

ACTS & FACTS

INSTITUTE FOR
CREATION RESEARCH

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TWEAKING THE GENETIC CODE

*Debunking Attempts to
Engineer Evolution*

Made in His Image

Examining the Complexities of the Human Body

by Randy J. Guliuzza, P.E., M.D.

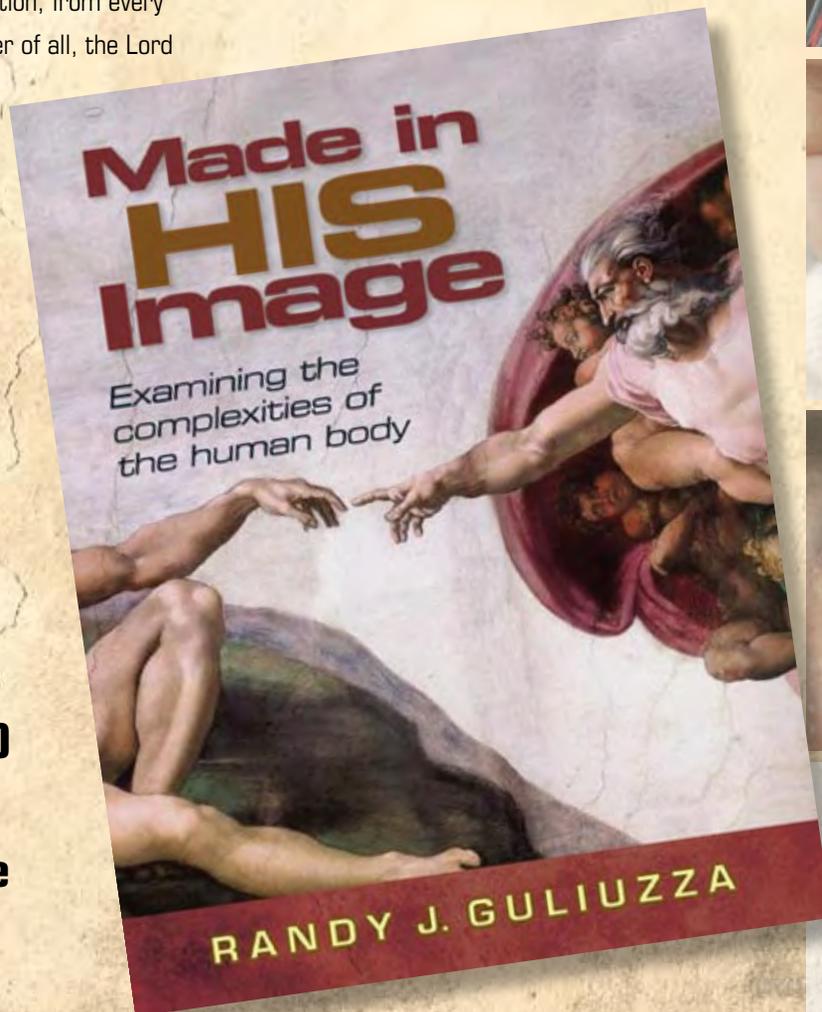
{ "If it is living, it is complex." }

There is nothing simple in biological systems. Engineer and physician Dr. Randy Guliuzza brings his expertise to bear on the human body, exploring multiple aspects of its complex inner workings.

Engineers strive to design structures that are safe, readily buildable, achieve maximum results with minimum resources, and withstand a reasonable amount of abuse without breaking. Systems of the human body show *all* of these features—at levels that should evoke the greatest respect, and indeed adoration, from every engineer for the finest Engineer of all, the Lord Jesus Christ.

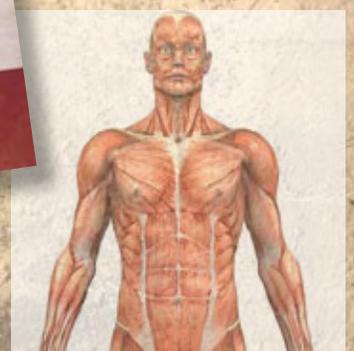
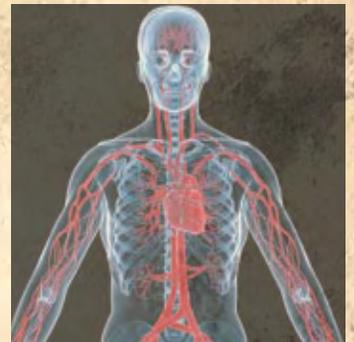
The human body is an amazing example of biological engineering, with myriad interconnecting systems that produce unique capabilities. Join Dr. Guliuzza as he explores the astounding complexities behind how the body works, from the growth of a baby to skin's built-in sun protection to how cells are supplied with energy and much more.

