ACTS & FACTS

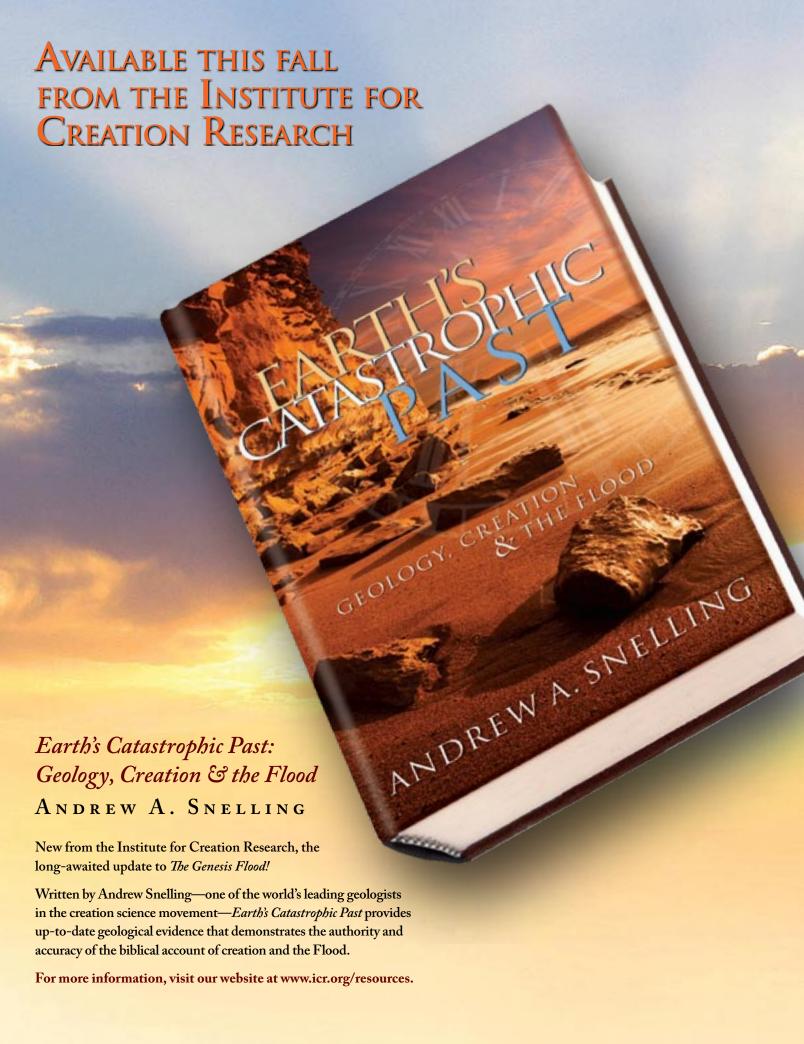
INSTITUTE FOR CREATION RESEARCH

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OCTOBER 2008

YOUNG Is the Earth?

Applying Simple Math to Data Provided in Genesis





Kingdom Votes

he escalating conflict between ICR and the Texas Higher Education Coordinating Board (THECB) concerns many educators, and should concern them all. Remember, ICR's accreditation is not at issue. Rather, ICR is only seeking to relocate its graduate school from California to Texas. Instead of approving ICR's application to grant degrees in Texas, the state agency has evidently taken the authority unto itself to deny any science school that holds a view outside the political or scientific mainstream.

Like Marxist or fascist practice, this approach mandates that there be no challenge to current "politically correct" thought, and ensures the continuance of any error within that thought system. By legislative delegation, the THECB is only charged with granting schools "approval to operate" based on rigorously defined, objective criteria dealing with such issues as students' rights, accuracy in advertising, and financial stability. It has not been commissioned to monitor ideological perspective or academic speech.

The THECB has acknowledged that ICR's faculty credentials are acceptable, and that it meets their standards as defined, but has denied ICR its lawful right to operate in Texas based primarily on their scientific consultants' skewed definition that equates science with "naturalism." The board maintains that since ICR believes in God and the Bible, we can't be true scientists and don't teach real science. It says we deceive the public, and denies us under "truth in advertising."

As often noted in these pages, ICR conducts its science within the perspective of natural law. It does not rely on supernatural action as it relates to present processes, but insists that those pres-

ent processes are totally incapable of achieving the origins events of the unobserved past. Natural law proceeds in the opposite direction. It can maintain, but not originate, life or the basic types of life. Something else is needed. Scripture tells us of supernatural creative processes operating in the past, and this concept fits scientific observations quite well. We see this as a superior scientific perspective, and we hold it for both scientific and religious reasons.

THECB members are appointed by the governor, who is elected by the people. Federal court justices are appointed by the president, who in turn is elected by the people. The upcoming November elections will have much impact on appointments to federal courts and the Supreme Court. As a tax-exempt organization, ICR cannot recommend particular candidates, but we can and do encourage our readers to vote and vote thoughtfully. A candidate will usually have only a short tenure in office, but judicial appointments can last a generation or more, and can set trends which impact the home as well as schools. Much is at stake.

As president of a Christian organization, let me encourage our readership to "vote Kingdom votes." Select those candidates who best reflect biblical perspectives, who hold Christian views on life and liberty. Choose leaders who will not hamper the church from fulfilling its mandates of evangelism and ministry. Select godly leaders who will in turn select jurists of like mind. God does not promise that our votes can usher in a kingdom of righteousness, but let us use our Godgiven rights wisely, as accountable stewards.

John D. Morris, Ph.D.
PRESIDENT

Published by

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THOW YOUNG Is the Larth?



Applying Simple Math to Data Provided in Genesis

JAMES J. S. JOHNSON, J.D.

hen Abraham was born, how old (or young) was the earth? Can we know the answer with confidence? Yes, if God has given us the information we need in Genesis. And He has. But to recognize it requires reading, writing, and 'rithmetic—and one more critical ingredient: avoiding the irrelevant issue of whether Genesis genealogies are "open" or "closed."

Read that last sentence again; it is the key to avoiding confusion. Some people assume that the historical events related in the early chapters of Genesis cannot be precisely dated because we cannot be certain whether the genealogical lists are complete ("closed") or whether they skip generations and have gaps (and are thus "open"). The issue is irrelevant because the timeframes given in Genesis are measured by the number of years between one event and another event, regardless of how many generations occurred between those "bookend" events.

For example, Genesis 5:3 states that Adam was 130 years old when Seth was "begotten." How old was Adam when he begot Seth? Adam was 130. Does it matter whether Seth was Adam's son, grandson, great-grandson, or an even later descendant? No, the answer is the same: 130. Seth's exact relationship to Adam is irrelevant because the timeframe is measured in how many years elapsed from one event (God creating Adam) to another event (Seth being begotten)—regardless of how many generations may have occurred between Adam and Seth.

