

**FAITH DISPLAYED AS SCIENCE: THE ROLE OF THE “CREATION MUSEUM”
IN THE MODERN AMERICAN CREATIONIST MOVEMENT**

A thesis presented

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ABSTRACT

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ABSTRACT: Since the 1960s, the U.S. has seen a remarkable resurgence of the belief in the literal truth of the Bible, especially in a “young” (less than 10,000 years old) Earth. Somewhat paradoxically, this new biblical literalism has been accompanied by an increased emphasis on scientific legitimacy among creationists. The most recent tool in young-Earth creationists’ quest for scientific legitimacy is the “creation museum.” This thesis analyzes and compares the purposes and methods of four creation museums; discusses their repercussions for science as a discipline; and explains their significance for the larger creationist movement.

KEYWORDS: creationism, young Earth, evolution, museums, Creation Evidence Museum, Dinosaur Adventure Land, Institute for Creation Research, Answers in Genesis

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ABBREVIATIONS

ABBREVIATION	TERM
AiG	Answers in Genesis
<i>ARJ</i>	<i>Answers Research Journal</i>
ASA	American Scientific Affiliation
CEM	Creation Evidence Museum
CRS	Creation Research Society
CRSC	Creation Science Research Center
CSE	Creation Science Evangelism
DAL	Dinosaur Adventure Land
ICR	Institute for Creation Research
ICRGS	Institute for Creation Research Graduate School
ID	Intelligent Design
MCEH	Museum of Creation and Earth History
NASA	National Aeronautics and Space Administration

INTRODUCTION

In 1935, when Bertrand Russell wrote that the world was in the throes of a “prolonged conflict”¹ between science and religion, it is very likely that many agreed with him. Due in large part to the late-nineteenth-century works of historians Andrew Dixon White and John Henry Draper (*The Warfare of Science* [1876] and *History of the Conflict Between Religion and Science* [1881], respectively), an increasing number of Americans believed that conflict between science and religion was both ancient and inevitable.² Moreover, just ten years had passed since the infamous—and acrimonious—Scopes “Monkey Trial,” which had been quite deliberately publicized as a battle between two irreconcilable worldviews.³ Though this “conflict model”⁴ purportedly encompassed all branches of science—the Roman Catholic Church’s crusade against Galileo’s heliocentrism was an oft-cited example⁵—the Scopes trial transformed evolution into the paradigmatic example of a scientific theory threatened by religion.

Historians of science now regard the conflict model as a grossly inaccurate characterization of the relationship between religion and science, as early scientists—or “natural philosophers,” as they were called until the 19th century—often thought of their work as a way of understanding and appreciating God’s creation.⁶ Nevertheless, the

¹ Bertrand Russell, *Religion and Science* (New York: Home University Library, 1935; repr., New York: Oxford University Press, 1961), 7.

² Kenneth J. Howell, *God’s Two Books: Copernican Cosmology and Biblical Interpretation in Early Modern Science* (Notre Dame, Ind.: University of Notre Dame Press, 2002), 4.

³ Edward J. Larson, *Summer for the Gods: The Scopes Trial and America’s Continuing Debate over Science and Religion* (New York: Basic Books, 1997), 101-103; 225.

⁴ John Hedley Brooke, *Science and Religion: Some Historical Perspectives* (New York: Cambridge University Press, 1991), 4.

⁵ Howell, *God’s Two Books*, 5.

⁶ Galileo, for example, believed that God had written two books, the Bible and the “Book of Nature.” Both of these, being God’s works, were necessarily perfect and compatible. Even Newton, whose *Principia Mathematica* is widely understood as proposing a purely mechanistic view of the universe, believed that this universe could not function without the periodic intervention of a benevolent deity. For more information, please see John Hedley Brooke’s *Science and Religion: Some Historical Perspectives* (New York: Cambridge University Press, 1991);

relatively recent rise of anti-evolution fundamentalist groups in the late twentieth century and the controversy surrounding the widely publicized “creation v. evolution” legal cases in Kansas (2005)⁷ and Pennsylvania (2005)⁸ have shown that the idea of conflict is still widely held. Indeed, the cover of the August 2005 edition of *Time* magazine showed a chimpanzee regarding Michelangelo’s God beneath the words “EVOLUTION WARS,”⁹ suggesting that, while conflict may not be *necessary*, it certainly does exist today.

Moreover, modern fundamentalist thought is diversifying and developing. Particularly within the last 50 years or so, the creationist movement has become significantly more sophisticated. Ronald Numbers has shown that there has been a dramatic shift from the idea that creationism is *opposed* to modern science to the idea that creationism is just another *form* of modern science, one that is at least equally valid as judged by its scientific merit. After the early forms of creationism suffered an embarrassing defeat at the Scopes trial (at least in popular conceptions of it), this mode of thought reemerged in the 1960s as “scientific creationism,” which, it was claimed, was not inherently religious.¹⁰ In 1987, *Edwards v. Aguillard* showed that this new form of creationism was also inappropriate for public schools—even when taught alongside evolution. The movement therefore transformed itself once more, becoming “Intelligent Design” (ID) in the 1990s.¹¹

ID, however, is a special case, and one that reveals an important ideological rift in the modern creationist movement. Supporters of ID for the most part represent a

Steven Shapin’s *The Scientific Revolution* (Chicago: University of Chicago Press, 1996); and David Lindberg and Ronald Numbers, eds., *When Science & Christianity Meet* (Chicago: University of Chicago Press, 2003).

⁷ Jodi Wilgoren, “Kansas Begins Hearings on Diluting Teaching of Evolution,” *New York Times*, 5 May 2005, <http://www.nytimes.com/2005/05/05/education/06cnd-evolution.html> (Accessed 6 Feb. 2009).

⁸ Delia Gallagher and Phil Hirschhorn, “Judge rules against ‘intelligent design’ in science class,” *CNN*, 23 Dec. 2005, <http://www.cnn.com/2005/LAW/12/20/intelligent.design/index.html> (Accessed 6 Feb. 2009).

⁹ *Time* magazine 166, no. 7 (15 Aug. 2005).

¹⁰ Ronald L. Numbers, *The Creationists: From Scientific Creationism to Intelligent Design*, expanded ed., 1st Harvard University Press pbk. ed. (Cambridge, Mass.: Harvard University Press, 2006), 120-1; 269; 351-3.

¹¹ Peter Bowler, *Monkey Trials and Gorilla Sermons: Evolution and Christianity from Darwin to Intelligent Design* (Cambridge, Mass.: Harvard University Press, 2007), 211-214.

specialized group of creationists, the “old-Earth” creationists (who accept an ancient Earth) and even some theistic evolutionists—*not* “young-Earth” creationists (who believe the Earth is about 6,000 years old). Although the prosecution showed quite convincingly in *Kitzmiller v. Dover Area School District* (2005) that the writers and publishers of *Of Pandas and People* (1989, 2nd ed. 1993), the Intelligent Design textbook under scrutiny, believed themselves to be teaching creationism under a different name,¹² many fundamentalists consider Intelligent Design to be a diluted and inadequate form of creationism. In their eyes, “IDers,” by agreeing not to identify this “designer” as the Christian God, have compromised far too much.¹³ However, as Henry Morris, founder of the Institute for Creation Research, pointed out, fundamentalists can at least appreciate the “brilliant new arguments and evidences [proponents of ID] have added to the traditional case,”¹⁴ as they have made creationism seem more credible in the eyes of the public.

It is these creationists, the ones who are dissatisfied with ID and who continue to support biblical inerrancy and a young Earth, who appear in this dissertation. It is they, rather than the proponents of ID, who are the descendents of the “creation scientists” who rose to prominence in the 1960s. They, too, are looking to make a name for their belief system, to legitimize it in the eyes of a science-loving society; and they, like the proponents of ID, know that doing so means convincing people that creationism is scientific, too.

This dissertation will explore the newest tool in these “young-Earth” creationists’ quest for scientific legitimacy, the “creation museum.” Built in the style of natural history

¹² National Center for Science Education, “Intelligent Design on Trial: *Kitzmiller v. Dover*,” <http://ncseweb.org/book/export/html/291> (Accessed 10 Feb. 2009).

¹³ See, for example, Georgia Purdom, “The Intelligent Design Movement: Does the Identity of the Creator really matter?” *Answers in Genesis*, 2 May 2006, <http://www.answersingenesis.org/articles/am/v1/n1/intelligent-design-movement> (Accessed 16 Dec. 2008). In personal interviews, Dr. Carl Baugh of the Creation Evidence Museum and Eric Hovind of Dinosaur Adventure Land espoused this same view.

¹⁴ Dr. Henry Morris, “Intelligent Design and/or Scientific Creationism,” Institute for Creation Research, Apr. 2006, <http://www.icr.org/article/intelligent-design-or-scientific-creationism/> (Accessed 9 Feb. 2009).

museums and science centers, these public display spaces use the form and rhetoric of mainstream science to support a belief in the literal truth of the Bible, including the creation of the universe in six days about 6,000 years ago. This belief system is diametrically opposed to that of the vast majority of the world's practicing scientists. Nevertheless, there are about a dozen of these museums in the United States,¹⁵ and they draw more visitors each day.¹⁶

In order to provide the reader with a comprehensive analysis of the creation museum phenomenon, this paper focuses on case studies of four museums visited during a research trip made by the author in the summer of 2008: the Creation Evidence Museum in Glen Rose, Texas; Dinosaur Adventure Land in Pensacola, Florida; the Institute for Creation Research in Santee, California; and the Answers in Genesis Creation Museum in Petersburg, Kentucky. These institutions were chosen both for the stylistic differences of their displays and for their geographical diversity. The four case studies (chapters I, II, III, and IV) are followed by a comparative analysis that highlights the messages and methods common to all of the museums. This final chapter will also discuss the role played by these museums within the larger creationist movement and their significance for science as a whole.

Review of Relevant Literature

Recently, many scholars have written about the little-known but supremely important shift in creationist thought that took place in the United States in the 1960s. For the most part, this story has taken place in the United States because of America's unique political, cultural, religious, and educational structure. As Ronald Numbers explains in *The Creationists* (2006), it was during the 1960s that a significant number of American creationists

¹⁵ Northwest Creation Network, "Creation Museums," <http://www.nwcreation.net/museums.html> (Accessed 15 Mar. 2008).

¹⁶ Brenna R. Kelly, "Believers or not, they come," *The Kentucky Enquirer*, 25 Nov. 2007, <http://news.nky.com/apps/pbcs.dll/article?AID=/AB/20071125/NEWS0103/711250381> (Accessed 17 Mar. 2008).

began to believe that the Earth was less than 10,000 years old, an idea that had not been popular since the 18th century. Though it may be surprising to modern-day readers who likely associate the term “creationism” with a belief in a young Earth—a belief held by 44% of Americans as of 2008¹⁷—Numbers explains that almost no one, not even religious conservatives, would have claimed to hold such a view in the mid- to late 1800s. Instead, largely because of recent advances in geology demonstrating that the Earth was at least millions of years old, most religious believers subscribed to the “Gap Theory” advocated by the influential *Scofield Reference Bible* (which allowed for a long period of time to have passed between the first and second verses of Genesis) or some other allegorical interpretation such as the “Day-Age” theory.¹⁸ Professor Janet Browne, in her book *Darwin’s Origin of Species: A Biography* (2006), points out that “learned biblical study since the Enlightenment had encouraged Christians [in the late 1800s] increasingly to regard the early stories as potent metaphors rather than literal accounts.”¹⁹ Therefore, though many Christians disapproved of the apparent godlessness of evolution by natural selection, the chronological leeway given by allegorical interpretations meant the long ages required by uniformitarian geology—considered *apart from evolution*—could be easily incorporated into the Christian faith. “Biblical fundamentalism,” Browne concludes, “is mostly a modern concern, not a Victorian one.”²⁰

As Edward J. Larson notes in his authoritative book *Summer for the Gods: The Scopes Trial and America’s Continuing Debate over Science and Religion* (1997), an initial but relatively minor return to fundamentalism began in the 1920s. He suggests that this resurgence was mainly in response to the purported influence of evolutionary thought on the German

¹⁷ “Evolution, Creationism, Intelligent Design,” Gallup, 11 May 2008, <http://www.gallup.com/poll/21814/Evolution-Creationism-Intelligent-Design.aspx> (Accessed 6 Feb. 2009).

¹⁸ Numbers, *The Creationists*, 6.

¹⁹ Janet Browne, *Darwin’s Origin of Species: A Biography* (New York: Atlantic Monthly Press, 2006), 86.

²⁰ *Ibid.*

military during World War I and to the increased emphasis on Darwinism (as opposed to theistic evolutionism or selection with a faith-friendly, Larmarckian twist) in public school textbooks.²¹ Also of great concern for religious conservatives was a new method of interpreting the Bible: modernism, which used “scientific, historical, and social methods in understanding and applying evangelical Christianity to the needs of living persons.”²² Modernists, who “[tried] to save Christianity from irrelevancy” by reconciling it with scientific developments, were making too many dangerous compromises for fundamentalists’ tastes.²³ A coalition of dispensational premillennialists, conservative theologians at the Presbyterian seminary in Princeton, members of the holiness movement (an offshoot of Methodism), and Pentecostals formed in opposition to modernism and evolution, the “twin pillars of this opposing creed.”²⁴ However, though the anti-evolution sentiment they stirred up manifested itself at the Scopes trial, their fundamentalism did not: even William Jennings Bryan, like the vast majority of his contemporaries, believed in an old Earth via the Day-Age theory.²⁵

Peter Bowler, in his book *Monkey Trials and Gorilla Sermons: Evolution and Christianity from Darwin to Intelligent Design* (2007), provides a number of other reasons why fundamentalism may have emerged so suddenly in the 1960s. First among these seems to be the increased emphasis on teaching evolution in the public schools. This push was due initially to the success of the modern evolutionary synthesis (produced from approximately 1936-1947), which finally reconciled Darwinian natural selection with Mendelian genetics, and later to increasing fears that America was falling behind the U.S.S.R. scientifically after

²¹ Larson, *Summer for the Gods*, 35; 23-4.

²² Modernist leader Shailer Matthews of the University of Chicago, as quoted in Larson, *Summer for the Gods*, 34.

²³ *Ibid.*, 33-4.

²⁴ *Ibid.*, 34.

²⁵ Numbers, *The Creationists*, 58.

the launch of *Sputnik*.²⁶ Finally, Bowler suggests, as does Numbers,²⁷ that the fundamentalist movement was encouraged by a general rebellion against the perceived elitism of the scientific establishment at the time. A number of earth histories in direct conflict with orthodox science—but *not* creationist or even Christian, such as Immanuel Velikovsky’s *Worlds in Collision* (1950)—were published in the 1950s, ’60s, and ’70s, suggesting that it was not just creationists who felt a certain “hostility to the power of ‘experts’” who were “intolerant of dissent.”²⁸

Both Numbers and Bowler end their books with a discussion of Intelligent Design (ID). Numbers points out that most of the public and media understand the term to be interchangeable with creationism,²⁹ but, as he and Bowler both note, many young-Earth creationists disapprove of ID proponents’ refusal to identify this “designer” as the Christian God.³⁰ Despite the fact that the ID movement has found only “miniscule support among practicing scientists,” its remarkable ability to “convinc[e] the public and the press that a serious scientific controversy exist[s] about the status of Darwinism”³¹ has strengthened the creationist cause. Essentially, ID has acted as a “wedge,”³² prying open a space for non-naturalistic explanations in the world of science by exposing supposed weaknesses in evolutionary theory. This is reflected in today’s newspapers, in which almost any article about evolution also contains some reference to the fact that there are other ways to

²⁶ Bowler, *Monkey Trials*, 204.

²⁷ Numbers, *The Creationists*, 370.

²⁸ Bowler, *Monkey Trials*, 206. Another example is Erich von Daniken’s *Chariots of the Gods? Unsolved Mysteries of the Past*, trans. Michael Heron (New York: Putnam, 1970, c.1968).

²⁹ Numbers, *The Creationists*, 380.

³⁰ Bowler, *Monkey Trials*, 214; Numbers, *The Creationists*, 377. See footnotes 13 and 14 of this introduction for commentaries on ID by young-Earth creationists.

³¹ Numbers, *The Creationists*, 396.

³² Philip E. Johnson, pro-Intelligent Design author of *Darwin on Trial* (1991), as quoted in Numbers, *The Creationists*, 377.

interpret the evidence.³³ To be sure, journalists always try to present a “balanced” article. Ironically, however, it seems that the vociferous objections of intellectuals such as Richard Dawkins and Daniel Dennett have simply brought more publicity to the ID movement by making it seem as though there really is a scientific debate over this issue.³⁴ Numbers ends with a short survey of creationism’s recent and rapid expansion beyond the U.S., which he suggests has been greatly helped by the high-profile media coverage for ID.³⁵ Bowler asserts in a rather ominous conclusion that the “war between fundamentalist religion and the orthodox scientific community”³⁶ shows no sign of stopping.

This Paper’s Contribution

The aforementioned authors have established a solid understanding of the 20th-century creationist movement. In particular, the reemergence of young-Earthism beginning in the 1960s is well documented. Preliminary analysis of Intelligent Design, mostly a 21st-century movement, has proven fruitful as well, though the relative newness of the idea (in its “official” form, at least) suggests there is still much work to be done. The relationship between Intelligent Design and the resurgent young-Earthism, especially, merits further study.

This dissertation will supplement the understanding scholars such as Numbers and Bowler have established by discussing how creationist museums fit into the relatively recent attempt by creationists to obtain scientific credibility. As far as the author can tell, these museums have yet to be subjected to thorough analysis, whether scientific or historical. This

³³ See, for example, John Hamilton’s “Doubting Darwin: Debate over the Mind’s Evolution,” National Public Radio, 20 Feb. 2009, <http://www.npr.org/templates/story/story.php?storyId=100867217> (Accessed 21 Feb. 2009) or Adam Rothstein’s “Adam and Eve in the Land of the Dinosaurs,” *The New York Times*, 24 May 2007, http://www.nytimes.com/2007/05/24/arts/24crea.html?_r=2&pagewanted=print (Accessed 14 July 2007).

³⁴ Numbers, *The Creationists*, 397.

³⁵ *Ibid.*, 398-431.

³⁶ Bowler, *Monkey Trials*, 204.

analysis will incorporate information from personal visits to the museums' exhibitions; videos and other media available for purchase in their bookstores; the written works of their founders and employees, as well as interviews with the same; and newspaper articles documenting local and national reactions to the museums. It will be argued that in these museums the emphasis on being "scientific" has been accompanied not by a *looser* biblical interpretation (or the vagueness that characterizes Intelligent Design) but by an insistence on strict biblical literalism to which "science" is then made to conform.

CHAPTER I

THE CREATION EVIDENCE MUSEUM

“The evidence that was just described to you has very serious implications in the scientific disciplines of paleoanthropology and paleontology. Many evolutionary scholars have admitted that if we can prove that man and dinosaurs lived contemporaneously at the time the fossil record was laid down, then this would totally disrupt the theory of evolution and essentially favor the concept of creation...”

—Carl Baugh, founder of the Creation Evidence Museum.¹

In most respects, Glen Rose, Texas, is like any other American town. Its three thousand residents pass most days in relative quiet among the vast stretches of surrounding prairie. Upon arrival, however, visitors will immediately realize that there is indeed something—a very big something—that makes Glen Rose special: dinosaurs. Just northwest of Glen Rose, on the banks of the Paluxy River, lies Dinosaur Valley State Park, home to some of the world’s best-preserved dinosaur footprints. First discovered after a flood in 1908, the tracks’ significance went relatively unrecognized until the 1930s, when a paleontologist from the American Museum of Natural History saw some imitations of the prints in a New Mexico trading post.² Today, places like “Dinosaur Discount Supply,” “Dino Rider,” and even “Dino Fireworks” can be found on every corner, welcoming visitors to what locals fondly and appropriately call “Dino Country.”

Less than three miles from Dinosaur Valley State Park, also situated on a bank of the Paluxy River, lies Glen Rose’s other claim to fame: the Creation Evidence Museum (CEM). For nearly twenty-five years the museum’s handmade, wooden billboard has beckoned those

¹ *Family Tour of the Creation Museum*, DVD, directed by Carl Baugh (Carrollton, TX: Take One Video and Post, 1997).

² Roland T. Bird, “A Dinosaur Walks into the Museum,” *Natural History*, Feb. 1941, <http://www.naturalhistorymag.com/master.html?> (Accessed 10 Oct. 2008); Ronnie J. Hastings, “The Rise and Fall of the Paluxy Mantracks,” *Perspectives on Science and Christian Faith* 40, no. 3 (Sept. 1988): 144.

leaving Dinosaur Valley State Park to stop and “See the Evidence.”³ Much to the chagrin of the State Park staff, the “evidence” therein is purported to disprove the evolutionary model by demonstrating that humans and dinosaurs coexisted.

Dr. Carl Baugh: Creation Paleontologist

The museum is the brainchild of Dr. Carl Baugh, a Texas native and a well-known young-Earth creationist. Author of eight books, including *Why Do Men Believe in Evolution Against All Odds?* (1999), and longtime face of Trinity Broadcasting Network’s “Creationism in the 21st Century,” Baugh moved to Glen Rose in 1982. He had, he claims, been pursuing an archaeology degree in St. Louis, but he decided to take time off to excavate some of the Paluxy tracks for himself.⁴ At that time, Baugh says he “held to the long-age position” and believed in “atheistic and then theistic evolution.”⁵ In just two days, Baugh and his team excavated nineteen dinosaur tracks. More importantly, however, they discovered what in their eyes could only be a human footprint. “When I realized what it was,” he told the *Houston Chronicle*, “it really blew my mind. I never expected anything this revolutionary.”⁶ If this “human” track really was made at the same time as the dinosaur tracks, he realized, that would mean that dinosaurs and men had lived contemporaneously. If so, the Earth would have to be much younger, and dinosaurs would have to have been alive much more recently, an idea that would “totally disrupt the theory of evolution, and essentially favor the concept of creation.”⁷

³ Greg Beets, “Creationism Alive and Kicking in Glen Rose,” *Austin Chronicle*, 5 Aug. 2005, <http://www.austinchronicle.com/gyrobase/Issue/story?oid=oid:283058> (Accessed 10 Oct. 2008). This archaeology degree will be discussed further on pp. 32-33.

⁴ Associated Press, “Man, Dinosaur lived concurrently, creationist archaeologist suggests,” *Houston Chronicle*, 14 Aug. 1985, http://www.chron.com/CDA/archives/archive.mpl?id=1985_31047 (Accessed 29 Sept. 2008).

⁵ Carl Baugh, personal interview. 18 June 2008.

⁶ Associated Press, “Man, Dinosaur lived concurrently,” *Houston Chronicle*.

⁷ Baugh, *Family Tour*, 1997.

Convinced that there really were human footprints among the dinosaur tracks, Baugh concluded that “a museum needed to be established in order to appropriately display this evidence” and to allow for “sustained excavations and other areas of scientific research for creation.”⁸ The best place for this museum was along the road leaving Dinosaur Valley State Park, because it “would cause people to question the state park’s version of prehistory.”⁹

Within a year, he had “achieved his interim goal of a preliminary creation museum...purchased ten acres of land for a ‘permanent’ excavation” and set about “pursuing the rest of the 3.5 million dollars he...need[ed] to complete his museum,” which he originally intended “to be the size and shape of Noah’s ark.”¹⁰ What resulted was the “Creation Evidences [sic] Museum,”¹¹ housed in a small log cabin on the banks of the Paluxy. The museum opened to the public in 1984. In 1993, as the “evidences” began to outgrow the cabin, Baugh moved his museum into a doublewide trailer.¹² Less than a decade later construction began on a new, larger building on the same property—this one still not in the shape of the Ark—into which Baugh is currently (as of Feb. 2009) moving his collections.

The defining feature of the resulting museum is its claim to scientific authority. In *Family Tour of the Creation Evidence Museum*, a DVD looped on multiple monitors within the museum, the narrator claims that the CEM was “chartered...as a scientific, educational, non-

⁸ The Creation Evidence Museum and Archaeological Excavations, “General Information,” http://75.125.60.6/~creatio1/index.php?option=com_content&task=view&id=1&Itemid=3 (Accessed 17 Oct. 2008).

⁹ Kaylois Henry, “Footprints of Fantasy,” *Dallas Observer*, 12 Dec. 1996, <http://www.dallasobserver.com/1996-12-12/news/footprints-of-fantasy/4> (Accessed 2 Oct. 2008).

¹⁰ R. J. Hastings, “Tracking Those Incredible Creationists,” *Creation/Evolution Journal* 5, no. 1 (Winter 1985): 15. Available online at <http://ncseweb.org/cej/5/1/tracking-those-incredible-creationists> (Accessed 21 Feb. 2009).

¹¹ At some point the word “Evidences” was changed to “Evidence.”

¹² Henry, “Footprints of Fantasy.”

profit entity.”¹³ He notes that “scholars arrive from around the world to observe our excavations, our research procedures...and our display of evidence...supporting scientific creationism,”¹⁴ furthering the image of the museum as a legitimate scientific entity and even as a world leader whose methods are imitated by other institutions.

In some respects, this scientific image is far more appropriately applied to the CEM than to any of the other museums to be discussed. As Numbers repeatedly points out, most of the early organizations claiming to perform “creation research” meant not laboratory but library research. A prime example is the Institute for Creation Research (ICR) in California (see Chapter III), whose name evokes images of scientists in lab coats but whose staff “conducted little research outside the confines of its modest library”¹⁵ for years after its foundation. The similarly named Creation Research Society (CRS), founded in 1963, long emphasized “historical and descriptive evidence rather than experimental and manipulative studies.”¹⁶ Like the ICR, the CRS used the majority of its funds attempting “to find fallacies or inconsistencies in the writings of evolutionists”¹⁷ and performed relatively little field and laboratory work. Though today both the ICR and the CRS engage in more sophisticated research, for many years Baugh’s work at the Creation Evidence Museum represented one of the few archaeological and experiment-based research programs in operation by creationists. As Baugh himself proudly points out, his museum is unique in three areas: first, they “do field work,” mainly excavating dinosaur and human footprints; second, they have developed

¹³ Baugh, *Family Tour*, 1997.

¹⁴ *Ibid.*

¹⁵ Numbers, *The Creationists*, 279.

¹⁶ *Ibid.*, 315.

¹⁷ *Ibid.*, 285.

“a composite model” of Earth history; and third, they have put this composite model to the test by simulating certain phases within a “hyperbaric biosphere.”¹⁸

Unlike many of the other creationists to be discussed, who often deliberately identify themselves as “rebels” in a crusade against the closed-minded scientific elite, Baugh very carefully fosters an image of himself as a legitimate, contributing member of the larger scientific community. He thereby minimizes the apparent discordance between his beliefs and established science, furthering the idea that creationism provides an equally valid theoretical framework for understanding the natural world.

The Creation Model

A personal visit to the Creation Evidence Museum shows that every object in the museum is directed toward a single goal: evidencing that Dr. Baugh’s “Creation Model” is an accurate description of Earth history. In a large painted mural on one wall of the museum, a series of ten globes is shown. These are phases through which Earth has passed “from Genesis to Revelation—or from the ancient past to the future, depending on what viewpoint you take.”¹⁹ With that extremely significant word, “viewpoint,” Dr. Baugh shows himself to be part of a long creationist tradition: that of insisting that both mainstream scientists and creationists have access to the same data yet come to different conclusions because of the different viewpoints they hold.²⁰ Here he very clearly suggests that his model is the correct one; it is simply up to the individual—whether creationist or orthodox scientist—to decide how much time elapsed between the phases. “Our model,” insists Baugh,

¹⁸ Carl Baugh, Personal interview.

¹⁹ *Ibid.*

²⁰ This “two-model” approach was first proposed by Henry Morris in 1974, both in his handbook for high-school teachers called *Scientific Creationism* and in the preface to the fourth edition of his (and the Creation Research Society’s) textbook *Biology: A Search for Order in Complexity* (Numbers, *The Creationists*, 272). It will be discussed further in Chapter III.

...stands completely independent of any religious overtones. But at the same time, we're all religious. So everything we're doing here first stands on its scientific merit, and on its archaeological and paleontological merit, but it also stands on its own merit religiously. And there's no conflict between good science and the facts of religion.²¹

Alluding to the common creationist claim that both science and creationism have their foundation in un-testable assumptions—for scientists, that there is no supernatural intervention; for creationists, that there is—he adds that “[being] suppositional on both parts is a bit suspect.”²²

As presented within the museum, the Creation Model is entirely without explanation. Not a single label accompanies the mural itself, suggesting that just looking at a visual representation of the Model should be enough to convince visitors of its truth (fig. 1). In reality, reading the explanation given in Baugh's books, on his website, or on the looped *Family Tour* DVD shows the Creation Model to be an extremely complicated theoretical framework—one that was very clearly developed from the pages of the Bible. Uniquely, however, this model is not an attempt to make the biblical account of creation “fit” with more broadly accepted scientific thought about the universe; it is, rather, an attempt to take the biblical account of creationism and adorn it with scientific-sounding rhetoric.



Fig. 1: Baugh's Creation Model. Photo: J. Duncan.

²¹ Carl Baugh, personal interview.

²² *Ibid.*

Unlike the other three museums to be discussed—which teach, for the most part, that God simply spoke and the universe *was*—Baugh infuses the creation story with an astonishing amount of what he considers scientific support. To many of his fellow creationists, these details are at best superfluous and at worst “simply not truth.”²³ To almost all visitors, creationist or not, the model is confusing.

Quoting from Genesis 1:2, Baugh notes that on the first day of Creation the earth “was formless and empty, darkness was over the deep, and the Spirit of God was hovering over the waters.”²⁴ Whereas many others might stop there, maintaining a rather vague notion of what this “formless” world may have been like and imagining the “Spirit of God” preparing to create, Baugh asserts that “such activity by the Spirit of God over this sphere of water would align the molecules, thus automatically, in physics, generating an electromagnetic field.”²⁵ No explanation is given as to exactly *why* the mere presence of the Spirit of God would have had such a polarizing effect; it simply did. This electromagnetic field plays an important role in the rest of the Creation Model, as Baugh believes that it is “absolutely and pervasively [sic] necessary for the function of living systems to follow”²⁶ and even that the body’s cells use the field to communicate among themselves.

Continuing to the second day, Baugh quotes Genesis 1:6, in which God says, “Let there be a firmament in the midst of the waters, and let it divide the waters from the waters.” Again, for many creationists this “firmament” simply represents the separation between the

²³ Dr. Stephen Meyers, “Other Views: Carl Baugh,” Institute for Biblical and Scientific Studies, <http://www.bibleandscience.com/otherviews/baugh.htm> (Accessed 15 Oct. 2008).

²⁴ Baugh, *Family Tour*, 1997.

