these claims in the light of developing scientific understanding and research.

This study's brief examination of history suggests that the adoption of new methods of biblical interpretation by the church distorted the message and authority of Scripture. The Reformation restored proper interpretive principles as well as scriptural authority. The influence of Greek philosophy gave way to the resurgence of the *Logos* doctrine. This reaffirmed the idea that humanity was made in the image of God, and offers a reason why humanity is able to think and comprehend. This is what differs humanity from the other creatures. It was the Christian doctrines of revelation and creation which formed the foundation from which early scientists did their work.

However, science, which was founded in Christian culture, would abandon this perspective for several reasons. One was the abuses of church authority which was still wed to Aristotelian science. The new experimental science of Bacon and others exposed the fallacy of the philosophical science that undergirded the church's theology of that day. Science did not expose the Bible as invalid but helped expose the false interpretation imposed on the Bible through the use of Greek philosophy. Unfortunately, over the years, science rejected Scripture along with church authority.

Philosophy and science elevated human reason and empirical methods alone as authoritative. Apart from Scripture, faith died. Naturalistic philosophy replaced biblical authority in science. This ultimately led to the rise of Darwinism, an attempt to explain the

origin of man without supernatural creation. Noted were the impacts this way of thinking had on biblical interpretation through the rise of historical-criticism. Its foundation, like that of naturalistic science, excluded the miraculous aspects of the biblical narrative. This relegated the creation and flood stories to the level of myth. This was directly opposed to a plain understanding of the meaning of the text.

A survey of the writings of Ellen G. White underscored the importance of the historical accuracy of these events for faith and the identity of God's last day message. God's last day people are to call people back to worship the Creator, with an emphasis on the fourth commandment.

The paper evaluated the underlying assumptions of science and theology. Then it examined the data that are offered by science as evidence for the beginning of this world and the origin of life by means of evolutionary processes.

I now describe the processes of writing and conducting a seminar for the church and community that arose from this study.

CHAPTER 8

THE LECTURE SERIES

In this chapter I discuss the background to the seminar entitled "By Accident or Design," present a description of how it was designed and implemented, sharing my personal reactions along the way, and finally conclude with an evaluation based on my observation and the participants' responses to the seminar.

Background to the Seminar

The seminar "By Accident or Design" had its seminal formation in a conversation with Dale Goodrich, an elder in the Charles Town, West Virginia, Seventh-day Adventist Church. The subject of evangelism left a bitter taste in his mouth. He stated that he was tired of the same old methods, which produced the same old results. This included hiring a professional evangelist, who stayed for about five weeks. He would baptize several people, then leave. Most of the new converts would also be gone in six months to a year. Further, we rarely attracted professional people, college students, or people who lacked a church affiliation. He asked me what I would do if I were the evangelist. What topics would I cover? What might appeal to other people besides curiosity about the end of the world.

We discussed the idea of conducting some sort of class or seminar that answered what we called the "big three questions." These questions encompass the spectrum of

existence and have been asked in various ways throughout human history: "Where do we come from?" "Where are we going?" "Is there meaning or purpose for my life today?" Sooner or later everybody thinks about the possibility of God in relation to these questions. Thus the idea of a seminar that deals with humanity's origin, destiny, and purpose for existence was born.

A seminar of this nature appealed to me theologically because it encompassed the "great controversy" motif that the Seventh-day Adventist Church has for a template for understanding the big picture of Scripture. Though excited about the overall seminar, my personal education left me with feelings of inadequacy on the specific question of origins. Though I have a degree in history I am not trained in science. I felt that, to conduct an evangelistic seminar on these questions, I would need to gain a working knowledge on the variety of issues that relate to the evolution/creation debate. I believe that I not only needed a good working knowledge of the issues but also needed to find ways to communicate the account of creation in a way that can be understood by people who have diverse educational backgrounds. This topic of evolution/creation forced me to limit my dissertation to this first question regarding origin. "By Accident or Design" is the fruit of my study and desire to answer the question of human origins and communicate it effectively in seminar format.

The choice was made to conduct the seminar "By Accident or Design," dealing with the issues of human origins apart from the questions on destiny and purpose. This was done to test the effectiveness of this topic and to refine the material for a future evangelistic series that will also deal with issues of destiny and purpose, i.e., prophecy, and

the gospel. Though the seminar was being tested I also wanted to connect it with the general mission and outreach of the church.

The initial challenge I faced was determining how to present complex theories and data in an effective presentation. The problem had three components. How do I present scientific theory and data to people who have little or no training in the field of science? Second, how do I present theological or religious concepts to those who have little concern or training for the things of Scripture? Lastly, how do I present these topics to the curious who may have neither scientific nor religious background yet are interested in some of the subjects presented?

Compounding these challenges is the fact that people learn in different ways.¹ Some people can learn best through visual mediums. Others are auditory learners, still others are more kinesthetic and relate more to stories and hands-on approaches. This required a multifaceted approach to the material.

Arlene Taylor, who conducted a minister's seminar in these various learning styles, suggested the use of humor. Humor was not to be used just for humor's sake. Humor should relate to the points that are being presented. Humor tends to break down prejudices and causes participants to feel more at ease.

To accomplish the actual seminar I worked with Stan Hudson, the pastor of the Nampa Seventh-day Adventist Church. He also has a passion for these subjects. We worked together at the Idaho Conference Campmeeting in July of 1998, conducting a

¹The material on ways people learn and think comes from a general summary of the theory presented in a seminar by Arlene Taylor. The theory is spelled out in the book by Katherine Benzinger, and Anne Sohn, *The Art of Using Your Whole Brain* (Rockwall, TX: KBA Publishing, 1995), chapter 1.

similar seminar. I requested funding from the Idaho Conference of Seventh-day Adventists, proposing to conduct "By Accident or Design" as a feeder seminar to the local evangelistic meetings. The Nampa Church was to be one of the local sites for the global satellite evangelistic meetings, Net '98. Another reason I selected Nampa is that its population base is larger than that of my own church communities of Kuna and Homedale. Nampa is projected to be the second largest city in Idaho by the year 2000.

Description and Implementation of the Seminar

The topic of evolution and creation is broad. The challenge was to decide how many topics were needed to introduce and discuss some of the basic issues in the current debate. My overall goal was to challenge the cultural understanding of current evolutionary theory and to demonstrate scientifically and rationally the plausibility of the creation account in Scripture. I desired to help Christians and others build faith in the historicity of the biblical record, as well as reveal the subjective nature of scientific research.

I decided on five lectures and one sermon to accomplish this task (see appendix 1). The reasoning behind the order of presentations is given in the description of the seminar. Pastor Hudson and I decided on the dates and times for the seminar, some books to give away, displays we could set up, videos and slides that would be used in the lectures, and handouts that would accompany the lectures (see appendix 2). We also decided how to best spend our modest budget of \$350.00.

Our budget restricted renting a public facility. We concentrated our funds on handouts and advertising. We ran public service ads on KTSY, one of the top-two FM

radio stations in the greater Boise/Nampa area. It is run by the Idaho Conference. Its format is contemporary Christian music. It appeals to many Christians in the area. We also had one 30-second radio ad produced that ran five times per day during peak listening hours. Though we listed a phone number for people wanting to know more information, most people called the radio station. The station manager reported over ninety calls to the station requesting more information about the seminar. The local church had about ten calls. The station manager said it was a popular announcement based on the response.

We also produced 500 copies of a handbill/flyer to be distributed to the Adventist churches in the valley (see appendix 3). The members were encouraged to place the flyers in their places of business and to use them to invite neighbors. We offered refreshments, but no child care.

The seminar took place on September 25, 1998, from 7:00 - 9:00 p.m., and September 26, from 6:00 - 9:00 p.m. The Sabbath sermon, though not advertised, was also part of the seminar. At the opening night we invited the attendees to join us for the worship service the next day. Opening night, September 25, attracted over 100 people. Stan's wife, Cindy, counted the attendance at the beginning of the program. It was exactly 100. Several others came later. She said there were 102 seated at the end of the first lecture. About 18-20 were community guests, i.e., not members of area Adventist churches.

The advertised starting time on Friday evening was 7:00 p.m. The seminar actually started about 7:05 p.m. After brief announcements and introductions the seminar proper began about three minutes later. The equipment functioned without flaw both evenings, thanks to the expertise of the technicians of the local church.

The first lecture set the backdrop for how humans approach data. It attempted to present the assumptions of science and religion. I began with this lecture in order to show that all human understanding begins with subjective assumptions. I traced the history and development of scientific thinking from its early Christian roots to its present state. This lecture revealed that many early scientists did their science from a belief in God and the supernatural. Also discussed in this lecture were reasons for the split between science and theology. This lecture attempted to bring everyone to the same starting place for our discussion of various issues in the debate. The lecture went smoothly and concluded about 7:50 p.m.

Since it concluded sooner than anticipated, it was decided by Pastor Hudson and myself, with permission from the audience, to proceed right into the second lecture which discussed the geologic column. The geologic column is held up as evidence for gradual evolution over millions of years. It was the outgrowth of the scientific assumptions of the eighteenth and nineteenth centuries. This seemed like the logical evidence to present as a follow-up to the first lecture. A handout accompanied this lecture.

The second lecture began with a personal testimony by Pastor Hudson which related to the subject of the geologic column. It was about five minutes in length. Stan was a freshman geology major, marveling in the accomplishments of science at the University of California, Santa Barbara. In his view science almost could do no wrong. However, an incident occurred, revealing the subjective nature involved in dating the geologic column and the refusal of the scientific community to look at other possible interpretations. This caused Stan to be skeptical of something he once held in high esteem. He also loved God, and changed colleges and his major to theology. His personal

asked for books that they could buy and share. The following evening, Stan and I displayed about twenty books on related subjects. The most validating comment about the seminar came from a young woman in her early twenties. She felt that she had gained positive information that she could now share with her skeptical husband. She requested a bibliography which would provide for them information to support what was discussed. Other overall comments were positive.

The evening concluded with an invitation for all to attend the Sabbath services to hear a sermon/lecture on the theories of theistic evolution and creationism.

On the morning of September 26, I conducted services at my church in Kuna and drove over to Nampa to speak during the worship hour on theistic evolution and creationism. The goal of this sermon/lecture (third lecture) was to present the three basic origin stories: creation, evolution, and theistic evolution. The sermon/lecture sought to highlight the implications and flaws of reasoning involved in theistic evolution and evolution. It also touched on the issue of the Big Bang theory as it relates to the Genesis account of creation.

It was difficult to tell if any of the non-Adventists who attended the previous night were present. I wish I had inquired. The actual sermon/lecture was well received by the congregation (about 200 in attendance). While many people expressed their appreciation for the presentation, one man expressed his disappointment with the sermon. He wanted to hear the positive relational benefits that came from believing in creation instead of the scriptural and scientific problems found in theistic evolution. Another member called during the afternoon, complaining about the use of humor. He did not think that the church should be promoting any laughter in the sanctuary. I listened and inquired as to the

nature and reasons for his objections to the use of pointed humor and apologized for offending him. He did come to the evening presentations and introduced himself and was positive about the seminar in general.

The evening meeting consisted of two 90-minute sections consisting of three lectures. There was a break in the middle of the second lecture so that refreshments could be served. This had mixed results. People enjoyed the break and fellowship but this lasted about 10 minutes beyond the allotted time.

The second evening saw a reduction of attendance to 63. Of the 63 people, 45 filled out a survey questionnaire (see appendix 4) which is discussed later in this chapter. I was pleasantly surprised at the Adventist attendance considering it was competing with the Idaho Conference Women's Retreat and a local Christian concert in Boise on September 26.