One obvious "wrinkle" in measuring the above timeframe involves the probable presence of a partial year, since Seth was not likely begotten on Adam's birthday. For a precise range to use in our calculations, we must consider that Adam was at least 130, but not yet 131. To allow for this extra time, we need to include a "partial" number in our calculation of not more than one year. That is why this study counts time with precision ranges... yet the ranges themselves are absolute!

Genesis 5:3 ends with Adam begetting Seth (which likely refers to Seth's conception). The begetting of Seth also begins the next timeframe "link" in the unbroken chain of events from Adam to Abraham. At this point another range adjustment is needed to include the normal duration of a human gestation (i.e., "womb time") to take Seth from conception to birth. No gestation will take longer than one year, so an extra year of precisional tolerance is added to each timeframe that is bordered by a "begetting."

A couple of our timeframes are not linked by a begetting, but by a geologic event. In Genesis 7:6, Noah's age at the time of the Flood is given as 600 years. Since the preceding bookend event was the begetting of Noah, the length of the timeframe connected to Genesis 7:6 will need to include a "womb time" of not more than one year (since Noah's birth started the count to 600 years), and will also need to include a "partial" amount of not more than one year, since it is unknown how much past 600 years old Noah was when the Flood arrived.

One more range adjustment is needed for the begetting of Arphaxad, Noah's grandson. Genesis 11:10 states that Shem beget Arphaxad two years after the Flood. It is logical to assume that this refers to two years after the Flood first began, rather than when it ended, since the start of that cata-



clysmic event is when the earth changed forever and the "clock" of humanity was re-set to "pre-Flood" and "post-Flood". So this timeframe will count two years for this period, plus another "partial" amount of not more than one year, since Scripture does not indicate how much past the two-year mark Arphaxad was begotten.¹

Otherwise, it is straight *event-to-event* math, with the number of generations that are included between the "bookend" events being irrelevant. The 19 sequential links in this unbroken chain are given in the chart at right.

Accordingly, using generous qualifications for gestation periods and for partial years, the qualified timeframe "links" become:

Least time: 130 + 105 + 90 + 70 + 65 + 162 + 65 + 187 + 182 + 600 + 2 + 35 + 30 + 34 + 30 + 32 + 30 + 29 + 70 = not*less*than 1,948 years

Most time: 131 + 107 + 92 + 72 + 67 + 164 + 67 + 189 + 184 + 602 + 3 + 37 + 32 + 36 + 32 + 34 + 32 + 31 + 73 = not*more*than 1,985 years (roughly 1/3 of all time!)³

There is no good excuse for doubting this biblical chronology data, especially since these event-to-event timeframe "links" all connect in sequence, so "open"-versus-"closed" genealogy arguments are irrelevant.⁴

Therefore, the total earth-time in years from God's creation of Adam to the birth of Abraham *cannot be more than 1,985 years*, although it is likely somewhat less than that,⁵ yet *it cannot be less than 1,948 years*. Add 5 days,⁶ and you have the age of the earth when Abraham arrived here. It was a young earth into which Abraham was born—absolutely! ●

The timeframe in years from Adam's creation to Abraham's birth, based on event-to-event timeframe "links" as recorded in Genesis

Timeframe"Links"	Bookend Events	Womb Time	Stated Years	Partial Year	Total Years
1. Genesis 5:3	Adam is created / Adam begets Seth	n/a	130	≤l	≤131
2. Genesis 5:6	Seth is begotten / Seth begets Enosh	≤l	105	≤l	≤107
3. Genesis 5:9	Enosh is begotten / Enosh begets Cainan	≤l	90	≤l	≤92
4. Genesis 5:12	Cainan is begotten / C. begets Mahalaleel	≤l	70	≤l	≤72
5. Genesis 5:15	Mahalaleel is begotten/ M. begets Jared	≤l	65	≤l	≤67
6. Genesis 5:18	Jared is begotten / Jared begets Enoch	≤1	162	≤l	≤ 164
7. Genesis 5:21	Enoch is begotten / E. begets Methusaleh	≤1	65	≤l	≤67
8. Genesis 5:25	Methusaleh is begotten/ M. begets Lamech	≤1	187	≤l	≤ 189
9. Genesis 5:28-29	Lamech is begotten / Lamech begets Noah	≤1	182	≤l	≤ 184
10. Genesis 7:6	Noah is begotten / Flood hits	≤1	600	≤l	≤602
11. Genesis 11:10	Flood hits / Arphaxad is begotten	n/a	2	≤l	≤3
12. Genesis 11:12	Arphaxad is begotten / A. begets Shelah	≤1	35	≤l	≤37
13. Genesis 11:14	Shelah is begotten / Shelah begets Eber	≤1	30	≤l	≤32
14. Genesis 11:16	Eber is begotten / Eber begets Peleg	≤1	34	≤l	≤36
15. Genesis 11:18	Peleg is begotten / Peleg begets Reu	≤1	30	≤l	≤32
16. Genesis 11:20	Reu is begotten / Reu begets Serug	≤1	32	≤l	≤34
17. Genesis 11:22	Serug is begotten / Serug begets Nahor	≤1	30	≤l	≤32
18. Genesis 11:24	Nahor is begotten / Nahor begets Terah	≤l	29	≤1	≤31
19. Genesis 11:26	Terah is begotten / Abraham is born	$\leq 1 + \leq 1^2$	70	≤l	≤73
			Total: ≥ 1,948		Total: ≤ 1,985

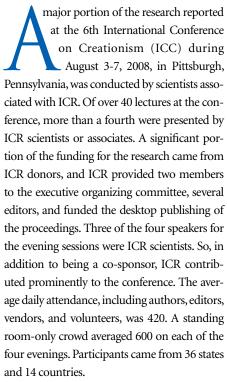
References

- It should be noted that since timeframes 10 and 11 are linked to the "bookend" event of the Flood, the consideration of Noah's age at Shem's begetting and Shem's age at the begetting of Arphaxad is irrelevant.
- Gestation time is included for both Terah and Abraham, since the timeframe being measured is from Adam's creation to Abraham's birth.
- 3. This parenthetical conclusion assumes that Abraham was born during the 22nd century B.C., which is not a controversial assumption among serious biblical history scholars, either liberals or conservatives. See, e.g., page 478 of *The Genesis Flood* by John C. Whitcomb and Henry M. Morris (Philadelphia: Presbyterian and Reformed Publishing Co., 1961), which suggests 2167 B.C. as Abraham's probable birth year.
- 4. This article is an adaptation of a more detailed analysis by Thomas D. Ice & James J. S. John-
- son (with preparation help from Dr. Bill Cooper) titled "Using Scriptural Data to Calculate a Range-Qualified Chronology from Adam to Abraham, with Comments on Why the 'Open'-or-'Closed' Genealogy Question Is Irrelevant," originally presented to the Evangelical Theological Society, Southwest Regional Meeting, March 1, 2002. A copy of this paper is available on the ICR website at www.icr.org.
- 5. The range-qualified high is extra high, since adding a "buffer" of 1 extra year for every period of human gestation is overly generous—no mother would want a 12-month pregnancy!
- 6. Adam and Eve were created on Day 6 (Genesis 1:23-31).