²⁵ *Ibid.*

²⁶ *Ibid.*

earth and the rest of the universe.²⁷ For Baugh, however, this firmament is a solid dome surrounding the earth. According to him, when God “stretched out the Heavens,” His energy caused “concentrated hydrogen in the magnetic canopy” to “bond into a crystalline lattice among the water molecules. A thin, solid firmament was created, suspended by its own superconductivity as a canopy over the Earth.”²⁸ This firmament served a number of benevolent purposes, including filtering out short-wave radiation, bathing the earth in “stimulating” magenta hues, and transforming “universal radio signals”²⁹ into beautiful music heard around the world. For this explanation and those following, scientific-sounding language is ever present.

Perhaps the most interesting use of scientific language comes when Dr. Baugh explains how events that would need millions or billions of years to transpire—such as the traveling of light from distant stars to Earth—can fit into a 6,000-year timeline. Pointing to Psalms 104:2, he notes that God “stretched out the Heavens,” and interprets this as God actually stretching the fabric of space-time. “Quantum mechanics and quantum physics have shown,” he says, “that if you stretch the fabric of space, you dilate time.” In this way, with Earth at the center of the universe, just “six literal solar days” might have passed there while “thousands, tens of thousands, millions, hundreds of millions, or even *billions* of years transpired”³⁰ in space. Dr. Baugh probably meant to suggest that this idea was supported by Einstein’s special relativity (which deals with the dilation of time) rather than quantum

²⁷ James Patrick Holding, “Is the *raqiya*’ (‘firmament’) a solid dome? Equivocal language in the cosmology of Genesis 1 and the Old Testament: A response to Paul H. Seely,” *Answers in Genesis*, Nov. 1999, <http://www.answersingenesis.org/tj/v13/i2/firmament.asp> (Accessed 13 Nov. 2008).

²⁸ Creation Evidence Museum and Archaeological Excavations, “Creation Model Session 2,” http://www.creationevidence.org/index.php?option=com_content&task=view&id=60&Itemid=10 (Accessed 10 Nov. 2008).

²⁹ Creation Evidence Museum, “Creation Model Session 6,” http://www.creationevidence.org/index.php?option=com_content&task=view&id=64&Itemid=10 (Accessed 19 Nov. 2008).

³⁰ Baugh, *Family Tour*, 1997.

mechanics (which deals with mechanical systems on the atomic scale). However, the principles behind quantum mechanics are so far removed from the average person's understanding, the term so overwhelming and foreign, that it may have been used—like the rest of the scientific language employed—simply to encourage the reader to trust Dr. Baugh's authority.

Baugh does not stop at using scientific language; he also continuously mentions scientists whose works supposedly support his claims. Many of the scientists he mentions are also creationists, such as Dr. Walt Brown, president of the Center for Scientific Creation; Dr. Henry Voss, acting director of the Science Research Training Program at the evangelical Taylor University; and Dr. D. Russell Humphreys, an adjunct faculty member of the Institute for Creation Research.³¹

Many of the other groups mentioned are established scientific organizations. For example, he notes (correctly) that, "UCLA laboratory experiments have demonstrated that, under certain circumstances, light is formed when sound is broadcast through water."³² Though the scientists he refers to were investigating bubbles that create a flash of a light only a tiny fraction of a second long in response to extraordinary force,³³ Baugh asserts that this explains how God may have created light on the first day of Creation merely by speaking.³⁴ He also brings up NASA's "evidence of exploding stars and chaotic masses of gaseous dust and particle units" and insists it proves that "as God stretched out the fabric of space, the distorted areas of solar bodies would be exaggerated and matured."³⁵ In both

³¹ Baugh, *Family Tour*, 1997.

³² Creation Evidence Museum, "Creation Model Session 2."

³³ Seth Putterman, "Sonoluminescence: Sound into Light," *Scientific American*, Feb. 1995, 32-7.

³⁴ Baugh, *Family Tour*, 1997.

³⁵ *Ibid.*

cases, Dr. Baugh uses the findings of these scientific organizations, meant to be understood quite differently, to make his claims seem more legitimate.

Though this model is likely to overwhelm anyone who attempts to understand it, Baugh often says things like, “*Thinkers* will recognize instantly that the first cause of limitless space must, of necessity, be infinite in extent.”³⁶ By suggesting that anyone who is a “thinker” will necessarily come to the same conclusions he has, Baugh employs a sort of bullying tactic: agree with him or be labeled mindless. This, combined with the constant use of unexplained scientific terminology, makes for a Creation Model so overwhelming that it could easily be accepted by visitors with creationist leanings and little background in science.

The Hyperbaric Biosphere

Spanning one side of the museum is a 62-foot, 92,000-pound cylindrical capsule Dr. Baugh calls a “hyperbaric biosphere”³⁷ (fig. 2). Inside this biosphere—“the world’s first,”³⁸ according to Baugh, who claims to have patents on the technology—the pre-Flood environment postulated in the museum’s “Creation Model” will be simulated. Though it is not yet online (it is currently being used for storage space), Dr. Baugh reassures visitors that its seven-foot-long predecessor has been “online for a decade”³⁹ and has produced significant experimental results.

³⁶ Creation Evidence Museum, “Creation Model Session 1.” Emphasis added.

³⁷ Baugh, *Family Tour*, 1997.

³⁸ Carl Baugh, personal interview.

³⁹ Baugh, *Family Tour*, 1997.



Fig 2: The hyperbaric biosphere. Photo: J. Duncan.

When this larger biosphere eventually does become operational, it will simulate a pre-Flood Earth that was, according to the Creation Model, 10-12% smaller than it is in the present day. Due to this diminished size, says Baugh, “the universal law of gravitation would mandate”⁴⁰ that the atmospheric pressure was approximately twice what it is today. Additionally, because the world was surrounded by a “protective firmamental canopy,” short-wave energy from stellar bodies was decreased; mid-spectral light was amplified; and the ratio of oxygen and carbon dioxide to the other elements was greater.⁴¹ Baugh insists that all of these conditions have been carefully recreated within the smaller biosphere. Unfortunately, at the time of the author’s visit this biosphere was in a “storage area” and could not be observed.⁴²

When the smaller biosphere was online, however, Dr. Baugh managed to conduct a number of “scientific experiments.”⁴³ Most important to him was providing evidence that pre-Flood Earth was capable of producing long-lived and extra-large creatures, as this would explain the Bible’s references to giants, patriarchs who lived for hundreds of years, and the

⁴⁰ Carl Baugh, Personal interview.

⁴¹ Creation Evidence Museum, “Creation Model Session 1.”

⁴² Carl Baugh, Personal interview.

⁴³ Baugh, *Family Tour*, 1997.

extremely large Paluxy “man tracks,” among others. For that reason, he placed a number of animals inside the biosphere and observed how they were affected. In each case, he claims, the creatures were able to reach their “optimal genetic expression.”⁴⁴ Baugh claims the average adult lifespan of fruit flies⁴⁵ increased threefold “in the second generation”⁴⁶ and notes that “that’s the equivalent of your living to be 200 years of age.”⁴⁷ Though this is far from the longevity of someone like Methuselah, said to have lived for 969 years, Baugh is hopeful that one day he himself might be able to reap the biosphere’s benefits. “There’s no reason why I shouldn’t live another 60 years,” he says.⁴⁸

Additionally, as Baugh shows on the looping *Family Tour* video, when a tank filled with pacu fish was placed near the biosphere, they grew three times as fast as in the wild.⁴⁹ He claims that simply being near the increased electromagnetic field created by the biosphere “cause[d] the fish to have cellular division...and to have cellular preservation at a much enhanced rate compared to their counterparts.”⁵⁰ Because the electromagnetic energy is the only additional parameter of this “controlled, scientific experiment,” Baugh feels confident that it “explains those large sizes and long lives indicated in the Creation Model.”⁵¹

Baugh also claims that he was able to “alter snake venom at the structural level...chang[ing] the expression of proteins,”⁵² simply by placing them in this context. His video, showing images from an electron microscope, illustrates how the originally gnarled-looking venom of a copperhead snake was changed to a “three-dimensionally

⁴⁴ Henry, “Footprints of Fantasy.”

⁴⁵ Past visitors describe seeing a small vial of larvae within the chamber (Henry, “Footprints of Fantasy”).

⁴⁶ Carl Baugh, Personal interview.

⁴⁷ Baugh, *Family Tour*, 1997.

⁴⁸ Henry, “Footprints of Fantasy.”

⁴⁹ Baugh, *Family Tour*, 1997.

⁵⁰ *Ibid.*

⁵¹ *Ibid.*

⁵² Baugh, *Family Tour*, 1997; Carl Baugh, Personal interview.

orchestrated,”⁵³ honeycomb shape (fig 3). This structural change, he says, transformed the venom into a “non-toxic serum,”⁵⁴ demonstrating that God’s Creation was fully non-violent before the sin of mankind was introduced to it.

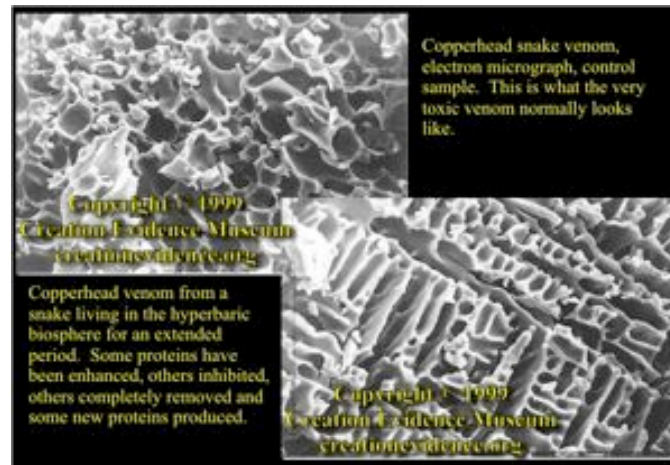


Fig. 3: This image from Dr. Baugh’s website claims that the venom of a Copperhead snake was changed at the molecular level after living in the biosphere “for an extended period.”

None of these experiments has been subjected to rigorous scientific scrutiny, as Dr. Baugh readily admits upon questioning.⁵⁵ The pacu’s incredible growth, says Steve Bailey, curator for fish at the New England Aquarium, is actually quite normal: “The pacu is the equivalent of cattle,” he says. “You can fatten these things up and get an enormous amount of growth in a short time.”⁵⁶ William Fink, director of the University of Michigan’s Museum of Zoology, agrees. He notes that “keeping the pacus warm and feeding them liberally”⁵⁷ could quite easily produce Baugh’s results. It should be noted that Dr. Baugh, while referring

⁵³ Baugh, *Family Tour*, 1997.

⁵⁴ Carl Baugh, Personal interview.

⁵⁵ *Ibid.*

⁵⁶ Quoted in Henry, “Footprints in Stone.”

⁵⁷ William L. Fink, “Re: Question about the Pacu,” email message to the author, 17 Nov. 2008. Prof. Fink also provided me with a copy of Sharma V. S. Pulela’s master’s thesis entitled “Aquaculture of Pacu and a Comparison of its Quality: Microbiological, Sensory, and Proximate Composition” (submitted to the Virginia Polytechnic Institute in February, 1997), in which it is shown that a warm environment and a high-protein diet can dramatically increase the pacu’s growth rate.

to this as a “controlled, scientific experiment,” did not have any control group of pacu against which he compared his results.

Additionally, James Hanken, Director of the Harvard Museum of Comparative Zoology and curator in herpetology, calls Baugh’s venom-to-serum claim “completely bogus.”⁵⁸ According to Hanken, the two scanning electron microscope images Dr. Baugh provides as “proof” that the protein structure of the snake venom has been altered provide almost no useful information. They lack a scale bar, making it impossible to know how big the various structures shown are, but it is clear that the scans are at such a low magnification that it would be impossible to identify particular proteins. Had these findings been published in a peer-reviewed journal, this ancillary information would be easily accessible; but no attempt at publication appears to have been made. Nevertheless, when left unquestioned, as he is in the *Family Tour* presentation, these findings are presented as fact.

Dr. Baugh makes a point of repeatedly telling every museum-goer, as well as mentioning in his promotional materials, about NASA’s involvement with the biosphere.⁵⁹ Perhaps surprisingly, this is true—to an extent. In 1995, he was invited to speak about the biosphere as part of the Goddard Space Flight Center’s Engineering Colloquium. Significantly, the Colloquium’s records list Baugh’s organizational affiliation not as the CEM but the apparently non-existent “Hyperbaric Biospheric Research Facility.”⁶⁰ According to Brent Warner, cryogenics engineer for NASA and current chair of the Engineering Colloquium Committee at Goddard, Baugh was invited by then-Committee member Mike Comberiate. Warner describes Comberiate, a committed Seventh-Day Adventist and veteran engineer for Goddard, as a “free-wheeling” scientist who was often involved in projects

⁵⁸ Jim Hanken, “Re: Snake venom claims,” email message to the author, 13 Nov. 2008.

⁵⁹ Carl Baugh, Personal interview; Baugh, *Family Tour*, 1997.

⁶⁰ Mark S. Hess, “Re: Did Carl Baugh Lecture at NASA?,” email message to the author, 10 Nov. 2008.

beyond his work at NASA. When Baugh claims to have worked with “NASA engineers,” notes Warner, he is likely referring to unofficial (i.e. non-NASA) associations with Comberiate.⁶¹ Upon questioning, Dr. Baugh confirmed that Mr. Comberiate was his “contact person” at NASA.⁶² Considering Mr. Comberiate has authored an extensive online tract called *How a Rocket Scientist Can Believe in God*—in which he laments that evolution is “taught as though it were an established fact” despite being completely “unscientific” and suffering from a “clear lack of hard evidence”⁶³—it is unsurprising that Comberiate, himself an accomplished scientist (though, significantly, not a biologist or paleontologist) would have supported a fellow creationist’s attempts to reconcile creationism with science. That Dr. Baugh emphasizes his connections with NASA—perhaps the best-known scientific organization in America—so fervently illustrates just how important he considers the acceptance of the scientific establishment.

The Paluxy “Man Tracks”

The third major element of the CEM and the one Dr. Baugh considers his most important piece of evidence are the “man tracks”: fossilized footprints, excavated from the Paluxy River, of what he claims are human beings. Though Baugh is not the first to make such a claim, he is the only creationist to dedicate such a long period of time—now over twenty-five years—to their study. He is also one of a declining few who continue to attest to their authenticity.⁶⁴

⁶¹ Brent Warner, “Carl Baugh inquiry,” email message to the author, 11 Nov. 2008. For information on Comberiate, please see NASA, “Systems Engineering Seminar,” http://ses.gsfc.nasa.gov/ses_data_2007/071106_Comberiate_Abstract.htm.

⁶² Dr. Carl Baugh, “Re: Mike Comberiate,” email to the author, 2 Dec. 2008.

⁶³ Mike Comberiate, “How a Rocket Scientist can Believe in God,” NASAMike.com, 31 Oct. 2001, <http://www.nasamike.com/main/book/4f.htm> (Accessed 11 Nov. 2008).

⁶⁴ “The Case of the Mystery Footprints: a Clear Victory for Evolutionists – ‘Man Tracks’ at Paluxy Creek in Texas,” *Discover*, Aug. 1986, accessed through FindArticles.com, http://findarticles.com/p/articles/mi_m1511/is_v7/ai_4332807 (Accessed 2 Dec. 2008).

Discovered in the first decades of the 20th century, the tracks were almost immediately understood to include both human and dinosaur footprints. However, it seems no one at that time recognized the significance of finding these tracks in the same layer of rock.⁶⁵ The tracks became better known in the 1930s when Glen Rose residents, hard-hit by the Great Depression, began cutting them out and selling them to passersby, with some even carving their own.⁶⁶

In 1939, Ronald T. Bird, a paleontologist from the American Museum of Natural History visited the Paluxy and concluded that the tracks had been made by some “hitherto unknown reptile.”⁶⁷ However, because he also referred to them as “mystery tracks,” creationists maintained that they might still be human.⁶⁸ Then, when photographs of the tracks appeared in Whitcomb and Morris’s *The Genesis Flood* (1961), the Paluxy man tracks were absorbed into creationist canon.⁶⁹ In all the excitement, dissenting voices from creationists like Berney Neufeld (who led a research team from Loma Linda University to the Paluxy in 1975 and concluded that there was simply “no verifiable evidence for the existence of bipedal man-like tracks”⁷⁰) were largely ignored.

⁶⁵ Glen Kuban, “On the Heels of Dinosaurs,” *The Paluxy Dinosaur/‘Man Track’ Controversy*, 2006, <http://paleo.cc/paluxy/onheel.htm> (Accessed 1 Dec. 2008).

⁶⁶ Roland T. Bird, “Thunder in His Footsteps,” *Natural History* (May 1939) http://www.naturalhistorymag.com/master.html?http://www.naturalhistorymag.com/editors_pick/1939_05a_pick.html (Accessed 16 Nov. 2008); Bud Kennedy, “Human Footprints along with Dinosaur Tracks?” *Fort Worth Star-Telegram*, 10 Aug. 2008, http://www.star-telegram.com/news/columnists/bud_kennedy//story/820344.html (Accessed 21 Feb. 2009).

⁶⁷ Bird, “Thunder in His Footsteps.”

⁶⁸ One of the first to do so was Clifford Burdick, a founder of the Deluge Society and member of the Creation Research Society, who in 1950 published an article claiming that the Paluxy held incontrovertible proof of man and dinosaur living contemporaneously (Hastings, “The Rise and Fall of the Paluxy Mantracks”).

⁶⁹ Kuban, “On the Heels of Dinosaurs.” Additionally, Stanley Taylor’s documentary *Footprints in Stone* (1972) was shown in creationist schools and churches across the country, further publicizing the tracks. John Morris, son of ICR founder Henry Morris, wrote the definitive creationist book on the tracks, *Tracking Those Incredible Dinosaurs—and the People Who Knew Them* in 1980.

⁷⁰ Quoted in H. Murray Lang, “Footprints in Stone and Biology Teaching,” *The American Biology Teacher* 6, no. 1 (Jan., 1984): 34.

By the time Baugh appeared on the scene in 1982, however, the tides were turning. Mainstream scientists had long denied that the tracks were human, but now many creationists were starting to agree, thanks in large part to the work of Glen Kuban. Kuban, a young creationist and avocational paleontologist, had come to the Paluxy in 1979 hoping to find clear human footprints, but years of careful study soon convinced him the footprints were dinosaurian.⁷¹ Kuban repeatedly implored creationist leaders to reconsider their position, but it was not until 1985, as he was planning to publish his findings, that John Morris of the ICR and Paul Taylor (son of Stanley Taylor, who produced the popular *Footprints in Stone* video⁷²) accepted his offer. Kuban quickly convinced them that the tracks were not human, and both men agreed to stop selling their materials preaching otherwise.⁷³ By 1986 *Discover* magazine felt comfortable proclaiming the Paluxy “a clear victory for evolutionists,”⁷⁴ noting that the lack of “man tracks” was one thing upon which both creationists and evolutionists could agree.

Despite waning support in the creationist community, Baugh held tightly to his claims. In that same year, he published the first version of what would later become his Ph.D. dissertation⁷⁵ entitled “Academic Justification for Voluntary Inclusion of Scientific Creation in Public Classroom Curricula, Supported by Evidence that Man and Dinosaurs Were Contemporary.”⁷⁶ In it, he reaffirms that the tracks were human and even claims that some

⁷¹ Kuban, “On the Heels of Dinosaurs.”

⁷² Please see footnote 69 for more information on Stanley Taylor.

⁷³ Kuban, “On the Heels of Dinosaurs.” Morris even published a retraction of his earlier claims in ICR’s newsletter, *Impact*, though he was careful to attribute his mistake to the fact that the tracks looked completely different in 1976, that they were now much clearer due to “erosion,” and that they had now taken on “a completely different character.” John Morris, “The Paluxy River Mystery,” *Impact* (1 Jan. 1986).

⁷⁴ “The Case of the Mystery Footprints: a Clear Victory for Evolutionists – ‘Man Tracks’ at Paluxy Creek in Texas.” *Discover* (Aug. 1986), accessed through FindArticles.com, http://findarticles.com/p/articles/mi_m1511/is_v7/ai_4332807 (Accessed 2 Dec. 2008).

⁷⁵ The validity of this degree has been questioned, as will be discussed later.

⁷⁶ Dr. Carl Baugh, “Academic Justification for Voluntary Inclusion of Scientific Creation in Public Classroom Curricula, Supported by Evidence that Man and Dinosaurs Were Contemporary” (Fall 1989), <http://75.125.60.6/~creatio1/carlbaugh.htm> (Accessed 2 Dec. 2008).

of the tracks are so finely formed that one may tell male from female, child from adult (fig. 4).⁷⁷

TRACK	WIDTH/LENGTH INDEX	HEEL W/TOT. L INDEX
Bauanthropus	37.5	26.6
Clark	35.7	30.3
Sir George	36.9	28.2
Beverly	35.8	25.6
Becky (child)	44.0	34.0
Max (giant)	37.5	28.2

Fig. 4: a chart from Baugh's dissertation showing the "indices" he used to determine the age and sex of the people who left the footprints. What is especially interesting about this chart is that it appears that, with these indices, Baugh is using a method developed by the anatomist Laurie Godfrey, who came to the Paluxy, studied the tracks, and decided they were *not* human. Please see her "Foot Notes of an Anatomist," *Creation/Evolution*, vol. 5, no. 1 (Winter 1985), 16-36.

Like others had, Baugh maintains that the unusually large tracks were formed by giants. Humans, like other creatures of the past, were able to grow much larger under the utopian, pre-Flood conditions:

Giant lizards—dinosaurs—would themselves have been laughed out of court in times gone by, but they are now accepted without question. The Bible said there were giants in the earth in ancient times and giants there were, as well as huge lizards. Another point is that paleontologists often report giant-size specimens, several times larger than these modern counterparts. Why not the same with humans?⁷⁸

To support his conclusions, Dr. Baugh insists that there is "considerable evidence to show that dinosaurs and human footprints have been found together by earlier excavators," citing the work of Roland T. Bird (who never considered the prints human), John Morris (who by

⁷⁷ Baugh, "Academic Justification," 179.

⁷⁸ *Ibid.*, 161.

this time had issued a retraction), and the late Stanley Taylor (whose son recanted for him), among others.⁷⁹

Most of the tracks Baugh owns are on display along the museum's right wall. Some have been removed from their original location along the Paluxy, and some, such as the "Zapata footprint" (fig. 5), were imported from other parts of the world. Still others are casts of prints that remain in situ, such as one supposedly "excavated by Mary Leakey in Kenya East Africa."⁸⁰ Compared to the dinosaur tracks found in Dinosaur Valley State Park, most of these "man tracks" are abnormally well defined: each of the five toes is clearly separated from the others, and the outline of the sole is undisturbed (figs. 5 and 6). The

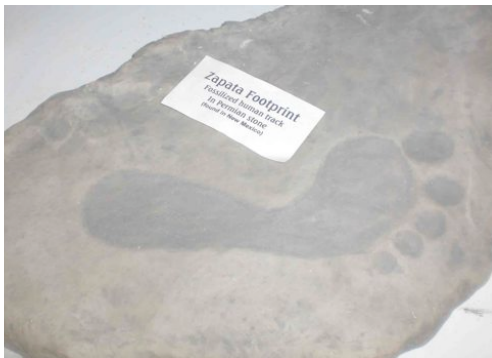


Fig. 5: a "human" footprint in Permian rock in New Mexico. Photo: J. Duncan.



Fig. 6: The "Burdick print," which Baugh considers a "pristine"⁸¹ specimen. Photo: J. Duncan.

tracks known (both by Baugh and by mainstream scientists) to be dinosaurian, on the other hand, are much more poorly defined (fig. 7), due to the fact that tracks made in soft, wet sediment are often obscured by mud flowing back into them.⁸²

⁷⁹ Baugh, *Academic Justification*, 158.

⁸⁰ From the display, "Zapata Footprint," Creation Evidence Museum.

⁸¹ Creation Evidence Museum and Archaeological Excavations, "The Burdick Track," http://75.125.60.6/~creatio1/index.php?option=com_content&task=view&id=27 (Accessed 2 Dec. 2008).

⁸² Laurie R. Godfrey, "Foot Notes of an Anatomist," *Creation/Evolution* 5, no. 1 (Winter 1985): 17.



Fig 7: A dinosaur track with partial metatarsal impression. Compare the track's indefinite boundaries to the boundaries of the Zapata or Burdick print. Photo courtesy of Glen Kuban, c. 1982.

Recall that the original prints publicized by Bird and claimed by some to be “man tracks” were sufficiently indistinct to be called “mystery tracks” even by evolutionists. Only after years of study was Kuban able to explain how a dinosaur might have made them. Had these scientists seen the clearly formed, human-like tracks pictured above *in situ*, the mystery would have been how they got there, not whether a “hitherto unknown” dinosaur had made them. This apparent discrepancy is explained by the fact that the man tracks on display in the CEM are *not* the same ones that initially sparked the controversy. Rather, they were discovered and excavated by Baugh himself.⁸³ If indeed the tracks are forgeries, it seems that both the carver and Dr. Baugh believed that the more clearly defined a footprint was, the more authentic (and human) it would appear. For paleontologists, it seems, quite the opposite is true, since fossilized prints tend to be poorly defined. But laymen unfamiliar with the process of track formation—such as those visiting the CEM—would more easily believe that a well-defined footprint was made by a human.

This is not to say that Baugh’s man tracks are “too perfect,” however. Laurie Godfrey, an anthropologist at the University of Massachusetts, Amherst, noted that the “Burdick print” (fig. 6) and the other supposed man tracks, despite being clearly defined, “exhibit a

⁸³ Carl Baugh, Personal interview.

suite of anatomical errors...are poor representations of the modern human footprint, even poorer representations of what a *giant* footprint might look like, and especially bad representations of what such footprints *made in soft mud* might look like.”⁸⁴ Not only are the tracks suspiciously well defined, then, but they are also anatomically incorrect. Once again, however, visitors untrained in anatomy would be unlikely to notice these discrepancies.

It ought also be noted that no piece of rock on display contains more than one footprint. Instead, there are many small rock segments, each around four square feet in size, that contain just one footprint. Considering that the Paluxy is famous for its extensive series of tracks (fig. 8), it seems strange that Baugh would not have found a set of man tracks more than one footprint long. By presenting numerous slabs with one footprint on them, however, Baugh creates the impression that the area is littered with such tracks.



Fig. 8: The Taylor site, Paluxy riverbed. The Taylor Site contains several trackways of largely infilled, metatarsal dinosaur footprints once considered human by many creationists, and a trail of deeper, more typical digitigrade dinosaur tracks. Photo and caption courtesy of Glen Kuban, c. 1984.

There are almost no labels accompanying the tracks—or just about anything else in the museum. Instead, specimens are simply lined up along the wall or placed inside a display case with an assortment of other objects (fig. 9). Reminiscent more of the *wunderkammer* of old

⁸⁴ Godfrey, “Footnotes,” 22.

than of today's well laid-out and extensively labeled natural history museums, little attention is paid to the objects' organization or classification. By neglecting to label his specimens,



Fig. 9: No less than 19 different objects are contained in this section of a single display case. Aside from the ancient shark tooth on the right and a misplaced label with the words “Tyrannosaurus tooth,” none of the objects is identified. Photo: J. Duncan.

Baugh suggests that the items *speak for themselves*. With specimens such as the one pictured below (fig. 10), perhaps no explanation is needed: a human footprint overlays a dinosaur footprint, so clearly the two species were at some point contemporaneous. It is more

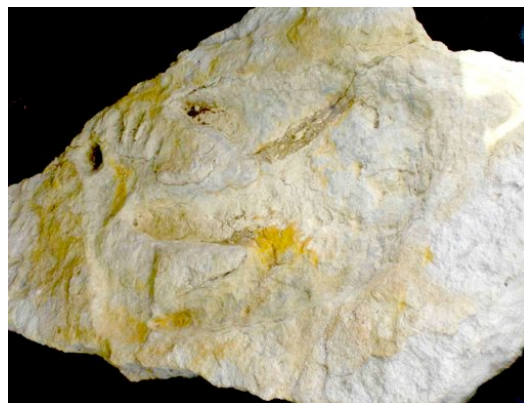


Fig. 10: One of Baugh's latest acquisitions showing a human's right footprint overlaying an *Acrocanthosaurus* print. Note the flat-footedness and the strangely misplaced big toe. Photo: J. Duncan.

difficult to understand why a *Megalodon* tooth, a fossil of one fish eating another, or dinosaur eggs, *in and of themselves*, would serve as incontrovertible evidence of a recent creation.

Indeed, mainstream scientists would argue that they serve much more effectively as proof of evolution. Nevertheless, the dearth of labels seems to transform these objects into pieces of evidence for creationism so convincing that they require no explanation.

An Authoritative Leader

Though the Creation Model, the Hyperbaric Biosphere and the man tracks are the three most significant displays in the CEM, they would mean next to nothing—particularly without labels explaining them—without Carl Baugh himself. Not only does he possess a deep, trust-inducing voice (one reporter complimented his “smooth, modulated tones”⁸⁵), but he also has the charm and knowledge to keep an audience captivated for hours.

Just as importantly, however, Baugh is supposed to be an expert in his field, and his legitimacy or lack thereof is naturally projected onto his museum. On the CEM website, Baugh claims to hold a Ph.D. in Theology from Louisiana Baptist University, a master’s degree and a Ph.D. in “Philosophy in Education” from Pacific College of Graduate Studies, and a B.A. from Burton College.⁸⁶ However, all of these degrees were given by unaccredited schools,⁸⁷ some by correspondence.⁸⁸ Once again, though, visitors with neither the time nor the inclination to investigate these schools are left with the impression that Baugh is a

⁸⁵ Henry, “Footprints of Fantasy.”

⁸⁶ Creation Evidence Museum and Archaeological Excavations, “Dr. Baugh’s Bio,” http://75.125.60.6/~creatio1/index.php?option=com_content&task=view&id=47&Itemid=21 (Accessed 21 Feb. 2009).

⁸⁷ Louisiana Baptist College, “Academics and Vision,” <http://www.lbu.edu/academics.htm> (Accessed 21 Feb. 2009). Louisiana Baptist is “widely regarded as a diploma mill” (Bill Butler, as quoted in Glen Kuban’s “A Matter of Degree: An Examination of Carl Baugh’s Alleged Credentials,” <http://paleo.cc/paluxy/degrees.htm>, [Accessed 21 Feb. 2009]). According to Kuban, “Pacific College Incorporated (a.k.a. Pacific College of Graduate Studies and Pacific International University), from which Baugh claims a master’s degree in archaeology, traces to a small, private, religious school in Australia, whose president is Clifford Wilson. Ian Plimer, a member of the Australian Research Council and professor of geology at Newcastle University, reported that PCI is not accredited or authorized to grant degrees. Plimer stated, ‘Any degrees from this ‘College’ are illegal in Australia and are clearly being used fraudulently in the U.S.A’” (“A Matter of Degree.”). The *Baptist Program* magazine called Burton College called Burton College “a degree mill” (News Service of the Southern Baptist Convention, “Magazine Lists Known U.S. Diploma Mills,” 1963, media.sbhla.org.s3.amazonaws.com/1808,25-Oct-1963.pdf (accessed 2 Mar. 2009).