The evening meeting began with the fourth lecture that discussed the fossil record. Critical to any interpretation of the fossil record is an explanation of the process of fossilization. This lecture evaluated the process of fossilization as well as fossil sequencing in the geologic column. This lecture also included a fossil display table where the audience was invited to examine fossils owned by Pastor Hudson and myself. Part of the lecture dealt with some "apparent" problems the fossil record creates for any theory of creation. This was followed by some evidence within the fossil record that creates difficulty for the theory of evolution. A highlighted main point was the fact that the fossils were the result of water activity. The actual process of fossilization was covered in more detail in the final lecture on the Noachian flood.

The lecture on fossils was immediately followed by a two-part lecture. The first part was on the origin of life. The second part discussed the human fossil record. The first half examined the principle of irreducible complexity (apparent design) put forth by Behe in *Darwin's Black Box*. This lecture strengthened the arguments for creation by showing the impossibility for complex sub-systems and complex organisms to evolve over time. This lecture was very well received. Though some of the evidence is highly technical, the illustrations and overheads conveyed the theory convincingly. A break for refreshments followed.

The break was followed by a lecture on the supposed hominid fossil links in the evolutionary history of man. The lecture attempted to show the degree of subjectivity in the most subjective of all sciences, paleoanthropology. It seemed to me that it would have been better if I would have been able to produce slides or overheads of the fossils being presented. Despite this weakness, however, the lecture was well received. Many people expressed surprise over the amount of subjectivism involved in the interpretations offered by the scientists in this field of study.

The final lecture presented the story of the biblical Flood since it offers an alternative reason for explaining the geologic column and the fossils it contains. The lecture began with a slide show on Mt. St. Helens and Spirit Lake log mat and the process of petrification and fossilization. This was augmented by slides of the fossil forests of Yellowstone National Park. In the past, the explanation for the petrified trees of Yellowstone was based on gradual evolutionary processes. Now they are explained as the result of catastrophism. The trees were transported by water and buried by lava in a short time frame. The point was that scientific theories change, albeit rather slowly.

The second half of this lecture, involved a model of Noah's ark made by the Kuna SDA junior Sabbath School division. It was made on the railroad model "N" scale which allowed people to visualize what a nineteen-foot giraffe might look like on the ark. The model was approximately six feet long. The purpose of the lecture was to provide a model that can contribute to the explanation of the geologic column and the fossil record. This lecture also sought to expand people's understanding of the Flood and the immediate post-Flood world as an extremely violent global upheaval with some earth-changing phenomena which continued for years past the Flood. This was described in contrast to the portrayal of water coming up and going down in the traditional portrayal in children's literature.

The last fifteen minutes of the seminar were devoted to the survey and taking questions from the audience. The audience was invited to attend the upcoming NET '98 meetings being conducted in the local church.

In the next section I share my personal evaluation of the seminar and survey responses from the audience.

Evaluation of the Seminar

The results of the seminar "By Accident or Design" were positive in many ways, however, there were some areas where improvements were needed. In this section I discuss what I believe were the strengths and weakness of the seminar. This evaluation is based upon personal observation and a survey that was given to the audience at the end of the seminar. I first summarize the survey and then list the strengths/successes, followed by a section discussing the weakness/problems of the seminar.

Participant Survey

The survey questionnaire asked questions about age, gender, occupation, how they learned about the seminar, education, familiarity with the subject, familiarity with the Bible, religious affiliation, and then included two open-ended questions regarding the seminar. Forty-five of the 63 people who attended the second evening of the seminar responded to the survey. Six were non-Seventh-day Adventists. All stated that they were Christian.

Although the radio station and church had over 100 calls seeking further information from the public service announcement, no survey respondents referred to the radio announcement as the source of their information about the seminar. Four indicated that they responded from an advertising flier. Five responded to the invitation of a friend. Thirty-three came in response to an announcement in church.

Though the responses to the open-ended questions varied, several topics emerged that are worth noting. The topics that were cited as "most helpful" were: radiometric dating, irreducible complexity, human missing links, and theistic evolution. Several responded positively to the use of slides, overheads, displays, and humor as helping them to understand the material presented. Throughout the presentations humor seemed to keep people's attention or draw them back to the material that was being presented.

Though there were fewer responses to the "least helpful" question, there were a few worth noting: several indicated a need for clearer definitions or illustrations for the technical scientific terminology; others were directed to the presenter and suggested that he talk slower; others expressed a desire for more time for questions and answers. For a complete list on both open-ended questions, see appendix 4.

Strengths/Successes

1. The goal of this dissertation was to write and conduct a seminar on origins for the church and community. This has happened. Over sixty people attended the entire seminar. About 20 percent of the opening-night audience were not members of the Seventh-day Adventist church. The seminar appealed to both genders and all age groups.

2. "By Accident or Design" appealed to people from various socioeconomic groups and educational backgrounds. Though many were Seventh-day Adventists, the attendees diverse backgrounds revealed the broad-based appeal that the subject of origins has in the church and society.

3. One of the goals of the seminar was to strengthen faith in the biblical story of a recent creation and the Flood. The questions and comments given during the seminar as well as the positive survey responses, suggest that faith-confirming evidence for the biblical accounts of the creation and Flood are needed and valued by church members, -- as well as others. And such evidence was provided by the seminar.

4. Good theology and good science need not be in conflict. Understanding assumptions is the key for allowing both the Scriptures and science to speak. I believe the seminar was able to accomplish this task.

5. The use of audio-visual materials, models, displays, personal testimony, handouts, and humor was effective in teaching; they kept the audience's attention, conveyed the key concepts that needed to be expressed, and helped build rapport between myself and the audience. The personal testimony helped link the audience with the local church pastor.

6. The seminar aroused interest for more information and discussion on the subject of origins as well as spurred some to become evangelistic regarding this seminar. Several individuals requested time with me for further discussions that would deal with in greater detail some of the specific scientific and theological issues. Answering some questions often raises others. There were also requests to hold the seminar in other Adventist churches.

7. My personal faith in the biblical account of creation and evolution was strengthened, as well as my confidence to engage those of other faiths in meaningful dialogue.

Weaknesses/Problems

1. The location and advertising results. The use of church announcements, Christian radio ads, and limited flier exposure drew a predominantly Christian audience. The community, as such, was not fully represented in this seminar. This was probably compounded by the use of the Nampa church sanctuary for the seminar venue. People are reluctant to enter unfamiliar places, especially those of other religions.

2. The audience. The failure to conduct a survey of the opening evening's audience prevented getting an accurate measurement of the effectiveness of the various advertising methods and the makeup of the non-Seventh-day Adventists in attendance.

3. The technical terminology. The survey indicated a need for a glossary of terms that could aid people in understanding the more complex lectures. This, combined with better illustrations, would be useful especially when discussing radioisotope dating, biochemical processes, as well as theological terminology. More time for questions

would have helped clear up some questions and lower the frustration of some in the audience.

4. Faithful to the advertizing. Though briefly mentioned in the lecture on fossils, the advertisement listed dinosaurs as an item that would be presented. Several people mentioned, especially those with children, that they were disappointed in the lack of information presented on this topic.

5. Time. The second evening's presentation was too lengthy—three lectures in one evening. Information overload led to mental fatigue by both the presenter and the audience. It would have been better to conduct the seminar over a longer period of time — perhaps, even days. People need more time to absorb these topics.

Overall, the seminar was well received. The survey responses and personal observations will be helpful in refining the topics and dealing with issues that people would like to understand better in the future.

CHAPTER 9

SUMMARY, FUTURE PLANS, AND FINAL THOUGHTS

I have been personally blessed, and I am grateful for the experience I have had researching and writing a seminar on origins. It has been challenging and stimulating to study in areas outside of my field of expertise. I believe that my overall primary goals have been met, culminating with the successful presentation of "By Accident or Design" in the Nampa Seventh-day Adventist Church. The positive responses to the material presented and the personal affirmation by Pastor Hudson and the members of the audience were very rewarding.

It is hoped that as a result of this study and seminar, that others will realize the value both in nurture and outreach potential that the subject of origins has for the church. While it is difficult to measure the impact on one's faith, the responses indicate that some strengthening of faith in the biblical account of creation and the Flood, as historically accurate events, has occurred. Church members feel more confident in Scripture despite evolutionary bias in the field of science.

The topics of creation and evolution appeal to people. "By Accident or Design" attracted a large Christian audience. Based on the calls in response to the radio advertisements, there is potential to attract even more people. This could occur by selecting a neutral location and increasing the advertising to the secular community. A

neutral site may also expand the demographic makeup of the audience.

The number of books being published (see Bibliography) and the number of films and seminars being held on this topic suggests that this seminar could contribute in reaching people with the gospel as part of a greater evangelistic series. This series would include more traditional Seventh-day Adventist topics packaged under the headings "Destiny" (prophecy) and "Meaning for Today" (the gospel and the great controversy). The "origins" topics would round out the flow of history from beginning to eternity.

The subject of origins also lends itself to a different way of presenting the biblical Sabbath in an evangelistic setting. This was confirmed recently in the "Next Millenium Seminar" where a discussion of origins and creation led to an appeal to fellowship with the Creator on the biblical Sabbath. This differs from the traditional approach, which usually discussed the Sabbath from a prophetic posture and the end of time. Instead of a more negative appeal to the fear of condemnation on the part of those who reject the Sabbath, it has the positive relational appeal of spending time with the God who made us and died to save us.

My personal plans are to write and conduct such a evangelistic seminar in the near future. This future seminar will have the advantage of incorporating the helpful suggestions that have been gleaned from this original seminar. It will also include the topics related to our destiny and meaning in this world. I hope to keep abreast of the latest developments in the debate, and incorporate any new material into the seminar that is sound scientifically and theologically.

Other Adventist pastors and members have expressed a desire for me to conduct this seminar in their churches. This I hope to do as church, time, family, and personal

schedule permit. Christians need faith strengthened and understanding of the issues clarified if they are to withstand the arguments of the evolutionary theory.

It is hoped that this project will inspire others to do further research, especially into the area of dating systems, and developing our understanding of the true age of a given object. It would be useful to find a simpler way to explain radioisotope dating.

The Seventh-day Adventist Church has grown up alongside Darwinian evolution. It seems no mere coincidence that this has happened. The church's proclamation of the everlasting gospel includes the call to worship the Creator (Rev 14:6-7). The forces of evil seek to remove all evidence of His creative power. To do so would be to effectively "kill" God. Not only do we contend for the biblical Sabbath, we must contend for the entire creation account in Genesis. Without a beginning, there is no destiny.

Upholding the creation story places a high value on life. It points to the ultimate purpose of being, that is, relationship and fellowship with God (1 John 1:3). It glorifies the gift of Jesus on the cross as the price paid to redeem and one day restore all of creation (Rev 21 and 22).

Science has its place in our world. Scripture, supported by supernatural science (not naturalistic science) can build faith and aid humanity as it copes in this world until the end.

APPENDIX 1
LECTURE OUTLINE NOTES

EXPLANATORY NOTES FOR APPENDIX 1

SERMON NOTES

1. Layout restrictions have modified the original format of the sermon notes. The sermon notes were originally single word or thought sentences or phrases. These notes were written in an attempt to reconstruct the basic message of the lectures that were given. They are an accurate representation of the main flow of thought.
2. These sermon notes were for the benefit of the instructor and not intended to be distributed to the public. There were handouts that accompanied some of the lectures. See Appendix 2.
3. These lecture notes are a reflection of the dissertation research but are not footnoted except when a published quote was displayed by an overhead projector.
4. Complete and detailed notes were not written by the author. However, an audio transcript of what was said may be obtained by writing the Nampa Seventh-day Adventist Church, P.O. Box 1129, Nampa, ID, 83653. Request the tapes entitled "By Accident or Design."

"How Do You Know?"

1. **OVERHEAD #1** -- "the two women" Which is it? How do you know?
Everything can be viewed from different perspectives. The ideal is when we all operate using the same glasses so to speak.