ICR Makes Major Contributions to ICC

LARRY VARDIMAN, PH.D.



Dr. Russell Humphreys opened the conference on Sunday evening with a presentation entitled "Why Is the 'Age-Issue' Important to the Origins Debate and in Particular to the Creation Model of Origins?" Dr. Steve Austin followed on Monday evening with "Understanding the Mudflow Revolution," a potential explanation for 70 percent of the sedimentary layers deposited on the earth due to the Genesis Flood. On Tuesday evening Dr. John



Baumgardner discussed "Catastrophic Plate Tectonics: A Mechanism for the Flood." And on Wednesday evening, during the banquet, Dr. Andrew Snelling delivered a charge to creationist researchers entitled "The Creation Model: Its Past, Its Present and Its Necessary Future."

The ICC has occurred every 4-5 years since 1986. It typically offers exciting, original scientific papers on creationist research by many of the world's leading creationist researchers. This year's conference was no different. A few such papers this year were: "Starlight, Time, and the New Physics" by John Hartnett; "Simulation Analysis of Glacial Surging in the Des Moines Ice Lobe" by Jesse Sherburn, Mark Horstemeyer, and Kiran Solanki; "The 'Eve' Mitochondrial Consensus Sequence" by Robert Carter, Dan Criswell, and John Sanford; "Using Suites of Criteria to Recognize Pre-Flood, Flood, and Post-Flood Strata in the Rock Record with Applications to Wyoming (USA)" by John Whitmore and Paul Garner; "Is the Moon's Orbit 'Ringing' from an Asteroid Collision Event which Triggered the Flood?" by Ronald Samec; "Using Numerical Simulation to Test the Validity of Neo-Darwinian Theory" by John Sanford, John Baumgardner, Wesley Brewer, Walter ReMine, and Paul Gibson; and "Rapid and Early Post-Flood Mammalian Diversification Evidenced in the Green River Formation" by John Whitmore and Kurt Wise.

At most scientific conferences, much of the interaction among scientists occurs in the halls and during meals. To encourage this exchange of ideas, the period between the last regular session and the evening plenary session was two hours long. By the amount of discussion among conferees, it was clear that many plans were being laid for future research. In addition, special sessions were held and announcements made to encourage researchers, including graduate students, to apply for funding for new research. For example, ICR announced its new initiative, the National Creation Science Foundation (NCSF), an effort to encourage creationist research through a formal proposal process similar to conventional research funding. (Visit www.icr.org/ncsf for more details.)

If you weren't able to attend the ICC in Pittsburgh this summer, you can still get much of the content of the conference by ordering the hard-copy *Proceedings* and/or the electronic *Proceedings*, and even a CD with the PowerPoint presentations given by many of

the authors. You can order these materials at www.icc08.org/proceedings.htm. •

Dr. Vardiman is Chair of the Department of Astro/ geophysics.



OCTOBER 2008

OCTOBER 2-3

Colorado Springs, CO – ACSI Convention

OCTOBER 2-3

Portland, OR – ACSI Convention

OCTOBER 2-3

South Bend, IN – ACSI Convention

OCTOBER 4

Calistoga, CA – Rock of Ages Festival (Wood) 707.963.9115

OCTOBER 4-5

Maywood, IL – Genesis Presentations (J. Morris) 708.345.6563

OCTOBER 5

Lake Zurich, IL – Genesis Presentation (J. Morris) 847.438.4494

OCTOBER 9-10

Greensboro, NC – ACSI Convention

OCTOBER 9-10

Pittsburgh, PA – ACSI Convention

OCTOBER 16-17

Kansas City, MO – ACSI Convention

OCTOBER 16-17

Minneapolis, MN – ACSI Convention

OCTOBER 18

Anaheim, CA - Calvary Chapel Men's Conference

OCTOBER 23-24

Seattle, WA – ACSI Convention

OCTOBER 23-24

Metro, NYC - ACSI Convention

OCTOBER 26-29

Lady Lake, FL – Genesis Presentations (Parker) 352.753.4144

OCTOBER 30-31

Sacramento, CA – ACSI Convention

For more information on these events, please contact the ICR events department at 800.337.0375 or events@icr.org.

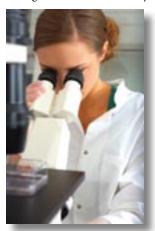
Institute for Creation Research IATIONAL CREATION CIENCE FOUNDATION

he Institute for Creation Research has recently launched the National Creation Science Foundation (NCSF), a funding activity to advance the study of origins science. Dr. John Morris, the President of ICR, serves as the Director of Research and Dr. Charles McCombs, Associate Professor of the ICR Graduate School, serves as Assistant Director.

For nearly 40 years, ICR has been the leader in scientific research from a biblical perspective, conducting innovative laboratory

and field research in the major disciplines of science, as well as in ancient biblical studies and graduate science education.

Through its full-time research staff and graduate school faculty, as well as in partnership with scientists around the world, ICR remains on the cutting edge in origins science. The NCSF is the next step in ICR's mission to advance quality research that impacts our understanding of the creation model as described in Genesis.



Qualified scientists are encouraged to submit proposals for innovative research projects that fit within the foundation's mission. Proposed research must be conducted from a young-earth, global flood perspective, and investigators must abide by the biblical and creation science tenets of the institute. Details regarding submission guidelines can be found at www.icr.org/ncsf.

Since ICR's founding by Dr. Henry Morris in 1970, ICR scientists have endeavored to utilize their research to demonstrate the evidence for creation as understood in Scripture. Recognizing the growing number of qualified scientists around the globe who share this same vision, ICR is confident that the NCSF will encourage researchers to advance

> the biblical creation model and thus magnify the Creator.

For more details, visit our website at www.icr.org/ncsf. For an information packet and application, email ncsf@icr.org or write to ICR-NCSF, 1806 Royal Lane, Dallas, TX 75229. ●



Man of Science, Man of God:

Gregor Johann Mendel

Who: Gregor Johann Mendel
What: Father of Modern Genetics
When: July 20, 1822 – January 6, 1884

Where: Heinzendorf, Hapsburg Empire (Modern-Day Czech Republic)

CHRISTINE DAO

regor Mendel was an Austrianborn, German-speaking Augustinian monk who is famously known as the founder of the modern study of genetics, though his work did not receive much recognition until after his death.