⁸⁸ Kuban, “A Matter of Degree.”

properly credentialed scientist. Undoubtedly, Baugh's decision to flaunt these degrees despite their dubious origins indicates that he recognizes how important credentials are to the academic and scientific world. They are, therefore, just one part of Baugh's larger quest to be considered a serious, contributing member of the scientific community.

CHAPTER II

DINOSAUR ADVENTURE LAND

“So we use dinosaurs, I guess, to draw the kids in, to be able to talk to them. You may want to have a ‘Dino Night’ at your church or in your front yard...where you invite the neighbor kids in and say, ‘We’re gonna have dinosaur cookies...dinosaur Kool-aid, dinosaur burgers, everything becomes dinosaurs...”

—Kent Hovind, founder of Dinosaur Adventure Land¹

Disney World, Busch Gardens, Sea World, Universal Studios—perhaps no state is more strongly associated with amusement parks than Florida. Relatively few people outside the creationist community know, however, that the state is also home to a creationist theme park called Dinosaur Adventure Land (DAL), billed as the place “where dinosaurs and the Bible meet.”² Opened in 2001, the seven-acre, safari-themed park is located in the western extreme of the Florida panhandle, just minutes from the Alabama border. As its tour guides are quick to point out, though, “DAL is not an amusement park, for ‘amuse’ means ‘to not think,’ and we want people to think. Rather, it is an amazement park. Come and stand amazed at the truths of the Creator and Savior of the world, Jesus Christ.”³

DAL was founded by and constructed in the backyard of young-Earth creationist Dr. Kent Hovind. In 1989, Hovind had founded Creation Science Evangelism (CSE), a creationist ministry, and it was under the auspices of this organization—located on the same property—that DAL was built.⁴ According to Hovind, CSE’s mission is to demonstrate “the perfect harmony of the Biblical record with factual science and history” as well as “the

¹ Dr. Kent Hovind, *Ideas for Starting a Creation Ministry*, audio CD (Pensacola, FL: Creation Science Evangelism, 2006).

² *Dinosaur Adventure Land promotional video*, VHS (Pensacola, FL: Creation Science Evangelism, n.d.).

³ Creation Science Evangelism, “About DAL: Dinosaur Adventure Land,” <http://www.dinosauradventureland.com/aboutDAL.php> (Accessed 19 Feb. 2009).

⁴ DAL Staff, “About Dinosaur Adventure Land,” Creation Science Evangelism, <http://drdino.com/articles.php?spec=70> (Accessed 26 Dec. 2008).

fallacies and deceptions of modern evolutionary thinking.”⁵ In order to understand this creationist theme park, it is necessary first to understand just who Kent Hovind is and what CSE does.

Kent Hovind: The Face of CSE

According to Dr. Hovind, it was while still a high school student in Peoria, Illinois, that he “accepted Jesus Christ as [his] personal Savior.”⁶ Immediately thereafter he decided “to serve Christ with his life.”⁷ Hovind attended Illinois Central College for two years “as a science major” but transferred to Midwestern Baptist College in Michigan (an unaccredited institution⁸) when he “felt God calling him to full-time Christian service.”⁹ It was there that Hovind obtained a bachelor’s degree in religious education in 1974. Then, according to the CSE website, Hovind “taught high school math and science” and simultaneously completed his “master’s degree in education.”¹⁰ Finally, he obtained a “Ph.D. in education,” his dissertation research having proven to him that “evolution [is] a dangerous, religious world-view” and that he must “arm Christians with scientific evidence that there are no contradictions between true science and the Bible.”¹¹

Hovind is very proud of his teaching experience and degrees, especially his Ph.D. Not only does he list himself in the phone book as “Dr. Hovind” (something few Doctors

⁵ Dr. Kent Hovind, “About Creation Science Evangelism,” Creation Science Evangelism, <http://www.drdino.com/articles.php?spec=68> (Accessed 26 Dec. 2008).

⁶ CSE Staff, “About Dr. Kent Hovind,” Creation Science Evangelism, <http://drdino.com/articles.php?spec=71> (Accessed 26 Dec. 2008).

⁷ *Ibid.*

⁸ U.S. Department of Education, “Institutional Accreditation System Search Results: Midwestern Baptist College,” <http://ope.ed.gov/accreditation/SearchResult.aspx?6d6f64653d5365617263684279496e737469747574696f6e267264743d31322f32362f3230303820353a31383a343520504d> (Accessed 26 Dec. 2008).

⁹ CSE Staff, “About Dr. Kent Hovind.”

¹⁰ *Ibid.*

¹¹ *Ibid.*

of Philosophy do),¹² but on CSE's website he is referred to as "Dr. Dino."¹³ And when introducing himself before a lecture or debate, he always reminds listeners that he "taught high school science for fifteen years."¹⁴ All this creates an image of Hovind as an authority with advanced degrees not only in education but also in science. What Hovind seldom acknowledges, however, is that his teaching experience is from a creationist school he started (and for which he needed no accredited degree to teach).¹⁵ Furthermore, both his master's degree and Ph.D. were granted by the unaccredited Patriot University (now Patriot Bible College) through correspondence courses.¹⁶ Dr. Hovind explains that his full-time evangelism kept him too busy for normal coursework and that the classes he took were on par with correspondence courses offered by "hundreds of [other] colleges and universities,"¹⁷ but evidence suggests that Patriot Bible College was and is little more than a pay-per-degree diploma mill (fig. 1).¹⁸ Furthermore, the degrees were in "*Christian* education," not simply education.¹⁹ Though Hovind admits that Patriot University has since

¹² Karen E. Bartelt, "The Dissertation Kent Hovind Doesn't Want You to Read: A Review of Kent Hovind's Thesis," No Answers in Genesis, http://www.noanswersingenesis.org.au/bartelt_dissertation_on_hovind_thesis.htm (Accessed 24 Dec. 2008).

¹³ Creation Science Evangelism, www.drdino.com (Accessed 26 Dec. 2008); Abby Goodnough, "Darwin-Free Fun for Creationists," *The New York Times*, 1 May 2004, <http://query.nytimes.com/gst/fullpage.html?res=9403EFDB153DF932A35756C0A9629C8B63&sec=&spon=&pagewanted=print> (Accessed 29 Dec. 2008).

¹⁴ Dr. Kent Hovind, *The Dangers of Evolution*, DVD (Pensacola, FL: Creation Science Evangelism, 2002).

¹⁵ Circuit Court of Escambia County, "Affidavit of Dr. Kent E. Hovind," Public Records, Book 5704, p. 878, Instrument 2005406964, <http://public.escambiaclerk.com/home/index.html>, (Accessed 6 Jan. 2009).

¹⁶ Dr. Kent Hovind, "Where'd You Get Your Degree?" Creation Science Evangelism <http://web.archive.org/web/20010816220051/www.drdino.com/FAQs/FAQmisc13.jsp> (Accessed 26 Dec. 2008).

¹⁷ *Ibid.*

¹⁸ Steve Levicoff, *Name It and Frame It?: New Opportunities in Adult Education and How to Avoid Being Ripped Off by "Christian" Degree Mills*, 4th ed. (Ambler, PA: Institute on Religion and Law, 1995), ch. 12.

¹⁹ Italics mine. Patriot Bible University does not fall into one of Colorado's five categories of degree-granting institutions. Rather, it is recognized as a "Bible/Seminary" and therefore may "only offer programs appropriate to a religious institution" (Colorado Dept. of Higher Education, "List of Private Accredited Institutions," <http://higher.ed.colorado.gov/Academics/Colleges/privateaccredited.asp> [Accessed 5 Jan. 2009]). The University itself states on its website that it "do[es] not exist to...grant secular degrees" (Patriot Bible University, "Accreditation," <http://www.patriotuniversity.org/index.php?mod=Articles&menuid=67> [Accessed 5 Jan. 2009]).

Graduate Course Catalog Descriptions & Ordering

Each graduate course offers three credits, and is designed to be completed within 3-6 weeks.

OLD TESTAMENT	Plan A	NEW TESTAMENT	Plan A
* click the course number to view the course description and pricing information			
OT 601-Wisdom from Proverbs (Enrolled Student Price=\$58)	Buy Now	NT 501-Directed New Testament Study I (Enrolled Student Price=\$36)	Buy Now

Fig. 1: Part of the course catalog from the Patriot Bible University graduate program. Note that each course can be bought online and “is designed to be completed in 3-6 weeks.”

changed its Ph.D. in Education to a “Doctor of Ministry” degree because “the State of Colorado asked them...to emphasize the religious nature of their institution,”²⁰ the term Christian is consistently removed from CSE publications about his credentials.²¹ Nevertheless, Hovind rejects any questioning about the representation of his degrees as “ad hominem attacks” that are “an obvious signal to all that [evolutionists] are losing the debate on facts and must resort to other means to try to save face or divert attention.”²²

Creation Science Evangelism

Hovind founded Creation Science Evangelism in 1989 and traveled the country evangelizing under its auspices until his imprisonment in January of 2007 for fifty-eight tax-related offenses.²³ One of Hovind’s sons, Eric, has taken over his ministry in his absence.²⁴

²⁰ Dr. Kent Hovind, “Where’d You Get Your Degree?” Creation Science Evangelism, <http://web.archive.org/web/20010816220051/www.drino.com/FAQs/FAQmisc13.jsp> (Accessed 26 Dec. 2008).

²¹ At the beginning of his DVDs (see *The Dangers of Evolution* (2002), for example), Hovind says he “taught high school science for fifteen years”; the CSE website says the same in its biography of him (“About Dr. Kent Hovind,” <http://drino.com/articles.php?spec=71> [Accessed 25 Dec. 2009]), as does he in his book *Are You Being Brainwashed? : Propaganda in the Science Textbooks* (Pensacola, FL: Creation Science Evangelism, 2007), 3; on *Creation Science Hour* on 12 Dec. 2003, Hovind said, “I’ve taught high school science fifteen years. Got a Ph.D. in education”; and he apparently told a *New York Times Reporter* that he was a “public school teacher” for fifteen years (Goodnough, “Darwin-Free Fun for Creationists”).

²² Dr. Kent Hovind, “Where’d You Get Your Degree?”

²³ Angela Fail, “Evangelist’s trial begins: Dinosaur Adventure Land owner, wife face 58 counts of tax fraud,” *Pensacola News Journal*, 18 Oct. 2006, <http://nl.newsbank.com/nl-search/we/Archives> (Accessed 28 July 2008).

²⁴ Eric Hovind, “New Mission Field for Dr. Hovind,” Creation Science Evangelism Blog <http://www.cseblogs.com/?p=62> (Accessed 12 Dec. 2008).

CSE's three goals are "to strengthen your faith in the...infallible, inspired word of the living God," to help those who are not "saved" to develop a "personal relationship" with Jesus, and to make those who *are* saved "uncomfortable"—because "[t]here is a war going on, [and] we all need to get busy."²⁵ Before his imprisonment, Hovind spoke on these subjects more than 800 times per year at schools, debates, and on his radio show.²⁶

CSE's evangelism spans multiple media. Its attractive website, DrDino.com (fig. 2), contains scores of articles under headings such as "Cryptozoology," "Creation in Common Sense," and "Things That Make Evolutionists Look Stupid."²⁷ An "Itinerary" page lists Eric Hovind's upcoming speaking engagements.²⁸ Another details "Dr. Hovind's \$250,000 Offer" for "any empirical evidence (scientific proof)" for evolution.²⁹ And the "Links" page directs visitors to over fifty other websites about creationism and some of Dr. Hovind's other interests, including conspiracy theories, anti-vaccination movements, homeschooling, and methods of converting Catholics to creationism.³⁰ The site also contains an online store

²⁵ Dr. Kent Hovind, "About Creation Science Evangelism."

²⁶ Hovind, *Are You Being Brainwashed?*, 3; To the affidavit he presented to the clerk of the Circuit Court of Escambia County, FL, Hovind attached a list of four hundred speaking engagements (many of them encompassing multiple talks over multiple days) he had had or was booked to do from 2004-2006 (Circuit Court of Escambia County, "Affidavit of Dr. Kent E. Hovind").

²⁷ Creation Science Evangelism, "Articles," <http://drdino.com/articles.php> (Accessed 3 Jan. 2009). As its name suggests, "Things that Make Evolutionists Look Stupid" is a rather mean-spirited series. Says the article on arrowheads, for example: "Since most, if not all of these alleged styles are found all over the world, they come up with *the idiotic assumption* that they represent different ages in the physical and intellectual evolution of mankind (emphasis added)" (John Hinton, "TTMELS: Arrowheads, Things That Make Evolutionists Look Stupid," Creation Science Evangelism, <http://www.drdino.com/read-article.php?id=95> [Accessed 12 Dec. 2008]).

²⁸ Creation Science Evangelism, "Itinerary," <http://www.drdino.com/itinerary.php> (Accessed 3 Jan. 2009).

²⁹ Dr. Kent Hovind, "Dr. Hovind's \$250,000 Offer," Creation Science Evangelism http://web.archive.org/web/20080213005551rn_1/www.drdino.com/articles.php?spec=67?pg=articles&specif=15 (Accessed 14 Dec. 2008). Hovind is by no means the first creationist to make such an offer. George McCready Price offered \$1,000 in 1906 "to any one who will...show me how to prove that one kind of fossil is older than another," and around the same Harry Rimmer offered \$100 to anyone who could point out a scientific error in Scripture. These offers reportedly never cost the men any money (Numbers, "Creationism in 20th Century America," *Science* (new series) 218, no. 4572 [5 Nov. 1982]: 539). Neither has Hovind ever paid up, despite attempts by evolutionists to claim the prize. Please see, for example, Carl Marychurch's "Ron Raybourne Accepts Hovind's Challenge," Kent-Hovind.com, <http://www.kent-hovind.com/250K/ron.htm>, (Accessed 20 Feb. 2009).

³⁰ Creation Science Evangelism, "Links," <http://www.drdino.com/drdinoLinks.php> (Accessed 3 Jan. 2009).

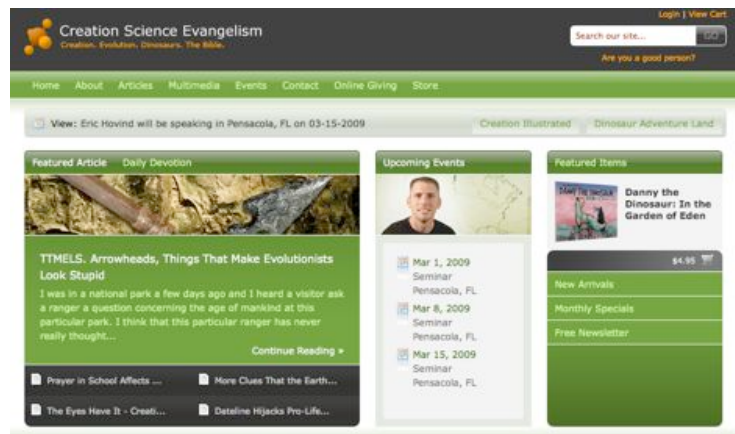


Fig. 2: The homepage of the CSE website on 23 Feb. 2009.

where visitors can purchase Dr. Hovind’s books and DVDs, along with materials from other organizations such as the Institute for Creation Research and Answers in Genesis. The materials are organized into categories such as “End Times,” “Debate,” and “Children.” The “College Courses” category consists of two, five-DVD and 1-CD-ROM packages called “Creation Science Evangelism 101” and “102,” both produced by Hovind himself. Hovind insists that interested persons may obtain college credit upon satisfactory completion of the course: simply “send in a completed enrollment form with a \$25 registration fee per person,” along with a “750-word written synopsis” on one of six creationist books,³¹ and CSE will send back a certificate of completion which may then be presented to a university for credit.³² At the bottom of every page, visitors are reminded that CSE, “[w]ith over 30 years of research in Biology, Anatomy, Physical Science, Mathematics, Earth Science and many other sciences,” is “a trusted source of information in the creation versus evolution

³¹ The books from which students can choose are Henry M. Morris’s *Scientific Creationism* (Green Forest: Master Books, 1974), John D. Morris’s *The Young Earth* (Green Forest: Master Books, 1994), Dr. Carl Baugh’s *Panorama of Creation* (Bethany: Bible Belt Publishers, 2007), Martin Lubenow’s *Bones of Contention* (Grand Rapids: Baker Book House, 2004), Jack Cuozzo’s *Buried Alive* (Green Forest: Master Books: 1999), and Bill Cooper’s *After the Flood* (Temecula: New Wine Ministries, 1995).

³² Creation Science Evangelism, “CS101 College Course,” http://shopping.drdino.com/product-exec/product_id/375/nm/CS101_College_Course/category_id/84 (Accessed 3 Jan. 2009).

debate.”³³ As no one on the CSE staff holds an advanced degree in science, however, it is unclear to whom these thirty years of experience belong.

In June of 2003, Hovind began hosting an hour-long internet radio show called *Creation Science Hour*.³⁴ Broadcast every weekday for over three years (until a few days before Hovind’s imprisonment) on Truth Radio—an ultraconservative internet radio station whose focus is government conspiracies³⁵—the show allowed listeners to call in and ask questions or debate Hovind on creationism. Dr. Hovind also prepared numerous “two-minute snippets” answering common questions about creationism that he sent to “radio stations all around the world who [would] then play them for free.”³⁶

The centerpiece of the ministry, however, is Hovind’s seventeen-hour Creation Seminar Series (fig. 3). Divided over eight DVDs with titles like *The Dangers of Evolution* and *Lies in the Textbooks*, each Seminar was filmed before a live audience and stars Dr. Hovind, who lectures with the help of extensive PowerPoint presentations. On a CD called *Ideas for Starting a Creation Ministry*, Hovind remarks that having these PowerPoint presentations and colorful posters is essential: “It kind of adds credibility when you say something and then you can say, ‘Oh, it’s right here on the red poster’...And there’s just no questioning then of your sources.”³⁷ Indeed, most of Hovind’s slides are accompanied by a citation. However, the majority of the sources cited are fellow creationists; those that are not are generally misinterpreted or taken out of context.³⁸ Nevertheless, for the great majority of listeners who

³³ Creation Science Evangelism, <http://drdino.com>, (Accessed 2 Jan. 2009).

³⁴ An incomplete archive (starting in January of 2004) of these episodes is located at Free Bible Resources, <http://www.3bible.com/kenthovind.php/> (Accessed 3 Jan. 2009).

³⁵ For example, the station’s website has information and photos of the “Amero,” the new currency it claims “will be issued for the non-nation conglomeration of ‘Canada-UnitedStates-Mexico’ after the borders between those countries have been erased” (Truth Radio, <http://truthradio.com/index.php> [Accessed 3 Jan. 2009]).

³⁶ Dr. Kent Hovind, *Ideas for Starting a Creation Ministry*, 2006.

³⁷ Dr. Kent Hovind, *Ideas for Starting a Creation Ministry*, 2006.

³⁸ For example, in his *100 Reasons Why Evolution is So Stupid*, DVD (Pensacola, FL: Creation Science Evangelism, 2003), Hovind quotes Stephen Gould as saying, “The absence of fossil evidence for intermediary

have neither the time nor the inclination to check Hovind's sources, these citations make his presentation seem well researched and credible.



Fig. 3: Hovind's Creation Seminar series, for sale on the CSE website.

Throughout the Seminar Series, Hovind expounds upon four main ideas: first, that evolution is not science but religion, and a dangerous religion at that; second, that because evolution is a religion it is a violation of the Establishment Clause of the First Amendment to teach it in public schools; third, that Christians are being silenced by an elitist, atheist minority; and fourth, that there is a war being waged between creationism and evolutionism. It is the material covered in these lectures that Hovind presents in a more kid-friendly, visual form in Dinosaur Adventure Land.

Dinosaur Adventure Land

Dr. Hovind opened Dinosaur Adventure Land (DAL) in October of 2001 with the explicit purpose of counteracting “the constant propaganda being spread about evolution

stages...has been a persistent and nagging problem for...evolution.” Those familiar with Gould's work will recognize that he is arguing against gradualism and for punctuated equilibrium. He is not arguing against evolution itself or suggesting that there is not ample fossil evidence; he is simply proposing a different way in which it evolution has taken place. In the next paragraph, Gould explains that he “envisage[s] a saltatorial origin for the essential features of key adaptations” (Stephen Jay Gould, “Is a new and general theory of evolution emerging?” *Paleobiology* 6, no.1 [Jan. 1980], 126-127), but someone unfamiliar with Gould could be easily led to believe that he doubted evolution altogether.

through nearly all public[,] state-funded science centers and museums.”³⁹ The park is divided into three main sections: the Creation Museum, with a life-size *T-Rex* head bursting through its front; the three-story “Hands-on Science Center”; and the outdoor Theme Park. However, the Creation Museum and Science Center were closed by the government in 2006 due to Hovind’s refusal to obtain the proper building permit.⁴⁰ Visitor, beware: no mention of these closings is made on the DAL website.

Upon entering DAL, visitors first walk through a one-room mini-museum. If the Creation Evidence Museum suffered from a dearth of signage, DAL suffers from quite the opposite: just about every one of Hovind’s favorite pieces of evidence for creation—along with lengthy descriptions—makes an appearance in this cluttered room.

Like Dr. Baugh, Hovind believes that dinosaurs and humans lived—and probably are still living—contemporaneously. For proof, Hovind provides Ica Stones (rocks showing scenes of men with dinosaurs, supposedly carved by the Ica people of Peru), a picture of the Ishtar Gate (which Hovind claims contains “reliefs of dinosaurs”⁴¹), and a grainy photo of Japanese fishermen with a plesiosaur carcass, among many other anecdotal evidences. An entire wall is covered with drawings of sauropods said to live in the Congo, pictures of clay figurines from Mexico in the shape of dinosaurs, and photos of the Paluxy man tracks (fig. 4). Next to this wall is a diorama showing ancient (perhaps Roman) people riding dinosaurs.

³⁹ DAL Staff, “About Dinosaur Adventure Land,” Creation Science Evangelism <http://www.drdino.com/articles.php?spec=70> (Accessed 26 Dec. 2008).

⁴⁰ William Rabb, “Park could face extinction: Lack of building permits closes dinosaur museum,” *Pensacola News Journal*, 7 Apr. 2006, <http://nl.newsbank.com/nl-search/we/Archives> (Accessed 11 July 2008).

⁴¹ From the label “The Ishtar Gate,” Dinosaur Adventure Land.



Fig. 4: A wall in the DAL mini-museum covered with anecdotal information about extant dinosaurs. Photo: J. Duncan.

The accompanying label insists that “some of [these ancient peoples’] drawings are so accurate that it is clear they knew things about dinosaurs we are just now finding out.” The message here is not only that humans and dinosaurs were contemporaries but also that *eyewitness reports can and should be trusted over geological evidence*. Undoubtedly, this lesson is meant to be applied more broadly to suggest that the Bible’s “eyewitness accounts” should be trusted over any contradictory physical evidence.

As evidence that the Earth cannot be millions of years old, DAL displays a number of objects supposedly fossilized in less than a century. Among these are a pickle, a crayon, and a rose. Replicas of man-made items wedged into coal—such as a miner’s hammer and an iron pot⁴²—are accompanied by photos of polystrate⁴³ fossils. All these are said to demonstrate that the layers of the geologic column have no correlation with the passage of time.⁴⁴ As Dr. Hovind says in *Dangers of Evolution*, “[the geologic column] was made up by

⁴² The originals of both of these items are in the Creation Evidence Museum.

⁴³ A polystrate fossil is one that runs through more than one geological stratum, e.g. a piece of petrified wood that has one end in the Cretaceous but the other in the Tertiary. Creationists such as Hovind and Baugh argue that it would be impossible for polystrate fossils to form if the geologic column represented millions or billions of years.

⁴⁴ In fact, it is possible for rock from ancient strata to dissolve and reform around a modern-day object. Please see Glen Kuban’s “The London Hammer: An Alleged Out-of-Place Artifact,” *The Paluxy Dinosaur/ ‘Man Track’ Controversy*, <http://paleo.cc/paluxy/hammer.htm> (Accessed 20 Feb. 2009). Polystrate tree fossils, too, can be easily explained by major fault movements, floods, and regeneration after burial. See, for example, John Nelson

Charles Lyell in 1830 and...does not exist anywhere in the world...[A]ll of evolution theory is based on that geologic column that doesn't exist.” Some of the labels, such as the one accompanying the crayon, are printed in a font mimicking a child's scrawl and “signed” by the children who found them, suggesting that even children can recognize the flaws in the evolutionary timescale (fig. 5).⁴⁵ Accordingly, the toy dinosaurs for sale in the gift shop have had the information about when they were alive—which presumably originally said things like “150 million years ago”—carefully blotted out with permanent marker (fig. 6).

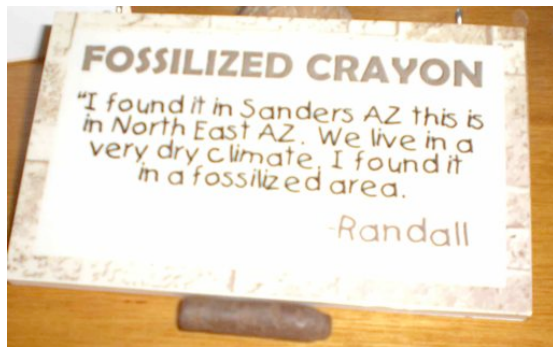


Fig. 5: “Randall” found this “fossilized crayon.”
Photo: J. Duncan.



Fig. 6: This description of a Stegosaurus has had the “When:” information blotted out.⁴⁶
Photo: J. Duncan.

Also crowding the small room are large poster boards, many of them reaching from ceiling to floor, synopsizing the Creation Seminar Series. The display labeled “The Dangers of Evolution,” for example, contains dozens of the pictures and quotes Hovind uses in the DVD of the same name to connect evolutionary theory with Nazism, communism, racism, and abortion. That DVD is attached to the display, reminding visitors that they can buy it in the gift shop (fig. 7).

and Scott Elrick's “A 300 Million Year Old Age Mire Forest,” Illinois State Geological Survey, 12 Jan. 2009, <http://www.isgs.uiuc.edu/research/coal/fossil-forest/fossil-forest.shtml> (Accessed 22 Feb. 2009).

⁴⁵ This idea is reminiscent of Baugh's claim that “thinkers” will immediately agree with him.

⁴⁶ At the Answers in Genesis Museum (discussed in Ch. IV), the dates are not crossed out. Rather, the geological ages are associated with different times. For example, according to the label “*Heterodontosaurus*,” the Jurassic took place around 2348 B.C.

In another corner, a multi-panel display called “Lies in the Textbooks” employs the same techniques. Images from the slideshow Hovind uses on his DVD—mostly excerpts from popular biology textbooks with the word “LIE” stamped over them in red ink—are interposed between short quotes from creationists and scientists that cast doubt on

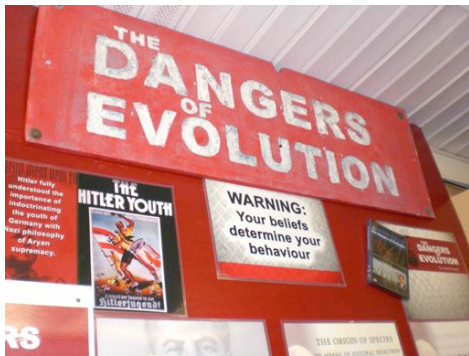


Fig. 7: This display uses the information presented in Hovind’s “The Dangers of Evolution” DVD, which can be seen in the bottom right corner. Photo: J. Duncan.



Fig. 8: These walls are covered with examples of “lies in the textbooks.” Photo: J. Duncan.

evolutionary theory. These displays are so crowded (fig. 8) that it seems science textbooks are riddled with “lies.” In the center of one board (fig. 9), surrounded by a number of quotes from *Scientific American* and Stephen Jay Gould about the apparent dearth of transitional fossils, is this quote—printed in a larger font—from a man named Tom Willis: “[S]imilar structures nearly always have similar plans (DNA in this case). Similar bridges have similar blueprints. This hardly constitutes evidence that one sired the other or that they were erected by tornadoes.”⁴⁷ The display makes it very clear that Gould was “of Harvard” and that the other quotes come from an established scientific magazine; what it does not mention is who Tom Willis—author of the most blatantly anti-evolution quote about the bridges—is. Visitors might logically assume that he, too, is an established scientist. In reality, Willis is the

⁴⁷ This quote comes from Willis’s article “Lucy Remains at College,” The Creation Science Association for Mid-America, <http://www.csama.org/csaneews/lucy2A.pdf> (Accessed 3 Jan. 2009).

founder of The Creation Science Association for Mid-America, a geocentrist⁴⁸ who believes that “the facts warrent [sic] the violent expulsion of all evolutionists from civilized society.”⁴⁹ Of course, Willis’s involvement with a creationist organization does not automatically diminish his credibility, but interposing his quote among those of established scientists (and professed evolutionists) implies that Mr. Willis’s critique of evolution is the product of a similarly intensive study when in reality he has had no formal training in biology.⁵⁰ That such subtle interpositions of creationist quotations with those from established scientific organizations are found repeatedly in the museum’s displays suggests the DAL staff is well aware of this associative effect.



Fig. 9: This display mixes quotes from mainstream scientists with a quote from Tom Willis, a geocentrist with no scientific credentials. Willis’s quote is printed in a larger font in the middle of the top row. Photo: J. Duncan.

⁴⁸ Dr. Hovind disagrees with Willis on this point, at least: “It is still an argument among a lot of folks: does the Earth move? I happen to believe it does; I’m not in the geocentric position. But there are some folks who give a very convincing argument for the—I’m a heliocentric believer—but there are some folks who are still geocentric and give a very convincing position for that” (“Creation Science Hour,” *Truth Radio* [23 June 2004]).

⁴⁹ Tom Willis, “Should Evolutionists Be Allowed To Vote?” *CSA News* (July-Aug. 2008) <http://www.csama.org/csaneews/nws200807.pdf> (Accessed 3 Jan. 2009). Mr. Willis, who has a bachelor’s degree in physics, was instrumental in drafting the controversial educational standards adopted by the Kansas School Board in 1999, which removed any mention of macroevolution, the age of the earth, or the origin of the universe. Please see “Rejecting Evolutionism, Teaching Creationism,” *The Washington Post*, 23 Aug. 1999, <http://www.washingtonpost.com/wp-srv/national/zforum/99/nat082399.htm> (Accessed 4 Jan. 2009)

⁵⁰ The Creation Science Association for Mid-America, “CSA Staff,” <http://csama.org/CSA-STAFF.HTM> (Accessed 4 Jan. 2009). Mr. Willis has a bachelor’s degree in physics and a master’s degree in statistics from the University of Missouri, Columbia.

Many of the displays in this room, haphazardly placed or propped up against the walls, seem out of place. Judging by the descriptions in a 2004 article by the *Skeptical Inquirer*, many of them were once housed in the on-site Creation Museum or the Hands-on Science Center.⁵¹ It seems that following or perhaps immediately prior to Dr. Hovind's arrest and the government's seizure of those two buildings, the DAL staff moved what it could into this room.