A. **OVERHEADS #2 and 3** -- ever look up into the sky and think about all the distance and space.

Albert Camus said -- "the search for meaning is life's fundamental pursuit"

2. **VIDEO Clip -- "Contact"** -- point of video clip, there are things beyond the empirical tests of science.

Earlier in the movie, they had a discussion regarding science and religion. He asked her a question, "Did you love your father?" She answered, "Of course!" -- to which he responds, "Prove it!" -- there are things that are beyond the empirical tests of mankind.

3. **OVERHEAD #4** -- (Calvin & Hobbes -- "the puddle") How does one know what they know? Was is reality? We all enter conscious thought with what are called *a priories*

A. We all have *a priories* -- The two primary assumptions we all have are:

1. That we exist and . . .
2. That we are sane -- I have a mind and can think, conscious thought is possible

B. Today I would like to share with you the basic way man has approached the idea of knowledge and information -- sort of a history of assumptions or presuppositions. Having done this I would then like to share with you the basic assumptions of most modern scientists, what Science and religion writer Kitty Ferguson calls "*the spectacles behind the eyes.*" And then the assumptions of the Christian world-view.

4. **BRIEF HISTORY:** In Judeo-Christian culture, there was not a great distinction made between the natural world and the supernatural God. The existence of God, or gods was unquestioned.

A. The physical universe which came from His hand was basically good. This differed from the Greek world which saw matter as evil.

B. Man was made in God's image. God made mankind as creatures capable of knowing His mind and will, and also made information about His mind and will available in revealed truths. We call the bound revelation the Bible. Faith in God and in His word was the vantage point from which the Christian would interpret the world around them. (Draw on whiteboard — 3 foundations/mountains)

C. Science had its roots in Judeo-Christian culture. The Chinese and the Egyptians were fundamentally practical but their mystical world view, like the many tribal religions of the world, were trapped in mysticism and superstition. These worlds ascribed powers to trees or mountains or rain or clouds or animals. The things and forces of nature were sacred. Whereas the Christian saw all the things of nature as created by God.

D. During the Dark and Middle Ages, scientific development was stunted because the church began to replace the authority of revelation, Bible with Greek philosophy and the authority of the church and tradition. It wasn't until the reformation, when the authority of scripture challenged the abuse of authority and tradition of the church which used false methods of interpretation in their scripture and applied it to their science.

E. This led to the Enlightenment and the beginning of what we would call modern science. Notice just some of the early scientist who did their science within the Christian belief in God as the supernatural Creator. Names and founders.

OVERHEAD #5

5. Question arises: "What caused the rise of natural [not supernatural] science?" -- When the reformers attacked the abuse of authority and tradition of the church in spiritual matters, some scientist challenged the authority in areas of knowledge. Only they also "threw the baby out with the bath-water." They abandoned the authority of revelation, the scripture.

A. The Reformation led to the Renaissance -- dominated by the likes of the *Philosophes* -- French intellectual atheists, Voltaire, later the British - Hume, Hegel, Immanuel Kant etc. The fundamental basis of their reasoning was to exclude the use of the supernatural in a search for answers. Why? I'll share with you what I believe to be the underlying reason OVERHEAD #6 -- Calvin "no responsibility" cartoon.

B. Up until the Renaissance, [actually Aquinas led the way in some respects] human reason was always subservient to revelation. But after the Reformation, reason was narrowed to reject all supernatural explanations as myth and to seek just "natural" methods to answers. Modern scientific method, founded on naturalism denies God. Thus empiricism alone became the way to discover truth. OVERHEADS #7-9 - Dawkins/Lewontin and Calvin "god" over the flowers.

6. Presuppositions of Science: -- Where do we get ideas from? All knowing begins with *a priories*.

A. As Kitty Ferguson stated so succinctly, "... the quest for ultimate truth must begin with a leap of faith. Not faith that we are capable of complete understanding. Faith that we can know anything at all." There is no such thing as a "*tabula rasa*," a clean unbiased slate from which we begin the journey. Anyone, to have a conscious thought must begin by trusting some idea about the universe that may have never been proved. Even if that starting point is that I exist, and I am a rational creature. Science and has at least five assumptions. These are as follows: **OVERHEAD #10**

1. **Rationality.** The universe has pattern, symmetry and predictability.
2. **Accessibility.** The universe can be investigated and understood.
3. **Contingency.** Things could have been different from the way we have found them.
4. **Objectivity.** Reality exists, there is something material to study.
5. **Unity.** The universe operates by underlying laws which do not change arbitrarily.

B. These five assumptions of science could all have God inserted in them. The rationality reflects the dependability of the God. It is not futile to study the things that were made. The accessibility could reflect the mind of man made in the image of his Creator. The contingency reflects God's choice to create in this particular manner. The objectivity reflects that there is a truth behind every fact, and that truth is God and His wisdom. The unity reflects the one system of logic, the one mind, the common **Designer of all**. **OVERHEAD #11 -- Dennis the Menace and the flowers.**

Science and evolution add several more presuppositions that are not found in religion [the scriptural account of creation of life in Genesis 1].

6. **Natural.** There is no supernatural. If there is, it is beyond scientific method.
7. **Uniformitarianism.** The universe was very old, in contrast to a very young creation that may appear old from our perspective.

8. Gradualism. Life evolves slowly, by micromutations, over extended periods of time until . . . Calvin the "acme" of evolution.

OVERHEAD #12

C. When it comes to religion there are a few assumptions that the Christian brings to the interpretation of data:

D. The first three are found in the book of Hebrews 11;1-3, 6 -- **OVERHEAD #13 -- 4 a prioris**

1. God exists.
2. He is the creator of all we know that exists.
3. He rewards those who seek Him -- a knowledge of Himself.
4. The Bible is the standard by which we judge all things to be true or in harmony with truth.

7. As Christians, or scientists we all are on a quest for truth. But like Pilate said to Jesus, "What is truth?" **OVERHEAD #14 -- Calvin and math.**

A. I would like to show you by way of a diagram how we all approach knowledge or truth and then make an application.

B. OVERHEAD #15 -- assumption, data, interpretation. Notice how one's assumptions effect the interpretation. **OVERHEAD #16**

C. Science in itself is not evil. Scientists, like theologians, are in search for truth. I would like to offer a few suggestions for meaningful dialogue to occur:

1. Acknowledge the mountain (foundations on whiteboard) of assumptions on which we stand.
2. When we study the origin of the universe, life, and of man we are studying events that are not occurring today.
3. **EXAMPLE:** Study the Grand Canyon: 1) Regularities — measure the flow of the Colo. River. 2) But did the river cut the entire canyon over millions of years? The origin of the canyon, the first grain of sand that was moved, was it moved by slow water flow? The study of past events we approach differently — we search for clues. Forensic.

4. The study of singularities, like the creation of life or the first cell were past events that are not occurring today — what evidence we bring to our investigation is based on our assumptions.

D. God acts in predictable manners. That's why He is trustworthy, He never changes. When ever God plans on functioning out of the ordinary, He reveals Himself through His servants, the prophets. Case in point:

1. The Flood -- who did God tell, and how long in advance?
2. Sodom and Gomorrah -- who did God tell and was it in advance?
3. Birth of Jesus -- the incarnation?
4. Resurrection -- did He not tell the disciples?
5. Second coming and the destruction of the earth -- has God not warned us again?

E. Man recognizes his mortality, insignificance as often is afraid -- OVERHEAD #17 -- Calvin at night running where there is light. We prefer light to darkness, truth to error.

Overhead #2

SURELY WE'RE ALL PART OF SOME GREAT DESIGN, NO MORE OR LESS IMPORTANT THAN ANYTHING ELSE IN THE UNIVERSE. SURELY EVERYTHING FITS TOGETHER AND HAS A PURPOSE, A REASON FOR BEING. DOESN'T IT MAKE YOU WONDER?

Overhead #3

Overhead #4

Overhead #5

Johannes Kepler [1571 -1630]	Celestial mechanics, physical astronomy
Blaise Pascal [1623 - 1662]	Hydrostatics
Robert Boyle [1627 - 1691]	Chemistry, gas
dynamics	
Nicolas Steno [1638 - 1687]	Statigraphy
Isaac Newton [1642 - 1727]	Calculus, dynamics
Michael Faraday [1791 - 1867]	Magnetic theory
Charles Babbage [1792 - 1871]	Computer science
Louis Agassiz [1807 - 1873]	Glacial geology, ichthyology (fish zoology)
James Simpson [1811 - 1870]	Gynecology
Gregor Mendel [1822 - 1884]	Genetics
Louis Pasteur [1822 - 1895]	Bacteriology
William Thomson [1824 -1907]	Energentics, thermodynamics
Joseph Lister [1827 - 1912]	Antiseptic surgery
James Maxwell [1831 - 1879]	Electrodynamics, statisical
thermodynamics	
William Ramsey [1852 - 1916]	Isotopic chemistry

Others influenced by their belief in the Creator:

Bacon

Galileo

de Buffon

others . . .

Overhead #6

Overhead #7

(Text of overhead) Paley's argument (design) is made with passionate sincerity and is informed by the best biological science of his day, but is wrong, gloriously and utterly wrong. . . . The only watchmaker in nature is the blind forces of physics, albeit deployed in a very special way . . . Natural selection, the blind, unconscious, automatic process which Darwin discovered, and which we know is the explanation for the existence and apparently purposeful form of all life, has no purpose in mind. It has no mind . . . it does not plan for the future. It has no sight . . . it does not plan for the future. It has no vision or foresight . . . Darwin made it possible to be an intellectually fulfilled atheist.

The Blind Watchmaker , Richard Dawkins, pp. 5-6.

Overhead #8

Sagan's argument is straightforward. We exist as material beings in a material world, all of whose phenomena are the consequences of physical relations among material entities Nearly every present-day scientist would agree with Carl Sagan that our explanations of material phenomena exclude any role for supernatural demons, spirits, witches including . . . the Supreme Extraterrestrial . . . We have a prior commitment, a commitment to materialism (i.e., atheism). Moreover, that materialism is absolute, for we can not allow a Divine Foot in the door.

Harvard Biologist Richard Lewontin. -- New York Review of Books, 9 January 1997, p 31.

Overhead #9

Overhead #10

"HOW CAN THINGS SO PRETTY AND CLEAN COME OUT OF DIRT?"

Overhead #11

Five Assumptions of Science

1. Rationality
2. Accessibility
3. Contingency
4. Objectivity
5. Unity

Three more of Evolution

6. Natural
7. Uniformitarian (long age)
8. Gradualism (emphasis on process — changing in current science)

Overhead #12

Overhead #13

Assumptions of Christians — Hebrews 1:1-3; 11:1-3, 6

1. God Exists
2. He is the Creator of all we know to exist
3. He rewards those who seek Him.
4. The Bible is the standard by which we judge all things to be true. God calls people to "test" or prove the veracity of His word.

Overhead #14

Overhead #15

Overhead #16

Overhead #17

The Geologic Column: Interpretation

Introduction [handout a copy of the geologic column and related handout]:

- A. The greatest single piece of evidence offered by science for the theory of evolution is the geologic column. While scientists today recognize catastrophes, it has not always been that way. Science, while recognizing that catastrophes have occurred still hold to the TIME ASPECTS of basic principle of gradualism. These processes have been occurring for millions of years. Many geologic features, including the fossil record are still described as taking place over long periods of time. The main issue involved in explaining the geologic column is time. Does the data, the sedimentary layers and the fossils, which they contain point to long or short periods of time?