He was born Johann Mendel to a peasant family in the village of Heinzendorf of the Hapsburg Empire, now known as Hyncice of the Czech Republic. As a child, he worked alongside his father to improve the family orchards by grafting, a practice encouraged and sponsored by the land's feudal proprietor, the Countess Maria Truchsess-Ziel. Since grafting was a particular "art" that produced both desirable and undesirable results, working in the orchards introduced the young Mendel to the beginnings of his experimental botany work.

When he was 11, Mendel's schoolmasters recognized his talent for learning and convinced his parents to let him pursue a higher education and, hopefully, a better vocation than the harsh life of a farmer. His parents were frequently unable to cover all of his living expenses in addition to paying his tuition, and he had to work to

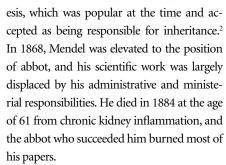
feed himself. Often he had to do without. In 1838, his father suffered a severe injury that prevented him from doing hard physical labor. The younger Mendel, at 16, then had to entirely support himself and his education.

He graduated from the "gymnasium" at Troppau on August 7, 1840, with high honors, taking first place in all his examinations. Between 1840 and 1843, he studied at the Philosophical Institute in the nearby city of Olomouc. Then, upon recommendation of his physics teacher, Father Franz, he entered the Augustinian Abbey of St. Thomas in Brünn (present-day Brno), adopting the name Gregor when he entered the monastic life.

He was sent to the University of Vienna between 1851 and 1853 to study botany, zoology, chemistry, and physics, and returned to the abbey in Brünn to teach. Between 1856 and 1863, he cultivated some 29,000 pea plants (*Pisum sativum*). The study showed that out of four plants, one received recessive alleles, two were hybrids, and one had the dominant alleles. His experiments were the foundation for two generalizations known today as Mendel's Laws of Inheritance. Based on his work, he produced the paper *Experiments on Plant Hybridization* and read it to the Natural History Society of

Brünn in 1865. The society published the paper in its *Proceedings* in 1866.

Mendel's paper
was rejected at first,
since he evidently produced it as a counter to
Darwin's theory of pangen-

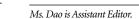


In 1900, Mendel's work was rediscovered and is now the foundation of the science of genetics. In the past hundred years or so, his work has still received criticism and some have gone so far as to accuse Mendel of scientific fraud, even though his experiments have been recreated with the same results. Others have tried to shoehorn his work into the theory of modern evolutionary synthesis, which combines Mendelian genetics with natural selection and gradual evolution.

Though Mendel cannot speak for himself today and defend his work, his life as a priest testifies to his faith in the Creator God. After all, it is one thing to make confession in published books and papers, and it is another to dedicate one's life to those convictions.

References

- Mendel, G., A. Corcos, and F. Monaghan. 1993. Gregor Mendel's Experiments on Plant Hybrids: A Guided Study. New Jersey: Rutgers University Press.
- See Bishop, B. E. 1996. Mendel's Opposition to Evolution and to Darwin. The Journal of Heredity. 87 (3): 205-213.



National Creation Science Foundation Awards First Grant

he National Creation Science Foundation (NCSF), ICR's new funding initiative to promote quality research, has awarded its first grant to eminent geologist Dr. Steve Austin. NCSF has signed a major contract with Dr. Austin for his continued management of the Flood-Activated Sedimentation and Tectonics (FAST) project.



If Genesis 1-9 can be taken as a literal, historical account of the early years of the universe and mankind, then Noah's Flood was a catastrophic global event that entirely reshaped earth's landscape. The modern creation science movement was launched with the 1961 publication of Drs. Henry Morris and John Whitcomb's *The Genesis Flood*, which correlated scriptural description with scientific evidence to demonstrate that the Flood is, indeed, the

best explanation for our world's physical formations and geologic history.

The FAST project was undertaken to further investigate the implications, processes, and results of the Flood, from intricately analyzing the Genesis account for its narrative descriptions, to examining its sedimentary and tectonic processes. These studies form the three research initiatives of the FAST program:

- 1. Flood Narrative, exploring the connection between the text of Genesis 6-9 and earth's geologic history;
- Flood Sedimentation and Stratigraphy, examining the characteristics of earth's sedimentary rocks and rock layers, and testing theories for the rapid underwater deposition of sand and mud;
- Flood Tectonics, studying the features and formation of mountains to formulate theories regarding how the colossal physical forces of the Flood resulted in such massive geologic structures.

Old Testament scholars are applying their expertise in ancient Hebrew to the Genesis Flood account, unpacking the grammar, vocabulary,

and other language features to uncover clues that geologists can apply to their understanding of Flood events. Scientists have also been examining sedimentation in the southwestern United States to gain a better understanding of how the Flood could have produced the widespread and distinctive rock layers that are found there. And geologists have found evidence of super-



faults, involving huge movements and collisions of continental plates that would have resulted in catastrophic rock displacement and a profound reshaping of the earth's surface features.

In August, Dr. Austin traveled to Alaska for the FAST program to conduct field work in a remote wilderness area of Wrangell St. Elias National Park. He reported at the time:

I am on the boundary fault where the Pacific Plate collided with the North American Plate in the Upper Cretaceous time. The head-on plate collision occurred as the MacColl Ridge Formation (Upper Cretaceous) was being deposited. I am here to study the sedimentary strata and tectonics of that plate collision. The MacColl Ridge Formation is the product of the collision.

Dr. Austin was particularly interested in a part of the formation he referred to as Conglomerate Bed #7. He concluded:

It is obviously a debris flow (undersea mudflow) with extreme power and pulsating delivery of clastics. The largest boulder is about 1 meter by 0.3 meter. Bladelike clasts show imbrication that indicates transport ten miles northward from the collision zone. The rounding of clasts indicates an abrasive flow. Bed #7 is about

100 feet thick. Flow velocity may have exceeded 30 mph.

There is virtually nothing in 7,000 feet of strata that argues for slow deposition. These strata bear witness of catastrophic flood sedimentation. It is "soup and slurry" sedimentation like I have never seen before.

For the next scheduled FAST activity, Dr. Austin will gather his principal investigators in Mesquite, Nevada, in November to discuss their current research and make plans for future projects. NCSF looks forward to furthering this important scientific work.



DOES CARBON DIOXIDE DRIVE GLOBAL WARMING?

LARRY VARDIMAN, PH.D.

Introduction

n the latest of my series of articles on global warming, I offered evidence that global warming appears to be occurring, but evidence seems to be growing that fluctuations in the electromagnetic field of the sun may be responsible for it. Here I would like to expand my arguments that carbon dioxide from man's activities is probably not the primary cause for global warming. Major weaknesses have developed in the logic that carbon dioxide causes global warming. In a second article to follow, I will describe a new theory of climate change based on the influence of the sun.