As one exits this mini-museum, a glass case on the left is labeled "The Proofs for Evolution." It is empty. Beyond that is the gift shop, where Dr. Hovind's books and DVDs, media from other creationist organizations, and dinosaur-related knick-knacks such as fossil replicas and figurines can be purchased. Some of these toys, such as the aforementioned model dinosaurs with the time periods crossed out, were purchased from a mainstream retailer. Others, such as the clam fossils sold in plastic bags, are labeled as "Flood evidence" and were made by CSE.

Theme Park

After purchasing a seven-dollar ticket to enter the park, visitors are directed outside, where they are met by the DAL tour guides. It is at this point that DAL's focus on children becomes apparent. The guides—all of them young, white males—are dressed in safari-style button-up shirts and khakis. One head tour guide even wears a brimmed leather hat and pocket-covered vest, furthering the image of DAL as a place where, as its colorful brochure proclaims, "Adventure is waiting for you!"

⁵¹ Greg Martinez, "Stupid Dino Tricks: A Visit to Kent Hovind's Dinosaur Adventure Land," *Skeptical Inquirer* (Nov. 2004), <http://www.csicop.org/si/2004-11/hovind.html> (Accessed 26 Dec. 2008). This article mentions a number of items that were in the Creation Museum and Science Center—a poster about abortion killing babies, not fish; and a sign about "Haeckel's Law"—that are now in the "mini-museum."

As the tour begins, the guides inform visitors—mostly parents with their young, (usually homeschooled) children and groups from religious schools⁵²—that everything at DAL “has three aspects: a science lesson to make you smarter, a physical challenge to make you tired, and a Bible lesson to bring you closer to the Lord.”⁵³ The attractions are not roller coasters and Ferris wheels but hands-on activities involving swings, pulleys, and trampolines—things that might be found in a mainstream science center or summer camp. Almost all have dinosaur-themed names like “Circle Swivel Springasaurus” and “Pterodactyl Territory,” but this dinosaurian connection is generally tenuous. The Jumpasaurus, for example, is little more than a trampoline with a picture of a dinosaur next to it, the Circle Swivel Springasaurus a spinning swing connected to a spring. As Dr. Hovind explains on his *Ideas for Starting a Creation Ministry* CD, however, the dinosaur theme is a valuable tool “to draw the kids in, to be able to talk to them.”⁵⁴

Even more tenuous are the connections between the activities and their “Spiritual Lessons,” but that is where the tour guides come in. Reciting a generally charming but clearly scripted⁵⁵ back-and-forth dialogue, the guides explain that the Jumpasaurus (fig. 10), which asks kids to shoot a basketball while jumping on a trampoline, is analogous to those times when “God gives us more than one task to do, and we must coordinate our time and effort to be effective for Christ.”⁵⁶ As the *Skeptical Inquirer* noted, these tour guides “are the most important part of the park, because they are the ones who carry out its true mission.”⁵⁷

⁵² Goodnough, “Darwin-Free Fun.”

⁵³ Kevan Meyers (DAL tour guide), on a tour given 14 May 2008. Subsequent references to this tour will be “DAL tour, 14 May 2008.”

⁵⁴ Dr. Kent Hovind, *Ideas for Starting a Creation Ministry*, 2006.

⁵⁵ The guides’ cheery banter is sprinkled with puns and subtly sarcastic remarks that instantly reminded me of Dr. Hovind’s manner of speaking on his Seminar Video. Later, in the review of DAL done by *Skeptical Inquirer*, Greg Martinez noted that on a television in the gift shop there used to be a video of Dr. Hovind giving a tour of the park in which he used the exact same jokes employed by the tour guides.

⁵⁶ DAL Tour, 14 May 2008.

⁵⁷ Martinez, “Stupid Dino Tricks.”

Without their rehearsed chatter, it would be difficult for visitors to deduce a spiritual lesson from DAL's activities. Doing so would be especially hard for children, as the accompanying signage is most often placed far above their eye level (fig. 11).



Fig. 10: The “Jumpasaurus,” a trampoline with A makeshift basketball hoop in the center. Photo: J. Duncan.



Fig. 11: Many of the signs, such as this one for the “Congo Trail,” are placed much too high for children to read. Photo: J. Duncan.

Of the three aspects of each activity, however, it often seems that the least amount of time was dedicated to developing a valuable science lesson. For the Jumpasaurus, the science lesson in its entirety is, “You will use Coordination [sic] in this game, which means you will be doing more than one thing at a time. Its [sic] harder than you think.”⁵⁸ The science lesson accompanying the “Congo Trail,” a set of swinging ropes, is simply a restatement of Hovind’s beliefs about extant dinosaurs and the dangers of communism: “Today, explorers who go to the congo [sic] swamp to look for the living dinosaurs must face many dangers. This communist controlled [sic], bug infested [sic] swamp has caves, huge man eating [sic] crocodiles, hippos, poisonous snakes, spiders and millions of stinging insects.”⁵⁹ The Circle Swivel Springasaurus’ science lesson is missing entirely. It seems probable, then, that just as Dr. Hovind saw dinosaurs as a way to “draw the kids in,” he saw

⁵⁸ From the label “Jumpasaurus,” Dinosaur Adventure Land.

⁵⁹ From the label “Congo Trail,” Dinosaur Adventure Land.

the promise of “science” as a way to draw in their parents, who would likely prefer educational fieldtrips to purely recreational ones.

The exhibits that do not directly involve dinosaurs—most of which are scattered on the porch of the now-closed Science Center—have much more recognizably “scientific” lessons. With these, too, however, the emphasis is either on the spiritual lesson involved or on the flaws riddling mainstream science. A hose blowing a strong stream of air demonstrates the Bernoulli effect, for example, but the real lesson to be taken away is that, while “[w]e don’t know that scientific principles will always stay the same,” God has guaranteed that they will in “Psalm 199: 89-91—“Thou hast established the earth and it abideth.””⁶⁰ A nearby exhibit about the Grand Canyon consists of a slanted metal box filled with sand and a hose in one corner (fig. 12) and resembles those found in many mainstream museums.⁶¹ Water from the hose trickles through the sand and carves miniature canyons. Unlike in mainstream science museums, however, this exhibit is entitled “That River Didn’t Make That Canyon!!!”, and its purpose is not to demonstrate that the erosive power of the Colorado River, given millions of years, could have carved the Grand Canyon. Instead, it is suggested that just as this miniature canyon is carved in seconds, so could the Noachian flood have carved the Grand Canyon “in a few days or weeks.”⁶²

⁶⁰ DAL Tour, 14 May 2008.

⁶¹ The Denver Museum of Nature and Science, for example, has a program for preschool- and kindergarten-age children in which they are encouraged to explore the effects of erosion by pouring a pitcher of water into a sand table (“Landforms and Erosion,” <http://www.google.com/url?sa=t&source=web&ct=res&cd=5&url=http%3A%2F%2Fwww.dmns.org%2Fnr%2Frdonlyres%2F3b87d8e8-5972-485b-a5a6-e147245487e1%2F585%2Flandformsanderosion.pdf&ei=9l5jScPmO4TYNIipzMsK&usg=AFQjCNFkG7W9rKDDmjcsVL2Lwkr7aqsVrA&sig2=u1ViaPyshQS Ji9Wa-XhCNQ> [Accessed 5 Jan. 2009]).

⁶² From the label “That River Didn’t Make That Canyon!!!,” Dinosaur Adventure Land.

working “from the ground up” (gathering observations, finding a pattern, proposing a tentative hypothesis and finally a theory) as does inductive reasoning, Hovind considers it invalid. “What they try to do here,” Hovind explained on his radio show, “they’ve tried to redefine science.”⁶⁷ Anyone who wants to call himself a scientist must “go according to the scientific method...and it’s very easy to see [that evolution] doesn’t fit science.”⁶⁸ Instead, Hovind argues that evolution is a *religion*—and therefore that it has no business in the public schools: “It might be OK to teach evolution in religion or fairy-tale classes but not in science classes at taxpayers’ expense!”⁶⁹ In his father’s absence, Eric Hovind has continued to fight against this “carefully protected state religion,” insisting that those who “want religion out of the public schools...need to get evolution out.”⁷⁰

One of the last stops on the DAL tour is the “Super Paper Planes” station. While the kids gather around a table, the tour guides explain that a seemingly ordinary paper plane, much like a person, “can do some incredible things if properly motivated.”⁷¹ Then they distribute neon-colored, “Dr. Dino”-print papers to each child, along with scissors and paperclips. The scissors are not scissors, however; they are “turbulence minimizers.” The paperclips are “metallic propulsion enhancers.” Even the trashcan in the corner is a “debris receptacle.”⁷² Calling these commonplace items by more technical-sounding names not only makes the activity seem more scientific; it also reinforces the idea that calling something by a different name can make it seem like it really *is* different, even when it is not. “At DAL,” the guides recite, pointing to the metallic propulsion enhancers, “we don’t always call things what other people call them. Is a firefly a fly? Is a koala bear a bear?” As the children answer

⁶⁷ Dr. Kent Hovind, “Creation Science Hour,” *Truth Radio* (10 Dec. 2003).

⁶⁸ Dr. Kent Hovind, “Creation Science Hour,” *Truth Radio* (11 Dec. 2003).

⁶⁹ Dr. Kent Hovind, *Are You Being Brainwashed?*, 4.

⁷⁰ Eric Hovind, *God Quest*, DVD (Pensacola, FL: Creation Science Evangelism, n.d.).

⁷¹ From the label accompanying the Super Paper Planes station, Dinosaur Adventure Land.

⁷² DAL Tour, 18 May 2008.

in the negative, the guides make their real point: “Some people even call evolution science, but it’s a faith-based way of looking at science.”⁷³ By demonstrating that words can be misleading in some cases (such as with the fireflies and koalas), the DAL tour guides suggest that a perfectly analogous situation has made evolution—at worst a religion, at best a pseudoscience—seem like a reputable scientific theory.

Finally, the tour stops at a petting zoo. Inside are rabbits, turtles, snakes, tarantulas, and bush babies, among others. All, such as Herod the tarantula, have Biblically inspired names. And all, according to the guides, are so perfectly formed that they could only have been created by an omnipotent God. They are living refutations of evolution. While the children touch Herod, the guides note that tarantulas must shed their exoskeletons periodically as they grow larger and ask the crowd, “How could tarantulas survive for millions of years before they could shed their skins?”⁷⁴ Though the guides do not use this term, their question echoes the idea put forth by biochemist and advocate of Intelligent Design Michael Behe, who holds that living creatures are too “irreducibly complex” to have developed in a “piecemeal”⁷⁵ fashion. As for those less-than-perfect creatures, such as a mutated, furless mouse, they do not disprove that the Hand of God has been at work. Rather, they illustrate that, contrary to what evolutionary theory teaches, “there is no such thing as a beneficial mutation.”⁷⁶ Mutations do not drive evolution, the guides affirm; they are “reminders of the Curse.”⁷⁷

⁷³ DAL Tour, 18 May 2008.

⁷⁴ *Ibid.*

⁷⁵ Behe believes that living creatures are analogous to, for example, a mousetrap. Remove just one part—be it the wooden rectangle, the spring, the hammer, anything—and it no longer functions (*Darwin’s Black Box: The Biochemical Challenge to Evolution* [New York: Free Press, 2006], 43, 113).

⁷⁶ DAL Tour, 18 May 2008.

⁷⁷ *Ibid.*

DAL's displays—as well as Dr. Hovind's seminars, upon which they are based—repeatedly employ a number of the same pedagogical tools. The first is what might be termed the “Straw Man Technique.” First, an idea—most often evolutionary theory—is stated in a modified and oversimplified form. Then, this almost unrecognizably altered idea—the “Straw Man”—is attacked in the original idea's stead. For example, one of Hovind's favorite quips is that “no one has ever seen a dog produce a non-dog.”⁷⁸ With this phrase and others like it,⁷⁹ Hovind suggests that *that* is what evolutionary theory says. Of course, evolutionary theory does not come remotely close to suggesting that a dog would ever give birth to a “non-dog,” but those unfamiliar with the theory are led to believe that it does. Then, thinking that evolution is something that it is not—something that even evolutionists would not defend—it is easy to dismiss it as absurd. It is unclear whether Dr. Hovind creates these “Straw Men” deliberately, but it is possible that he simply does not understand evolutionary theory. “If a reptile were to evolve into a bird,” he says in *Are You Being Brainwashed?*, “at some point it would have half-leg and half-wing. Now it can no longer run, yet it cannot fly. This creature is doomed to extinction.”⁸⁰ His critiques would carry more weight if they dealt directly with the actual assertions of evolutionary theory, but perhaps attacking a simple and ridiculous version of it is better suited to his purposes.⁸¹

The second technique could be called false analogizing, and it seems to be related to Hovind's questionable understanding of evolution. First, Hovind presents an evolutionary

⁷⁸ Dr. Kent Hovind, *Are You Being Brainwashed?*, 6; Dr. Kent Hovind, *Age of the Earth*, 2002; Dr. Kent Hovind, *Seminar Notebook*, 9th ed. (Pensacola, FL: Creation Science Evangelism, 2007), 19.

⁷⁹ e.g., “Do you know chimpanzees are still having babies? Why don't they make another human?” (*The Garden of Eden*, DVD [Pensacola, FL: Creation Science Evangelism, 2002]).

⁸⁰ Dr. Kent Hovind, *Are You Being Brainwashed?*, 19.

⁸¹ Hovind is by no means the first creationist to employ this tactic. Peter Bowler points out that creationists, in their debates and arguments in court cases in the 1960s and 1970s, presented oversimplified models of evolution theory and attacked those (*Monkey Trials and Gorilla Sermons* [Cambridge: Harvard University Press, 2007], 210-11).

idea. Then, he compares it to an apparently analogous everyday situation. When that everyday situation seems untenable, he concludes that the evolutionary idea is also untenable. For example, in his *Seminar Notebook*, Hovind asks, “How can mutations (recombining of the genetic code) create any new, improved varieties? (Recombining English letters will never produce Chinese books.)”⁸² At first, this analogy seems to make sense. However, closer scrutiny reveals that in Hovind’s analogy English letters represent the parts of DNA (C, G, T, and A). Then, when he says that recombining English letters will never produce Chinese books, Hovind makes it seem like scientists claim that “recombining [C, G, T, and A] will...produce [a totally different form of DNA code that doesn’t use C, G, T, and A].” Of course, no scientist claims that DNA has evolved into a different *type* of DNA. A more appropriate analogy would be that scientists see DNA mutations as recombining English letters to produce *new* words—not Chinese characters—which *can* happen.⁸³ Nevertheless, anyone who does not take the time to scrutinize this analogy might easily be misled.

The third technique is anti-intellectualism. Though quick to mention his credentials, Hovind constantly reminds visitors that the scientific establishment looks down on them: “You’re ignorant if you don’t believe in evolution. And you’ll see this a lot in the creation/evolution argument. They’ll say, ‘We’re smart; everyone else is dumb.’ [...] That’s precisely what they’re trying to tell you...”⁸⁴ Furthermore, though these scientists purport to be well educated, the greatest irony of all is that *they* are the ignorant ones. Says Hovind in one of his seminars, “I may not be the smartest man in the world, but I’m smart enough to figure out I didn’t come from a rock 4.6 billion years ago. And I think most five-year-olds

⁸² Dr. Kent Hovind, *Seminar Notebook*, 10.

⁸³ If a segment of DNA said “CAT,” for example, and the C mutated into a T, the new (and still functional) word “TAT” would be formed.

⁸⁴ Dr. Kent Hovind, *Questions and Answers*, 2002.

are smart enough to figure that one out.”⁸⁵ As Eric Hovind put it in his *God Quest* seminar (to whoops and applause from the audience), “you have to go to school to get educated into being that dumb.”⁸⁶

The Stakes

As discussed in Chapter I, Carl Baugh built the Creation Evidence Museum because he wanted to share the “man tracks” with the world. He claims to have been an evolutionist before the tracks changed his mind, and now he wants others to “See the Evidence” so that they, too, might know the truth. For Dr. Hovind of Dinosaur Adventure Land, however, the stakes are much higher. For those who believe in evolution, he insists, human beings are “just piece[s] of protoplasm washed up on the beach [who aren’t] worth a thing,”⁸⁷ and there is no way to tell right from wrong.⁸⁸ And when people believe that there are no moral absolutes, “abortion, euthanasia, pornography, genocide, homosexuality, adultery, incest, etc., are all permissible.”⁸⁹

If people believe in evolution, then, not only will they be mistaken; they will be fighting for the forces of evil in the “the greatest war in history, the battle between God and Satan.”⁹⁰ Dinosaur Adventure Land exists to recruit as many warriors as possible to God’s army. Luckily, says Hovind, he and his team are fighting for the favored team. Referring to

⁸⁵ Dr. Kent Hovind, “Creation Science Hour,” *Truth Radio* (12 Dec. 2003).

⁸⁶ Eric Hovind, *God Quest*, n.d.

⁸⁷ Dr. Kent Hovind, *The Age of the Earth*, 2002.

⁸⁸ Dr. Kent Hovind, *Are You Being Brainwashed?*, 6.

⁸⁹ This quote comes not directly from Dr. Hovind (though he makes the same points in his Seminars) but from Mel and Norma Gabler, whose article “A Battle Plan—Practical Steps to fight evolution” is hosted on the CSE website (<http://www.drdino.com/articles.php?spec=53> [Accessed 7 Jan. 2009]). The Gabler’s book *What are They Teaching Our Children?: What You Can Do about Humanism and Textbooks in Today’s Public Schools!* (Wheaton, IL: Victor Books, 1985), is also for sale in the DAL bookstore.

⁹⁰ Dr. Kent Hovind, *The Dangers of Evolution*, 2002.

the Bible, “an infallible book with the outcome already spelled out,” Hovind says confidently, “I read the last chapter. We win!”⁹¹

⁹¹ *Ibid.* Dr. Baugh also used the term “last chapter” in a personal interview on 18 Jun. 2008: “[W]e’re losing the ozone canopy. We’re in jeopardy. And I’m not an alarmist—I read the last chapter.”

CHAPTER III

THE INSTITUTE FOR CREATION RESEARCH

“If one can judge by the fulminations of today’s anti-creationists, the Institute for Creation Research is the main organization to blame for the revival of creationism.”

—Henry Morris, founder of the Institute for Creation Research¹

When Henry Morris and John Whitcomb published *The Genesis Flood* in 1961, it sparked a revival of young-Earth creationism in America that has continued to this day.² Though it was essentially an expansion of the work on Flood Geology done forty years previously by George McCready Price,³ *The Genesis Flood* had an exponentially greater impact on creationist thought.⁴ Like Price’s works, it unabashedly taught that the Earth had been created in six days exactly as described in the Bible. But with its footnotes and figures—as well as an author, Morris, with a Ph.D. from a secular university—it really “looked legitimate as a scientific contribution.”⁵ After years of being told by critics that they were backward and anti-science, creationists could finally feel that their beliefs, no less than evolutionists’, were “supported by excellent proof and sound interpretation.”⁶ When Dr. Morris passed away in 2006, the creationist movement lost arguably the most important young-Earth creationist of the twentieth century. However, what Dr. Morris left behind was more than enough to ensure that his legacy would live on: the Institute for Creation Research.

¹ Henry Morris, *History of Modern Creationism*, 2nd ed. (Santee: Master Book Publishers, 1993), 270.

² Numbers, *The Creationists*, 329-331. Morris himself noted that “the Lord would graciously use [this book] to catalyze a significant revival of creationism” in his book *A History of Modern Creationism*, 163.

³ Morris, *History of Modern Creationism*, 169.

⁴ Numbers, *The Creationists*, 227.

⁵ V. L. Bates, quoted in Numbers, “Creationism in 20th-century America,” 542.

⁶ John C. McCampbell, in his foreword to *The Genesis Flood: The Biblical Record and its Scientific Implications*, 1st ed. (Phillipsburg, NJ: Presbyterian and Reformed Publishing Company, 1961), xvi.

*Dr. Henry Morris: Father of 'Creation Science'*⁷

Unlike the founders of the Creation Evidence Museum and Dinosaur Adventure Land, Dr. Morris received his degrees entirely from secular institutions. He graduated “with distinction”⁸—a member of Phi Beta Kappa, Sigma Xi (science) and Tau Beta Pi (engineering)—from Rice University in 1939, returning shortly thereafter to teach civil engineering from 1942-1946. During this time, Morris began to study the Bible and found himself changing from “a theistic evolutionist and Sunday-morning Christian”⁹ into a fervent believer. He found creationist apologetic materials such as those by Harry Rimmer and George McCready Price “very helpful.”¹⁰ However, the fact that “very few of these were written by real scientists with graduate degrees from recognized universities” was “a matter of real concern” for him.¹¹ Furthermore, Morris felt that the legitimacy of many creationist writers was undermined by their works’ “biting sarcasm and sharp condemnations.”¹²

Determined to bring credibility to creationism, Morris enrolled at the University of Minnesota in pursuit of a master’s degree and a Ph.D. in hydraulics with a minor in geology, believing this to be “the best combination with which to develop a sound system of deluge geology.”¹³ During this period he published his first tract on creationism, *That You Might Believe* (1946).¹⁴ After obtaining both his master’s degree and his Ph.D., Morris held a number of teaching positions at secular universities. He even authored a popular textbook in 1963,

⁷ Dr. Morris coined the term “creation science” in the 1970s (Matt Schudel, “Henry Morris; Intellectual Father of ‘Creation Science,’” *The Washington Post*, 1 Mar. 2006, <http://www.washingtonpost.com/wp-dyn/content/article/2006/02/28/AR2006022801716.html> [Accessed 10 Jan. 2009]).

⁸ Dr. Henry Morris, *History of Modern Creationism*, 103-4. Dr. Morris modestly pointed out that, though the school considered him fit to teach with only a bachelor’s degree, this was probably due in large part to the shortage of available teachers during the war years and not to any special genius of his.

⁹ *Ibid.*, 103.

¹⁰ *Ibid.*, 106.

¹¹ *Ibid.*

¹² *Ibid.*, 156.

¹³ Schudel, “Henry Morris”; Dr. Henry Morris, *History of Modern Creationism*, 166.

¹⁴ *Ibid.*, 109.

Applied Hydraulics in Engineering.¹⁵ As mentioned, however, it was not Morris's book on hydraulics but his 1961 work on creationism—*The Genesis Flood*—for which he gained the most widespread acclaim. After its publication, Morris became a veritable creationist celebrity; speaking invitations from churches and Christian colleges filled his mailbox.¹⁶

In 1963, reacting to the recent move toward theistic evolutionism by the American Scientific Affiliation (ASA)—then the country's most influential creationist/scientific society—Morris helped found the Creation Research Society (CRS).¹⁷ To prevent an ASA-like departure from strict creationism, the CRS required (and still requires) all voting members to sign a statement of belief resembling Morris's teachings. Members affirm that the Bible is "historically and scientifically true," that all creatures are the results of "direct creative acts of God during the Creation Week," and that "the Noachian Flood...was worldwide."¹⁸ Recognizing that a scientific society's legitimacy rests largely on the credentials of its members, the CRS also requires all voting members to have at least an M.Sc. or equivalent.¹⁹ The Society immediately began publishing a journal, the *Creation Research Society Quarterly*,²⁰ and in 1971 it produced a high school-level biology textbook, *Biology: A Search for Order in Complexity*.²¹ Morris assumed the presidency of the CRS in 1967.

¹⁵ Schudel, "Henry Morris"; Dr. Henry Morris, *History of Modern Creationism*, 172. This textbook was used in over one hundred universities and remains widely respected.

¹⁶ Dr. Henry Morris, *History of Modern Creationism*, 178-183.

¹⁷ Eugenie Scott and Niles Eldredge, *Evolution vs. Creationism* (Los Angeles: University of California Press, Ltd., 2004), 100.

¹⁸ *Ibid.* The full text of this "Doctrinal Commitment for Membership in Creation Research Society" can be found on pg. 401 of Morris's *History of Modern Creationism* (appendix B).

¹⁹ Numbers, *The Creationists*, 239-258; Creation Research Society, "Membership," <http://www.creationresearch.org/membership.htm> (Accessed 10 Jan. 2009).

²⁰ Creation Research Society, "CRS Quarterly," <http://www.creationresearch.org/crsq.html> (Accessed 10 Jan. 2009).

²¹ Dr. Henry Morris, *History of Modern Creationism*, 222.

In 1970, while still president of the CRS, Morris moved to California to help found the Creation Science Research Center (CSRC).²² After just two years, however, managerial differences between Morris and two of the other founders led Morris to leave the CSRC.²³ In 1972, he founded the Institute for Creation Research (in San Diego, California), an organization that would become the “intellectual center of the creationist movement.”²⁴

The Institute for Creation Research

For the first decade of its existence, the Institute for Creation Research (ICR) operated as a division of Christian Heritage College,²⁵ a fundamentalist institution founded by Tim LaHaye²⁶ through which the CSRC had also been founded.²⁷ The original science staff was composed of just three men.²⁸ Over the next ten years, however, the staff grew considerably, and the ICR separated from Christian Heritage College in 1980.²⁹

Morris intended the ICR to be the preeminent creation research facility in the world, one “controlled and operated by scientists.”³⁰ He was not interested in the kind of high-profile political action sought by his contemporaries, who attempted to oust evolution from public school classrooms through lawsuits.³¹ For Morris, “education rather than legislation

²² Numbers, *The Creationists*, 313. Morris turned down an endowed chair in engineering at Auburn University in order to pursue this goal.

²³ *Ibid.*, 315.

²⁴ Schudel, “Henry Morris.”

²⁵ Now San Diego Christian College.

²⁶ LaHaye is co-author of the popular *Left Behind* series of books.

²⁷ Dr. Henry Morris, *History of Modern Creationism*, 273.

²⁸ Duane Gish, a Berkeley-educated biochemist and former assistant professor at Cornell; Harold Slusher, a professor of physics at the University of Texas at El Paso; and Morris himself, trained in hydraulics (Dr. Henry Morris, *History of Modern Creationism*, 275).

²⁹ Dr. Henry Morris, *History of Modern Creationism*, 277-283.

³⁰ Dr. Henry Morris, as quoted in Numbers, *The Creationists*, 315.

³¹ E.g. *Wright v. Houston Independent School District* (1972), *Willoughby v. Stever* (1973), and *Seagraves v. California* (1981).

[was] the best means to restore creationism” to its rightful place. He therefore set about establishing a “three-fold program of literature, teaching, and research.”³²

At least in its early years, however, the ICR was not much of a research institute. As Ronald Numbers points out, for many years the ICR staff “conducted little research outside the confines of its modest library.”³³ Morris admitted that this dearth of original research was “a weakness of the creation movement,” but he blamed it on a lack of funding from “the evolutionary establishment which controls science, education, and government in this country”³⁴ and which openly refused, on ideological grounds, to fund creationist research. Furthermore, Morris insisted that the library research done was still valuable, as it reinterpreted data already collected by evolutionists from a creationist point of view.³⁵ Moreover, the ICR did do *some* external work, mostly in geology, such as sponsoring field trips to the Grand Canyon, Mt. St. Helens, and Mt. Ararat.³⁶

As the ICR grew in influence, revenue from book sales, royalties, tuitions,³⁷ and donations made independent research more feasible. Today the ICR can claim thirteen full-time scientists (almost all with Ph.D.s from secular universities),³⁸ a new “Academics and Research” building in Texas complete with “faculty offices, classrooms, laboratories...and library facilities,”³⁹ and authorship of myriad creation science research papers.⁴⁰ The ICR

³² Dr. Henry Morris, *History of Modern Creationism*, 282.

³³ Numbers, *The Creationists*, 315.

³⁴ Dr. Henry Morris, *History of Modern Creationism*, 290.

³⁵ *Ibid.*, 294.

³⁶ *Ibid.*, 294-5; Numbers, *The Creationists*, 315. At the Grand Canyon, creationists could see the effects of the Flood; at Mount St. Helens, they could see the effects of a catastrophe; and at Mt. Ararat they could search for the Ark.

³⁷ From its graduate school, which will be discussed later.

³⁸ Institute for Creation Research, “ICR Scientists and Faculty,” http://www.icr.org/research/scientists_faculty/ (Accessed 11 Jan. 2009).

³⁹ Institute for Creation Research, “A Short History of ICR,” http://www.icr.org/discover/index/discover_history/ (Accessed 11 Jan. 2009).

⁴⁰ Institute for Creation Research, “Research Papers,” http://www.icr.org/research/index/researchp_papers/ (Accessed 11 Jan. 2009). The ICR can claim authorship of dozens of articles from 2008’s Sixth International Conference on Creationism alone.

website, with its elegant, modern look and extensive library of articles about creation science, actively promotes this image of the ICR as America's premier creation research organization (fig. 1).



Fig. 1: A typical page from the ICR website. Each page has a different picture, but almost all involve people in lab coats, beakers with colored fluids, and other stereotypically scientific objects.

As with the CRS, however, all ICR employees—*before* beginning their research—are required to sign a statement of belief that holds, among other things, that “biological life did not develop by natural processes from inanimate systems but was specially and supernaturally created by the Creator,” that the Bible is “free from error of any sort,” and that those who do not believe in Jesus Christ “must ultimately be consigned to the everlasting fire prepared for the devil and his angels.”⁴¹ Rather than beginning with a theory, testing it, and then modifying it as the data demand, therefore, ICR scientists have a severely restricted, predetermined set of “findings” with which they must harmonize any data they collect.

⁴¹ Institute for Creation Research, “ICR Employment,” <http://www.icr.org/jobs/>; “Foundational Principles,” <http://www.icr.org/tenets/> (Accessed 11 Jan. 2009).

ICR's literary and educational initiatives fared much better from the start. ICR immediately began publishing *Acts & Facts*, a full-color, twenty-page magazine that continues to be sent free of charge to anyone who requests it. By 1992, the mailing list included over 100,000 active subscribers.⁴² The magazine, which also contains a small, one-topic insert called "Impact," contains an update from the ICR president, biblical and creation science articles, ordering information for ICR materials, and a donation envelope.⁴³ Donations from this mailing list account for about 70% of the ICR's operating costs.⁴⁴

ICR has also been a prolific producer of books and videos. Just ten years after its foundation, it had published fifty-five books. Morris estimated that over a million copies of books by ICR authors were in print by 1981.⁴⁵ One of the most important of these was Morris's *Scientific Creationism* (1974), which, Morris noted, came to be regarded as "a quasi-official textbook of the creation movement."⁴⁶ There were two versions of this book: "a general edition and a public school edition, the latter with a completely non-Biblical, non-religious treatment of all the relevant scientific data."⁴⁷ The public school edition reflected Morris's famed "two-model approach," which held that creationism and evolution were "competing scientific hypotheses."⁴⁸

ICR's evangelical efforts are by no means limited to the print media. As mentioned, it runs an impressive website that not only allows users to search the complete archives of *Acts & Facts* and the quarterly devotional *Days of Praise* but also contains dozens of original

⁴² The ICR was also careful to remove from its mailing list every two years anyone who did not actively request a subscription renewal, suggesting that there were over 100,000 *active* supporters of the ICR (Dr. Henry Morris, *History of Modern Creationism*, 274).