- B. Today I would like to present some data and ask the question, "What physical processes best explain data we will be examining?" I would like to begin with a video describing much of the topography of Eastern Washington, Western Idaho and parts of Oregon. There are several claims made in the video that will be clarified or modified, but for the most part you will see the story of one man, J. Harlan Brenz, who challenged long held established geological theory. Brenz was not a creationist. He was challenged because his interpretation of the topographical data could easily be used to support the plausibility of the catastrophic Genesis flood.
(SHOW VIDEO-- "The Great Floods" -- approx. time 14 minutes)

C. Points of Clarification

1. "Nothing on this magnitude is found on the earth." -- Grand Canyon is greater in magnitude. It goes from Southern Utah to the Gulf of California. Places in India and China which also reveal the power of flooding water.
2. "Why was the world not ready to hear Brenz in 1923?" -- Philosophical issues.
3. Time is required to cool lava. It has been suggested that when it cools rapidly it forms columns. This occurs when large influxes of water flow over the lava. The actual process can occur over a period of months instead of the millions of years suggested by radiometric dates.
4. The presence of "erratics," large boulders that are found in the fields are obviously indications of a flood of great proportions. Contrary to the video claim, there are many areas that have erratics. Also there megabreccias, sedimentary layers with much larger boulders. Breccias are layers of various sizes of boulders, rocks, soils etc. These megabreccias point to a flood that dwarf the Lake Missoula flood.

D. The main point of our video is three-fold:

1. One is to show you the subjective nature of science. Brenz' catastrophism was denied for over 40 years in spite of good research and convincing evidence.
2. Secondly, we want to open your eyes to realize that any model of the worldwide flood recorded in Genesis was more than water going up and going down. There was great volcanism, earthquakes, plate tectonics on a scale we can hardly imagine. The power of water on this scale is awesome.
3. Thirdly, we want you to ask questions when you drive through the highways and hills here in the Pacific Northwest. "What caused such and such a feature to occur?" Is the geologic column representative of millions of years of history or of monumental catastrophic events?

The Question Is: (Overhead #1-- Much water/little time; little water much time)

- A. Turbidity Currents (Overhead #2 and #3)
- B. Continents are covered with marine fossils. (Overhead #4)
- C. Current erosion rates. (Overhead #5 and #6)
- D. Tomorrow we will talk about the fossil record in relationship to the geologic column.

Radio-metric Dating — "How to give your pet rock a birthday [age]."

- A. Radio-metric dating is a dating method to date igneous and metamorphic rocks. It is calculate on the ratio of unstable parent material, such as, uranium or potassium, with stable daughter material, such as, lead or argon. (Overhead #7) Two common methods are U/Pb and K/Ar.
- B. The accepted age of the earth, 4.5 billion years, was based on K/Ar. There are three assumptions that are used in radio-metric dating. (Overhead #8)
- C. Science knows that assumption #3 is not true. Normally you would throw out a theory if one of the underlying assumptions proved to be false. There is some conflicting data. Lava from a 1901 volcanic eruption in Hawaii has a K/Ar age of 1.1 billion years. Historic eruptions of Mt Kilauea have produced submarine Lavas with K/Ar age as great as 43 million years. Obviously the differing ages represent other characteristics of magma chambers or the effect of temperature or heat on the dating process.

D. Note the following: (Overhead #9).

E. Elaine Kennedy of the Geoscience Institute in Loma Linda, CA, reported in a lecture this last summer an interesting study by a geologist Leon T. Silver. He did a study on zircon crystals, considered one of the most reliable substances used in dating. His studies seem to indicate that (a stable daughter material) is mobile. Thorium is probably mobile and uranium is possibly mobile.

F. These studies and others show that there are some inconsistencies despite the many other dates that seem to correlate.

G. Other interesting: K/Ar dates at Katmai, AK, suggest volcanic activity 4 million years ago. Historically known to have occurred in 1912. In New Zealand, Mt. Rongitoto — volcanic activity dated 485,000 years ago. The lava buried a forest and C-14 dated the trees at only 300 years. They have 96% as much C-14 as living trees today. POINT: These examples establish that radioisotope Age does not necessarily have real time significance. Also, the whole theory of radio-metric dating began during a time when scientific bias was already assuming long ages. Having said this, they were surprised to see just how old rocks actually seem to be according to these dates. It did impact evolutionary time clocks and processes.

Issue: Little water and much TIME / Much WATER and little time.

Overhead #2

Overhead #3

Fig. 8.9 Topographic profile south of Newfoundland showing cable breaks caused by turbidity current.

Overhead #4

Figure 13.10
Parts 1-6
Maps of North America during successive geologic periods (showing approximately every other period). Shaded areas have been interpreted as being under water at the time those sediments were deposited (after Dott and Prothero 1994). Paleoenvironmental interpretation of eastern Canada (the Canadian shield) is very speculative since it has almost no post-Precambrian sediment.

Overhead #5

EROSION BY SOME MAJOR RIVERS OF THE WORLD

River	Average lowering (mm/1000 years)	River	Average lowering (mm/1000 years)
Wei-Ho	1350	Indus	180
Hwang-Ho	900	Yangtze	170
Ganges	560	Po	120
Alpine Rhine and Rhône	340	Garonne and Colorado	100
San Juan (USA)	340	Adige	65
Irrawadi	280	Savannah	33
Tigris	260	Potomac	15
Isère	240	Seine	7
Tiber	190	Connecticut	1

Overhead #6

At present rates, the continents would all be eroded
in no more than 14 million years

At present rates, all the sediment in the ocean would
accumulate in no more than 14 million years

Overhead #7

U^{238} Decay Series

Overhead #8

Three Assumptions of Radio-metric Dating

1. Decay (change) rates are constant.
2. Initial ratios are known.
3. The rock samples have been chemically and physically isolated, a closed system.

Basaltic rocks of Uinkaret Plateau

six K-Ar model ages 0.01 to 17 million years
five Rb-Sr model ages 1270 to 1390 million years
one Rb-Sr isochron age 1340 million years
one Pb-Pb isochron age 2600 million years

Paleozoic

Precambrian

Cardenas Basalt (Precambrian)

five K-Ar model ages 791 to 853 million years
six Rb-Sr model ages 980 to 1100 million years
one K-Ar isochron age 715 million years
one Rb-Sr isochron age 1070 million years

The Ultimate Genealogy

Introduction:

Yesterday, we began with a lecture on how people know anything at all. We discovered that knowing begins with subjective assumptions or beliefs. Assumptions -- Data -- Interpretations. Interpretations are considered the logical conclusion based on the assumptions and the data. Today I would like to examine 3 stories that are given today regarding the origin of life.

- A. **TWO PICTURES -- Brad and Dad.** If my son were to begin doing a genealogy, his family tree would begin with himself, then me and my dad. How far back could he go? What would he find at the end?

The question we want to know is where did we come from? How did life begin? What are our real roots? Did we come from the hand of God or that primeval pond? **OVERHEADS 1 and 2 -- Calvin the slug. The "3 million yr. old skull"**

- B. It would be nice to travel back into time and discover where we came from. Whether it be in the movies like "Back to the Future I; II; II" in a Delorian or via some magic box -- **OVERHEADS 3 and 4 on time travel -- Calvin then Opus.**

The Bible traces the genealogy of Joseph, all the way back to Adam, even to God Himself. Luke 3:37 Our origin from the Biblical perspective is God. All of us meet at the ark built by Noah. Then trace it back through the line to Adam then God.

- C. The pictures of evolutionary genealogy look much different -- **OVERHEAD 5 -- faces of fish to man.** The story that is proposed by evolution takes us back before the fish to some thermal vent.

I would like to take you back to the beginning Not into a black box or a Stephen Hawking chair but through the story of this "Black Covered Book" -- the Bible -- To the very beginning -- The creation story found in the book of Genesis.

- A. Genesis 1:1 [read] -- **IN THE BEGINNING**

Yesterday I said that God always spoke through His prophets whenever He was planning on operating outside the natural realm of our senses— Noah-- flood, Abraham -- Sodom. One event that He could not communicate before it happened was the account of creation.

So we go back to beginning, to Genesis. Some may wonder whether the Book of Genesis is not some ancient story to be relegated to heap of superstition and folklore. Especially since the late 1800's to our day today.

- B. As science has made more and more discoveries, and evolution has been accepted as the dominant theory of origin -- how should one read Genesis and how does one understand the question "where did we come from."? **Overhead - 6-- origin theories -- 1 - 8**
- C. Actually theories can be summed up into 3. **Overhead - 7 --ways to interpret.**
1. Evolution
 2. Theistic Evolution - Progressive Creation
 3. Special Creation -- Genesis Story

Seventh-day Adventist and some conservative evangelicals are the only ones in the last category. Many Christians, Catholics, James Dobson, [Nazarenes], most Protestants fall into the middle category.

Creation: -- 4 Questions -- Overhead -- 8: -- Genesis 1:1 answers the four basics of reality: Read Gen 1:1-2

- A. KEY is Verse 2 -- "unformed and unfilled" **Overhead -- 9**
Sabbath -- rest, completed, can not improve on His created works.
- B. Gen 1 introduces God as the Infinite and transcendent. Genesis 2 as the Personal and Intimate God.
- C. Strengths:
1. True to the Hebrew language. The word "yom" in this context is understood to be a literal 24 day.
 2. Confirmed by Jesus and other New Testament in Matt. 19:4,5; 24:37-39; Mark 10:6; Luke 3:38; 17:26,27; Romans 5:12; Ephesians 5:31; Heb. 11:7; 1 Peter 3:20; James 3:9; Jude 11, 14; Rev. 14:7.
- D. In contrast to the Biblical account of origins I would like to present the opposite -- naturalistic evolution. For some it begins with a "big bang" but not all -- **Overhead --10 -- "Far Side"**

There is a lot of science, millions and billions of dollars worth attempting to answer these questions. There is also other scientific evidence that challenges the very science of the big bang -- or at least cause many to doubt what is was or is.

Theory of Evolution regarding the origin of life:

- A. Scientists believe that the universe we can see began about 12-15 billion years ago. The earth about 4.5 billion years ago. From there we pick up the theory of evolution.

Evolution is the predominant theory of origins taught in public school. In my local library in the children's section there are many books devoted to teaching this theory as fact. The easiest way to present evolution is to share it from what they want children to understand.

- B. First they want to demolish the foundational presupposition of Judeo-Christian culture -- notice this Time-Life Series -- called "Evolution" --- **Overhead --11 -- "Unearthing the First Fossil Clues"** [read highlighted portion]

Of course early on in these books they make reference to this man: **Picture of Charles Darwin.**

- C. What motivated him -- one of the things involved justification for slavery etc **Overhead --12 of original title -- "favored races"** Darwin's book, with it's philosophical atheism has influenced many people Karl Marx, Hitler, Stalin, etc -
- D. Well what is the theory: **Overheads from the "Eyewitness" series** [the title "eyewitness" reveals the undergirding philosophy of naturalistic or atheistic empiricism] -- irony they call these particular ones about evolution or origins eyewitnesses yet -- no one was there! But Notice the sequence:

Changing earth, signs of life, single cell etc. That is the basic evolutionary story.

Theistic evolution or progressive creationism -- the "in-between interpretation."

- A. What this attempts to do is to wed Darwinian evolution processes with the Biblical story. This is done through ascribing the Genesis story into the realm of myth by the means of allegorical interpretation. "Day Age" or "Gap" theories.
- B. Theistic evolution is the official position of the Catholic Church. Pope John Paul in his address to the Pontifical Academy of Sciences on October 22, 1996, discussed the origin of life : notice his statements. **Overhead — 16 --pope quotes**

The theory of evolution has found a home not only within the Roman Catholic Church but also many other Christian denominations. I had a conversation with members of the faculty in both the science and theology department at NNC -- Nazerenes they confirmed this. The problem within the Nazarene Church is to get the laity to accept it. Many still believe the biblical model.

- C. **POINT:** To make this claim that the human "evolved from pre-existing matter," irrespective of how we got our souls -- is to quietly relegate the scriptural account of creation to the arena of mythology. And such a position undermines the entire scripture and is logically untenable.