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The Legacy of Our Founder, the Example of Our Creator

The Christmas holidays are a time to focus on what's really important: honoring our Creator, King, and Savior, Jesus Christ, and especially remembering His birth, life, and death. To think that the Creator of the universe took on the form of those He created. "And being found in fashion as a man, he humbled himself, and became obedient unto death, even the death of the cross" (Philippians 2:8).

All of us, even those in high-profile ministries, need to be mindful of the humility exhibited by Christ. He was absolutely committed to truth, and sometimes confronted the religious hypocrites of His day with severity. But Jesus did not come to be served. Rather, He came to serve and ultimately give His life as a sacrifice for your sins and mine (Mark 10:45; 1 John 2:2). He is the only example we should endeavor to follow.

A commitment to communicating the truth of God's inerrant Word—from the results of our research, through our educational programs in science and apologetics, and through the many resources we publish—allows ICR to continue the legacy of another humble servant, ICR founder Dr. Henry Morris, who used his God-given talents to bring truth to a lost and dying world. His influence lives on long after his passing.

A highlight at ICR this year has been the expansion of seminars and conferences around the country, with over 100 events just this fall. Our speakers were invited to teach at some 74 educational seminars for the Association of Christian Schools International, most of them in October and November.

ICR rounded out 2009 with its Demand the Evidence conferences in Florida, California, and

Texas. These special Friday-Saturday conferences provided opportunities to teach the evidence from science that demonstrates the truth of young earth creation, the global Flood, the complexity of the human body, and the existence of the Intelligent Designer, Jesus Christ.

By the time you read this issue of *Acts & Facts*, ICR will have held its last 2009 Demand the Evidence conference at the historic First Baptist Church in Dallas. The pastor, Dr. Robert Jeffress, opened the creation conference on Friday night and Dr. Henry Morris III gave the keynote address, "Pulling Down Strongholds." Look for more great conferences in 2010.

Speaking of 2010, did you know that ICR will be celebrating its 40th anniversary? We are excited as we look back at the wonderful blessings of God and prayerfully anticipate His hand on our lives and work in the future. Do you have a testimony you'd like to share about how God has used ICR in your life? Write it down for us and send it in. We might include it in a special anniversary edition of *Acts & Facts* next year!

Your prayerful support of ICR at this year-end time will be a special blessing as we make plans for new research projects, more comprehensive educational programs, and many more resources to equip you with the apologetic tools you need to influence others with the evidence from science and the Bible.

My prayer for you and your family this Christmas is to discover new ways to honor the Lord Jesus Christ, our Redeemer, our King, and our Creator.

Lawrence E. Ford
EXECUTIVE EDITOR

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*Raising the
Banner for*
**CREATION
TRUTH**

Dr. Henry M. Morris founded the Institute for Creation Research in 1970 with a vision to uncover and present evidence for the accuracy and authority of the Bible.

For almost 40 years, ICR has distinguished itself as the leader in creation science research and education, ably assisted by the many fine scientists whom God has led to work here. These men and women have dedicated their training and skills to raising the banner for the truth of our Creator God. We would like you to meet our current on-site scientists and hear their thoughts on the purpose, significance, and importance of the creation science research they do.



John D. Morris
President

B.S., Virginia Tech, Blacksburg, Virginia, 1969
M.S., University of Oklahoma, Norman, Oklahoma, 1971
Ph.D., University of Oklahoma, Norman, Oklahoma, 1980



Steve Austin
*Senior Research Scientist; Chair, Geology
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B.S., University of Washington, Seattle, Washington, 1970
M.S., San Jose State University, San Jose, California, 1971
Ph.D., Pennsylvania State University, College Park,
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At its core, ICR discovers and uncovers information about creation. Yes, we teach what we know, elevating Scripture and giving glory to God, but we also expand our understanding through research. Scripture gives us the basic framework within which we must view everything, but it doesn't give us all the details. God has given us a great blessing in allowing us to fill in some of the details. I think He is pleased when His "image" in man discovers more of what He has done, attributing it all to Him, praising Him for His creative majesty, and utilizing it for man's overall good.