⁴³ See, for example, *Acts and Facts* 37, no. 7 (July 2008). The issue contains articles such as "Sowing the Creation Message" (4), "The 'Fatal Flaws' of Darwinian Theory" (6), "Tiny Bacteria's Big Challenge to Darwin" (13), and "True Liberty" (17).

⁴⁴ Dr. Henry Morris, *History of Modern Creationism*, 275.

⁴⁵ Numbers, *The Creationists*, 315.

⁴⁶ Dr. Henry Morris, *History of Modern Creationism*, 287.

⁴⁷ *Ibid.*

⁴⁸ Dr. Henry Morris, quoted in Numbers, *The Creationists*, 272.

articles about the evidence for creation under categories like “God Does Exist,” “Real Truth is Knowable,” and “Science Verifies the Creation.”⁴⁹ Also available is an archive of the ICR radio program *Science, Scripture, & Salvation*, a fifteen-minute show now heard on over seven hundred stations worldwide.⁵⁰ Interested persons may also subscribe to a daily email version of *Days of Praise*.⁵¹

One of ICR’s most visible and effective means of spreading its message has been debates with prominent evolutionists. In the 1970s alone, ICR scientists participated in over one hundred debates.⁵² Though Dr. Morris disliked the debates’ confrontational format, he participated in quite a few and sponsored many others for pragmatic reasons. “A typical campus lecture on creationism,” he pointed out, “may draw an audience of about 300. A debate on the same campus...will draw around 3,000!”⁵³ Describing a 2004 debate, Henry Morris’s son John explained that the creationists always “win.” The creationists “[stick] to the scientific facts,” he said, but the evolutionists simply “countered with *ad hominem* attacks” or “appeal[s] to authority.”⁵⁴ Like his father, John Morris was also careful to point out that the evolutionists lost many supporters because of their “superior, condescending tone.”⁵⁵

Rather uniquely, the ICR also offers a number of educational programs that award certificates and degrees. The Creation Worldview Professional Certificate Program allows “the self-paced Creationist” to finish his online studies in under a year.⁵⁶ Much more

⁴⁹ Institute for Creation Research, “Evidence for Creation,” <http://www.icr.org/Evidence/> (Accessed 11 Jan. 2009).

⁵⁰ Institute for Creation Research, “Over 30 Years of ICR Radio,” <http://www.icr.org/radio/history/> (Accessed 11 Jan. 2009).

⁵¹ Institute for Creation Research, “Sign Up,” <http://www.icr.org/signup/> (Accessed 14 Jan. 2009).

⁵² Numbers, *The Creationists*, 316.

⁵³ Dr. Henry Morris, *History of Modern Creationism*, 308.

⁵⁴ John D. Morris, “Recent Debates,” Institute for Creation Research <http://www.icr.org/article/recent-debates/> (Accessed 14 Jan. 2009).

⁵⁵ *Ibid.*

⁵⁶ Institute for Creation Research, “Professional Certificate Program,” <http://www.icr.org/cw/> (Accessed 11 Jan. 2009).

significant is ICR's graduate school (ICRGS), originally located in San Diego, which since 1981 has offered a master's degree in Science Education with minors in Astro/Geophysics, Biology, Geology, and General Science.⁵⁷ Because of the entirely creationist curriculum⁵⁸ and apparently minimal graduation requirements,⁵⁹ however, the school has frequently come under attack. In 1988, when it reapplied for accreditation in California, ICRGS temporarily lost approval and was forbidden to grant degrees.⁶⁰ The investigative panel found that the school had just five full-time professors, poor laboratory facilities, and that many of the courses were conducted by videotaped lectures. Furthermore, the panel pointed out that though the school claimed to teach evolution alongside creation, students were required to agree to the ICR's Statement of Faith, which prohibits acceptance of the theory.⁶¹ Morris, who saw nothing wrong with such teleological science, claimed that the only explanation for such an unjust ruling was discrimination: "We assume that animals were created by God and that they did not evolve. Everything else we teach is the same as in standard science courses."⁶²

ICR filed suit against the California superintendent and won, granting degrees in relative peace until 2007, when it moved its headquarters—and its graduate school—to Dallas, Texas. The move was intended to give the organization a more nationally central location, but the ICR administration did not anticipate that Texas would refuse to recognize

⁵⁷ Institute for Creation Research, "Press Release 12 18 2007," <http://www.icr.org/article/3871/> (Accessed 14 Jan. 2009).

⁵⁸ John D. Morris, son of Henry, explains that "[t]he great world-altering events of Genesis inform our research, and is [sic] reflected in our teaching." Please see his forward to the "General Catalog 2008-2009," *Graduate School of the Institute for Creation Research* http://www.icr.edu/i/pdf/ICRGS_Catalog_2008_2009.pdf (Accessed 11 Jan. 2009).

⁵⁹ Unlike most master's degree programs in science education, ICRGS requires no laboratory experience and can be conducted entirely online. Institute for Creation Research Graduate School, "Prospective Students," <http://www.icr.edu/prospective/#gradschool> (Accessed 11 Jan. 2009).

⁶⁰ Sandra Blakeslee, "California Bars Degrees at Creationist School," *New York Times*, 8 Dec. 1988, <http://query.nytimes.com/gst/fullpage.html?res=940DE6DB1638F93BA35751C1A96E948260> (Accessed 11 Jan. 2009).

⁶¹ Numbers, *The Creationists*, 318.

⁶² Blakeslee, "California Bars Degrees."

its degree-granting powers.⁶³ Though in December of that year a state advisory board gave the ICR preliminary approval to continue awarding its online master's degree,⁶⁴ a maelstrom of outrage from the state's scientists and professors (and the general public, whose opinions were mixed) eventually led to a unanimous vote from the Texas Higher Education Coordinating Board's Academic Excellence Panel rejecting the ICR's proposal.⁶⁵ ICR is currently (as of Feb. 2009) in the process of appealing this decision, once again claiming "viewpoint discrimination."⁶⁶ Meanwhile, the school assures prospective students that it continues to offer master's degrees, "[p]ursuant to California and federal law," to non-Texas residents and "is currently examining its legal options regarding how it can best serve the educational 'gaps' of Texas residents."⁶⁷

The ICR Museum of Creation and Earth History

When the ICR moved its headquarters to Dallas in 2007, the only thing it chose not to relocate was its Museum of Creation and Earth History (MCEH). Built in 1992 near San Diego, California, the museum offers free admission and receives around 15,000 visitors per year.⁶⁸ The museum's displays closely mirror the contents of Morris's book *The Genesis Flood* (1961), and they serve much the same purpose: to help believers "integrate the creationist

⁶³ "Lone Star vs. Creationism," *Nature* 451, no. 1030 (28 Feb. 2008), <http://www.nature.com/nature/journal/v451/n7182/full/4511030a.html> (Accessed 14 Jan. 2009).

⁶⁴ Holly Hacker, "Creationist Institute's Master's Science Degree Proposal Creates Debate," *Dallas Morning News*, 23 Jan. 2008, <http://www.dallasnews.com/sharedcontent/dws/dn/religion/stories/012408dnmetcreation.2bd704c.html> (Accessed 9 Jan. 2009).

⁶⁵ Ralph K. M. Haurwitz, "Panel Rejects Creation Institute's Proposal," *Austin American-Statesman*, 23 Apr. 2008, http://www.statesman.com/blogs/content/shared-gen/blogs/austin/highereducation/entries/2008/04/23/panel_rejects_creation_institu.html (Accessed 3 Jan. 2009).

⁶⁶ Institute for Creation Research, "Press Release 05 28 2008: Graduate Science Program Claims 'Viewpoint Discrimination' in Appeal of Texas Education Ruling," <http://www.icr.org/article/3913/> (Accessed 29 Dec. 2008).

⁶⁷ Institute for Creation Research, "Institute for Creation Research Graduate School," <http://www.icr.edu/home/> (Accessed 14 Dec. 2008).

⁶⁸ Cindy Carlson (curator of the ICR Museum of Creation and Earth History), personal interview, 26 Aug. 2008.

worldview with science.”⁶⁹ Indeed, much more than any of the other three museums discussed in this paper, the MCEH portrays creationism as a no-nonsense, intellectually tenable theory.

Upon entering the museum, visitors find themselves in a small bookstore, the shelves lined with books by Dr. Morris, other ICR-affiliated scientists, and Answers in Genesis authors such as Ken Ham (a former ICR staff member).⁷⁰ In accordance with the MCEH’s more serious tone, there are no toys or collectible fossils for sale. There are no guided tours for groups of fewer than eight people, but unlike the Creation Evidence Museum and Dinosaur Adventure Land the MCEH is particularly well suited for meaningful, self-guided tours. Not only is it equipped with extensive signage, allowing visitors to read as much as they like about each topic; it is also very linearly designed, ensuring that every visitor sees the displays in the same predetermined order—as well as that all visitors walk through the museum in its entirety before departing.

The first room explains the museum’s philosophy. One sign explains that the MCEH, unlike most other museums (which “are developed around a naturalistic interpretation of history”), is “based on true Biblical history.”⁷¹ No attempt is made to disguise this religious starting point. Furthermore, because “[q]uestions regarding origins, or the age of things, cannot be answered by observational science,” the museum’s exhibits are based on “history as recorded in, or reasonably inferred from, Scripture.”⁷² However, the label concludes, such methods are no less legitimate than the ones used by secular scientists, for “the interpretation of data related to origins and earth history depends on one’s

⁶⁹ Cindy Carlson, personal interview.

⁷⁰ Dr. Henry Morris, *History of Modern Creationism*, 303. Ham, as will be discussed in the next chapter, is the founder of Answers in Genesis Creation Museum.

⁷¹ From the label “ICR Museum of Creation and Earth History,” Institute for Creation Research.

⁷² From the label “Impossibility of Observing Origins,” Institute for Creation Research.

worldview.”⁷³ Immediately, then, the MCEH sets up a theoretical framework akin to Dr. Morris’s “two-model” approach, suggesting that creationism and evolutionism are simply two distinct ways of interpreting the available evidence. This first room also includes a collage of scientific-looking pictures such as crinoid fossils, men in white lab coats, and bubbling test tubes (fig. 2).



Fig. 2: A panel in the MCEH's first room contains a collage of scientific-looking things, furthering the image of the ICR as a veritable research organization. Photo: J. Duncan.

To further the idea that creationism is scientific, the room also contains displays about just what “science” and “religion” are. As Kent Hovind does, the MCEH holds that “real” science is “organized factual knowledge based on observation—*not* naturalistic observation.”⁷⁴ Evolution, it is implied, is *not* science. Instead, the display argues, “true science supports the Biblical worldview.”⁷⁵ Finally, a panel entitled “Importance Of The Origins Issue” reminds visitors just why a museum like this is so vitally necessary: “The tree of evolutionism bears only corrupt fruits; Creationism bears good fruits.”⁷⁶ The implication is that nothing is more important than helping others realize this.

⁷³ From the label “Impossibility of Observing Origins,” Institute for Creation Research.

⁷⁴ From the label “What is Science?,” Institute for Creation Research.

⁷⁵ From the label “Science and Religion,” Institute for Creation Research.

⁷⁶ From the label, “Importance Of The Origins Issue,” Institute for Creation Research.

The Six Days of Creation

At the far end of this room is “Acts of God—Day One,” the first in a series of panels describing how the first chapter of Genesis translates into historical events. It marks the first stop on a biblically inspired “Walk through History.” The next panel explains that when the Bible says God made a “firmament” between the waters on Day Two, He probably created “an extensive canopy of transparent water vapor and possibly small ice crystals...above the atmosphere.”⁷⁷ Some of the “probable effects” of such a vapor canopy are a “greenhouse effect,” increased “longevity” because of decreased harmful radiation, and prevention of “the formation of atmospheric radiocarbon.”⁷⁸ Serendipitously, each of these “probable effects” helps explain either how a seemingly strange Biblical notion could be true or why evolution is based on falsehoods. The greenhouse effect and the filtering of harmful radiation, for example, help explain (or at least *seem* to, just as Dr. Baugh argues at the Creation Evidence Museum) how inhabitants of the pre-Flood world could have grown so old. The notion that atmospheric radiocarbon was not forming seems to support the claim that carbon dating is unreliable due to uncertainties about how much carbon was “originally”⁷⁹ in the atmosphere. The label also suggests that this canopy could have provided enough water for the “40-day global rainfall at the Flood,” explaining, of course, how there could have been enough water to flood the entire planet at one time. No evidence is presented for the existence of the vapor canopy aside from the Bible verses themselves; it is simply assumed that the verses refer to actual events and the “probable effects” are hypothesized (with surprising certainty) from there. Because this hypothesizing is based on the perfect Biblical record, however, it falls under ICR’s definition of “science.”

⁷⁷ From the label “Acts of God—Day Two,” Institute for Creation Research. Recall that both Dr. Baugh and Dr. Hovind also believe God created a real, physical firmament between the heavens and the Earth.

⁷⁸ From the label “Canopy Theory,” Institute for Creation Research.

⁷⁹ i.e., at the time of Creation.

The next room illustrates the events described in Genesis 1:14-19. The walls are adorned with beautiful images of the heavens—the Moon, galaxies, nebulae, etc.—and accompanied by labels explaining how they prove the universe was divinely created (fig. 3). Those about the Moon, for example, explain that natural processes could not have formed it because it is exactly the right size and distance from the Earth to create a “perfect eclipse condition.”⁸⁰ This is an astronomical version of the “irreducible complexity” idea seen earlier, as it suggests that if just one parameter—the size of the Moon or its distance from the Sun—were slightly altered, the eclipse would no longer be “perfect.” Furthermore, the panel insists that “[t]he Apollo program...disprove[d] all the theories of lunar origin” then popular, demonstrating that “special creation of both Sun and Moon (Genesis 1:16-17) is the only satisfactory answer to this question.”⁸¹ Here, as throughout the museum, any weakness in a theory supporting evolution or an old Earth is assumed to be evidence for creation.



Fig. 3: This panel, one of many in this room that contain impressive pictures of outer space, contains pictures of galaxies and nebulae and details the “Fallacies in the Big Bang Theory.” Photo: J. Duncan.

⁸⁰ From the label “Obvious Design,” Institute for Creation Research.

⁸¹ From the label, “The Moon,” Institute for Creation Research.

As with the claim about the Moon's formation—for which the giant-impact hypothesis is now regarded as a well-supported explanation⁸²—the MCEH's displays repeatedly claim (incorrectly) that there are such insurmountable weaknesses in currently accepted scientific theories that they must be disregarded. For example, one display lists seven “Fallacies” in the Big Bang theory—a favorite object of ridicule for many creationists, who seem to think biological evolution depends on it⁸³—many of which are not actually fallacies at all. One is that the Big Bang contradicts the second law of thermodynamics.⁸⁴ This law holds that the entropy, or disorderliness, of an isolated system not in equilibrium tends to increase over time, so MCEH claims “there is no source for the vast order that is evident in the universe.”⁸⁵ Nearby there is a glass case filled with broken, tilted, or rusty objects labeled “Universal Disorder,” implying that the universe would be in shambles without the correcting influence of a deity. In fact, physicists hold that “the development of order from chaos, far from contradicting the second law, fits nicely into a broader framework of thermodynamics.”⁸⁶ Another claim is that the theory “cannot explain anomalous red shifts [sic] in quasars,” but Christopher Stubbs, professor of astronomy and chair of the Physics department at Harvard University, insists this is another misrepresentation of the current state of science: “The notion that the Universe is expanding,” he said in an email, “is the simplest explanation for a large body of data. I don't

⁸² NOVA, “To the Moon: The Big Whack,” <http://www.pbs.org/wgbh/nova/tothemoon/origins2.html> (Accessed 15 Jan. 2009).

⁸³ Kent Hovind refers to the Big Bang as the “Big Dud” (*Seminar Notebook*, 9th ed. [Pensacola: Creation Science Evangelism, 2007], viii). Though biological evolution is completely unrelated to the Big Bang theory, many young-Earth creationists seem to believe that the two theories are interdependent. For sale on the CSE website, for example, is Joyce C. Swanson's *Exploding the Big Bang: Could a Box Evolve?* (Dexter, MI: Thomson-Shore, Inc., 1998), which never actually mentions the Big Bang at all. Instead, each chapter is a sarcastic thought exercise about whether different inanimate objects—a box, a doll, a pen, etc.—could evolve.

⁸⁴ From the label “Fallacies in the Big Bang Theory,” Institute for Creation Research.

⁸⁵ *Ibid.*

⁸⁶ J. Miguel Rubí, “Does Nature Break the Second Law of Thermodynamics?” *Scientific American* (Oct. 2008) <http://www.sciam.com/article.cfm?id=how-nature-breaks-the-second-law> (Accessed 26 Dec. 2008).

think you'd find more than one or two informed cosmologists who think quasar redshifts are in any way 'anomalous.'"⁸⁷ Other claims come closer to the truth in that they point out areas of the theory that are not yet *fully* explained, such as the existence of "dark matter." However, it is incorrectly suggested that as-yet-unexplained aspects of a theory are equivalent to "fallacies." As Professor Stubbs put it, "this is an exciting open problem in astrophysics," one inviting further exploration, not dismissal. Nevertheless, the fact that scientists are now, as Stubbs put it, "in a more sophisticated state of confusion than ever before"⁸⁸ is treated by the MCEH as evidence that the Big Bang theory in its entirety should be abandoned—and, implicitly, that its failure is evidence for creation.

The last exhibit about the Creation Week plays once again upon the idea of complexity as evidence of divine design. Focusing on butterflies, whose "developmental stages are a marvel of planning and expression,"⁸⁹ the room's displays explain that no natural process could possibly have achieved such incredible results. A touch-screen television allows visitors to learn how beavers, bombardier beetles, and woodpeckers are all "Incredible Creatures that Defy Evolution," and the DVD of the same name is attached to the wall next to it. Next to the television is an enormous case filled with countless butterfly specimens. This case is unlabeled, but its intended effect is clearly to "wow" visitors with the level of biodiversity on Earth and to suggest that each beautiful creature was perfectly formed by God.

⁸⁷ Christopher Stubbs, "Question about quasars," email message to the author, 17 Jan. 2009.

⁸⁸ *Ibid.*

⁸⁹ From the label "Life Cycle of the Butterfly," Institute for Creation Research.

The Fall of Man and the Flood

Visitors then enter a room entitled “The Fall of Man.” The displays tell of Adam’s transgression, which creationists believe literally brought death to the world.⁹⁰ In accordance with the sudden change in theme, the room is darkened, the lights covered with a red filter. The sounds of a baby and a man crying, thunder, and ominous music play from a hidden speaker. For proof that there was no death before this point, one label points out that “Christ’s death for sin would [have been] futile if death (‘the wages of sin’) [had] existed for ages” *before* the first sin. Therefore, it is concluded, evolution—which requires innumerable deaths before the appearance of the first humans—could not have taken place. Similarly, any fossils “must be dated *after* Adam’s fall.”⁹¹ All of these conclusions are, of course, posited on the assumption that the Bible is literally true, and they employ a sort of reverse reasoning: if the Bible is true, Adam *must* have been both the first man and the first sinner; God would not have “cursed” the world *before* a sin was committed, so there *cannot* have been death before Adam’s sin; if there was no death before Adam’s sin, no fossils could be older than Adam; and if no fossils are older than Adam, evolution must be false. This certainly would not be recognized as valid reasoning by any mainstream scientific organization. Nor is it creationists’ revered Baconian induction, for it is based not on facts but on a chain of assumptions. Nevertheless, the ICR considers this to be science and insists that mainstream methods of calculating the Earth’s age are “based on...untestable and unreasonable assumptions.”⁹²

⁹⁰ From the label “Was There Animal Death Before Adam Sinned?,” Institute for Creation Research.

⁹¹ From the label “Entrance Of Sin Into The World,” Institute for Creation Research.

⁹² From the label “Date of Creation,” Institute for Creation Research. The three assumptions are “unchangeable process rate (but all natural rates can change),” “process operating in isolated system (but no truly isolated system exists),” and “denial of creation of functioning maturity (but this begs the question as to whether God can create, and thus is atheistic.”

This room also contains displays on the worldwide flood, punishment for the “wickedness of man.”⁹³ One wall recounts flood stories from around the world: the Hawaiian story of Nu-u, the Chinese story of Fuh, and the Mesopotamian story of Gilgamesh, among others. Since almost every civilization’s mythology includes a tale of a worldwide flood, the panel explains, they must all be referring to a common event.⁹⁴ The wall addresses a number of other logistical concerns about the Flood, such as how a single boat could hold two of every species of animal (it held “kinds,” not species⁹⁵); the Ark’s dimensions and capabilities (it had over 1.5 million cubic feet of space⁹⁶ and could right itself after any tilt less than 90°⁹⁷), and how the animals cohabitated (in times of danger “predators and prey tend to mingle together”⁹⁸). As for how Noah fed all the animals, one panel suggests that “God could have instituted a state of hibernation.”⁹⁹ As usual, no evidence beyond biblical verses is provided for these claims.

The next section describes evidence that the remains of the Ark are located on Mt. Ararat. The results of ten expeditions are included; all claim to have seen the Ark. Though all the expeditions took place after the invention of photography, however, all returned with no more than rudimentary sketches of what they saw (figs. 4 and 5). A number of the plaques even suggest, in Kent Hovind fashion, that there is a government conspiracy to prevent the rediscovery of the Ark. Says one, “In 1969, David Duckworth viewed photos and artifacts

⁹³ From the label “Causes Of The Flood,” Institute for Creation Research.

⁹⁴ From the label “Do Other Ancient Writings Mention The Great Flood?,” Institute for Creation Research.

⁹⁵ All Young-Earth creationists believe that when God told his creatures to reproduce “according to their kinds” (see Genesis 1), he was referring to what we might currently call “families.” For example, the “dog” kind includes wolves, all breeds of dog, foxes, etc. They agree that microevolution—change *within* those kinds, as from a wolf to a fox—does take place but deny that any new “kind” could ever be created. Please see, for example, Gary Parker’s “‘Species’ and ‘Kind,’” *Answers in Genesis*

<http://www.answersingenesis.org/home/area/cfol/ch2-species.asp> (Accessed 15 Jan. 2009).

⁹⁶ From the label “Could The Ark Have Housed 50,000 Animals?,” Institute for Creation Research.

⁹⁷ From the label “Stability of the Ark,” Institute for Creation Research.

⁹⁸ From the label “How Could Noah Have Cared For The Animals?,” Institute for Creation Research.

⁹⁹ From the label “How Could Noah Have Cared For The Animals?,” Institute for Creation Research.

from the ark at the Smithsonian Institute. These remain unacknowledged and unavailable.”¹⁰⁰

Presumably, the ICR believes that the same atheist-leaning government that requires evolution be taught in the schools is working to destroy convincing evidence for creationism in an attempt to maintain its power. Indeed, it would be much harder to deny a worldwide flood had occurred if a boat of that size were found atop a 14,000-foot mountain. Should a future expedition prove, however, that the Ark is *not* really on Ararat, the display reassuringly notes that “there is no Scriptural prophecy which demands the Ark be found.” There is, therefore, everything to gain and nothing to lose from continued searching.



Figs. 4 and 5: These labels from the room on Noah’s Ark describe two of ten expeditions that claim to have seen the Ark. Photo: J. Duncan.

The following room details the young-Earth view of geology, based, of course, on the works of Price as rehashed in *The Genesis Flood*. First, the geologic column is called an “arbitrary” invention designed to mislead people into thinking there exists an evolutionary “chain of being.”¹⁰¹ The undeniable “quasi-statistical correlation” between local geologic columns and the “standard” column as seen in textbooks¹⁰² is explained not by correlation with periods of time but by “ecological zonation” (organisms killed by the Flood were buried “in order of elevation of habitat”), “mobility” (mobile animals escaped burial longer), and

¹⁰⁰ From the label “Duckworth Report,” Institute for Creation Research.

¹⁰¹ From the label “The Geologic Column,” Institute for Creation Research.

¹⁰² From the label “Local Geologic Columns,” Institute for Creation Research.

“hydrodynamic sorting” (denser items settled more quickly).¹⁰³ Thus, though the geologic column’s apparent order may *seem* to support evolutionary theory, there are three much more convincing reasons why it actually supports Flood Geology. Similarly, the “water-laid formations and marine fossils [that] exist nearly everywhere on earth” and evidence of “rapid burial” are claimed as proof of a global flood.¹⁰⁴

Here again, however, the MCEH staff seems to be operating under a mistaken understanding of what mainstream scientists believe. That there are marine fossils around the world, even in current deserts or mountains, fits perfectly into the evolutionary model because those places were either covered by an ancient sea¹⁰⁵ or transported to their current locations by uplift.¹⁰⁶ The MCEH display also neglects to mention that these “water-laid formations”—even those in the Grand Canyon—are interspersed with layers of *non-marine* sediment—meaning not all of the layers could have been laid down at one time (as by a single flood).¹⁰⁷ This strengthens the argument for an evolutionary timescale, because it evidences that the sea level has changed many times over billions of years; but it severely weakens the idea that the entire geologic column could have been deposited by a single catastrophe.¹⁰⁸ This seemingly blatant contradiction goes completely unaddressed.

¹⁰³ From the label “Order of the Fossils,” Institute for Creation Research.

¹⁰⁴ From the label “A Few Evidences of the Worldwide Flood,” Institute for Creation Research.

¹⁰⁵ Sea level has risen and fallen countless times throughout Earth history. During the Silurian Period, for example, most of North America was covered by a warm, shallow sea (“Ancient Coral Reefs,” *Natural History Notebooks, Canadian Museum of Nature*, 27 Jan. 2009, <http://nature.ca/notebooks/english/coral.htm> [Accessed 25 Feb. 2009]).

¹⁰⁶ There are, for example, fossils from the Miocene lowlands on the Tibetan plateau of the Himalayas. They were uplifted to this position during the formation of the Himalayas, when the Indian subcontinent collided with Asia (John F. Shroder, *Himalaya to the Sea: Geology, Geomorphology, and the Quaternary* [New York: Routledge, 1993], 28–30).

¹⁰⁷ Allyson Mathis and Carl Bowman, “The Grand Age of Rocks: The Numeric Ages for Rocks Exposed within Grand Canyon,” *National Park Service* (2006), <http://www.nature.nps.gov/geology/parks/grca/age/index.cfm> (Accessed 17 Jan. 2009). The ICR believes, as do practically all Young-Earth creationists, that the Grand Canyon was formed in a matter of days when a huge, Flood-formed lake broke free and rushed through the recently deposited strata.

¹⁰⁸ Consider, for example, the layer of rock that contains the dinosaurian footprints at Glen Rose. Recall that this layer was covered by many other sedimentary layers that concealed the footprints until 1908. If all those

Furthermore, the displays in this room suggest that uniformitarianism, the assumption that the natural processes operating in the past are the same as those in the present, somehow precludes the rapid burial required for fossilization. Says one display, “Vast fossil ‘graveyards’ all over the world, and in every supposed ‘geologic age,’ indicate rapid burial.”¹⁰⁹ Another adds that “the abundance of fossils is thus best explained by very rapid sedimentation, as in a great flood.”¹¹⁰ Still another claims that many modern geologists have recognized this weakness with uniformitarianism, quoting the Curator of Geology at the Field Museum as saying that “contemporary geologists now accept catastrophe as a way of life” and labeling him a “neo-catastrophist.”¹¹¹ What the display does not say is that uniformitarianism has *always* allowed for catastrophes: floods, hurricanes, tsunamis—but on a *local scale*. Even Charles Lyell, father of uniformitarianism, conceded in his *Principles of Geology* that the Middle East was probably flooded millennia ago. However, he rejected the idea that there had been a *global* catastrophe, pointing out that “no evidence is adduced to prove that the catastrophes [recorded around the world] were contemporaneous events, while some of them are expressly represented by ancient authors to have occurred in succession.”¹¹² Nevertheless, uniformitarianism is presented as incompatible with rapid sedimentation, implying that any evidence of rapid burial is evidence for the Flood.

A hallway connecting this room to the next explains that the global flood was responsible for the ice age of “at least several hundred years”¹¹³ that followed it. One display discusses polar ice cores, the trapped air bubbles of which scientists analyze to reconstruct

layers were laid down during the Flood, as the MCEH holds, the dinosaurs (and people) would have had to have walked on one layer of sediment that *had* been laid down by the Flood *before the next layer* was laid down *by the same Flood*.

¹⁰⁹ From the label “A Few Geological Evidences of the Worldwide Flood,” Institute for Creation Research.

¹¹⁰ From the label “How Do Fossils Form?,” Institute for Creation Research.

¹¹¹ From the label “Modern Geologists Returning to Catastrophism,” Institute for Creation Research.

¹¹² Charles Lyell, *Principles of Geology*, 11th ed. (New York: D. Appleton and Co., 1889), 61.

¹¹³ From the label “The World After the Flood,” Institute for Creation Research.

past climates. An impressive-looking graph plots ice core depth versus the change in the ratio of light to heavy oxygen, $\delta^{18}\text{O}$ (fig. 6). The graph next to it plots *time* versus $\delta^{18}\text{O}$ as constructed by scientists using the “Old-Earth interpretation,” which shows an ice age ending about 10,000 years ago (fig. 7). Another graph, however, plots time versus $\delta^{18}\text{O}$ using the “Young-Earth interpretation.” This graph looks quite different and supposedly demonstrates that the Great Flood and subsequent ice age took place closer to 4,500 years ago (fig. 8).¹¹⁴ Once more, it is posited that evolutionists and creationists use the same data—in this case, the oxygen isotope ratios from the ice cores—yet come to different conclusions simply because of their interpretive methods. Curiously, however, the graph plotting the Young-Earth interpretation of the ice core data appears to be the *exact same graph* as the original one plotting depth vs. $\delta^{18}\text{O}$, except that the label on the y-axis, “depth,” has been changed to “Creation Model time (kyrs)” (figs. 6, 8)].

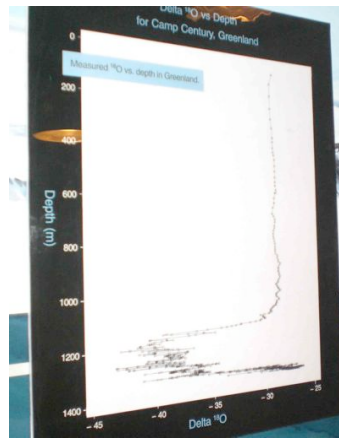


Fig. 6: This graph plots depth (m) vs. $\delta^{18}\text{O}$ from an ice core from Greenland. Note the fluctuating values between about 1200 and 1400 meters. Photo: J. Duncan.

¹¹⁴ From the graph “Delta ^{18}O vs Creation Model Time for Camp Century, Greenland,” Institute for Creation Research.