Arguments against Carbon Dioxide Driving Global Warming

In his presentation An Inconvenient Truth,2 Al Gore argues that the correlation between earth's average global temperature and the concentration of carbon dioxide in the atmosphere irrefutably demonstrates that carbon dioxide drives global warming. He compares the temperature trend in the socalled "Hockey Stick Diagram" with the exponential increase in carbon dioxide measured at Mauna Loa, Hawaii, for the past 50 years. A similar plot of temperature over the past 1,000 years is shown in Figure 1. Such a diagram is given this name because the temperature plot looks like a long-handled hockey stick. This figure shows a superposition of average global temperature curves obtained by different research groups using different data and/ or methodologies. For example, the red curve shows the results obtained by Moberg et al,3 while the blue curve shows the results of Esper et al.4 The average temperature in the "handle" of the hockey stick over the period from about 1000 to 1850 A.D. remains relatively uniform, followed by a sudden rise in the "blade" since 1850, supposedly following the recent increase in carbon dioxide.

Figure 1 seems to provide compelling evidence that global warming is caused by an increase in carbon dioxide. The sudden steep rise in temperature following a long period of uniform temperature prior to the Industrial Age seems to be inextricably linked to man's activities since 1850 or so. However, when one examines the figure more carefully, the argument begins to fall apart.

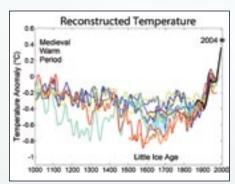


Figure 1. Reconstructed temperature similar to Gore's Hockey Stick Diagram.⁵

The "Hockey Stick Diagram" has recently come under critical scrutiny. Most paleoclimatologists work with more widely-accepted temperature plots which have been used for many years in standard climate research and textbooks. These individual charts contain wide variations in temperature over the past 1,000 years, in opposition to the impression given by Gore's temperature diagram. In fact, they normally show a 400-year-long warm period from about 1000 to 1400 A.D., which is known as the Medieval Optimum in Europe. During this period crops flourished, the economy boomed, and the Vikings settled parts of Greenland where the ice sheets had melted back. From about 1400 to 1900 A.D., a 500-year cold period occurred. Certain crops like grapes could no longer be grown, the economy declined, and the Vikings were forced out of Greenland by the encroaching snow and ice. Sunspots were found to be fewer during this time period, which became known as the Maunder Minimum. The coldest center portion of this period with the fewest number of sunspots is called the Little Ice Age. The canals

in Holland, unlike today, froze over each winter. These changes in temperature associated with sunspot number suggest that the sun may influence the climate over millennial cycles. However, studies over many years have not been able to confirm a convincing physical mechanism between sunspots and weather or climate.

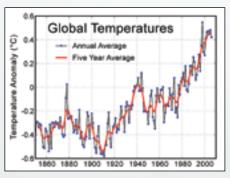


Figure 2. Global temperature anomaly between 1850 and 2000.⁶

When the temperature trend in the "blade" of the hockey stick between 1850 and 2000 is examined in more detail, as shown in Figure 2, it is found that the average global temperature doesn't increase exponentially like the measurements of carbon dioxide do at Mauna Loa. The temperature increases between about 1850 and 1940, and then decreases for a 30-year period from 1940 to 1970, after which it begins to climb again. This is very peculiar if carbon dioxide is driving global temperature, because the greatest increase in output from industrial production and the associated release of carbon dioxide would have occurred during this period. Following World War II, industrial productivity and the release of carbon dioxide climbed rapidly. Yet temperature fell, prompting many climatologists to express concern that we were heading into another ice age. Once again, the average global temperature began to warm in 1970. The temperature and carbon dioxide diagrams do not match up, as one would expect if carbon dioxide concentration is driving temperature.

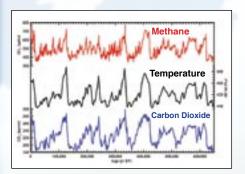


Figure 3. Comparison of carbon dioxide and temperature in ice cores.⁷

Gore also uses an argument that the correlation between carbon dioxide concentration and temperature in ice core records from the distant past, as shown in Figure 3, demonstrates that carbon dioxide and temperature are strongly related. However, a statistical correlation between two variables doesn't determine which one is causing the relationship and which one is responding. If one looks at these data in finer detail, as shown in Figure 4, it becomes evident that temperature is driving the carbon dioxide concentration, not the other way around. Changes in temperature trends led similar features in carbon dioxide and methane by some 800 years in this analysis. One explanation for this relationship is that warming of the oceans releases carbon dioxide to the atmosphere, increasing its concentration. This is likely due to the fact that the oceans contain much more carbon dioxide than the atmosphere, and they release carbon dioxide at warm temperatures and absorb it at cool temperatures.

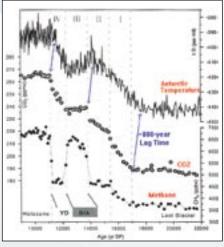


Figure 4. Detailed trends in carbon dioxide and temperature in ice cores.8

A qualifying statement must be made regarding the data shown in Figures 3 and 4. The horizontal scales shown in the figures assume an old earth. The correlations may be valid, but the actual ages and lags must be much less if one accepts a young earth.

Conclusions

Individual temperature records commonly used by climatologists and paleoclimatologists show that the past 1,000 years have been marked by periodic warm and cold periods, not by a uniform climate trend. The recent warming trend since about 1850 appears to be the continuation of the warming following the Little Ice Age, rather than a sudden upsurge after a long period of relatively uniform temperatures. The detailed temperature record since 1850 shows a temperature decline between 1940 and 1970, which flies in the face of the explanation that a continuous exponential increase in carbon dioxide causes global warming. And the simultaneous record of temperature and carbon dioxide concentration in ice cores indicates that carbon dioxide concentration changes after temperature changes, not before, indicating that carbon dioxide is the result, not the cause, of global warming.

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The Burgess Shale and Complex Life

JOHN D. MORRIS, PH.D.

f evolution is correct, the first life was quite simple, evolving more complexity over time. Yet the Cambrian Explosion of Life has revealed life's complexity from the start, giving evolution a black eye. The vast array of complex life that appears in the lowest (or oldest) stratigraphic layer of rock, with no apparent ancestors, goes hard against evolutionary dogma. Evolution's desperate attempt to fill this gap with more simple ancestral fossils has added more injury.

In 1940, fossils of amazing clarity and diversity were found in Canada's Burgess Shale. The extremely fine-grained shale preserved intricate details of previously unknown invertebrates. Does this find contribute to understanding invertebrate evolution as it is claimed to have occurred? The deposit did unveil numerous new fossil types, including exotic species of phyla already known and perhaps even several new phyla (basic body styles) too, but none were primitive in any sense, nor ancestral to any other type. What it certainly did not do was reveal any of the transitional forms so desperately needed.