Overhead — 17 -- the question for theistic evolutionists or progressive creationists:

- D. It is a humanistic centered interpretation that has caused many to abandon the creation and flood stories. The main point for the Christian is that "FAITH SEVERED FROM SCRIPTURE ALWAYS DIES" --

As soon as one begins to remove the supernatural from one part of the Scriptures, the rest must be abandoned as well. And if this is the case -- we might as well eat, drink and be merry for life is truly purposeless, there is no basis for morality, this life is all there is.

CLOSE WITH QUOTE FROM NEIL POSTMAN -- Journal -- *First Things* January 1997. "Science and the Story We Need"

Talks about the 3 God-busters: Darwin destroyed the story we came from God. Now we say we came from monkeys. Marx destroyed the god of nationalism. Freud destroyed the god of Reason — all just creatures of instinct, serving our passions. Where do we go for a story that gives us meaning?

Science? — who knows? "In the end, science does not provide the answer most of us require. Its story of our origins and of our end is, to say the least, unsatisfactory. To the question, "How did life begin?" science answers, "Probably by an accident." To the question, "How will it all end?" science answers, "Probably by an accident." And to many, the accidental life is not worth living. Moreover the science god has no answer to the question "Why are we here?" and, to the question, "What moral advice do you give us?" the science-god maintains silence. It places itself at the service of both the beneficent and the cruel, and its grand moral impartiality, if not indifference makes it, in the end, no god at all." p. 31.

Why do kids bring guns and shoot fellow classmates? Drive-by shootings? Suicide? The current moral malaise?

Ezekiel 8:17 -- when Israel abandoned the Creator and worshiped the creature, which is the context of this verse -- the result -- "they have filled the land with violence."

Overhead #1

Overhead #2

Overhead #3

Overhead #4

The Origin of Man

[163]

Overhead #5

Overhead #6

1 CREATION TIME ↑ FOSSIL RECORD (BURIED BY GENESIS FLOOD) GOD CREATES (6 DAYS)	2 GAP THEORY GOD CREATES (6 DAYS) GAP GOD CREATES (LONG AGES)	3 PROGRESSIVE CREATION GOD CREATES (LONG AGES)	4 THEISTIC EVOLUTION GOD DIRECTS EVOLUTION (LONG AGES)
5 DEISTIC EVOLUTION NATURALISTIC EVOLUTION (LONG AGES) ← GOD	6 PANTHEISTIC EVOLUTION GOD EVOLVES (LONG AGES)	7 SPACE ANCESTRY LIFE FROM EXTRA-TERRESTRIAL ORGANISM(S) (LONG AGES)	8 EVOLUTION NO GOD (LONG AGES)

Overhead #7

Overhead #8

In The Beginning . . .

1.	"In the beginning"	the "when" of creation
2.	"God"	the "Who" of creation
3.	"created"	the "how" of creation
4.	"the heavens and the earth"	the "what" of creation

Overhead #9

Genesis 1:2

"tohu" unformed

"bohu" unfilled

a.	Day 1	a'	Day 4
b.	Day 2	b'	Day 5
c.	Day 3	c'	Day 6

The Sabbath -- A Palace in Time

Overhead #10

"There goes Williams again... trying to win support for his Little Bang theory."

Overhead #11

The story of Creation, as told in the Bible, is a fine example. It is seldom taken literally now. Its sweeping concepts are interpreted by most modern Christians and Jews as being symbolic of the spirit and majesty of God. The world was not created in six literal days, even though the Bible says it was, but this no longer troubles most devout people. — *Time* "Eyewitness" series "Origins" — page 7. From the children's section in the library.

Overhead #12

On
THE ORIGIN OF THE SPECIES
by Means of Natural Selection,
or the Preservation of Favoured Races
in the Struggle for Life.
[underlined added]

Overhead #13-15 — illustrate life arising from pre-biotic pool to cell, to invertebrate, etc.

Overhead #16

In his encyclical *Humani Generis* (1950), my predecessor Pius XII has already stated that there was no opposition between evolution and the doctrine of the faith about man and his vocation, on condition that one did not lose sight of several indisputable points

Today, almost half a century after the publication of the encyclical, new knowledge has led to the recognition of more than one hypothesis in the theory of evolution. It is remarkable that this theory has been progressively accepted by researchers following a series of discoveries in various fields of knowledge. The convergence, neither sought nor fabricated, of the results of work that was conducted independently is in itself a significant argument in favor of this theory.

. . . . Pius XII stressed this essential point: If the human body takes its origin from pre-existent living matter, the spiritual soul is immediately created by God.

Paul, John II. 1996. Message to Pontifical Academy of Sciences on Evolution. Origins. pp. 350-352.

Overhead #17

How can one defend the abandonment of one supernatural account [creation] for the sake of science and evolution and yet espouse two other supernatural accounts, namely the incarnation and the resurrection?

On what logical grounds can you make the creation account symbolic and the other two literal?

The Origin of Fossils:

1) Fossilization is a rare event. It takes special conditions for this process to occur.

- A. Rapid and deep burial in appropriate material to prevent scavenging by aerobic and anaerobic bacteria.
- B. On a hill in Yellowstone, Specimen Creek the hillside is littered with fossilized leaf imprints. It is known that in order for leaf preservation to occur the leaves must first be dropped into water before they start drying up. A thin bacterial film must first be formed before mineralization can begin. However, sediments must also bury the leaf before the bacteria consume it. (Slide of leaf imprint)
- C. Experiments in the Mississippi River delta reveal that it takes large amounts of sediment, beyond the normal sedimentary flow to prevent the disintegration of dead fish.

2) The fossil record points to catastrophe.

- A. 95 % of all fossils are marine fossils. *Science* magazine reports a 4-square-mile area where more than "a billion fish" were killed and densely packed in sediment. *Science*, (January 9, 1959), p. 72.
- B. It is now known that the formation of coal requires not great amounts of time but the right temperatures. Scientists in the field of coal formation now conclude that the main ingredient in the coal formations is tree bark. The bark was transported by water to the location then buried. In these formations are trees that have become water-logged and settle upright in the soft organic sediment, then buried. The eruption of Mt St. Helens has revealed many of these processes that created coal and many of our geologic features. The size of existing coal fields point to a large flood.
- C. Overhead #1 -- (Geologic Column.) The Geologic Column is one of the main pieces of evidence used to support evolution. Life evolved from simple to complex. And this is what you basically find in the column.
 - 1. (Hold up exhibit of Archaen Butterstone) — supposedly 2.5 billion years old. Contains microscopic fossils. Precambrian section of column.
 - 2. Then you move from the Precambrian to what is called the "Cambrian Explosion." Many species of life occur. But there are no fossil ancestors in the previous layers. (Hold up fossil trilobite.)
 - 3. Notice two things — compound eyes, curved, may indicate violent death and rapid burial. "Irreducible complexity"
 - 4. First three layers in the Paleozoic are all marine invertebrates. No plants or fish.

5. Devonian — fish. Then two layers, sometimes combined under the term Carboniferous. Here we find a seam of plants — coal fields.
6. This is followed by the Permian layer — amphibians. Then something that is difficult to explain — mass extinction. 95% of all marine systems occur by this time and then are not to be found again.
7. From the Paleozoic going up through the column we find the Mesozoic which is where we find the age of dinosaurs “terrible lizards” — Then at 66 m.y. They are gone. Some people believe that some dinosaurs were on the ark and that their are still some living today — i.e., Loch Ness, Champ in N.Y., and in the the deep swamp of what is the Congo. However, it seems that these things are never provable. There are some interesting theories but I personally think that they perished in the flood.
8. One thing to note is what is called “stasis” in the geologic column.
Overhead #2 on stasis — explain.
9. No transitional forms within the layers — wysiwyg — at the bottom of the Jurassic they are the same as the top of the Jurassic. No transitional creatures, or missing links at all.

D. The Geologic column shows great signs of water deposition. What is held up as the evolution of life can be just as readily explained as a record of death. All species are extinct!

1. In the column we find mass mortality.
2. In the column we find missing strata — gaps of 100's of millions of years in some places.
3. **Overhead #3** — fossil facts.
4. **Overhead #4** — A interesting Bible passage — 2 Pet 3:3-7a

E. You are invited to come and look at fossil display. T-Rex tooth, also a peice from a dino leg bone, and dino egg shell and others, both plant and marine.

Our next lecture will cover some of the supposed pre-human fossils — “George of the Jungle and Other Missing Links.”

Question and Answer Session: Questions fielded by Author and Pastor Hudson.

Overhead #1 — geologic column (we referred to the copy we passed out the previous day)

Overhead #2

Abrupt Appearance: Stasis

The Fossil Record

- 95% of all fossils are marine invertebrates, particularly shellfish.
- Of the remaining 5%, 95% are algae and plant fossils (4.75%).
- 95% of the remaining 0.25% consists of the other invertebrates, including insects (0.2375%).
- The remaining 0.0125% includes all vertebrates, mostly fish. 95% of the few land vertebrates consist of less than one bone. (For example, only about 1,200 dinosaur skeletons have been found.) 95% of the mammal fossils were deposited during the Ice Age.
- The fossil record is best understood as the result of a marine cataclysm that utterly annihilated the continents and land dwellers (Genesis 7:18-24; II Peter 3:6).

Overhead #4

Prophetic words regarding Creation/Evolution Issues...

"Knowing this first: that scoffers will come in the last days, walking according to their own lusts, and saying, 'Where is the promise of His coming? For since the fathers fell asleep, all things continue as they were from the beginning of creation.' For this they willfully forget: that by the Word of the Lord were the heavens of old, and the earth standing out of water and in the water, by which the world that then existed perished, being flooded with water. But the heavens and the earth which are now preserved by the same word, are reserved for fire...."

II Peter 3:3-7a NKJV

WHEN? "in the last days"

WHO? "scoffers"

AT WHAT? "promise of His (Christ's) coming"

HOW? "willfully forget" evidence of flood

THEIR PROOF? "all things continue as they were from the beginning" (uniformitarianism—evolution)

WHY? to avoid the conclusion that "fire" is coming, just like the flood had come before

Irreducible Complexity

INTRODUCTION:

Today, one of the most challenging arguments to the theory of evolution comes from the microbiologists. One microbiologist, Michael Behe, has thrown down the gauntlet so to speak with his disputatious book entitled "DARWIN'S BLACK BOX" --

Of all the books that challenge the theory of evolution, this one has caused a great stir among the evolutionary elite. Bitter rebukes, criticizing the book and Behe in particular have been written in many of the popular science journals. The interesting thing about most of the critiques is they slander Behe but do not really challenge the basic theory. Often that occurs -- more heat than light.

- A. Behe takes Charles Darwin up on his challenge:

Overhead #1 -- QUOTE -- from *Origins of the Species*

Michael Behe has proclaimed boldly that the time has come to jettison Darwinism as an explanation of origin of life or any living thing. Behe does not belittle Darwin. Darwin did not have the microscopes that reveal what Behe calls IRREDUCIBLE COMPLEXITY.

- B. QUESTION? Does life start at the simple and evolve towards the complex as it seems at first glance to show in the fossil record, by small series of gradual mutations?

Overheads #2-4 -- evolution, mutation, and checkers.

Darwinists claim that the further back one goes into the past the more primitive the life forms, till one gets back to some simple cell, now they say "pre-cell" form.
Overhead #5 -- "I am the lowest form of life on earth."

Overhead #6 -- definition of irreducibly complex.

Behe illustrates his theory — **Overhead #7** of mouse trap. -- What part could you remove and still have a mouse trap?

- C. Behe's point is quite clear -- there are many systems and sub-systems that function within the cell or the body that could never develop by the process of mutation, given the nature of reproduction, mutation and complexity of the systems involved.