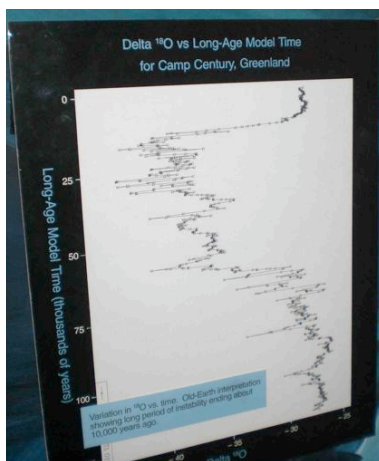


Fig. 7: This graph shows the variation in $\delta^{18}\text{O}$ over “Long-Age Model Time.” Photo: J. Duncan.

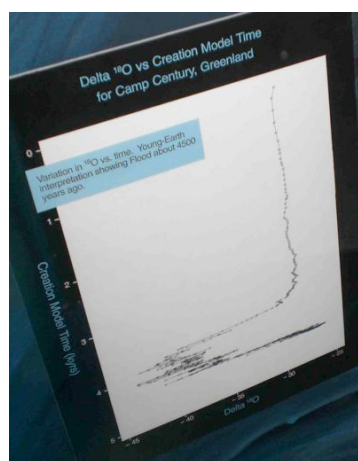


Fig. 8: This graph shows the variation in $\delta^{18}\text{O}$ over “Creation Model Time.” Note its striking similarity to Fig. 6. Photo: J. Duncan.

Next, a series of rooms details the progression of mankind following the Flood, including the dispersion of peoples after the Tower of Babel and the development of the races—not by evolution but through a vaguely explained “loss of genetic variability.”¹¹⁵ (As at Dinosaur Adventure Land, racism is linked to evolutionary thought.) The corner on human ancestry has molds of hominid footprints and a number of labels insisting that Neanderthals, *Homo erectus*, and other supposed human ancestors were “true human beings.”¹¹⁶ The displays claim that modern humans could not possibly have evolved from these supposed subspecies because many of them lived contemporaneously. Furthermore, says one label, “When humans first appear in the fossil record they are already human.”¹¹⁷ Though the first claim reflects a common misunderstanding of the idea of common

¹¹⁵ From the label “Origin of Races,” Institute for Creation Research.

¹¹⁶ From the label “Creationist Interpretation,” Institute for Creation Research.

¹¹⁷ From the label “The Human Fossil Record: What the Evidence Indicates” (2 of 2), Institute for Creation Research. The information on these labels appears to have been taken from Marvin Lubenow’s book *Bones of Contention: A Creationist Assessment of Human Fossils*, revised edition (Grand Rapids, MI: Baker Books, 2004), 332-3.

ancestry,¹¹⁸ the second is simply circular reasoning. Nonetheless, to those unfamiliar with the details of evolutionary theory, both might seem to make sense.

Also in this room are a number of very pleasantly laid-out display cases containing artifacts from Old Testament times up through the first few centuries C.E., such as fragments of pottery with Hebrew on them and an arrowhead from the Bar-Kokhba War (fig. 9). All are accompanied by labels explaining their historical significance. Though not all say so explicitly, the items are meant to evidence the Bible's historicity. The label accompanying a clay tablet containing the "Nabonidus Chronicle," for example, notes that its discovery was "an exciting archaeological confirmation of Scripture."¹¹⁹ The cases are filled to the brim with these artifacts, suggesting that there is abundant physical evidence in support of a literal interpretation of the Bible.



Fig. 9: This is one of many display cases containing biblical artifacts.
Photo: J. Duncan.

¹¹⁸ The evolutionary "tree" has bifurcating branches, not just a single trunk. *Homo sapiens* did not "come from" *Homo neanderthalensis*; they merely shared a common ancestor some 800,000 years ago. Please see Elisabeth Pennisi's "No Sex Please, We're Neanderthals," *Science* 316, no. 5827 (18 May 2007): 967.

¹¹⁹ From the label "Nabonidus Chronicle," Institute for Creation Research.

The One, True Religion

Following this room filled with evidence for an historical Bible is a room of displays explaining why all other religions have gone astray. Some religions receive little respect: the “Egyptian myths,” for example, are called “crude in the extreme” and “totally unacceptable to intelligent, thinking people.”¹²⁰ Judaism and Islam come closer to the truth, but they “fail to understand that the Creator must also be their redeemer.”¹²¹ Only Christianity, with its “simple yet majestic record,”¹²² is historically and spiritually accurate.

As further evidence of Christianity’s claim to truth, the hallway is lined with portraits and biographies of the great scientists of the Renaissance and the Enlightenment, most of whom “were Bible-believing Creationists and professing Christians.”¹²³ Visitors depart this Hall of Science having learned that “[t]he Laws of motion, thermodynamics, and electricity are just a few of the discoveries made by Creationists.”¹²⁴ And if founding modern science is not sufficiently impressive, the next display explains that creationists founded another venerable institution: the United States. Though not said explicitly, the clear message is that the country’s “Creationist foundation”¹²⁵ must not be forgotten.

Creation Research

The MCEH’s final room is very clearly its “science” room. The first section is dedicated to debunking evolution on purely scientific grounds. The displays point out five “filters” that prevent evolution from taking place, such as that “beneficial mutations are so rare they do not significantly impact the human gene pool.”¹²⁶ (Once again, the MCEH

¹²⁰ From the label “Egyptian ‘Creator God’ Ptah,” Institute for Creation Research.

¹²¹ From the label “Origin of Religion,” Institute for Creation Research.

¹²² From the label “Egyptian ‘Creator God’ Ptah,” Institute for Creation Research.

¹²³ From the label “Rise of Modern Science,” Institute for Creation Research.

¹²⁴ From the label “The Renaissance,” Institute for Creation Research.

¹²⁵ From the label “Declaration of Independence,” Institute for Creation Research.

¹²⁶ From the label “Filter #2,” Institute for Creation Research.

seems unaware that Mendelian genetics allows for independent variation to be preserved over many generations through hidden variation, solving Darwin's worries about the "blending" of traits.) A touch-screen presentation allows visitors to see this flawed process in action (fig. 10). Other panels contain lengthy excerpts from Kurt Wise's book *Faith, Form, and Time* (2002), which point out problems with homology, the fossil order, and other evidence for evolution.



Fig. 10: A visitor uses an interactive touch-screen television to learn that mutations can only weaken a population. Photo: J. Duncan.

The room's second section details past and present research projects being undertaken by the ICR. Its walls are covered from ceiling to floor with labels, and the labels are filled with text, charts, and diagrams about carbon dating, plate tectonics, and other theories and methods the ICR contests (fig. 11). The displays are so incredibly busy, however, that there is simply too much to read. Most visitors seemed to glance at them only momentarily before



Fig. 11: Almost all the wall space in this final room is covered with text- and data-heavy labels such as these. Photo: J. Duncan.

moving on. The room's purpose is clear, then: by overwhelming visitors with "science," by filling the room with far more information than the average museum-goer has the patience to read, the MCEH encourages visitors simply to trust that science is being done, that it is being done right, and that it supports creationism.¹²⁷ Visitors depart confident that their belief in the literal truth of the Bible is scientifically sound.

¹²⁷ Barry Lord, in his "The Purpose of Museum Exhibitions" (in *Manual of Museum Exhibitions* [Walnut Creek, CA : AltaMira Press, 2002], 18) notes that "[A museum is not] a school or a university, so a museum exhibition should not attempt to offer a lecture or a course. When a museum exhibition tries to communicate that level of didactic material it may overwhelm, but it is not likely to affect the visitor positively unless he or she is a part of a formal class dedicated to this specific subject, or already a specialist in it." The MCEH's labels are far from readable, and the average visitor is far from a "specialist" in the subject, so they are not actually encouraged to understand the information presented.

CHAPTER IV

THE ANSWERS IN GENESIS CREATION MUSEUM

“It is no secret, and we make no apology about it, that the ultimate purpose of the Creation Museum is evangelistic. We see it as an outreach—a ministry—to uphold the authority of God’s Word, equip Christians to defend the faith, answer the skeptical questions of the age, and challenge non-Christians concerning the gospel.”

—Ken Ham, founder of Answers in Genesis¹

The fourth and final museum to be explored is both the most recently constructed and, in many ways, the most influential. Unlike the other three museums, which received relatively little media attention except in times of controversy (Baugh’s early “man track” claims, Hovind’s imprisonment for tax fraud, and the ICR’s attempts to grant degrees), the Answers in Genesis Creation Museum in Petersburg, Kentucky, was at the center of a media firestorm even before it was built. As the *Los Angeles Times* noted shortly before the museum’s grand opening in 2007, the purpose of this museum was “to bring a new level of high-tech polish to [the] argument against evolution”²—and with 60,000 square feet and \$27 million in funding, it seemed well posed to do just that.

Ken Ham: Going “Back to Genesis”

The museum is the brainchild of Ken Ham, founder and president of Answers in Genesis (AiG). Australian by birth, Ham was long active in the creationist movement there before moving to California in 1987 to work for the Institute for Creation Research.³ After spending the next few years traveling the U.S. giving his “Back-to-Genesis” seminars (which

¹ Ken Ham, “Saved at the Creation Museum,” *Around the World with Ken Ham*, 25 Jan. 2009, <http://blogs.answersingenesis.org/aroundtheworld/category/museum-updates/> (Accessed 25 Feb. 2009).

² Richard Fausset, “A rather unusual species of museum,” *The Los Angeles Times*, 20 May 2007, <http://articles.latimes.com/2007/may/20/nation/na-creationist20> (Accessed 28 Jan. 2009).

³ Answers in Genesis, “Ken A. Ham,” <http://www.answersingenesis.org/home/area/about/ham.asp> (Accessed 25 Jan. 2009).

Dr. Morris described as wildly popular),⁴ in 1993 Ham decided to start his own ministry, which he was determined “would be more layperson-oriented than ICR.”⁵ This was, perhaps, because Ham, unlike the founders of the other three museums discussed, neither has nor claims to have any advanced degrees in science.⁶ Ham does hold a bachelor’s degree in applied science from the Queensland Institute of Technology and a “diploma of education” from the University of Queensland. He also worked for many years as a public school teacher in Australia.⁷ Nevertheless, Ham seemed to think that the ICR had already filled the scientific, research-oriented niche in the creationist movement. What resulted was Creation Science Ministries, an autonomous ministry that retained friendly ties with the Australia-based Creation Science Foundation Ham had helped found in 1979. Ham moved to northern Kentucky in the following year to set up the new ministry’s headquarters, changing its name to Answers in Genesis shortly thereafter.⁸

The new ministry got off to a quick start. In March of 1994, AiG hosted a creation conference in Denver that attracted 6,500 participants, including 4,000 students. By December, Ham’s radio show, *Answers...with Ken Ham*, was airing on 142 radio stations (today that number is over 860, along with 450 international outlets⁹), and in that year alone

⁴ Morris, *History of Modern Creationism*, 303.

⁵ Ken Ham, “History of AiG through 2008,” Answers in Genesis, <http://answersingenesis.org/about/history> (Accessed 19 Jan. 2009).

⁶ Stephen Bates, in his article “So what’s with all the dinosaurs?” (*The Guardian*, 13 Nov. 2006, <http://www.guardian.co.uk/world/2006/nov/13/usa.religion> [Accessed 16 Jan. 2009]), noted that when Mr. Ham gave him a tour of the museum, he was “at pains” to point out that he was not a scientist.

⁷ Answers in Genesis, “Ken A. Ham.”

⁸ Ham, “History of AiG through 2008.” This name change was meant “to reflect the fact that the ministry was not just about ‘creation,’ but the authority of *all* scripture.” Later, the Creation Science Foundation also changed its name to Answers in Genesis-Australia. The two groups would later split over what AiG-Australia called “unbiblical/unethical/unlawful behaviour” on the part of AiG-U.S. Please see Michael McKenna’s article “Biblical battle of creation groups,” *The Australian*, 4 June 2007, <http://www.theaustralian.news.com.au/story/0,20867,21843706-2702,00.html> (Accessed 19 Jan. 2009).

⁹ From the “Answers in Genesis Fact Sheet” included in the press packet created for AiG by A. Larry Ross Communications.

AiG estimated it had reached over 85,500 people through its radio ministry and educational conferences.¹⁰

In 1995, AiG launched its website, *AnswersInGenesis.org*. A mere ten years later it had registered 15.9 million visits and contained over 6,000 articles in 12 languages.¹¹ The website, which now averages 30,000 visits per day,¹² allows visitors to download free radio files and educational PowerPoint presentations; read Ken Ham's blog, scientific articles from the "Get Answers" page, news, and an anti-evolution comic called *After Eden*; and, of course, to shop for creationist materials including textbooks, DVDs, CDs, and vacation bible school kits—the vast majority of which are published by AiG itself.¹³ Visitors may sign up for an automated email called "Answers Weekly," which poses and answers questions such as "Is the Big Bang the best theory?" and "Why Did God Make Viruses?"¹⁴ This author has been subscribed since the summer of 2007. Interestingly, the frequency of these emails increased from once a week to once every 1-3 days as the 2008 Christmas season neared. Instead of answering questions, many of these emails promoted a "Blowout Sale" (fig. 1),¹⁵ hinting at the significant profit to be made from the sale of religious materials.

¹⁰ Ham, "History of AiG through 2008."

¹¹ Answers in Genesis, "Website of the Year!", 18 Jan. 2006, <http://www.answersingenesis.org/docs2006/0118nrb.asp> (Accessed 28 Jan. 2009).

¹² From the "Answers in Genesis Fact Sheet." included in the press packet created for AiG by A. Larry Ross Communications.

¹³ Answers in Genesis, "Store Home," <http://www.answersingenesis.org/PublicStore/> (Accessed 27 Jan. 2009).

¹⁴ "Is the Big Bang the Best Theory?" was emailed on January 24, 2009; "Did Jesus Contradict Himself?" on January 17, 2009; and "Why Did God Make Viruses?" on January 10, 2009.

¹⁵ The following are examples of emails sent immediately preceding and immediately after the Christmas holiday: "DOUBLE your donation and 4 more days of free shipping" (12 Dec. 2008); "How can you double your impact? [With a doubled donation!]" (13 Dec. 2008); "LAST DAY for free shipping!" (16 Dec. 2008); "15 days, 15% off: countdown sale!" (17 Dec. 2008); "End-of-Year DVD Blowout Sale" (23 Dec. 2008); "15% OFF EVERYTHING: only 3 days left!" (29 Dec. 2008); "LAST DAY for these THREE end-of-year offers!" (31 Dec. 2008); "Start off the new year with these great sales!" (2 Jan. 2009).



Fig. 1: This email, sent by Answers in Genesis through its *Answers Weekly* email list on Dec. 28, 2008, promotes the “End-of-Year Blowout Sale,” a donation-matching program, and a 15%-off sale.

AiG’s conferences and teaching events—now more than 350 each year¹⁶—enjoy similar success. This year, as the mainstream scientific world celebrates the 200th anniversary of Charles Darwin’s birth and the 150th anniversary of *The Origin of Species*, AiG is putting on two “Answers for Darwin” conferences on both coasts, one in California and the other in Virginia. According to the website, these “Bible-based, science-backed conferences” will “debunk 200 years of evolutionary teaching.”¹⁷ Like the Institute for Creation Research, AiG also sponsors trips to the Grand Canyon and the Holy Land, with prices ranging from \$1,500 to \$2,600.¹⁸ Furthermore, though it has no graduate school, AiG has for the past three years put on an annual “Creation College” in northern Kentucky, where for five days

¹⁶ From the “Answers in Genesis Fact Sheet” included in the press packet created for AiG by A. Larry Ross Communications.

¹⁷ Answers in Genesis, “Answers for Darwin: Refuting 200 Years of Evolution,” <http://www.answersingenesis.org/events/answers-for-darwin> (Accessed 20 Jan. 2009).

¹⁸ Answers in Genesis, “Israel & Jordan,” <http://www.pilgrimtours.com/aig.htm>; “Grand Canyon 2009,” <http://www.answersingenesis.org/events/grandCanyon/> (Accessed 13 Jan. 2009).

and \$180.00 attendees can hear Ham and creation scientists such as Dr. Terry Mortenson (a prolific flood geologist¹⁹) give lectures including “The Ultimate Proof for Creation,” “Evolution and Logical Fallacies,” and “Growing a Creation Ministry.”²⁰

Another important component of the AiG ministry is its popular magazine, *Answers*. AiG had long distributed its Australian sister organization’s magazine, *Creation*, but in 2006, due to “concern about the renewal rate for subscribers to *Creation* magazine,” it decided to begin publishing its own magazine that would “emphasize the biblical worldview...have widespread practical application, and...feature biblical and scientific articles on the origins issue.”²¹ Currently, the extremely professional-looking magazine (fig. 2) can claim over 70,000 subscribers.²²



Fig. 2: The front cover of the October 2006 edition of *Answers* magazine and its included mini-magazine, *Kids Answers*.

In January of 2008, AiG expanded its publication lineup to include the online *Answers Research Journal (ARJ)*, which it describes as “a professional, peer-reviewed technical journal for the publication of interdisciplinary scientific and other relevant research from the

¹⁹ Answers in Genesis, “Biography: Dr. Terry Mortenson,”

http://www.answersingenesis.org/home/area/bios/t_mortenson.asp (Accessed 13 Jan. 2009).

²⁰ Answers in Genesis, “Schedule—Creation College 3,” <http://www.answersingenesis.org/events/creation-college-3/schedule> (Accessed 14 Jan. 2009).

²¹ Ham, “History of AiG through 2008.” This decision seems to have been the catalyst for the split between AiG-U.S. and AiG-Australia. Please see Michael McKenna’s article “Biblical battle of creation groups.”

²² Ham, “History of AiG through 2008.”

perspective of the recent Creation and the global Flood within a biblical framework.”²³ This decision was undoubtedly a response to the criticism that creation scientists do not publish their works in peer-reviewed journals.²⁴ However, the *ARJ* does not conform to standard peer-review practices. Those submitting their papers can suggest who should review their papers, and, as *Slate* pointed out, the reviewers’ job is “not to ensure that research meets academic standards of scientific inquiry, but rather to ensure that the scholar’s conclusions conform to a literal interpretation of the Bible.”²⁵ The “Instructions to Authors Manual” available on its website informs prospective authors that submissions will be judged on a number of criteria, including whether they are “formulated within a young-earth, young-universe framework” and whether they show “evidence of faithfulness to the grammatical-historical/normative interpretation of Scripture.”²⁶ Of course, no other established scientific journal requires its submissions to conform to a pre-determined set of results, but AiG insists that the *ARJ*’s papers will be “of the highest scientific and theological standard,”²⁷ on par with any other comparable scientific publication. It is, perhaps, no coincidence that the *ARJ* website is designed to look strikingly like those of other scientific journals such as *Nature* and *Science* (figs. 3, 4).

²³ Answers in Genesis, “About *Answers Research Journal*,” <http://www.answersingenesis.org/arj/about> (Accessed 20 Jan. 2009).

²⁴ Dr. D. Russell Humphreys addresses this complaint in “Q. Do creation scientists publish in secular journals?” (originally published in *Creation* 20, no. 1 [Dec. 1997]: 31), Answers in Genesis, <http://www.answersingenesis.org/creation/v20/i1/question.asp> (Accessed 23 Feb. 2009).

²⁵ Bonnie Goldstein, “Peer-Reviewing the Bible,” *Slate.com*, 13 Feb. 2008, <http://www.slate.com/id/2184384/pagenum/all/> (Accessed 15 Jan. 2009).

²⁶ Answers in Genesis, “Instructions to Authors Manual,” <http://www.answersingenesis.org/assets/pdf/arj/instructions-to-authors.pdf> (Accessed 29 Jan. 2009).

²⁷ Answers in Genesis, “About *Answers Research Journal*.”

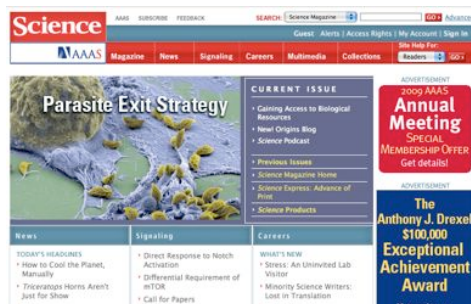


Fig. 3: The homepage of *Science* magazine.



Fig. 4: The strikingly similar homepage of *Answers Research Journal*.

Most religious ministries can only dream of the incredible success AiG has achieved with its conferences, website, and publications. For Ham, however, these endeavors were always peripheral. From the moment he left ICR, Ham began planning to build a large creation museum, one that would attract visitors from across the country. He chose northern Kentucky with this in mind, as the location is within a day's drive for two-thirds of the American population.²⁸ Though Ham began searching for land upon which to build his museum in the mid-nineties, it would take more than a decade for his plan to become a reality.²⁹

The Quest for the Creation Museum

Ham's original plan was for its new museum to be located next to Big Bone Lick, a Boone County, Kentucky, state park where Lewis and Clark discovered Pleistocene megafauna fossils in 1807. Presumably, AiG felt that building its museum next to Big Bone Lick, a place billed as "the birthplace of American paleontology," would help counteract the evolutionary ideas being taught there. AiG even went so far as to suggest that its museum would serve as the natural history museum the county had called for in its development plan.

²⁸ Gordy Slack, "Inside the Creation Museum," *Salon.com*, http://www.salon.com/news/feature/2007/05/31/creation_museum/ (Accessed 13 Jan. 2009).

²⁹ Ham, "History of AiG through 2008."

Unsurprisingly, many local scientists and activists were outraged by this proposal, and after extensive legal proceedings and zoning disputes AiG was denied its building permit.³⁰ One AiG supporter was so outraged by “the way AiG was being attacked”³¹ during this dispute that he donated \$1 million to the museum fund.

Unfazed, AiG continued to fundraise and in the year 2000 finally managed to purchase 47 acres of land near the Cincinnati airport for its new headquarters and museum. Four years later, Ham and his large staff (now numbering over 100) moved into the new headquarters while construction continued on the museum next door.³² Then, in 2006, AiG received a \$50,000 donation from a California family that broke the \$20 million fundraising mark.³³ Thanks to a continued influx of such large, private donations, the \$27 million, 65,000-square-foot complex opened just a year later without a penny of debt.³⁴

AiG was by this time (and continues to be) the world’s largest apologetics organization,³⁵ so its museum’s grand opening did not go unnoticed. Even before the big day in May of 2007, media from around the world—*NBC*, *PBS*, the *BBC*, *Newsweek*, *The New York Times*, *The Times of London*, *The Economist*, *Discover Magazine*, and *El País*, to name only a few—had visited the construction site to give their readers a sneak preview of the multi-million-dollar “Anti-Museum.”³⁶ Furthermore, in preparation for the grand opening, AiG’s

³⁰ Daniel Phelps, “The Anti-Museum,” *National Center for Science Education*, 17 Oct. 2008, <http://ncseweb.org/creationism/general/anti-museum-overview-review-answers-genesis-creation-museum> (Accessed 10 Jan. 2009).

³¹ Ham, “History of AiG through 2008.”

³² From “History of AiG & Creation Museum,” a leaflet included in the Creation Museum publicity packet prepared for AiG by A. Larry Ross Communications.

³³ Ham, “History of AiG through 2008.”

³⁴ Edward Rothstein, “Adam and Eve in the Land of the Dinosaurs,” *New York Times*, 24 May 2007, http://www.nytimes.com/2007/05/24/arts/24crea.html?_r=1&adxnnl=1&pagewanted=print&adxnnlx=1233271912-EHpE39IDLbOkOs8Cko3Ciw (Accessed 6 June 2007).

³⁵ From the “Media Alert” included in the press packet prepared for AiG by A. Larry Ross communications.

³⁶ Daniel Phelps, in his article “The Anti-Museum,” points out that “A December 15, 2003 posting on the AiG website went into considerable detail about what the museum would have to counter traditional natural history museums and eventually christened the ‘Creation Museum’ with the far more appropriate name of ‘The Anti-Museum.’”

publicity agent, A. Larry Ross Communications (a Christian group that pledges to “restore faith in media”³⁷) sent an impressive press packet to media representatives not only inviting them to the ribbon-cutting ceremony and press conference but also providing them with video footage and photographs for news reports, fact sheets about AiG and the museum, and the latest edition of *Answers* magazine.³⁸ As a reporter from the National Center for Science Education noted, the media generally treated AiG very kindly, often making it seem as though there were no controversy at all over what the Creation Museum was teaching. Publicity was so good, in fact, that a number of local politicians—including U.S. Congressman Geoff Davis and George Ward, Secretary of Commerce for Kentucky (who seemed excited about increased tourism revenue)—were present for the ribbon-cutting.³⁹

“Prepare to Believe”

Upon paying \$21.95⁴⁰ and entering the Creation Museum, visitors are told by various signs and safari-vested workers that they should “prepare to believe”—referring, of course, to the belief that the Bible is literally true and that modern science supports such a conclusion. Like workers and students at the ICR, these employees have all signed an obligatory statement promising that they *do* believe—affirming, among other things, that “by definition, no apparent, perceived or claimed evidence in any field...can be valid if it

³⁷ A. Larry Ross Communications, <http://www.alarryross.com/homepage.aspx>, (Accessed 29 Jan. 2009).

³⁸ This author was able to obtain a press packet by contacting Mr. Mark Looy, Chief Communications Officer and co-founder of AiG.

³⁹ Phelps, “The Anti-Museum.”

⁴⁰ This price is quite a bit higher, it ought to be noted, than any of the other creation museums discussed (CEM: \$3; DAL: \$7; ICR: free), as well as the Cincinnati Museum of Natural History and Science (\$8). Of course, AiG’s museum cost much more to build (more than the other creation museums, at least), but as the AiG museum opened without a penny of debt, this seems insufficient reason for the price differential.

contradicts the Scriptural record.”⁴¹ The main lobby contains an animatronic sauropod and *T-Rex*, which are shown cavorting peacefully with a young girl in what visitors later learn



Fig. 5: An animatronic *T-Rex* and child. Photo: J. Duncan.

was a typical pre-Flood scene (fig. 5). The museum is filled with dozens of these dinosaurs, which Ham and his cohorts call “missionary lizards”⁴² due to their attention-getting power. From this room visitors may enter Noah’s Café for a Before the Fall Salad (made with “Ice Age” iceberg lettuce); begin their tour of the museum; or watch one of the two special presentations, the planetarium show and the *Men in White* movie.

Those who choose to pay the extra five dollars to see the planetarium show, *The Created Cosmos*, are treated to a video written by Dr. Jason Lisle, one of AiG’s research scientists, who earned his Ph.D. in astrophysics from the University of Colorado.⁴³ The visually stunning, computer-animated video whisks the audience across the cosmos as the narrator discusses supposed weaknesses with the Big Bang, such as that spiral galaxies are incompatible with an old universe. The narrator then assures the audience—rather vaguely, as if it were given—that a young universe is far more compatible with the observable data.

⁴¹ Answers in Genesis, “The AiG Statement of Faith,” <http://www.answersingenesis.org/about/faith> (Accessed 29 Jan. 2009).

⁴² Buddy Davis, “How Can We Use Dinosaurs to Spread the Creation Gospel Message?” Answers in Genesis <http://www.answersingenesis.org/articles/nab/spread-gospel-with-dinosaurs> (Accessed 14 Jan. 2009).

⁴³ Answers in Genesis, “Dr. Jason Lisle, Ph.D.,” http://www.answersingenesis.org/home/area/bios/j_lisle.asp (Accessed 28 Jan. 2009).

He explains, for example, that God easily could have created light en route to Earth, enabling us to see stars farther than 6,000 light years away.

Those who choose to see *Men in White* will take away a similar message but from a quite different style of presentation. While the planetarium has a sort of documentary feel to it, *Men in White* is clearly meant to be a comedy directed toward a younger crowd. It stars two angels, Mike and Gabe (presumably Michael and Gabriel), who speak in a “hip” lingo. They comfort Wendy, a young girl worried that religion is incompatible with modern science, by reminding her that “God loves science!” As they recount the true story of the Flood, the audience members are sprayed by water from the seats in front of them. Then the two angels begin to discuss evolution, smirking and remarking that it “makes absolutely no sense.” Here the movie’s anti-intellectual bent becomes apparent: evolutionist Dr. Ed U. Kaded and a host of high school biology teachers are presented, as one offended visitor from the National Center for Science Education put it, as “atheistic, dim-witted, frumpy nerds who [are] astoundingly dogmatic and mean.”⁴⁴ They insist that “no thinking person” could doubt Darwin.⁴⁵ The angels then appear in a high school biology class, where they continuously question the teacher with typical creationist arguments (such as that an old Earth’s ocean should be much saltier) to which the bumbling teacher has no good response. The obvious lesson is that students should not be afraid to challenge their teachers—rudely, if necessary—if they try to teach evolution. It is, perhaps, no coincidence that AiG has recently

⁴⁴ Phelps, “The Anti-Museum.”

⁴⁵ Leah Arroyo, “Science on Faith at the Creation Museum,” *American Association of Museums* (Nov./Dec. 2007), <http://vertpaleo.org/news/permalinks/2007/07/31/Misrepresentation-of-Earth-History-at-the-New-Creation-Museum/> (Accessed 14 Jan. 2009).

published a new book called *Evolution Exposed: Your Evolution Answer Book for the Classroom*, which encourages students to do just that.⁴⁶

The Seven C's of History

After attending these special presentations, visitors begin their tour. Often, this means passing a few security guards dressed remarkably like Boone County policemen (German shepherds and all); they are distinguished only by their shoulder patches that say “Creation Museum.”⁴⁷ While visitors wait in a short queue, they can read a series of labels about two of the museum’s major themes: first, that history has and will follow a series of “7 C’s”—Creation, Corruption, Catastrophe, Confusion, Christ, Cross, and Consummation—and second, that the different conclusions reached by mainstream and creation scientists are simply due to different views of the same facts.

The first room explains this idea further. In the room’s center are two animatronic paleontologists excavating a dinosaur. The video looping next to this display explains that these figures represent two real-life paleontologists, one a creationist and the other an evolutionist. The creationist explains that though he and the evolutionist are both scientists, they disagree about how old these dinosaur bones are “because of [their] different starting points.”⁴⁸ Another series of displays along the room’s walls explains that “the evidence”—

⁴⁶ Timothy H. Heaton, “A Visit to the Creation Museum,” *National Center for Science Education* (Jan.-Apr. 2007), <http://ncseweb.org/rncse/27/1-2/visit-to-new-creation-museum> (Accessed 12 Jan. 2009).

⁴⁷ Before the museum’s opening in 2007, AiG had asked then-Kentucky Governor Ernie Fletcher for special police powers to train guards to protect the museum and control crowds but had been denied.⁴⁷ Nevertheless, it seems that AiG decided to dress its guards like real policemen that they might have a similarly powerful control over crowds and rowdy protestors. Please see Shelly Whitehead’s “Museum wants police power: ‘Answers’ asking Fletcher to OK it,” *The Cincinnati Post*, 23 Feb. 2007, <http://news.cincypost.com/apps/pbcs.dll/article?AID=/20070223/NEWS01/702230373> (Accessed 4 June 2007—this article now unavailable due to discontinuation of the *Cincinnati Post*).