This Burgess Shale is in the middle Cambrian, only slightly "after," or stratigraphically above, that representing the Cambrian Explosion. As a practical result, there are now even more basic types in the lowest layers than had been known before, adding to the number of phyla that must be accounted for, none of which have known ancestors.

Think of the magnitude of this problem

from an evolutionary perspective. Many and varied forms of complex multi-celled life suddenly sprang into existence without any trace of less complex predecessors. There are numerous single-celled forms at lower stratigraphic levels, but these offer scant help in solving the mystery. Not one basic type or phyla of marine invertebrate is supported by an ancestral line between single-celled life and the participants in the Cambrian Explosion, nor are the basic



phyla related to one another. How did evolution ever get started?

Let's suppose you want to find the fore-fathers of the clams, a prominent resident of the Cambrian Explosion, for instance. As you follow the fossil clues into ever "older" strata, what do you find? You find clams. The first or lowest occurrence of clams is abrupt or sudden. There are no ancestors that are not clams. An

evolutionary lineage is impossible to discern, for clams have always been clams. Fossil clams are quite abundant, found all over the world in rocks of every age, and clams live today. Great variety among them abounds, but they are still clams. Variety does not speak to ancestry. The same is true of all animals found in the Cambrian Explosion. How can evolutionary scientists use the fossils as evidence of a common descent of all life?

Certainly if the transitional forms had been found, they would be paraded for all to see. Supported by such overwhelming evidence of relatedness between life's current forms and their less complex ancestors, there would be much less controversy about the fact of evolution. But there is no such evidence. Evolution suffers from the lack of supporting data, making it impossible to determine the origin of any basic group.

The creation model predicts that no ancestral forms will ever be found, for they never existed. Each basic body plan was created, without any evolutionary lineages, directly from the mind of the Creator, a fact

amply supported by the data. The data show exactly what they should show if creation is true.

Transitional fossils have never been found as predicted by evolution. From all we can tell, transitional missing links are imaginary, necessary only to support the evolutionary model. Perhaps evolution itself is imaginary.

Dr. Morris is President of the Institute for Creation Research.

Dinosaur Soft Tissue: Biofilm or Blood Vessels?

BRIAN THOMAS, M.S.

ver a decade ago, paleontologist Dr. Mary Schweitzer accidentally discovered soft tissues preserved inside dinosaur bone.¹ While examining the bone structure from an incompletely fossilized T. rex nicknamed "B. rex," she came upon what appeared to be blood vessels and blood cells on her microscope slides. In an interview years later, she recalled, "I looked at this and I looked at this and I thought, this can't be. Red blood cells don't preserve."²

Evolutionary scientists have had a very difficult time fitting this evidence into a neo-Darwinian framework. After the soft tissues were verified, creation scientists interpreted them as confirmation of a young earth. "Evidence of hemoglobin, and the still-recognizable shapes of red blood cells, in unfossilized dinosaur bone is powerful testimony against the whole idea of dinosaurs living millions of years ago," *Creation* magazine reported.³

Of course, questioning the paradigm of eons of time seems nonsensical to most scientists because "geologists have established that the Hell Creek Formation, where B. rex was found, is 68 million years old, and so are the bones buried in it." However, this appeal to authority ignores the possibility that the geologists themselves "established" this age based not on science, but on assumptions of millions of years of earth history, the authority of the biologists who date fossils based on their alleged evolutionary path, and the veracity of the geologic column itself, which was defined in the 19th century, prior to the accumulation of 90 percent of current geologic data.

The belief that "millions of years" is

established fact seems here to trump the empirical evidence that biomolecules should not last longer than 100,000 years. One resilient biomolecule found in many fossils, including B. rex, is collagen. However, "in bones, hydrolysis [breakdown] of the main protein component, collagen, is even more rapid and little intact collagen remains after only 1-3x10⁴ [10,000 to 30,000] years, except in bones in cool or dry depositional environments."⁴

With a lifespan of 30,000 or so years, collagen should not exist in a 68-million-year-old sample. To get around this, some evolutionary scientists challenge the measured molecular decay rates. "Schweitzer's work is 'showing us we really don't understand decay," pale-ontologist Thomas Holtz said in *Smithsonian* magazine.² But even allowing 100,000 years for collagen longevity, perhaps due to superior preservation, this is still only 1/680th of B. rex's assumed age. It would seem that the natural preservation of collagen for 68 million years would have required a miracle on the same scale as creation.

A new possible solution was published in July 2008. Researchers took electron micrographs of the "soft tissues," and concluded that they are bacterial secretions called "biofilms." Though this is possible, the weight of evidence still seems to favor the interpretation that they are genuine dinosaurian tissue. First, collagen protein sequence data is not a bacterial product, but "colleagues at Harvard successfully sequenced the dinosaur protein that Schweitzer had extracted from the tissue, identifying the amino acids and confirming that the material from the T. rex was collagen. 'From a paleo

standpoint, sequence data really is the nail in the coffin that confirms the preservation of these tissues,' Schweitzer says."⁶

Second, as Dr. Schweitzer pointed out for National Geographic, no biofilms have been observed with hollow, branching tubes. Third, biofilms would have been thicker at the bottom, pulled down by gravity.⁷ And fourth, the flimsy biofilms themselves could never have retained the shape of the original dinosaur blood vessels, to which they allegedly conformed, for 68 million years.

Not only should the unfossilized bone and its collagen have turned to dust long ago, but there should certainly be no vestige of blood vessels, or even bacterial slime still shaped like vessels. These tissues remain a pesky enigma for long-age thinking, but they fit right in with the young world viewpoint that an unbiased Bible reader would understand.

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July 24, 2007.

Mr. Thomas is Science Writer.



Rescuing Ring Ages

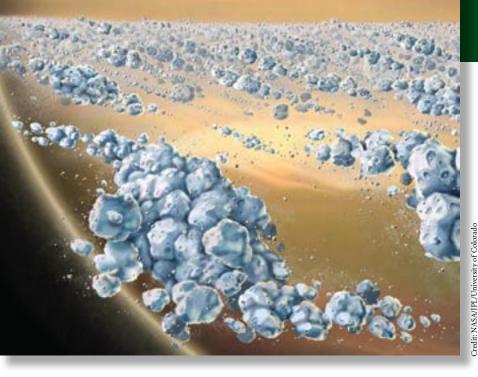
DAVID F. COPPEDGE

he rapture of seeing Saturn's rings in a telescope for the first time has been enough to inspire many young people to become astronomers. Galileo called them a "most extraordinary marvel." In today's age of planetary reconnaissance, we now have close-up data and pictures beyond his imagination. Sadly, there seems to be more interest today in rescuing the rings' "billions of years" timescale than in understanding them.