Examples of Irreducible Complexity ---The current understanding of evolutionary explanations of human origin are found in popular magazines like *National Geographic*. A recent issue on the subject of the origin of life in the March, 1998 issue. I believe this was written in a response to Behe's book.

- A. **Overhead #8— CILIA** and explanation of how it works: -- whip-like oar that lubricates and allows the cell to move. Use Behe's explanation, then go to Behe's -- **Overhead #9.**

Explanation of Overhead #1:

The cilium consists of a membrane-coated bundle of fibers. The membrane (think of it as sort of a plastic cover) is an outgrowth of the cell membrane, so the interior of the cilium is connected to the interior of the cell. When a cilium is sliced crossways and the cut end is examined under an electron microscope, you see nine rod-like structures around the periphery. The rods are called microtubules. High quality photo's have revealed that each of these is actually two fused ring. Further examination shows that one of the rings is made of 13 individual strands and the other has 10. A protein called nexin connects each of the double microtubules to the one next to it.

Overhead #10 Note all these parts — universal like joint etc. . . Are required for one function — ciliary motion. If you take one part away it would cease to function just like removing one part from the mouse trap. It could never evolve by slow processes over long periods of time like Darwin suggests.

- B. A second system that is irreducibly complex is what is called the **blood-clotting cascade** -- this is a series of steps which prevents all the blood from draining out of you face when you cut it shaving in the morning. Blood-clotting is a very complex biochemical process consisting is a score of interdependent chemical actions. The absence of, or significant defects in, any one of a number of components causes the system to fail, blood does not clot at the proper time or place. -- This is one task of your body with little room for error.

Overhead #11 and 12— of blood clot and the blood cascade. Just to show you the complexity of it all.

The question Behe asks again and again, "How could these things evolve over long periods of time when they would not function at any level without every part present and working, just as a mouse trap needs every part present for it to function."

- C. Behe crunches some genetic possibilities based on the correct gene combinations it would take to develop the clotting cascade reaction: **Overhead #13** of Irish Sweepstakes quote.

Overhead #14, 15, 16, 17 "Far Side" cartoons -- simple to complex?

- C. **Overhead #18 -- Bombardier Beetle chamber.**

POINT: There is no such thing as simple life. From the single cell and sub-cellular systems to our own body - "Fearfully and wonderfully made."

Complexity is also part of our universe — the earth's orbit and speed of rotation, lunar orbit, all of these things are necessary for life to function on this earth.

Overhead #1

"If it could be demonstrated that any complex organ existed which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down."

Charles Darwin, Origin of the Species, page 154.

Overhead #2

Evolution...

Overhead #3

Mutations...

Overhead #4

Early checkers

Overhead #5

"Hey! I got news for you, sweetheart! ...
I am the lowest form of life on earth!"

Overhead #6

"By irreducibly complex I mean a single system composed of several well-matched, interacting parts that contribute to the basic function, wherein the removal of any one of the parts causes the system to effectively cease functioning. It can not be produced by slight modifications over time because any precursor to an irreducibly complex system that is missing a part is by definition nonfunctional."

Behe, Darwin's Black Box, page 39.

Overhead #7

A HOUSEHOLD MOUSETRAP.

Overhead #8

(Hand drawn sperm cell. Cilia is the "whip-like" tail that propels it.)

Overhead #9

(TOP) CROSS-SECTION OF A CILIUM SHOWING THE FUSED DOUBLE-RING STRUCTURE OF THE OUTER MICROTUBULES, THE SINGLE-RING STRUCTURE OF THE CENTRAL MICROTUBULES, CONNECTING PROTEINS, AND DYNEIN MOTOR. (BOTTOM) THE SLIDING MOTION INDUCED BY DYNEIN "WALKING" UP A NEIGHBORING MICROTUBULE IS CONVERTED TO A BENDING MOTION BY THE FLEXIBLE LINKER PROTEIN NEXIN.

Overhead #10

(TOP): DRAWING OF A BACTERIAL FLAGELLUM SHOWING THE FILAMENT, HOOK, AND THE MOTOR IMBEDDED IN THE INNER AND OUTER CELL MEMBRANES AND THE CELL WALL. (BOTTOM): ONE PROPOSED MODEL FOR THE FUNCTIONING OF THE ACID-DRIVEN, ROTARY MOTOR. THE DRAWING SHOWS THE INTERNAL COMPLEXITY OF THE MOTOR, WHICH IS NOT DISCUSSED IN THE TEXT.

Overhead #11

BLOOD CELL CAUGHT IN THE FIBRIN PROTEIN MESHWORK OF A CLOT.

The diagram illustrates the blood clotting cascade, showing the progression from initial triggers to the final formation of a blood clot. The cascade is divided into three main pathways: the intrinsic pathway, the extrinsic pathway, and the common pathway.

- Intrinsic Pathway:**
 - Triggers: **Wound surface** (leading to **Factor XII**), **Factor XI**, and **Factor IX**.
 - Factor XII** is converted to **Factor XIIa** by **Factor XI**.
 - Factor XIIa** converts **Factor XI** to **Factor XIa**.
 - Factor XIa** converts **Factor IX** to **Factor IXa**.
 - Factor IXa**, along with **Factor VIIIa** (activated from **Factor VIII** by **Factor XIIa**), converts **Factor X** to **Factor Xa**.
- Extrinsic Pathway:**
 - Triggers: **Factor VII** and **Factor VIIa** (activated from **Factor VII** by **Factor XIIa**).
 - Factor VIIa** converts **Factor VII** to **Factor VIIa**.
 - Factor VIIa** converts **Factor X** to **Factor Xa**.
- Common Pathway:**
 - Factor Xa**, along with **Factor V** (activated from **Factor V** by **Factor Xa**), converts **Prothrombin (Factor II)** to **Thrombin (Factor IIa)**.
 - Thrombin (Factor IIa)** converts **Fibrinogen (Factor I)** to **Fibrin (Factor Ia)**.
 - Fibrin (Factor Ia)** is cross-linked by **Factor XIII** (activated from **Factor XIII** by **Thrombin**) to form **Fibrin (cross-linked)**.
 - Fibrin (cross-linked)** is stabilized by **Factor XIIIa** (activated from **Factor XIII** by **Thrombin**) to form **Fibrin (cross-linked)**.

Consider that animals with blood-clotting cascades have roughly 10,000 genes, each of which is divided into an three pieces. This gives a total of about 30,000 gene pieces. TPA has four different types of domains. By variously shuffling , the odds of getting the four domains together is roughly 30,000 to the fourth power. Now if the Irish Sweepstakes had the odds of winning at one tenth to the 80th power, and 1,000,000 played the lottery each year, it would take an average of one thousand billion years before anyone won the lottery. That is about 100 times the current estimate for the age of the universe.

Early corsages

Overhead #15

Overhead #16

Great moments in evolution

Overhead #17

Overhead #18

32 THE BOX IS OPENED

FIGURE 2-1

DEFENSIVE APPARATUS OF A BOMBARDIER BEETLE. B, COLLECTING VESICLE; E, EXPLOSION CHAMBER; G, ECTODERMAL GLANDS SECRETING CATALASE; L, SECRETORY LOBES; M, SPHINCTER MUSCLE; O, OUTLET DUCT. B CONTAINS A MIXTURE OF HYDROQUINONE AND HYDROGEN PEROXIDE, EXPLODED BY CATALASE WHEN IT PASSES INTO E.

From Cameron, R. A. (1981) *The Biology of the Coleoptera*, Academic Press, New York, chapter 13. Reproduced with permission.

"George of the Jungle and other missing links"

ORIGIN OF MAN FOSSIL SEQUENCE: Overheads #1, 2.

In attempting to reconstruct the history of the search for missing links, I have chosen to follow one based on supposed similarities rather than time of discovery.

Ramapithecus — discovered in 1964 by David Philbeam and Elwyn Simons.

Supposedly an early ancestor in the line to modern man. The idea has been promoted through illustrations of Ramapithecus walking upright. Most evolutionary experts now concede this was not correct. **Ramapithecus** is just an extinct ape.

Australopithecus — "africanus" 1924 by Raymond Dart and "robustus" 1938 by Robert Broom. Four types recognized.

Main evidence focused on the jaw structure. Dr. John Cuzzo, an expert in jaws and teeth has compared the wide variety of human jaws and teeth structure and determined relatedness should not be a factor. Evolutionist Joseph Weiner claims that one can superimpose the profile of Australopithecus on a female chimpanzee with a remarkable close fit. Malcolm Bowden, creationist, did extensive measurements on human and ape bones and compared them to Australopithecus and show they resemble those of modern apes.

"Lucy" — 1979, Donald Johanson. — Richard Leakey declares that Lucy is not a missing link. Probably an extinct chimpanzee. Should be renamed Luke? ["Bones of Contention" - the rivalries! And the subjective nature of paleoanthropology] "Lucy's skull was so incomplete that most of it was the imagination made of plaster paris!" — "The Weekend Australian" May 7-8, 1983 "Lucy's" famous 'knee joint' was found over 60-70 meters lower in the strata about 2-3 kilometers away!

Homo Habilis — 1960, Louis and Richard Leakey,

Current conclusions now link it with an ape. Not the missing link. Might be a conglomeration of several species — evolutionist Wood. Called an "enigma" by evolutionist C.J. Aver. Thought to be between the *Australopithecines* and *Homo erectus*. Strong ape-like features yet some resemble human. So . . .

Sinanthropus — "Peking man" — 1927, bones were found with those of modern man.

Many mysteries of lost bones. Now those ape-like bones thought to be the diet of some people working an ancient quarry. They would eat the brains, rest was too tough

Java Man — 1894, by Eugene Du Bois, "I am going to look for ancient man!"

Skull cap in 1891, one year later a thigh bone and three teeth. The thigh bone was 15 meters away. Also found but not reported for 30 years was the presence in the same strata — two human skulls known as the Wojak skulls. Du Bois confessed later that the skull cap was probably that of a large gibbon-like ape. World of science was craving evidence to prove the theory. Most theories arise out of data. But here we find the old adage "I wouldn't have seen it unless I first believed it!"

Hesperopithecus — Nebraska Man, 1922, Cook Found to be a pig's tooth in 1927.

Pig has made a monkey out of a man!

Neanderthal — 1856	many	Abandoned by anthropologists in the 1960's And 1970's — probably human.
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Pitldown — 1912	many	Exposed as a hoax in 1953 — point is that for 40 years the lie was taught as truth.
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I agree with Phillip Johnson: **Overhead #3**

Question and Answer session followed for about 8 minutes.

Overhead #1

Overhead #2

Primitive résumés

"A word of advice, Durk. It's the Mesolithic. We've
domesticated the dog, we're using stone tools,
and no one's naked anymore."

Overhead #3

"I do not accept the alleged hominid species as independently observed data that
can confirm the Darwinian model." *Darwin on Trial*, page 85.

Evidences for a Worldwide Flood

INTRODUCTION: Review of some things from our geology and fossil lectures and notes.

A. Marine sediments on the continents:

1. About $\frac{1}{2}$ of the sediments on the continents come from the sea. — How did they get there? The marine sediments are thicker on the continents than on the ocean floor.
2. The widespread coverage of the higher continents by the ocean is certainly different than the present condition and is consistent with a worldwide flood.

B. Unique Widespread Sedimentary Deposits:

1. Shinarump conglomerates, found in the southwestern U.S. Morrison formation, covering 400,000 sq. miles.
2. It is difficult to believe these were deposited slowly over long periods of time. Why? They lack erosional features. They have evidence of being deposited by water. Yet the Shinarump contains petrified trees as well.

C. Turbidites: they are masses of mud, rock, silt, sand, and clay laid down in layers underwater.

1. They can be 2-3 feet thick, cover 40,000 sq. miles and be laid down in a matter of a few hours (caused by earthquakes).
2. Thousands of sedimentary layers, once thought to be laid down in shallow water over long periods of time are now seen as the result of turbidity flows.