⁴⁸ From the video accompanying the display entitled “What do we know about Dinosaurs?”, Answers in Genesis.

such as coal and plant fossils, the “Lucy” fossils, and *Archaeopteryx* fossils—“is in the Present.” To answer the question “[w]hat happened in the Past?”, scientists must interpret



Fig. 6: This room’s displays set up the “two-model” approach by showing the different conclusions reached by creationists and by evolutionists after looking at the same evidence. Photo: J. Duncan.

that evidence according to their presuppositions. For evolutionists, that means making an *a priori* commitment to naturalism; for creationists, to the Bible. In this and the following room, where the starting points “Human Reason” and “God’s Word” are contrasted, it is suggested that neither method is less valid than the other. By stressing that both camps have made presuppositions before addressing the evidence, AiG puts creationism on equal footing with mainstream science in a way very clearly based on the Henry Morris’s “two-model approach.” As visitors progress through the museum, however, it is made overwhelmingly clear that, contrary to popular belief, the creationist interpretation of the data is the only truly valid interpretation of the evidence.

After setting up this dichotomy between the two great presuppositions, the museum explains why it makes much more sense to start with “God’s Word” than with atheism. The first display contains black-and-white photographs of death, disaster, and disability, and reminds visitors that “God’s Word offers Hope” in trying times.⁴⁹ The next insists that

⁴⁹ From the label “God’s Word offers Hope,” Answers in Genesis.

“God’s Word is True,” as evidenced by archaeology and by the fulfillment of hundreds of biblical prophecies.⁵⁰ Others claim that “modern science” has confirmed biblical teachings that were once discredited, such as that all people are of “one blood,” and that “languages fall into distinct ‘families’ of recent origin,” as told in the story of the Tower of Babel.⁵¹ Except for the claim about genetic similarity among the races and another about the universe having a beginning, none of the claims made here—such as that “biology confirms that creatures reproduce [only] within their own kind” or that the “rock layers were deposited catastrophically”—have actually been confirmed by “modern science,” as the display suggests.⁵² All accord nicely with *creation science*, of course; but that term is not used, giving the impression that mainstream science is constantly “discovering” what the Bible has said all along. The final display in this series explains that Christian leaders’ decision “to reinterpret the Bible to add millions of years into history” is just the latest attack on biblical inerrancy that must be corrected.⁵³

Lest anyone be unaware of the consequences, the next set of rooms illustrates what happens when the Bible is forgotten. Visitors enter a dark, dirty alleyway. Boards nailed over a window are graffitied with the words “Modern World abandons the Bible.” Above it, a label notes that this “leads to...relative morality, hopelessness, and meaninglessness.”⁵⁴ A brick wall contains a messy collage of newspaper and magazine clippings about the supposed results of abandoning a literal interpretation of the Bible. These include homosexuality (a *Time* magazine cover shows a gay teen; someone, it is unclear whether it was a staff member or a visitor, has drawn a “Satan mustache” on him), the Columbine shootings, and physician-

⁵⁰ From the label “God’s Word is True,” Answers in Genesis.

⁵¹ From the label “Attempts to Discredit,” Answers in Genesis.

⁵² *Ibid.*

⁵³ From the label “The Latest Attack: Question Biblical Time,” Answers in Genesis.

⁵⁴ From the label “Scripture Abandoned in the Culture,” Answers in Genesis.

assisted suicide (fig. 7). The final display in this series allows visitors to look through “windows” (flat-screen televisions) into the homes of typical American youth. One young girl is on the phone with an abortion clinic. A boy sits at his computer rolling a joint; we are told he is looking at porn. The accompanying labels, with their black backgrounds, frightening images, and ominous-looking fonts of various sizes, drive home the idea that the modern world has lost its moral foundation (fig. 8).



Fig. 7: A collage shows the terrible results of abandoning the Bible. Photo: J. Duncan.

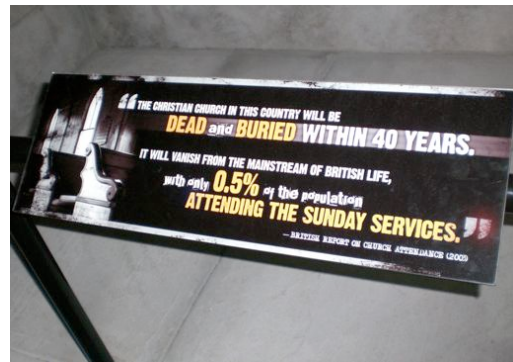


Fig. 8: This label shows an empty church and reports that only 0.5% of the British population attends Sunday services. The room’s other displays warn that America is headed for a similar fate. Photo: J. Duncan.

Just as all hope seems lost, however, visitors are shuffled into a small theater for a dramatic reading of the first chapter of Genesis accompanied by a beautiful, computer-animated and live-action video. The chapter’s well-known, poetic words are spoken by a soothing male voice as brilliant images of nature’s bounty flash across the screen; one cannot help but be inspired.

This room marks a clear change in direction. Having demonstrated the moral bankruptcy of evolutionary ideas, the rest of the museum takes a more positive tone as it traces biblical history and reconciles it with science. Visitors leave the screening room and pass into a large, brightly lit lobby—“The Wonders Room”—filled with fifteen flat-screen

televisions. Each television is looping one of fifteen “Amazing Science Videos on the 6 Days of Creation,” such as “Natural Laws,” “Common Designer,” and “Made in God’s Image.”⁵⁵ All explain how science has confirmed the Bible. “The Language of DNA,” for example, points out that “language is recognizable, even if you can’t read it” and concludes that DNA, clearly a language, must have been “written” by God.

The next room begins the tour of the “7 C’s of History” with Creation. Adam, an attractive, dark-skinned man, is shown naming the animals in the Garden of Eden. The accompanying labels explain that “creation biologists”⁵⁶ have determined that Adam only named “animals closely associated with man and not ‘beasts of the earth’ or ‘creeping things,’” a process that should have required “only a few hours, at most.”⁵⁷ Another assures visitors that all creatures—dinosaurs included—were herbivorous before the Fall of Adam, allowing all to live in perfect harmony.⁵⁸ Next, Adam and Eve are shown gazing into each other’s eyes while bathing in an Edenic pool. The label accompanying this scene touches once more upon AiG’s social agenda, insisting that “the special creation of Adam and Eve is the foundation for marriage: one man and one woman.”⁵⁹

This paradise does not last, however. Visitors pass into the room of the second C: Corruption. The lights dim, and a frightening, dragon-like serpent stares out from a darkened wall. He leads Adam and Eve to make that fatal mistake: questioning God’s Word.⁶⁰ The next hallway shows the consequences (in stark, black-and-white photographs) of the first couple’s mistake: a starving child with distended stomach; the mushroom cloud of an atomic bomb; a man using heroin; a room filled with human remains; the Nazis. The

⁵⁵ A full listing of the 15 videos is provided on the label “The Wonders Room Features 15 Amazing Science Videos on the 6 Days of Creation,” Answers in Genesis.

⁵⁶ From the label “What did they look like?,” Answers in Genesis.

⁵⁷ From the label “How many were there?,” Answers in Genesis.

⁵⁸ From the label “What did dinosaurs eat?,” Answers in Genesis.

⁵⁹ From the label “One Flesh,” Answers in Genesis.

⁶⁰ From the label “God’s Word is Questioned,” Answers in Genesis.

next room shows Adam and Eve’s descendents learning to live in a post-Edenic world, one that is now home to scavengers, disease, burdensome work, and (perhaps worst of all) weeds. One display mentions that animals are now forced to fight over limited resources, meaning “the weakest animals die off.”⁶¹ It even calls this process “natural selection,” but this is simply a co-optation of the term; it is used here not in terms of evolution but to explain how “the fallen world [could] function despite sin.”⁶² The room’s last label justifies biblical incest by pointing out that the generations closest to Adam and Eve—who necessarily had unblemished DNA, being formed in God’s image—would have had fewer genetic mutations (“mistakes”⁶³) and therefore less risk of deformities in their offspring.

The third C is Catastrophe: the worldwide flood. This room contains what is supposedly a life-size reconstruction of a segment of the Ark. Animatronic workers speaking in what seem to be Yiddish accents hammer away on the hull, doubting Noah’s warnings (fig. 10). A label on the wall explains that “the Ark [was] tantalizingly close to the limits of



Fig. 10: Animatronic men doubt that Noah has really spoken to God.
Photo: J. Duncan.

⁶¹ From the label “Red Tooth and Claw,” Answers in Genesis.

⁶² *Ibid.*

⁶³ From the label “Where did Cain get his Wife?”, Answers in Genesis.

wooden technology,” about 51 feet tall and 510 feet long.⁶⁴ Others describe how it was possible to build such a gigantic craft without nails and speculate about the location of the door. A scale model of the Ark shows pairs of animals in their cages, including baby dinosaurs. Nearby, four connected flat-screen televisions loop a short, computer-animated film showing water erupting from the depths of the Earth and covering the planet in a matter of hours. This, visitors are assured, was no “local event.”⁶⁵

The next room focuses on the scientific evidence for the Flood. Visitors are first reminded that “God’s word [is] the Key to Understanding God’s world.”⁶⁶ Then, Bible verses are juxtaposed with the appropriate scientific conclusion. Genesis 8:3, for example, which explains that the Flood waters “returned from off the earth continually,” is accompanied by a photo of the Grand Canyon. A smaller inset contains a computer-generated image of the giant, post-Flood lake that supposedly carved the Canyon as its waters “returned from off the earth.” The words “breached dam model”⁶⁷ are written underneath. This, it is suggested, is a prime example of how the Bible describes what happens and allows scientists to propose more detailed hypotheses from there.

As at the ICR, the uniformitarianism espoused by mainstream geologists is heartily rejected.⁶⁸ Here, however, a much more sophisticated catastrophic model is presented—one that seems particularly credible thanks to the labels’ images, which closely resemble textbook illustrations. One display discusses the “ecological zonation model,” which explains that certain fossils are found only in certain strata because of the disparate environments in which they lived before being buried by the Flood (fig. 11). Others touch upon the

⁶⁴ From the label “How Big was the Ark?”, Answers in Genesis.

⁶⁵ From the label “Judgment of the Whole World,” Answers in Genesis.

⁶⁶ From the label “God’s Word: the Key to Understanding God’s world,” Answers in Genesis.

⁶⁷ *Ibid.*

⁶⁸ From the label “The Key: God’s Word: The Present is not the Key to the Past,” Answers in Genesis.

“catastrophic plate tectonics model,” which holds that Rodinia was broken apart by the Flood, that Pangea formed under the floodwaters, and that Pangea broke up near the end of the Flood to reveal the continents as they are today (fig. 12). While the other museums left

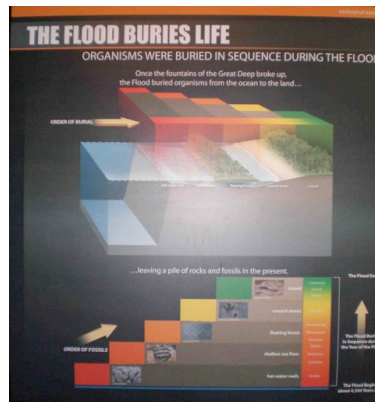


Fig. 11: This display explains how ecological zonation is responsible for the burial of certain animals in certain strata.
Photo: J. Duncan.



Fig. 12: This display gives a general overview of catastrophic plate tectonics. Photo: J. Duncan.

the question of how non-marine sediments could be interstratified with marine sediments unanswered, AiG proposes the “floating biome model.” According to this model, there was a “huge pre-Flood floating forest”⁶⁹ that was only broken apart later in the Flood, after some layers of sediment had already been deposited. As the forest broke apart, the trees sank to the ocean floor and were covered by more layers of sediment; these plant remains turned into coal shortly thereafter. As for the animal tracks in supposedly marine sediments, these are said to be “underwater tracks made by amphibian[s] trying to escape the Flood.”⁷⁰

Though a number of these very scientific-sounding models are presented—the “coastal Permo-Triassic sands model” is another illustrative example—one very noticeable difference between these displays and those found in a mainstream natural history museum is that there is no mention of the people who developed these models or of any scientific

⁶⁹ From the label “Floating biome model,” Answers in Genesis.

⁷⁰ From the label “*Laoporus nobeli*,” Answers in Genesis.

debates within the creationist community. As the National Center for Science Education noted, AiG “presents no history of creationist thinking” but “only a general outline of their conclusions.”⁷¹ There are certainly a number of valid reasons for which AiG might have chosen to exclude this information—a need to keep the labels short and readable, for example—but what seems questionable is AiG’s apparent attempt to make creation science seem like a unified, cohesive, and standardized discipline when in reality there exist countless—and often contradictory—strains of creationist thought.⁷² It seems that AiG felt it necessary to combat evolution, often hailed as the unifying theory of biology, with its own supposedly flawless theory.

The room about the fourth C, Confusion, describes the rebuilding of the world after the Flood. People began to invent false religions and trust only in human reason, which led to racism, genocide, and abortion. One label quotes Stephen Jay Gould (a creationist favorite, it seems), who pointed out that “biological arguments for racism...increased by orders of magnitude following the acceptance of evolutionary theory.”⁷³ As at the Institute for Creation Research, the Tower of Babel is used to explain the dispersal of humans across the globe and the rapid development of different languages and cultures.

The fifth, sixth, and seventh Cs (Christ, Cross, and Consummation) are all lumped into the next room, presumably because most visitors already know the story of Jesus’s life and death quite well. The room serves primarily as a waiting room for *The Last Adam*, a

⁷¹ Heaton, “A Visit to the Creation Museum.”

⁷² For only a few examples, those at the CEM and DAL believe that the “mantracks” in the Paluxy River are real while the ICR and AiG consider them to be dinosaurian. CEM, DAL, and ICR all hold that evolution breaks the second law of thermodynamics, and AiG does not. DAL and ICR insist that there are no beneficial mutations, and AiG does not. AiG does not feel confident about the existence of a vapor canopy over the early Earth, as do CEM, DAL, and ICR. (Please see Answers in Genesis, “Which arguments should *definitely* not be used?”, <http://www.answersingenesis.org/get-answers/topic/arguments-we-dont-use> [Accessed 19 Jan. 2009]).

⁷³ From the label “According to Human Reason...” Answers in Genesis.

short, live-action film in which the Virgin Mary and a Roman soldier recount the powerful experience of witnessing Christ's torment on the cross.

Beyond this last of the "C" rooms is a large lobby in which visitors can purchase food from the Palm Café or admire a number of glass cases filled with fossils. The balcony contains a number of animatronic dinosaurs and replicas of dinosaur skeletons. One label explains that the word "dinosaur" is not found in the Bible because the word was not invented until 1841.⁷⁴ As do the other museums, AiG believes that those before 1841 used the term "dragon" to refer to dinosaurs, an idea expounded upon in the movie *Dinosaurs and Dragon Legends* that loops in the Dragon Theater. As they leave this final part of the main museum, visitors are invited to have their picture taken sitting on a saddled *Triceratops*.

In order to leave the museum, it is necessary to pass through the large gift shop. Many times larger than the gift shops of the other museums discussed in this thesis, AiG's contains hundreds of book titles organized into categories such as "Curricula," "Family," and "Technical." Like the rest of the items for sale, most of these books were written and published by AiG itself. In an area marked "Best Sellers," one can purchase guides that help creationists get the most out of mainstream museums, zoos, and aquariums. Also available are dozens of DVDs such as *It Doesn't Take a Ph.D.!* and *Lucy: She's no Lady!*; science-based toys such as star finders and dinosaur models; and souvenirs. Once again, the significant profit to be made from the sale of religious materials is evident.

Something For Everyone

At this point, visitors have finished their tour of the inside of the museum, but much more awaits them outside. A nearly mile-long nature trail meanders around a three-acre lake. Among the lush foliage is a large *T-Rex* carved from a tall bush; his tail drags on the ground

⁷⁴ From the label "Why is the word 'dinosaur' not found in the Bible?" Answers in Genesis.

in the now-discredited, lizard-like style. Three picnic pavilions are available for those bringing their own lunch. By far the most popular outdoor attraction, though, is the petting zoo that opened in 2008, which is “designed to give guests a hands-on experience with some of God’s amazing creatures.”⁷⁵ In much the same way that dinosaurs are considered “missionary lizards,” these animals serve to attract children who might be too young for or too easily bored by the generally non-interactive displays in the main museum.

The museum also puts on a number of seasonal special events. In the summer of 2008, *Let the Rain Come*, a musical starring “Mr. and Mrs. Noah,” was put on in celebration of the Museum’s one-year anniversary—and of the more than 400,000 visitors that had come in that time.⁷⁶ For the holiday season, 2008, the museum set up a joint promotion with the Cincinnati Zoo through which visitors could get discounted tickets at the Zoo by showing their ticket stub from the Creation Museum’s Christmas celebration, Bethlehem Blessing, and vice-versa. This promotion was quickly terminated, however, due to vehement protests from local scientists.⁷⁷ For Valentine’s Day weekend 2009, the museum put on a dinner theater production of *The Story of Job*.⁷⁸ And on just about any given day there are lectures, book readings, and film screenings to be attended, encouraging visitors to visit again, perhaps with season passes.⁷⁹

More than any of the other museums, then, Answers in Genesis’s museum is an attraction with something for everyone. Young visitors are wowed by the dinosaurs and

⁷⁵ Answers in Genesis, “Plan Your Visit,” <http://www.creationmuseum.org/plan-your-visit/exhibits> (Accessed 29 Jan. 2009).

⁷⁶ From the A. Larry Ross press release “400,000th guest visits Creation Museum,” 21 May 2008.

⁷⁷ Dan Horn, “Creation Museum Deal Ends,” *Cincinnati Enquirer*, 2 Dec. 2008, <http://news.cincinnati.com/article/20081202/NEWS01/812020317/1168/NEWS> (Accessed 4 Dec. 2008).

⁷⁸ Answers in Genesis, “Valentine Weekend—Make your Reservation Today!” <http://blogs.answersingenesis.org/museum/2009/01/19/valentine-weekend-make-your-reservation-today/> (Accessed 29 Jan. 2009).

⁷⁹ A schedule for the foreseeable future is available on the museum’s homepage, <http://www.creationmuseum.org/> (Accessed 12 Feb. 2009).

petting zoo; parents can share their faith with their kids in a fun, friendly environment; couples can enjoy a night of dinner theater; and the whole family can enjoy a picnic near the lake or a science workshop. And everyone can spend the day surrounded by like-minded people, secure in the knowledge that creationism is no longer a backwoods, unscientific curiosity but a modern, sophisticated movement of which its adherents can be proud.

CONCLUSION

“You may be able to debunk evolution in a debate, but can you refer your opponent to a local museum that supports and illustrates your arguments?”

—advertisement for the second annual Start Your Own Creation Ministry & Museum Conference in Akron, Ohio¹

Though the four museums discussed in this dissertation are united by a shared belief in a young Earth, this paper has shown that each was built for slightly different reasons. Carl Baugh built the Creation Evidence Museum to demonstrate that he was part of the scientific community (1984). For Kent Hovind, on the other hand, Dinosaur Adventure Land (2001) was a way to preach to children. Henry Morris hoped his Institute for Creation Research and its museum (1992) would legitimize creation science. And Ken Ham saw his Creation Museum as helping bring creationism into the mainstream (2007). Their display methods are just as varied. Nevertheless, a broader, more comprehensive look at these four institutions reveals that their techniques and ultimate goals are much more similar than they may first appear.

Recognition of the Power of Science

Each of the four museums very deliberately incorporates a scientific feel into its displays. Carl Baugh erected the Creation Evidence Museum next to an important paleontological site and built a biosphere to demonstrate that creationists, too, are analyzing fossils and performing experiments. Kent Hovind’s Dinosaur Adventure Land promises parents their children will receive a “science lesson” along with a spiritual lesson. Henry Morris hoped the Institute for Creation Research and its Museum of Creation and Earth

¹ Akron Fossils and Science Center, “Start Your Own Creation Ministry & Museum Conference,” http://www.akronfossils.com/conference_mainpage.html (Accessed 10 Dec. 2008).

History, with its impressive charts and graphs and a “central core...[of] scientific research,”² would reassure Christians that their beliefs were just as supported by science as was evolution—if not more so. And Ken Ham’s Answers in Genesis Creation Museum, filled with eye-pleasing exhibits and the latest in animatronics, provides visitors with an experience largely on par with the professionally designed, high-tech exhibits at mainstream natural history museums and science centers.

Undoubtedly, the founders of these museums wished to present an image of creationism as supported by science because they knew that Americans *trust* science. Compared to their European counterparts, Americans are much more trusting of and confident in the proclamations of authorities such as scientists, churches, and government agencies.³ Particularly when they are forming opinions about scientific controversies, revealed a 2007 study, Americans are very likely to favor whichever view seems more “pro-science or pro-technology.”⁴ As one of the authors of the study pointed out, this “deference to scientific authority serves as a convenient shortcut”⁵ for those who might not have the time or the ability to obtain a thorough knowledge of the issues involved. By giving their museums a distinctly scientific feel, then, Baugh, Hovind, Morris, and Ham have encouraged visitors to trust their authority—to defer to the beliefs presented inside without necessarily thinking critically about them—in much the same way. As one evangelical writer noted, “the slick professionalism lends a certain credibility, which is probably what concerns critics who

² Institute for Creation Research, “ICR Research,” <http://www.icr.org/research/> (Accessed 15 Feb. 2009).

³ James Proctor, “In ___ We Trust: Science, Religion, and Authority,” in *Science, Religion, and the American Experience*, ed. James Proctor (New York: Oxford University Press: 2005), 92; “Given the Facts, Americans Trust Science,” *USA Today*, 1 Apr. 2003, <http://www.articlearchives.com/science-technology/biology-biotechnology-genetic/368590-1.html> (Accessed on 14 Feb. 2009).

⁴ Dennis Chapman, “Survey Examines Americans’ Trust in Science,” *University of Wisconsin-Madison News*, 1 May 2007, <http://www.news.wisc.edu/13734> (Accessed 14 Feb. 2009). This article is reporting on the results of another article by Dominique Brossard and Matthew C. Nisbet published in the spring 2007 *International Journal of Public Opinion Research*.

⁵ *Ibid.*

hold other views of how, when, where and why the world was created.”⁶ It cannot hurt that most of the visitors who frequent these museums—aside from being likely, as Americans, to trust authority—are accustomed to listening patiently and trustingly to the proclamations of a pastor every Sunday.

It might be argued that creationists deviate from this American respect for science. They do, after all, reject a theory supported by the vast majority of practicing scientists. However, creationists have shown themselves to be just as fond of science as other Americans; they simply believe that creationism *is* science. Both in these museums and in popular creationist literature, it is held that there is a purely scientific debate going on over evolution, a disagreement not between religious thinkers and scientists but between *apparently equally credentialed scientists*. As historian of science Steven Shapin notes, when experts disagree, the problem becomes “deciding who the scientific experts really are.”⁷ At that point, Shapin argues, the layman is forced to perform a sort of “moral evaluation,” favoring those experts “whom we can trust...to do good.”⁸ The creation museums exploit this idea, asking their visitors to make a similar moral evaluation when deciding whom to trust. Creationists, of course, are connected to God, the Bible, and the Christian way, encouraging visitors to trust in their morally sound expertise. Then, by connecting evolutionists with things like racism, genocide, and communism,⁹ the museums’ displays suggest that evolutionists are morally bankrupt, greatly diminishing their authority.

That the museums’ founders recognize the importance of scientific legitimacy is also reflected in the emphasis they place on their own credentials and those of their employees.

⁶ Annalee Ward, “Faith-based Theme Parks and Museums,” in *Understanding Evangelical Media*, ed. Quentin J. Schultze and Robert H. Woods, Jr. (Downers Grove, Ill.: IVP Academic, 2008), 164.

⁷ Ward, “Faith-based Theme Parks and Museums,” 46.

⁸ *Ibid.*, 48.

⁹ These connections are discussed more thoroughly under the subheading “A False Dichotomy and Dire Stakes.”

The ICR website often points out that all its scientists “have excellent scientific credentials [and] are highly knowledgeable in scientific issues related to the creation/evolution question.”¹⁰ The suggestion here is that their work, because it comes from “real” scientists with “real” credentials, is also “real” science. Similarly, the video news release in Answers in Genesis’s press kit assures viewers that “to ensure the scientific accuracy of all the exhibits, many Ph.D. scientists have been consulted.”¹¹ Though Kent Hovind and Carl Baugh do not possess advanced degrees from accredited universities, they, too, claim to be experts in their field and are referred to in their publications as “Dr. Baugh”¹² and “Dr. Hovind.”¹³ Just as Americans are more inclined to trust a viewpoint that seems more “pro-science or pro-technology” than another, these degrees confer upon their holders a credibility they would not otherwise have.

Redefinition of Science

Accompanying this emphasis on science are two shared yet contradictory convictions about the nature of science. First, it is claimed that mainstream science and creation science are *both* legitimate ways of knowing the world. Based on the “two model” approach developed by Henry Morris, this idea suggests that both evolutionists and creationists look at the same evidence and then interpret it according to their presuppositions.¹⁴ As the preface to the 1974 edition of Morris’s biology textbook put it, “a choice between these two models

¹⁰ Dr. Henry Morris, “The ICR Scientists,” Institute for Creation Research, Aug. 1980, <http://www.icr.org/article/163/> (Accessed 16 Feb. 2009). For a current list of scientists employed by the ICR, please see “ICR Scientists and Faculty,” http://www.icr.org/research/scientists_faculty/ and “ICR Technical Advisory Board,” http://www.icr.org/research/tech_adv_board/ (Accessed 16 Feb. 2009).

¹¹ From the DVD *Video News Release and B-Roll Footage*, directed by Ideavenue Film/Video Productions (Indianapolis, IN: Fusework Studios, 2007).

¹² Creation Evidence Museum and Archaeological Excavations, <http://www.creationevidence.org/> (Accessed 15 Feb. 2009).

¹³ Creation Science Evangelism, “About Dr. Kent Hovind.”

¹⁴ As mentioned in Chapter IV, they believe that mainstream scientists’ *a priori* assertion that the supernatural can play no part in scientific explanations is just as presuppositional as is their assertion that the Bible is the inerrant Word of God.

may be made in terms of the effectiveness with which each may be used to correlate available data.”¹⁵ Dr. Baugh showed he subscribed to this view when he claimed that understanding geologic time to represent “Genesis to Revelation—or...the ancient past to the future, depending on which viewpoint you take.”¹⁶ The Dinosaur Adventure Land staff did the same when they pointed out that “the Grand Canyon is a fact; how it got there is an interpretation,”¹⁷ as did the Answers in Genesis museum in its room juxtaposing interpretations based on “God’s Word” and “man’s reason.” In this way, creationism and evolutionism are put on equal footing.

Rather contradictorily, however, this claim of equal scientific legitimacy for evolutionism and creationism is accompanied at all four museums by the idea that evolutionism is *not* science and that creationism is. By this reasoning *only creationism* is a legitimate interpretation of the facts. As a plaque at the Institute for Creation Research’s Museum of Creation and Earth History put it, “science is organized factual knowledge based on observation—not speculation.”¹⁸ Because no species has ever been observed changing into another in the laboratory, it is claimed, evolution is simply “speculation.” This idea is put more simply at Dinosaur Adventure Land, where the tour guides claim that “real science is when you find one of God’s principles and put it to work for you. Applied science.”¹⁹

The idea that science must be strictly empirical and not theoretical is one that creationists have invoked against evolution since at least the early twentieth century. George McCready Price spoke for many creationists when he wrote in 1917 that the “inductive

¹⁵ John N. Moore, quoted in Numbers, *The Creationists*, 269.

¹⁶ Dr. Carl Baugh, personal interview.

¹⁷ DAL tour, 18 May 2008.

¹⁸ From the label “What is Science?”, Institute for Creation Research.

¹⁹ DAL tour, 18 May 2008. Carl Baugh says much the same thing on the Creation Evidence Museum’s website: “[Evolution] cannot be refuted [and is] thus outside empirical science” (http://75.125.60.6/~creatio1/index.php?option=com_content&task=view&id=40 [Accessed 17 Feb. 2009]). It is unclear whether he believes creationist beliefs could be refuted.

method of investigation which was instituted by [Francis] Bacon” in the 17th century, which taught that scientists should start with simple truths observed from nature and then build them up into a theory, “is everywhere known as the scientific method.”²⁰ He insisted that modern geologists, with their theorizing, had abandoned true science in favor of “mere speculation.”²¹ Writing in 1922, William Bell Riley agreed that “the first and most important reason for [evolution’s] elimination is the unquestioned fact that evolution is not a science; it is a hypothesis only, a speculation.”²² While it is true that Bacon’s teachings were once considered the correct scientific method, by the end of the nineteenth century his inductive reasoning had been generally eclipsed in high science by the deductive method popularized by Auguste Comte and John Stuart Mill. Claiming that simple truths about nature should be the *goal*, not the starting point, of scientific inquiry, they called on scientists to begin with a theory and then continually test its validity.²³ By the time Price was writing, the deductive method had been well established among scientists,²⁴ but he, like many creationists at the time and today, preferred to cling to the simplicity of Baconian ideas. As Numbers notes, “by narrowly drawing the boundaries of science and emphasizing its empirical nature, creationists could at the same time label evolution as false science, claim equality with scientific authorities in comprehending facts, and deny the charge of being false science.”²⁵ Precisely this same tactic is being used in the creation museums under discussion.²⁶ In what

²⁰ George McCready Price, *Q.E.D.; or, New Light on the Doctrine of Creation*, in *Selected Works of George McCready Price* (New York: Garland Pub, 1995), 104.

²¹ Price, *The New Geology: A Text-book of Geology for Use in Universities, Colleges, and Training Schools, and for the General Reader* (New York: John Wiley & Sons, 1923), 36.

²² William Bell Riley, quoted in Numbers, “Creationism in 20th-century America,” 539.

²³ Alfred William Benn, *The History of English Rationalism in the Nineteenth Century* (London: Longmans, Green & Co., 1906), 441-2.

²⁴ Jonathan Smith, *Fact & Feeling: Baconian Science and the 19th-Century Literary Imagination* (Madison: University of Wisconsin Press, 1994), 4.

²⁵ Numbers, *The Creationists*, 65.

²⁶ For another example, the ICR’s museum has a section called “The Rise of Modern Science,” in which the first label is about Francis Bacon. The label notes that Bacon established the scientific method and that Bacon “was a devout believer in the Bible.”

might be described as a one-two punch, creationism is first raised to the status of a *competing* scientific theory and then declared the *only* truly scientific theory.