All the gas giants (Jupiter, Saturn, Uranus, and Neptune) have rings made up of separately-orbiting objects. Saturn's rings, the most spectacular, are divided into regions that are labeled outwardly with the letters D, C, B, A, F, G, and E. Some rings (Saturn's E, Jupiter's rings) are composed primarily of smoke-sized particles. The brightest rings contain snowball to house-sized objects. Saturn's rings mostly consist of water ice, with some contamination from carbonaceous and silicate "dirt."

The 1981 Voyager flybys astonished scientists with images of hundreds of individual ringlets and gaps. Resonances (periodic alignments) were known to create some of the ringlets and sharp edges, but there was far more dynamism and structure than expected, leading specialists at the time to conclude that the rings were young rather than primordial (i.e., formed along with Saturn). Upper limits were put at ~100 million years, only 2.2 percent of the assumed age of the solar system (4.5 billion years).²

In addition, scientists soon realized that numerous destructive forces were at work:



plasma drag from Saturn's atmosphere, sunlight pressure, collisional spreading, meteorite impacts, and sputtering (collisions at the atomic level). The smaller the particles, the more quickly they would be destroyed. To support a continued belief in Saturn's ancient age, scientists had to propose ad hoc "rescuing devices" like the breakup of a wandering moon 100 million years ago—a highly unlikely happenstance.³

Four years of Cassini observations of Saturn's rings from multiple angles and distances, using a dozen instruments, have led to new discoveries. Radio receivers have heard "tones" coming from the rings as a result of meteor impacts. Self-gravity among the particles appears to cause ongoing cycles of clumping and dispersion; this implies the particle surfaces are "fluffy" rather than hard. Adjacent ringlets vary substantially in amounts of contaminants or "dirt" in them. The Encke and Keeler Gaps both contain small moonlets that perturb the edges of the rings as they pass by.

What do these observations imply? Everything still looks young. One leading ring scientist, however, recently proposed that the Bring might be as old as Saturn after all. Continuous cycles of clumping and dispersion, he said, might make them recycle themselves endlessly.³ But this fails to address the many other disruptive forces eroding the rings, and also does not explain their brightness. At best, the theory increases their potential age into the billion-year range—still far short of 4.5 billion.

The ages of other rings cannot be rescued

so easily. A recent paper on the F-ring indicated that collisions among embedded moonlets and disturbances by passing shepherd moons create structures that vary on timescales of days or hours. "It is difficult to understand how the observed ~1 km-wide ring component seen in some of the highest resolution images can survive in such a chaotic environment," the report's authors said. ⁴ Yet it does. And the F-ring is bright—another indication of youth.

As with so many phenomena in the solar system, Saturn's rings look young. Estimates of old age survive only in the minds of scientists who are committed to a belief that requires vast periods of time. When the evidence threatens to drown these assumptions, they toss out the ring buoy of ad hoc speculation. Good theories should float on their own.

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David Coppedge works in the Cassini Program at the Jet Propulsion Laboratory. The views expressed are his own.



LETTERS TO THE EDITOR



Being a native Texan and committed Christian, I was so sorry to hear about the ruling against ICR being able to confer degrees in Texas. I have listened to and read your creation information for many years and am so grateful that God has allowed and aided you to do this work. I fervently wish and pray that everyone would believe the truth.

--- M.P.S.

[Regarding ICR's radio program *Science, Scripture & Salvation*] "The Gift of Trees" was the most wonderful program I've heard. I'm going to use the information on this program to teach children's classes at church.

-G.T.

Thanks for your ministry and to every member of staff....I lost most of the senior Morris' books (and others) in [the] Katrina flood, but have acquired some of them since, including my *Defender's Bible*, thank God. I have followed both AiG and ICR ministries for probably 15 years, and it has changed my life and I have been able to influence my grandkids and great-grands.

— B.S.G.

I have used your material and promoted your ministry in many teaching situations....Lives always change. People always come away with a higher view of the integrity of the Word of God. Without ICR, I have no idea how strong or weak my own faith would be today, deluged as we are with the evolutionary message touted as solid truth in every media outreach. And I can't help wondering about the faith of all those hundreds that I have been privileged to teach.

— D.K.

For some time I have been waiting for something extra in my income so that I could send you a gift to help you in the printing and distributing [of] *Days of Praise.* It is an excellent periodical expounding on the handiwork of God. I sincerely appreciate your sending it to me free for many years. May the Lord continue to bless you in your endeavors in upholding the TRUTH of God's creation.

— E.S.W.

Editor's Note: Thank you to the many people who have written to express appreciation for the work of ICR. We wish we had the time and resources to respond individually to each of you, but rest assured that your prayers and your words are a tremendous encouragement.

Have a comment? Email us at editor@icr.org. Or write to Editor, P. O. Box 59029, Dallas, Texas 75229.



This month on "Science, Scripture, & Salvation"

WEEKEND OF OCTOBER 4

The Turning of the Evolutionist

We know from the Bible and science that evolution is impossible. An animal can't change into another kind of animal, and a leopard can't change its spots. But can an evolutionist be changed into a Bible-believing creationist? On this program we'll meet three Ph.D.s who've been freed from the bonds of evolution.



WEEKEND OF OCTOBER 11

Animal Invaders

Animals are a wonderful part of God's creation. Some are wild and exotic, while others are cute and cuddly. And then there are the ones that invade and destroy other creatures. Some would say that we see such behavior in the animal kingdom because of evolutionary influences. But is this really true? Tune in to discover the "why" behind the actions of these vicious animal invaders.



WEEKEND OF OCTOBER 18

From Dugongs to Dragons

This world is filled with many unique creatures that inhabit specific regions of the globe. And while we can see many of these animals in zoos, there are still plenty more we're not familiar with. But do unique and strange characteristics of wild animals prove evolution, or do they showcase part of God's magnificent creation? You'll be both delighted and somewhat disgusted by the animals we highlight today!



WEEKEND OF OCTOBER 25

Creepy Nocturnal Creatures

They come out at night. Some have fangs, some stingers. Some crawl, some fly. They can be hairy, scary, and just plain "creepy." But they're also remarkable creations of God. So, just what's so special about these frightening rulers of the night? Don't "creep" away; join us as we learn about some incredible nocturnal creatures.

To find out which radio stations in your city air our programs, visit our website at www.icr.org. On the Radio page, use the station locator to determine where you can hear our broadcasts in your area. You can also listen to current and past *Science*, *Scripture & Salvation* programs online, so check us out!