D. Lack of Erosion at Assumed Time Gaps in the Geologic Column:

Often a layer dated to one time will lie in direct contact with a layer dated 100 million years later. The two layers show little or no evidence of erosion. The in-between layers are missing.

E. Factors in Conflict with Standard Geochronology:

1. Present rate of erosion: — continents would be eroded to sea level 125 times in 2.5 billion years.
2. Present rate of volcanic ejection: — In 2.5 billion years, 74 times as much volcanic material would have to be produced as is found now.
3. Present rate of mountain uplift: — mountain 500 km higher in 100 million years.

Slide show of Specimen Creek Ridge fossil forest from field trip with Elaine Kennedy in August of 1998. Slides of petrified trees, leaf impressions, "hash" — twigs etc. How did they get their?

Logs in upright position were once thought to be one of many fossil forests that at one time covered the hill. 27 known layers identified. Now there is a new way that geologists interpret these features — water deposition over a short period of time.

Slides of Mt. St. Helens and the work of Harold Coffin and others from Geoscience has demonstrated processes that can accomplish the features noted on Specimen Creek Ridge over short periods of time. Total slide show time — approximately 10 - 15 minutes.

Significance: If you recall the video of the work of J. Harlan Bretz and catastrophism and now examine what has happened on a small scale at Mt. St. Helens and the correlation to Specimen Creek Ridge, current geological understanding has been changing from gradualism to catastrophism over several decades.

Darwinism took hold and was taught as truth for over 100 years. But it is the work of scientists, some with naturalistic assumptions and some without that are changing and challenging the theories of evolution. For sure they are in the minority but attitudes are "evolving."

I would like to turn your attention to consider one biblical event who's historicity is tied in with that of creation — **The Genesis Flood:**

- A. **Exhibit #1 -- The Ark:** — HO Scale model displayed. See how a giraffe would look etc. . .

In contrast to other flood stories:

The Babylonian account pictured the ark as a cube, 120 cubits in each direction; nine decks; in a flood it would spin in circles depending on wave and wind direction.

Other had round arks — voyage of sea sick!

The Biblical dimensions speak of a ship much like a barge. In fact the Danish designed a barge based on the biblical description of the ark. They have 33% more storage room than a curved hull ship. Almost impossible to capsize!

- B. **Ark Facts** -- 6 to 1 ratio — modern super-tankers are 7-1 would have allowed it to survive in the hydrodynamic forces and currents of the flood. Ark was designed to float. Riding out the storm.

Dimensions: 450' x 75' x 45' — (compared to the dimensions of the church) — Capacities: three decks yield almost 100,000 square feet of floor space.

Its total volume was almost 1.5 million cubic feet. — Such figures are mind-boggling!

It held the equivalent of one large train of box cars 10.5 x 58 x 15 — about 170 box cars. — length would be two miles long. That's one long circus train! This is of course if we are measuring with the conservative cubit = about 17.5-18 inches. There was the long cubit which was 21 inches. If this was the cubit then just increase everything 25%!

C. Why the flood? -- Overhead #1

- D. Need to expand our views of the flood and post flood world:** FLOOD was not just water going up or down. Nor are we saying the impact on the earth ended a year or two later. After the flood there were dramatic climate changes that occurred; the ice age; lots of volcanic activity and earth quakes. Smaller [yet very catastrophic] flooding like Lake Missoula etc. . .

Ever wonder many ancient civilizations have flood stories? Great fear and superstitions of mountains and rivers etc . . . They were terrified of the post-flood world and the violence that continued for several hundred years.

Overhead #1

The Biblical Account of the Flood: (Highlights—Genesis 6-9)

- Moral Conditions:** *"wickedness of man was great on the earth"*
"thoughts of his heart were only evil continually"
"all flesh had corrupted their way on the earth"
"the earth was filled with violence"
- God's Response:** *"the Lord was sorry that He had made man"*
"the Lord said, 'I will destroy both man and beast, creeping thing and birds of the air'"
- God's Provision:** *"Make yourself an ark of gopherwood"*
"take with you seven each of every clean animal/two each of animals that are unclean/seven each of birds"
- The Flood:** *"all the fountains of the great deep were broken up" -AND- "the windows of heaven were opened"="the rain was on the earth forty days and forty nights"*
"All in whose nostrils was the breath of the spirit of life, all that was on the dry land died"
- After Flood:** *"God made a wind to pass over the earth"*
"fountains of deep/windows of heaven stopped"
"the waters receded continually from the earth"
"the ark rested...on the mountains of Ararat"
"God spoke to Noah, 'Go out of the ark...bring out with you every living thing"
"Be fruitful and multiply"
"Noah built an altar to the Lord"
"the dread of you shall be on every beast'"

APPENDIX 2

SEMINAR HANDOUTS

EXPLANATORY NOTES FOR APPENDIX 2

SEMINAR HANDOUTS

1. Due to format restrictions and spacing guidelines of the D. Min. Dissertation, the original format of these handouts may have changed. Some have been reformatted or reduced to meet marginal guidelines.
2. These handouts accompanied the lecture and were distributed after the lecture on the topic unless otherwise indicated in seminar notes.
3. All the handouts were printed originally on colored paper for ease of identification.

Creation/Evolution Considerations from GEOLOGY

1. The Geologic column shows thousands of feet of sedimentary rocks & fossils; no current processes can explain this.
2. The Geologic column, the evolutionist's Bible, does not exist as such anywhere in the world; hence, "many millions of year" usually are not accounted for in any given locality.
3. No soil and very little erosion exists between layers, indicating short time between deposits. No meteor impacts exist on lower surfaces, too.
4. No current processes can account for large canyons such as the Grand Canyon; slow carving by a river cannot form them.
5. Many of the tallest mountains are sedimentary in structure—Mt. Everest has fossilized clams above the 26,000 foot level.
6. Oil deposits should have been dispersed by pressure within 200,000 years of formation.
7. No current processes can explain the large coal beds (huge buried vegetation deposits). Peat bogs and swamps can't explain them.
8. Petrification of wood and bone takes years, not millennia.
9. Current erosion rates will erode ALL continents in 14,000,000 years.
10. The oceans do not have enough sediment or salt to support long age.
11. Radiometric dating has been shown to be highly inconsistent, plus it assumes too much (stable conditions & decomposition rates). A single lava flow can give hugely different dates from different samples.
12. Dating rock is often done by the fossils it contains....and vice-versa!
13. Present rates of volcanism in 2.5 billion years would need to be increased 74 times to account for volcanic material found at the present.
14. Present rates of mountain uplift should have produced in 100,000,000 years mountains 300 miles high!

Creation/Evolution Considerations from PHYSICS

1. The Second Law of Thermodynamics states that the total usable amount of energy is decreasing; that is, evidence of decay is everywhere. A car is more likely to rust than spontaneously come into being (which requires energy).
2. *Four conditions* must exist before a system can generate complexity: #1 the system must be "open", #2 external energy must be available, #3 the system must have energy conversion systems and #4 a control mechanism for maintaining the conversion systems. Evolutionary theories propose #1 and #2 are sufficient—they are not.
3. Earth's magnetic field strength indicates an age of less than 10,000 years because of decay (if originally too strong, it would have melted things!).
4. The amount of helium in the atmosphere (decayed from uranium) could not date the earth's age earlier than 26,000,000 years.
5. The lack of nickel/iron meteoritic dust in the oceans and on land indicates young age; the moon's first astronauts were surprised to find less than one inch of dust on the moon, not several feet, *also* indicating young age.
6. "*Big Bang*" theories on existence are constantly being overhauled as new discoveries are made; "missing matter," reversed or retrograde orbits such as exist in the solar system), also mitigate against a "big bang."
7. The "*leap second*," where the earth's daily rotation takes 1/1000 second longer each day, if constant would require a day's rotation of only *8 hours long* just 250,000 years ago; the world would be a smooth ball, lifeless from tremendously powerful winds.
8. "Design" is apparent everywhere in nature; flight by birds & bats is accomplished in the same way a jet airplane achieves it. Non-flying components are organized into a way that all together can fly—design!
9. "Chance," a mathematical word, is the creator of evolution; yet pure math (random luck) rules out complexity & order. Chance acquires metaphysical powers, causing life in prebiotic soup!

Creation/Evolution Considerations from BIOLOGY

1. Mutations *always* happen when DNA information is *lost*, thus not producing greater complexity.
2. Nearly all mutations are sterile, protecting species health.
3. The fossil record supports *stasis* (unchanging forms for species), *not* change. Species show stability and consistency in form.
4. There are *no known complete or partially-complete fossil records showing evolution for a single species!* Even *Eohippus* (the horse's supposed ancestor) is no longer used as a case in point for support.
5. The fossil record shows *immediate* historical appearances for all species, no *gradual* developing from simplicity to complexity.
6. "*Irreducible complexity*" argues against complex functions in living organisms having use in partially-developed form. For example, there is no advantage biologically for a 1/10th developed eye.
7. Inter-related biosystems with dependency for survival upon many living things would require all these systems to *evolve together*.
8. *No* irrefutable evidence for ancestors of man has been found; most fossils now are known to be either too similar to modern man to be significant for evolution or are monkey bones (like the famous "Lucy").
9. One of the strongest arguments against evolution is the fossil record for the vegetable world. There is literally *no* evidence of changing species.
10. Many of man's capacities like speech and self-sacrifice work against Darwinian "survival of the fittest;" these actually are not necessary for survival, and should not have *evolved* therefore.
11. Recent research has shown birds to be much less related to dinosaurs/reptiles than ever, especially in thumb and lung development.
12. Mitochondrial DNA studies show a common "Eve" for the human race could have lived between 6,000 and 7,000 years ago.

Creation Gallup Poll

45% in U.S. poll believe Bible's creation story

Last updated 08/22/1998, 12:01 a.m. MT

Scripps Howard News Service

Americans have a much stronger belief in the Bible's creation story than do Europeans, Canadians and citizens of other industrialized nations, a University of Cincinnati public opinion researcher said.

In one of the first studies of its kind, UC political science professor George Bishop compared the beliefs of Americans on human origins with those in other advanced countries.

Bishop found that the belief in creationism is much higher in America than elsewhere.

"Nearly a third of college graduates in recent Gallup polls still believe in the biblical account of creation," Bishop said.

Bishop's cross-national study will be published in the August/September issue of *The Public Perspective*, a journal of the Roper Center. Bishop first presented his findings in May at the annual conference of the American Association for Public Opinion Research.

Citing Gallup and other public opinion polls since the early 1980s, Bishop said about 45 percent of Americans believe that God created man "pretty much in his present form at one time within the last 10,000 years."

Another 40 percent believe that man developed over millions of years from less advanced forms of life but that God guided this process--what Bishop calls "theistic evolution."

And 10 percent of Americans hold the Darwinist evolution position that man developed over millions of years from less advanced forms of life but that God had no part in the process.

By comparison, only 7 percent of those surveyed in Great Britain said they take the biblical creation account of Genesis 1 literally, he said. Respondents in Germany, Norway, Russia and the Netherlands all ranked significantly lower than the United States in biblical literalism.