A Call for “Fairness”

Another theme common to three of the four museums—Dinosaur Adventure Land, the Institute for Creation Research, and Answers in Genesis—is that of political rights and discrimination. Strangely, however, the issue is treated quite differently at Dinosaur Adventure Land than at the Institute for Creation Research or Answers in Genesis. At Dinosaur Adventure Land, it is asserted that creationists are a political majority in America and that they therefore have a right to teach what they want in the schools their taxes fund. Currently, claim its founder and its displays, the public schools are controlled by an elitist minority that is forcing its anti-Christian beliefs on young children. In Dr. Hovind’s words, this happens because “the atheists are really good at packing [the school board]. That way you only have to have five to six atheists in the whole state, and you can control what all the kids are learning.”²⁷ To emphasize how dangerously powerful those who control the schools are, the display called “Losing a Nation” quotes Alexis de Tocqueville as predicting the future dictators of former democracies as being “[not] tyrants, but rather their schoolmasters.”²⁸ This Christian nation, insist the displays at Dinosaur Adventure Land, must reclaim its schools.²⁹

This majoritarianism is a tool that creationists have long employed. William Jennings Bryan, for example, while acting as prosecutor at the Scopes Trial, repeatedly argued that

²⁷ Dr. Kent Hovind, *The Dangers of Evolution*, 2002.

²⁸ From the label “Losing a Nation...by changing society,” Dinosaur Adventure Land.

²⁹ Though the Creation Evidence Museum does not mention the political issues surrounding teaching creationism in the schools, Dr. Baugh, in a personal interview (18 Jun. 2008), did lament that the “Humanist powers that be in the educational system and in the political system” refuse to allow Intelligent Design to be taught in the schools. (He too acknowledges, however, that Intelligent Design is inadequate because of its failure to identify the Creator as the Christian God.)

“[t]eachers in public schools must teach what the taxpayers desire taught...[for] the hand that writes the paycheck rules the school.”³⁰ For Bryan and for Hovind, ensuring that the maximum number of people get what they want is the essence of democracy.

Quite a different story is told at the Institute for Creation Research and, to a certain extent, at Answers in Genesis. There it is recognized that young-Earth creationists are *not* a political majority, but this is used to make a “minority rights” argument instead. Appealing to the idea that science is always open to criticism and new ideas, the Institute for Creation Research’s museum asks how the National Academy of Sciences can say this:

The search for knowledge and understanding of the physical universe and of the living things that inhabit it should be conducted under conditions of intellectual freedom, without religious, political, or ideological restrictions... Freedom of inquiry and dissemination of ideas require that those so engaged be free to search where their inquiry leads...without political censorship and without fear of retribution in consequence of unpopularity of their conclusions. Those who challenge existing theories must be protected from retaliatory reactions...³¹

and yet continue to oppose the teaching of creation science in schools. This, argues the ICR, is an obvious example of “political censorship” due to the “unpopularity” of a given scientific theory. As do Dinosaur Adventure Land and Answers in Genesis, the Institute for Creation Research has an extensive collection of stories about individuals who lost their jobs after professing a belief in creationism or who must publish under pseudonyms to avoid retribution.³² Refusing to let creationist beliefs be heard—and punishing them when they are heard—is not only unscientific, the Institute insists, but amounts to an “unconstitutional

³⁰ Larson, *Summer for the Gods*, 44.

³¹ This label, “The Academic Freedom of Students to Receive and of Teachers to Give Scientific Information,” claims to be quoting from a 1976 resolution of the National Academy of Sciences. I have been unable to find this resolution (oddly, only creationist materials appear when I search for it), but it seems likely that the ICR can be trusted on this issue.

³² See, for example, Lawrence Ford, “Smithsonian: Religious Scientists Prohibited,” Institute for Creation Research, Dec. 2006, <http://www.icr.org/article/smithsonian-religious-scientists-prohibited/> (Accessed 17 Feb. 2009); Mark Looy, “The Abraham Affair: Fired for Disbelief,” Answers in Genesis, 10 Dec. 2007, <http://www.answersingenesis.org/articles/2007/12/10/abraham-affair> (Accessed 17 Feb. 2009); and Kent Hovind, *Dangers of Evolution*, 2002.

exercise of ‘viewpoint discrimination.’”³³ Ironically, however, the Institute for Creation Research and Answers in Genesis never mention the statements of belief they require every employee and student to sign. Surely, requiring scientists to agree to certain conclusions before beginning their research does not conform to the National Academy of Science’s requirement that science be free from “religious, political, or ideological restrictions.” Nevertheless, this contradiction goes unaddressed in both organizations’ museums and literature, and the image of the victimized creationist stands.

Distaste for Scientific Elitism

Most of the museums also complain about the hardheadedness and elitism of mainstream scientists. As is often the case, Kent Hovind puts it most bluntly: “They’ll say, ‘Well, the average person in the audience probably doesn’t understand the complexity of this topic.’ And I’ll say, folks, what he’s trying to tell you is, ‘You’re dumb; he’s smart.’”³⁴ Hovind, like many of his creationist peers, values common sense above all else; it is therefore sufficient proof that the Colorado River did not carve the Grand Canyon that “the top of the Grand Canyon is more than 4,000 feet higher than where the river enters the canyon,” and “[r]ivers do not flow up hill [sic]!”³⁵ The Answers in Genesis museum, in its *Men in White* show, makes similar points (recall that Mike and Gabe claim that evolution “makes absolutely no sense” and that the scientists condescendingly claim that “no thinking

³³ Institute for Creation Research, “Graduate Science Program Claims ‘Viewpoint Discrimination’ in Appeal of Texas Education Ruling,” press release, 28 May 2008, <http://www.icr.org/article/3913/> (Accessed 17 Feb. 2009). Dr. Morris also notes in his *History of Modern Creationism* (1992) that “a significant part of those who would like to see creation taught in the schools do not themselves believe in creation, but they do believe in freedom and fairness!” Kent Hovind, in his book *Are You Being Brainwashed? Propaganda in the Public Schools* (2007), gives parents advice for dealing with this discrimination in their schools. He provides ready-made letters the parents can send to their school’s principal or superintendent that say things like, “I know the school has clear policies based on religious convictions, so when these subjects come up in class or on tests, please provide alternative materials for our son to learn” (34).

³⁴ Dr. Kent Hovind, *Questions and Answers*, 2002.

³⁵ From the label “That River Didn’t Make that Canyon!!!” Dinosaur Adventure Land.

person” could doubt Darwin), as does the Institute for Creation Research in its room about the Flood creating the geologic column.

These three museums all hold that it is really the evolutionists, the ones who think they are so smart yet refuse to discard their theory despite its obvious and fatal flaws, who are ignorant. As evidence, they often quote those evolutionists who acknowledge supposed weaknesses of evolutionary theory (though this is generally taken out of context) yet continue to support it.³⁶ The scientists’ presumed ignorance is presented as a fulfillment of 2 Peter 3:5-6—which predicts that in the end times there will be “scoffers” who are “willingly ignorant...that the world, being overflowed with water, perished”³⁷—and is therefore used as further evidence of the Bible’s veracity.

Once again, the Creation Evidence Museum is a bit of a special case: Dr. Baugh seldom claims to be a victim of discrimination, nor does he complain about scientists’ elitism, because he considers himself *part* of the scientific establishment.³⁸ In the video shown hourly in his museum, Baugh boasts that “[s]cholars arrive from around the world to observe our excavations, our research procedures...and our display of evidence.”³⁹ On the same video, he repeatedly mentions other scientists with whom he has worked as well as established scientific organizations such as NASA. If Baugh feels discriminated against, he does not show it. He seems content to present his work as simply another important contribution to the scientific world.

³⁶ See, for example, DAL’s display “Similar Structure Show [sic] a Common Creator” and ICR’s display “Modern Geologists Returning to Catastrophism,” Institute for Creation Research.

³⁷ This idea is promoted in the AiG museum on a flat-screen television showing a movie about Mount St. Helens, in Kent Hovind’s DVD *The Dangers of Evolution*, and in many articles by the ICR, including John D. Morris’s “Scoffers in the Last Days,” <http://www.icr.org/article/scoffers-last-days/> (Accessed 19 Feb. 2009).

³⁸ The only instance of such a claim comes from a personal interview on 18 Jun. 2008, in which Dr. Baugh lamented that “there are secular scientists who are so committed to the evolutionary position, that no matter what the evidence might be...they will not believe.” In his museum, however, none of this is mentioned.

³⁹ Baugh, *Family Tour*, 1997.

Widespread Misrepresentation of Evolution and Related Sciences

One of the more troubling themes seen at all four museums is a general misrepresentation of exactly what evolution and related sciences entail. Whether intentionally or not—though this author is convinced that it is mostly intentional—quite often a grossly distorted version of evolutionary theory is provided before being dismissed as unthinkable. Recall Dr. Hovind’s claim that “If a reptile were to evolve into a bird, at some point it would have half-leg and half-wing,”⁴⁰ dooming it to extinction. Of course, evolutionists would agree that such a creature, if produced suddenly by a severe mutation, would be doomed to die; but any creature whose “half-leg and half-wing” was formed slowly over countless generations is likely to be one that found such an appendage useful, perhaps for limited bouts of walking and gliding from tree to tree. Yet Hovind (as further evidenced by his wondering why chimpanzees “don’t make another human”⁴¹) seems completely unfamiliar with the process of natural selection.

The Institute for Creation Research seems similarly misinformed. In their room about human origins, display after display claims that the so-called human ancestor *Australopithecus* is “an extinct type of ape not ancestral to humans.”⁴² Such a claim is not, of course, inherently flawed—there is currently debate over whether *Homo habilis* is really a direct human ancestor⁴³—but the reasoning the Institute provides is. The display first claims “[t]here are no fossils of *Australopithecus* or of any other primate stock in the proper time period to serve as evolutionary ancestors to humans” (this is patently false), and second that

⁴⁰ Dr. Kent Hovind, *Are You Being Brainwashed?*, 19.

⁴¹ Dr. Kent Hovind, *The Garden of Eden*, 2002.

⁴² From the label “Australopithecines,” Institute for Creation Research.

⁴³ Please see F. Spoor, M.G. Leakey, et al., “Implications of new early *Homo* fossils from Ileret, east of Lake Turkana, Kenya,” *Nature* 448 (9 Aug. 2007): 688-691.

“[w]hen humans first appear in the fossil record they are already human.”⁴⁴ Besides being a puzzling example of circular reasoning, this statement demonstrates that the Institute for Creation Research is either unfamiliar with or is deliberately distorting the nature of the fossil record, which is necessarily more like a series of photographs than a continuous film.

Of the four museums, Answers in Genesis is undoubtedly the best informed. When it compares the mainstream evolutionary view of biological changes to the creationist view, the diagram it provides is actually quite accurate. As can be seen in figure 1, Answers in Genesis understands that evolution does not posit a single, uninterrupted line of descent from ape to man but a branching “tree” of common ancestors. It even recognizes that many

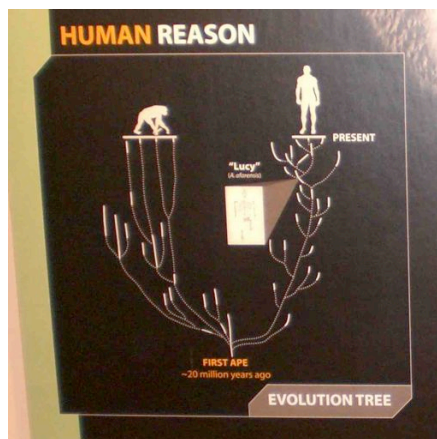


Fig. 1: A display about the nature of the evolutionary tree as pieced together by “human reason.” Unlike many creationist representations of evolution, which suggest it is a linear process, this display presents an accurate representation of what evolutionists actually believe. Photo: J. Duncan.

of its creationist peers misunderstand these ideas and provides a list of “arguments [that] should *definitely* not be used” against evolutionists, such as that “if we evolved from apes, apes shouldn’t exist today” or that “Darwin mentioned the absurdity of eye evolution in *The*

⁴⁴ From the second of two labels called “The Human Fossil Record: What the Evidence Suggests,” Institute for Creation Research.

Origin of Species.”⁴⁵ For this much, credit is due. However, Answers in Genesis still misrepresents certain evolutionary ideas in its museum. In its display about *Archaeopteryx*, for example, it claims that the creature “does not support the current false belief that dinosaurs evolved into birds. Through much research, even most evolutionists now consider *Archaeopteryx* to be a true bird.”⁴⁶ While it is true that scientists consider *Archaeopteryx* a true bird (and some scientists even think *Archaeopteryx* is not a true ancestor of modern birds but a close relative of that ancestor⁴⁷), Answers in Genesis suggests that this means it cannot possibly support the idea that dinosaurs evolved into birds. This, of course, is no truer than the idea that dogs could not possibly have evolved from wolves because the wolf fossils we find are “true wolves,” yet this point goes unaddressed.

A False Dichotomy and Dire Stakes

All four museums set up a very clear dichotomy between evolutionary theory and creationism. For them, evolution precludes a belief in God, and creationism—young-Earth creationism—is the only option for the faithful. The Institute for Creation Research, in its first room, makes this distinction very clear with two side-by-side plaques labeled “Creationist Religions” and “Evolutionary Religions.” The creationist religions include “Orthodox Judaism,” “Orthodox Islam,” and “Biblical Christianity,” all of which “are founded on the Genesis record of creation.”⁴⁸ The list of evolutionary religions is much longer and includes “atheism,” “Occultism,” “Liberalism,” and “Marxism.”⁴⁹ Dinosaur Adventure Land’s Dr. Hovind makes this distinction even clearer when he says in his *Dangers*

⁴⁵ Answers in Genesis, “Which arguments should *definitely* not be used?”, <http://www.answersingenesis.org/get-answers/topic/arguments-we-dont-use> (Accessed 19 Feb. 2009).

⁴⁶ From the label “*Archaeopteryx*,” Answers in Genesis.

⁴⁷ Julia A. Clark and Mark A. Norell, “The Morphology and Phylogenetic Position of *Apsaravis ukhaana* from the Late Cretaceous of Mongolia,” *American Museum Novitates* 3387 (2002): 1–46, <http://digitallibrary.amnh.org/dspace/handle/2246/2876> (Accessed 19 Feb. 2009)

⁴⁸ From the label “Creationist Religions,” Institute for Creation Research.

⁴⁹ From the label “Examples [of evolutionary religions],” Institute for Creation Research.

of *Evolution* seminar that “there’s a war going on. And you’ll have to decide which side you want to be on.”⁵⁰ Once again, Answers in Genesis makes its point a bit more subtly with a set of displays comparing the results of starting with “God’s Word”—creationism—and of starting with “human reason” (and, it is suggested, no God at all)—evolution. No mention is made of alternatives such as theistic evolution, reinforcing the idea that evolutionists are necessarily atheistic.

Answers in Genesis’s display terminates with a plaque entitled “Do different starting points matter in our personal lives?” that contains black and white photos of people either frightened, crippled, or dead. Like the Institute for Creation Research and Dinosaur Adventure Land, Answers in Genesis suggests that many of the world’s ills—racism, Marxism, fascism, Nazism, and abortion, for example—are the direct results of evolutionary thought.⁵¹ Though the Creation Evidence Museum does not make such explicit ties between evolution and these ideologies, Dr. Baugh does claim in the video playing inside that “in the evolutionary model, everything ends in despair.”⁵² He contrasts this with the idea that faith provides hope. As the “Evolutionary Tree” produces only “Harmful Philosophies” and “Evil Practices,”⁵³ it is hardly surprising that the museums make no mention of a possible reconciliation between it and Christianity.

Why Build a Museum?

Why have creationists suddenly opted to build these museums instead of, say, more churches or Bible schools? What is it about museums that makes them particularly well suited to creationists’ purposes? This dissertation argues that there are at least three

⁵⁰ Dr. Kent Hovind, *The Dangers of Evolution*, 2002.

⁵¹ See, for example, the room entitled “Modern World Abandons the Bible” at the AiG museum; the labels “Adolf Hitler” and “Racism—the Evolution Connection” at the ICR; and the area entitled “The Dangers of Evolution” at DAL.

⁵² Baugh, *Family Tour*, 2007.

⁵³ From the label “Evolutionary Tree,” Institute for Creation Research.

significant and interrelated reasons. First, museums have a long history as places of both scientific research and of public education. The modern museum's earliest ancestors are the *wunderkammer*, "cabinets of curiosity" that sprung up in the homes of the rich and the royal during the European Renaissance. Though these collections were generally unorganized and served mainly as entertainment and status symbols in polite culture, they did contribute to scientific studies, especially when lists and pictures of their contents were published.⁵⁴ In the 18th and early 19th centuries, as the works of Linnaeus and Buffon sparked interest in classification of the natural world, natural history museums—still private institutions—became more focused on expanding and ordering their collections so they might be useful for scientific studies, especially comparative anatomy.⁵⁵ By the end of the 19th century, however, governments and corporations had begun actively supporting the construction of these "cathedrals of science" and making their collections available to the masses.⁵⁶ The museums, still accompanied by large, behind-the-scenes research staffs and filled with exotic trophies of empire, enjoyed wide popularity.⁵⁷ By the 20th century they had established a reputation as "centers of education and public enlightenment,"⁵⁸ an image still quite popular today. By calling their institutions museums instead of "Bible centers" or "Faith parks," then, creationists automatically appropriate for their institutions this reputation for credibility and education.

The second crucial quality of museums is that, more so (in most cases) than churches or Bible schools, provide entertainment. This is important for two reasons. First, it is a commonly held belief that people of all ages and especially children learn better when they

⁵⁴ Oliver Impey and Arthur MacGregor, eds., *The Origins of Museums: the cabinet of curiosities in sixteenth and seventeenth-century Europe* (New York: Oxford University Press, 1985).

⁵⁵ Paul Lawrence Farber, *Finding Order in Nature: The Naturalist Tradition from Linnaeus to E.O. Wilson* (Baltimore: Johns Hopkins University press, 2000), 45.

⁵⁶ *Ibid.*, 88-90.

⁵⁷ *Ibid.*, 91.

⁵⁸ Edward P. Alexander and Mary Alexander, eds., *Museums in Motion* (Lanham: AltaMira Press, 2008), 7.

are having fun. A 2005 study showed that “teachers saw pleasurable experiences as central to effective learning” and that they saw a trip to the museum as “an opportunity to generate enjoyment.”⁵⁹ By teaching with a method “more ‘fun’ than using books,”⁶⁰ then, creation museums make it more likely that visitors will retain the message promoted therein. This is particularly true at Dinosaur Adventure Land, with its child-oriented focus on interactive learning, and at the Answers in Genesis museum, with its entertaining videos, impressive animatronic dinosaurs, and overall pleasant design. As Annalee Ward, a professor at Trinity Christian College, notes, these museums “are becoming major media venues that *persuade as they delight*” (emphasis added).⁶¹

The entertainment value of museums is significant for another reason: revenue. According to Ward, “evangelicals are the primary market for a more than \$4-billion-a-year religious entertainment industry,”⁶² and figures like that simply cannot be ignored. The Creation Evidence Museum pulls in relatively little money—in 2007 Baugh reported just a little over \$400,000 in total revenue and paid himself a salary of just \$71,730⁶³—probably due to its relatively isolated location and rather rudimentary displays. For the most part, the Institute for Creation Research, too, seems to make good on its promise that no employee is in it for the money⁶⁴: in 2007, Institute president John Morris, one of only two paid members

⁵⁹ Eilean Hooper-Greenhill, *Museum and Education: Purpose, Pedagogy, Performance* (New York: Routledge, 2007), 122.

⁶⁰ *Ibid.*, 146.

⁶¹ Ward, “Faith-based Theme Parks and Museums,” 164. Ward adds that, with these museums, “evangelicals hope to speak truth to a culture steeped in Disney.”

⁶² *Ibid.*

⁶³ Internal Revenue Service, “Return of Organization Exempt from Income Tax (IRS Form 990): The Creation Evidence Museum,” 2007, accessed through *The Foundation Center*, <http://foundationcenter.org/findfunders/990finder/> (Accessed 19 Feb. 2009).

⁶⁴ Henry Morris, “Creation and its Critics,” Institute for Creation Research http://www.icr.org/home/resources/resources_tracts_caic/ (Accessed 16 Feb. 2009).

of the ten-member board of trustees, made just \$89,049⁶⁵—a modest salary for the president of a large organization living in expensive San Diego. Recall, however, that the reason given for the Institute’s recent move to Dallas was to secure a more nationally central location; it seems likely that they expect the move to bring increased revenue.

For Dinosaur Adventure Land and Answers in Genesis, however, the story is quite different. The IRS reported that Kent Hovind made bank deposits in excess of \$1 million per year before being jailed for tax fraud, suggesting that Creation Science Evangelism and Dinosaur Adventure Land were performing well.⁶⁶ And Answers in Genesis—which, it ought to be clarified, has never been delinquent about paying its taxes—is suffering no shortage of funds, either. In 2006, it reported over \$13 million in net assets and was paying Ken Ham a salary of \$188,655. At least four other employees were earning upwards of \$100,000 per year⁶⁷—and this was in 2006, the year *before* the museum opened. It is unclear why Answers in Genesis’s 2007 tax returns are still (as of Feb. 2009) unavailable, but considering the \$27 million museum opened without a penny of debt, the twenty-dollar admission fee (plus five dollars for the planetarium show and more from bookstore and online merchandise sales) multiplied over more than 600,000 visitors⁶⁸ has surely resulted in substantial revenue since then.

⁶⁵ Internal Revenue Service, “Return of Organization Exempt from Income Tax (IRS Form 990): The Institute for Creation Research,” 2007, accessed through *The Foundation Center*, <http://foundationcenter.org/findfunders/990finder/> (Accessed 19 Feb. 2009).

⁶⁶ Associated Press, “Biblical Theme Park’s Finances Investigated,” *St. Petersburg Times*, 18 April 2004, http://www.sptimes.com/2004/04/18/State/Biblical_theme_park_s.shtml (Accessed 19 Feb. 2009); Note that the IRS 990 form is unavailable for Dinosaur Adventure Land or Creation Science Evangelism because these organizations were never registered as a tax-exempt 501(c)(3) charitable, educational, or religious organization by the Internal Revenue Service. It was, in part, Hovind’s refusal to pay taxes despite his organization’s non-tax-exempt status that led to his being indicted for tax fraud.

⁶⁷ Internal Revenue Service, “Return of Organization Exempt from Income Tax (IRS Form 990): Answers in Genesis,” 2006, accessed through *The Foundation Center*, <http://foundationcenter.org/findfunders/990finder/> (Accessed 19 Feb. 2009). It is unclear why the tax returns from 2007 are not available as they are for the other organizations.

⁶⁸ Answers in Genesis, “Ken Ham,” http://www.answersingenesis.org/events/bio.aspx?Speaker_ID=2 (Accessed 19 Feb. 2009).

The third probable motivation for building a museum is that museums appear to speak directly to “the people” without intervention on the part of mainstream scientists or government officials as would be encountered in legal battles. This seems to be part of a larger movement by creationists *away* from high-profile court cases over the evolution issue and toward the goal of, as AiG put it, “get[ting] information to the people” and “influenc[ing] the culture”⁶⁹ from the ground up. Ronald Numbers points out that this trend appears to have begun in the late 1980s, after creationists suffered “a string of losses in state assemblies and a series of negative decisions in federal courts.”⁷⁰ It was then that they “shifted from headline-grabbing legislative battles to quiet persuasion among teachers and school-board members.”⁷¹ It seems likely that these museums, especially in the wake of defeat in *Kitzmiller v. Dover* (2005),⁷² are part of this broader shift from legislative battles—and, perhaps, attempts to *impose* creationist belief—to persuasion on a local or individual level.

Repercussions for Science

What makes all of this important are the repercussions these museums are likely to have for science. First, the museums drastically and independently change the definition of science. According to them, appealing to the supernatural to explain observed phenomena is perfectly acceptable and even desirable. The “presupposition” that the Bible is true is just as legitimate as an *a priori* commitment to naturalism. As Peter Bowler notes, however, this is

⁶⁹ Ken Ham, “Reaching Public Schools,” *Around the World with Ken Ham*, 30 May 2008, <http://blogs.answersingenesis.org/aroundtheworld/2008/05/30/bellevue-baptist-middle-school-visits-creation-museum/> (Accessed 20 Feb. 2009).

⁷⁰ Numbers, *The Creationists*, 354.

⁷¹ Numbers, *The Creationists*, 354.

⁷² Recall, though, that this was the supporters of Intelligent Design, not necessarily the same people who are building these museums.

not so much a redefinition of science as “an excuse for stopping science in its tracks.”⁷³ Under it, God could be invoked to account for any unexplained natural phenomena, rendering experimental support unnecessary. Furthermore, science as creationists define it would be teleological. That is, the ultimate results of any investigation would be predetermined, as they would have to conform to the Bible. The openness of mainstream science, a discipline whose practitioners have long boasted of its inability to “prove” anything (being capable only of *disproving* a hypothesis) would be eliminated.

Just as importantly, these museums, by setting up a rigid dichotomy between evolution and creationism, suggest that “[e]vidence against one position is support for the other position.”⁷⁴ Thus, any time scientists disagree or when part of a theory remains unresolved (e.g. Does the Oort Cloud really exist? How exactly did life begin? etc.), museum visitors are taught not that these are interesting questions deserving of further study but that they are “fallacies”⁷⁵ whose very existence is further evidence for creationism.

Mainstream natural history museums, those “cathedrals of science,” are being affected, too. In 2005, *The New York Times* reported that museum docents across the country were struggling to deal with “creationists eager to challenge the museum exhibitions on evolution.”⁷⁶ As mentioned, AiG now sells museum, zoo, and aquarium guides that creationists can take with them and use for alternative, biblically correct interpretations of the displays.⁷⁷ With those guides in hand, it is probable that creationists will feel even more confident in their questioning. What is more, companies such as “B. C. Tours”—“where we

⁷³ Bowler, *Monkey Trials*, 213.

⁷⁴ This quote comes from slide four of a PowerPoint presentation assembled by Mike Riddle of the Institute for Creation Research, “Astronomy and the Bible,” made available on AiG’s website: “Powerpoint” <http://www.answersingenesis.org/home/area/overheads/TOC.asp> (Accessed 20 Feb. 2009).

⁷⁵ From the label “Fallacies in the Big Bang Theory,” Institute for Creation Research.

⁷⁶ Cornelia Dean, “Challenged by Creationists, Museums Answer Back,” *The New York Times*, 20 Sept. 2005, http://www.nytimes.com/2005/09/20/science/20doce.html?_r=1 (Accessed 25 Feb. 2009).

⁷⁷ Answers in Genesis, “3-Guide Pack,” <http://www.answersingenesis.org/PublicStore/product/3-Guide-Pack,5461,263.aspx> (Accessed 26 Feb. 2009).

are B.C. [biblically correct] and not P.C.”⁷⁸—have begun offering their own tours through mainstream museums on which visitors may learn “biblically correct science.”⁷⁹ The Museum of the Earth in Ithaca, New York, is just one of many American museums that have been forced to provide their workers with additional training in evolution in response to an influx of questioning creationists.⁸⁰ Though this influx is not due entirely to the effect creation museums are having on their visitors, it certainly cannot hurt that creationists now have their own impressive museums to contradict the ideas put forward in those of the mainstream.

Significance for Creationist Movement

With knowledge of these four creation museums, their methods, and their purposes, two important conclusions may be drawn about the state and direction of the modern American creationist movement. First, as previously mentioned, these museums are just one part of a larger shift in the creationist movement away from high-profile, “top-down” attempts to win recognition and classroom time for creationism. Like books, documentaries, and the internet—all of which have been utilized extensively by the creationist movement—creation museums have the power to go “straight to the people.” While court cases require that both sides receive an equal hearing, the museums can and do provide a one-sided view of the evolution “debate,” circumventing any rebuttals from scientific authorities.

Second, creation museums are part of the creationist reaction to the “conflict model” touched upon in this paper’s introduction. This model, so entrenched in Western conceptualizations of the relationship between religion and science, suggests not only that science and religion are “at war” but also that science has generally prevailed. (Again,

⁷⁸ B.C. Tours, <http://bctours.org/> (Accessed 26 Feb. 2009).

⁷⁹ *Ibid.*

⁸⁰ Dean, “Challenged by Creationists, Museums Answer Back.”

Galileo's persecution for his heliocentrism is a prime example.) By insisting that creationism *is* science, however, creation museums have collapsed the distinction between religion and science, fundamentally changing the space for debate; for how can creationism, itself a science, be *against* science? The dichotomy they have created is not a battle between religion and science but between two sciences, one moral and one immoral.

If one may judge by the incredible success of the Answers in Genesis Creation Museum in Kentucky, the most recently constructed of the museums discussed, creation museums are no passing trend. Millions of Americans agree with their messages, and hundreds of thousands patronize them each year. It seems very probable that the years to come will see the construction of more museums, most likely in the high-tech style of the Answers in Genesis Creation Museum, which has proven quite lucrative.

Though such an idea might dismay many teachers, scientists, and laymen, the growing popularity and sophistication of the creationist movement are undeniable. Creation museums, both by their very existence and by their redefinition of science, demonstrate that the conflict between evolution and creationism is likely to be exacerbated before it is resolved.

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CREATIONIST MATERIALS OBTAINED AT THE MUSEUMS

Because to date there has been minimal secondary work done on creation museums, this dissertation necessarily relied heavily on primary sources available through the museums themselves. These materials are indispensable to anyone wishing to gain a more thorough understanding of the “creation museum experience,” both because they are for sale in the museums’ gift shops (and could therefore be considered additional “displays”) and because the ideas they contain are incorporated into the museums’ exhibits.

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(This online archive provides access to every edition of the Institute for Creation Research’s publications *Acts & Facts* and *Impact* from 1973 to the present.)

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(This book discusses the “incredible scientific, medical, and prophetic facts” contained in the Bible.)

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(This "guerilla-style" documentary stars Kirk Cameron and Ray Comfort as they interview people they meet on the street about evolution. When the interviewees seem confused about exactly how evolution works, Cameron and Comfort take this as proof that there is no real evidence for evolution.)

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(This video stars Eric Hovind lecturing in the same style his father used.)

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I was fortunate enough to meet and interview many of the founders and employees of the creation museums. Speaking with them gave me the chance to see the museums from a creationist perspective. I also received help, generally by email, from a number of experts in a variety of scientific fields. I have transcribed most of these interviews and will be happy to share them upon request.

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(Mark Hess is a media liaison at NASA's Goddard Space Flight Center. He helped me find the records about Baugh's talk at Goddard on the biosphere.)

Hovind, Eric. Personal interview, 20 May 2008.

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(Warner is a cryogenics engineer at Goddard Space Flight Center. He explained the circumstances surrounding Baugh's invitation to speak at Goddard.)

Winkler, Kyle. Personal interview, 19 May 2008.

(Winkler is a young employee at Creation Science Evangelism. In this interview, he told me about a rift between the "old-fashioned" employees who stand behind Hovind and the younger employees who worry that Hovind's troubles with the law have tainted Creation Science Evangelism's image.)

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