The Stewardship COMMISSION

HENRY M. MORRIS IV

hen our Creator issued this first commandment to mankind, it is interesting to note that He preceded His instructions with a blessing. This is the first instance of God's love expressed toward His human creation, and establishes a pattern seen throughout the rest of Scripture in His relationship with mankind. Even on those occasions when God says, "Thou shalt not...," He does so to protect those He loves. The commands of our Lord are always wrapped in love, for He only desires the best for us.

So this first command to humanity best known as the Dominion Mandate-was given both as a blessing and as a responsibility. Adam and Eve would soon discover that God's instructions to them encompassed far more than they could have imagined at the time. Not only were they expected to begin populating the earth, they were also commanded to manage all the resources that God had placed around them. In this way, God would receive glory from His new creation while allowing mankind the privilege of sharing in the earth's magnificent bounty.

Careful study of Scripture shows that this mandate has never been revoked—in fact, it was specifically renewed and extended after the Flood (Genesis 9:1-7). Ultimately, when His plan of redemption and judgment is complete, God will destroy this world and create new heavens and a new earth (2 Peter 3:10-13). But until that time, man is still expected to fulfill God's command to care for this world and rule over it.

The mandate to "subdue" and "have dominion" over the earth should not be

misconstrued as God's permission to abuse and destroy. Rather, God clarifies His intent in Genesis 2:15 as one of true stewardship of His creation: "And the Lord God took the man, and put him into the garden of Eden to dress it and to keep it." Thus, Adam was given the responsibility to tend (dress) and cultivate (keep) God's creation, indicating a special care and concern for the earth. But proper "dressing" and "keeping" cannot occur without by God to accomplish His first commission to mankind—a commission of stewardship.

a thorough understanding of the underlying to fulfill our Creator's stewardship commission processes and functions. In today's terms, we know this as "science," and in the true biblical Christ! sense, scientific study was expected and required To this end, ICR announced last month the launch of the National Creation Science Foundation (NCSF) to foster innovative research that demonstrates evidence for creation as understood in Scripture. For nearly four decades, ICR has been privileged to lead the way in this

pursuit—but there is only

so much research we can

accomplish acting alone.

Recognizing the tremendous growth in the number of qualified scientists who share our vision, the NCSF was the next logical step in our mission to produce quality research in the study of origins. The NCSF provides the opportunity to fund multiple projects simultaneously, thereby accelerating the discovery of biblical creation evidence. We need your help to see it succeed-won't you prayerfully consider how you can partner with us? Together, we can work

And God blessed them, and

and multiply, and replenish the

dominion over the fish of the sea, and over the fowl of the

air, and over every living thing

that moveth upon the earth.

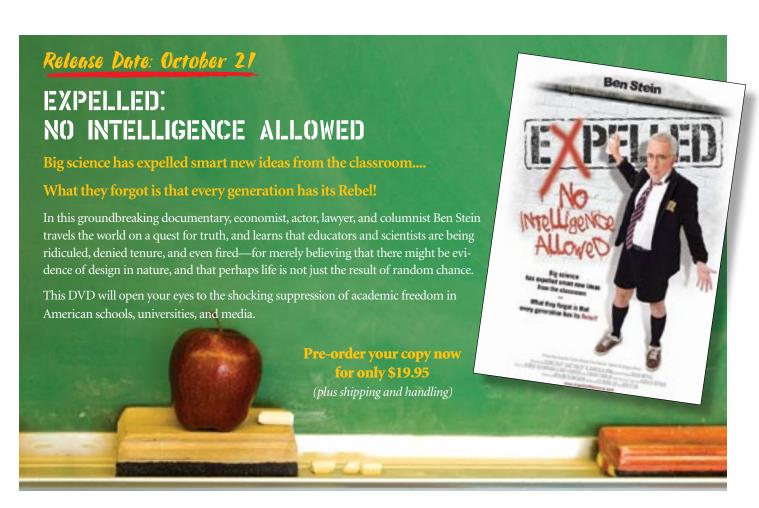
(GENESIS 1:28)

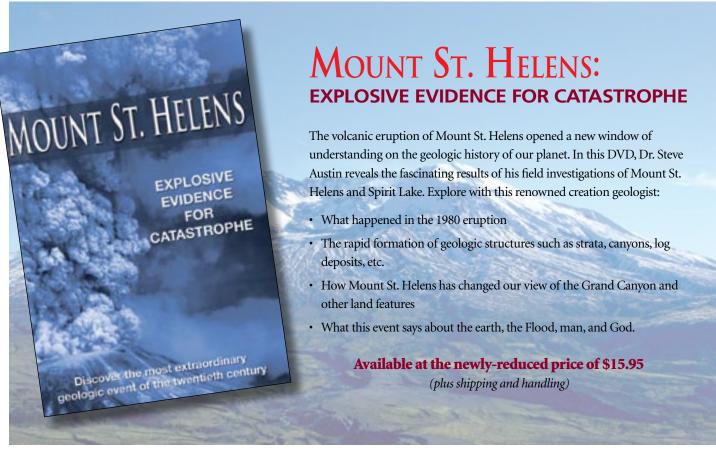
and see many come to

Mr. Morris is Director of Donor Relations

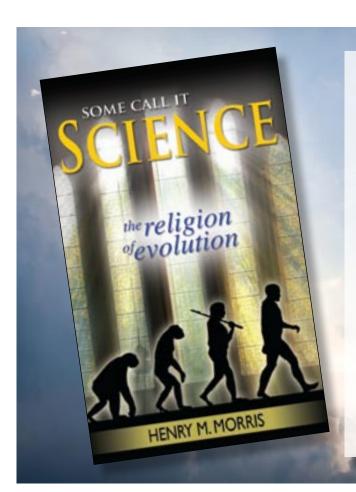


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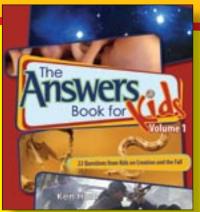
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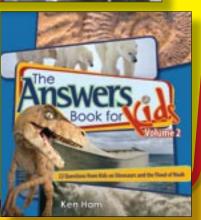
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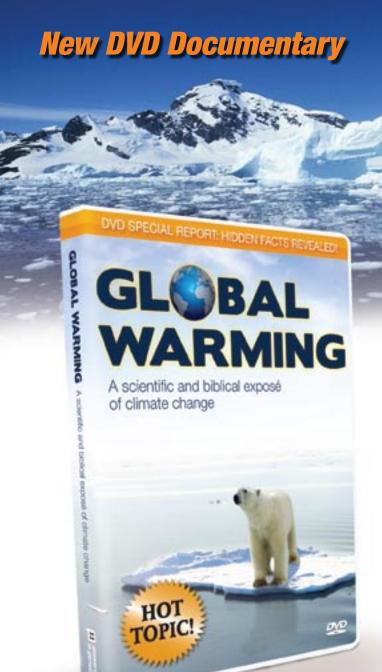
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