Evidences for a Worldwide Flood

1. Marine sediments on the continents:
 - a. About $\frac{1}{2}$ of the sediments on the continents come from the sea. — How did they get there?
 - b. The marine sediments are thicker on the continents than on the ocean floor.
 - c. The widespread coverage of the higher continents by the ocean is certainly different than the present condition and is consistent with a worldwide flood.
2. Unique Widespread Sedimentary Deposits:
 - a. Shinarump conglomerates, found in the southwestern U.S.
 - b. Morrison formation, covering 400,000 sq. miles.
 - c. It is difficult to believe these were deposited slowly over long periods of time. Why? They lack erosional features. They have evidence of being deposited by water. Yet the Shinarump contains petrified trees as well.
3. Turbidites: they are masses of mud, rock, silt, sand, and clay laid down in layers underwater.
 - a. They can be 2-3 feet thick, cover 40,000 sq. miles and be laid down in a matter of a few hours (caused by earthquakes).
 - b. Thousands of sedimentary layers, once thought to be laid down in shallow water over long periods of time are now seen as the result of turbidity flows.
4. Lack of Erosion at Assumed Time Gaps in the Geologic Column:
 - a. Often a layer dated to one time will lie in direct contact with a layer dated 100 million years later. The two layers show little or no evidence of erosion. The in-between layers are missing.
5. Factors in Conflict with Standard Geochronology:
 - a. Present rate of erosion: — continents would be eroded to sea level 125 times in 2,500 million years.
 - b. Present rate of volcanic ejection: — In 2,500 million years, 74 times as much volcanic material would have to be produced as is found now.
 - c. Present rate of mountain uplift: — mountain 500 km higher in 100 million years.

APPENDIX 3

SEMINAR ADVERTIZEMENT FLYER

EXPLANATORY NOTE TO APPENDIX 3

SEMINAR ADVERTISEMENT FLYER

Due to formatting restrictions and spacing guidelines for the D. Min. dissertation, the flyer was reduced to fit in the space requirements for the dissertation. Originally, the flyer was one full 8 ½ x 11 sheet of paper. Some were multi-colored and others were printed on bright paper for high visibility.

"By Accident or Design?"

*A Seminar
on Creation
and Evolution*

Topics:

- ❖ *The Ultimate Genealogy*
- ❖ *The Geologic Column*
- ❖ *Dinosaurs and Fossils*
- ❖ *Evidence of
a Worldwide Flood*

When:

September 25th - 7-9 p.m.
September 26th - 6-9 p.m.

Where:

Nampa Seventh-day Adventist Church
307 W. Iowa St.

For Information: Call 466-5758

**FREE
to the
public**

APPENDIX 4
SEMINAR SURVEY

EXPLANATORY NOTES TO APPENDIX 4

SEMINAR SURVEY

1. Due to spacing restrictions for the D. Min. dissertation, the text size and layout of the survey has been altered.
2. The survey was originally printed on the front and back of one sheet of paper. It was distributed at the end of the seminar on September 26, 1998. More people attended the first evening than the second evening of the seminar. Not all who attended completed a survey. Not all categories were responded to by the attendees.
3. This appendix contains the raw data from the survey results of those who completed the survey. An analysis of the data was made in the conclusion of the dissertation. The analysis was general in nature. More precise information can be obtained from these figures but the author has not been trained in statistical analysis.

BY ACCIDENT OR DESIGN?

PARTICIPANT'S EVALUATION

In order for the speaker to best meet your needs, interests, and level of understanding, your responses to the following questions are requested.

Gender: 19 Female 26 Male

Age — Females: 15, 26, 29 (2), 34, 38, 40, 42, 44, 51, 54, 55, 58, 59, 63, 70, 80, 81
 — Males: 13 (2), 26, 31, 35, 37, 39, 40(2), 41, 42(2), 43, 44, 47, 50, 51, 52, 61, 68 (3), 73, 75, 78.

Occupation: See Occupations p. 195.

4. How did you learn about the seminar?

- 4 a) Advertizing flier
0 b) Radio announcement
5 c) Invitation by a friend
32 d) Church announcement

5. What is your educational background?

- 4 a) Middle School or Junior High School
20 b) High School
12 c) College degree
 What area of study? See p. 196. Some collage - 8
2 d) Post graduate degree
 What area of study? _____

3. How well are you acquainted with basic evolutionary theory? (please check all applicable answers)

<u>6</u> a) Not at all --	female 3	male 3
<u>20</u> b) Somewhat --	12	8
<u>13</u> c) Quite well --	3	10
<u>12</u> d) I watch television programs whenever available --	6	6
<u>4</u> e) I have studied scientific evolutionary theory --	1	3

4. How well acquainted are you with the Bible? (Check all that apply.)

<u>0</u> a) Not at all	Female 0	Male 0
<u>11</u> b) Somewhat	5	6
<u>22</u> c) Quite well	10	12
<u>0</u> d) I never read the Bible	0	0
<u>6</u> e) I sometimes read the Bible	3	3
<u>16</u> f) I read the Bible regularly and can easily find a Bible text	8	8

5. What did you find most helpful in the seminar?

See breakdown on p. 196 and 197 of this appendix.

6. What did you find least helpful in

See breakdown on p. 197

7. What is your religious background?

0 a) Catholic (four listed themselves as former Catholics but now SDA)

44 b) Protestant

What demonition? 39 SDA 1 Nazarene 1 United Pentecostal 1 Church of Covenants 1 Bible Fundamentalist

0 c) Jewish

0 d) None

1 e) Other unspecified

Occupations Listed

Artist (3)
Beautician (2)
Computer Data Clerk
Computer Technician
Construction
Counselor
Crane Operator
Crop Duster
Editor
Elementary Teacher (2)
Housewife (4)
Insurance Sales

Marketing/Sales
Miner
Network Administrator (2)
Network Engineer
Outreach Coordinator
Printer
Retired (5)
Seamstress
Shipping Clerk
Small Business Owner
Student (2)
Supervisor Secretary
Surgeon (retired)
Unemployed

Educational Background

Some College: 8 reported having some.

College:

Aerospace Engineering
Art (2)
Business Management (2)
Construction Technology
Early Childhood Education
Elementary Education

Medicine (premed?)
Physics / Math
Psychology
Theology (2)

Post Graduate:

Medicine
Theology

5. What did you find most helpful? (Responses will include age and gender of attendee, and will reflect only those who responded to the question.)

1. I liked the Bible lectures. They presented truth. Male, 52.
2. Information about some inconsistencies in geological dating was new to me. Handouts. Male, 35.
3. Current theories and supporting evidence on how things are dated. Male, 42.
4. Explanations on how science works, competition for grants etc. assumptions. Female, 79.
5. Visual aides and information that helps me personally. Female, 55.
6. Helps me make sense of all you talked about in science and religion. Male, 13.
7. Very interesting. Female, 80.
8. Noah and the flood lecture. Male, 78.
9. Review of the assumptions of evolutionary theory and evidence scientists put forward against evolution. Male, 47.
10. Dating system, fossil "cave man" ancestors, irreducible complexity and petrification of trees. Female, 58.
11. Information about supposed "links" to humans and the disputes. Male, 43.
12. The most current information on dating and discrepancies. Was surprised that there are several ways to interpret data based on assumptions. Female, 44.
13. Explaining scientific theory. Male, 50.
14. Clear presentations and use of humor. Male, 68.
15. The comparison between evolution and creation and facts I didn't know before. A well done presentation. Male, 73.
16. Irreducible complexity. Refutation of science evolution by science rather than Scripture. Male, 31.
17. Lecture on theistic evolution given in the morning service. Male, 68.
18. Illustrations, slides and cartoons. Female, 59.
19. Proofs for creation, crazy supposed human bones. Female, 81.
20. Slides. Male, 42.

21. Information given with even-handed approach (rather than using data to predetermine theory and rejecting any info that does not work in said theory). I especially found useful the information about evolutionary theories that had been disproved, (like gradualism) that I hadn't heard about to date. Male, 39.
 22. The DNA information, the cells, all about mutation and irreducible complexity. Female, 54.
 23. No linking fossil ancestors, irreducible complexity, taking one part out it doesn't work. Male, 35.
 24. Being a "visual learner" I appreciate the pictures and video clips. Female, 38.
 25. The explanation of evolutionary theories. Male, 13.
 26. Printed information. Male, 61.
 27. Helped most by the information on the flood and dating. Female, 70.
 28. I don't have a science background but the arguments put forward seemed quite logical and conclusive. Male, 41.
 29. The slides and the handouts. Female, 34.
 30. New information on radio-metric dating, the flaws. Male, 37.
 31. I find more confidence in God's word, "In the beginning God created. . ." Male, 68.
 32. Church service re: creation versions and why people think like they do. Female, 63.
 33. Facts regarding radio-metric dating, J. Harland Bretz research, irreducible complexity. Female, 29.
 34. I don't like science, but I was amazed that scientists assume and guess so much. Female, 29.
 35. The consolidated way the information was presented. A lot of information was given in an organized method making it easier to comprehend. Male, 26.
 36. New information on K/Ar dating, film on Ice Age catastrophe, good balance on evolution/theism and creation facts. Male, 47.
 37. It was all very interesting and enlightening. Male, 40.
 39. Information about dating and information about human origins. It was all very interesting. Female, 51.
 40. Clarifying the assumptions of evolution; gave me answers to give my husband. Thank You! Female, 26.
 41. A realization that science is riddled with inconsistencies in some areas. Female, 42.
 42. How evolution got its ideas. Female, 15.
6. What did you find least helpful? (Some people who responded to question #5 did not respond to question #6. One one responded to #6 and Not to #5. The order is the same as above with those who did not respond being omitted.)
1. I need to study more, technical words. Male, 52.
 2. Some of the technical terms . . . overall everything was presented in "layman's" terms. Male, 35.
 3. The background information on creation and evolution. Male, 42.
 4. Quotes. Female, 55.
 5. Barely a thing. Male, 13.
 6. Inadequate time provided for interaction and questions and answers. Want more time for questions I have. Male, 47.
 7. Talk a little too fast, otherwise excellent. Female, 58.
 8. Not enough time to delve into technical items. Male, 43.

9. Too much background information on subject. Think if you slow down more the information would come across better. Female, 44.
10. Didn't touch much on dinosaurs. Male, 50.
11. Need to clarify the effect of pressure and temperature on atomic reactions used in Radio-metric dating. Male, 68.
12. Nothing comes to mind. Male, 31.
13. I would have enjoyed a more positive slant for what we believe like the beauty of creationism, most of what I heard was about how some things in evolution can't be true. More implication information. Male, 39.
14. Big words. Female, 54.
15. Big words that I will never remember. Male, 35.
16. Some of the techno language about rocks. Female, 38.
17. It went right by me. Male, 75.
18. No complaints. Male, 41.
19. The Friday evening data, assumption information. Female, 34.
20. Lots of info, too fast on some. Male, 37.
21. The lectures were generally organized, a little fine tuning of the minor details. Female, 29.
22. Big words. Female, 29.
23. Due to time restraints and my level of knowledge on parts of the subjects, I found myself hungry for more data (in depth) in some areas. Male, 26.
24. It was all very interesting. Female, 51.
25. Nothing, it was all helpful. Female, 26.
26. Some references I did not understand nor could remember them to ask about them at the end of the presentations. Female, 42.

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VITA

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Bradley Jacob (12) and Emily Suzanne (11).

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High School: Rhinelander High School, Rhinelander, Wisconsin, 1975.

College: B.A. History, University of Wisconsin, Eau Claire, 1979.

Post-Graduate: M.Div., Seventh-day Adventist Theological Seminary,
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Andrews University, Berrien Springs, MI, 1998.

Professional Experience:

Pastoral Intern: Colorado Springs SDA Church, Colorado Springs, CO,
1984-1985.

Pastor: Louisville/Estes Park Church District, Colorado, 1986-1988.

Pastor: Ashtabula/Madison Church District, Ohio, 1989-1990.

Pastor: Middletown Valley, MD/Charles Town, WV Church District,
Chesapeake Conference of SDA, Maryland, 1991-1995.

Pastor: Chestertown/Rock Hall Church District, Maryland, 1996.

Pastor: Homedale/Kuna Church District, Idaho, 1997- present.

Other Information:

Peace Corps volunteer, Nepal, 1980.

Wood-worker, gardener, and historical researcher.