Research in the earth sciences will continue to remain one of the most interesting and vital topics to the young earth creationist movement. Focused earth science research by creationists will continue to validate the distinctive history of the Flood and the framework of earth history within the pages of Scripture.

The doctrine of uniformitarianism has yielded significantly to extraordinary geologic evidence of global catastrophe. Sedimentology is showing us that powerful water currents deposited large-scale crossbedding in the Coconino and Navajo sandstones. Fragile molecules and degradable biological structures within dinosaur bones are showing us that fossils are young. Tectonics is showing us that mountains were formed by catastrophic faulting. Erosion features on our planet are demonstrating

that catastrophic drainage was responsible for the major landforms we see today. A totally new structure called a “supervolcano” is being widely recognized.

Lastly, many geologists are recognizing earth’s catastrophic past and the exponential decline in ancient processes toward the present world in which we live. Earth science research by creationists continues to bear fruit. A new organization of geoscientists called Creation Geology Society shows us that creationist earth science will continue into the future.



Randy Guliuzza
ICR National Representative

B.S., South Dakota School of Mines and Technology,
Rapid City, South Dakota, 1984
B.A., Moody Bible Institute, Chicago, Illinois, 1982
M.P.H., Harvard University, Cambridge, Massachusetts, 2003
M.D., University of Minnesota, Minneapolis, Minnesota, 1996

One area of creation research of great importance is writing technical responses to the highly publicized claims of Darwinists. Creationists provide essentially the only independent critical peer review of many evolutionary assertions published in the most prestigious scientific journals. Creationists invariably highlight numerous flaws in evolutionary literature pertaining to methodology, unsubstantiated statements, logical fallacies, and an endless stream of “just-so” story telling.

These types of things would never be tolerated in the scientific journals related to my fields of engineering and medicine. But in the unverifiable world of evolutionary literature, peer reviewers regularly let all of these scientific blunders straight through to publication. The published creationist’s criticisms are almost always proved correct when the high profile evolutionary claims are later quietly withdrawn (Ida is a recent example).

Every day, creationist reviews show that evolutionism is much more akin to religious philosophy based on academic authority and consensus opinion, rather than real, observable, repeatable science. In addition, creationist reviews routinely include a better scientific explanation of the data in question that is actually consistent with data from other fields and known scientific principles, and does not stretch imagination to the breaking point.



Nathaniel Jeanson
Research Associate

B.S., University of Wisconsin-Parkside, Kenosha, Wisconsin,
2003
Ph.D., Harvard University, Cambridge, Massachusetts, 2009

Creationism is unique among the apologetic fields, first by virtue of the nature of the arguments used against Scripture. If the major objections to Genesis were based solely on nuances of Hebrew prose,

the creation model could be buttressed by additional language studies. However, since many challenges to Genesis come from scientific data, scientific data must be used to counter these attacks. Furthermore, since the purpose of Genesis does not include many scientific details of the events recorded, research is needed to fill in these details and to resolve apparent discrepancies between science and the Bible. Finally, one of the best defenses against evolution is a good offense; as we are able to build a comprehensive creation model that explains the scientific data better than evolution does, evolutionists would become defensive and creationism would become determinative.

Due to the rapid rate of scientific discovery, evolutionists are relentlessly pointing to the latest scientific data as justification for their hypothesis. For example, the “smoking gun” of evolution these days is not (according to evolutionists) the fossil record, but the data from DNA sequence comparisons. Who would have predicted in 1970 (ICR’s founding) that molecular biology, and not paleontology, would be the major talking point for evolution in 2009? A robust research program, the arsenal of creation counter-arguments, is vital to the strength of an apologetic response to the “strongholds” of evolutionary dogma.



Charles McCombs
Associate Professor of Chemistry

B.S., California State University, Long Beach, California, 1973
Ph.D., University of California, Los Angeles, California, 1978

It is time for everyone to stand boldly against those doctrines opposed to the Bible, just as it says in Ephesians 6:11-12. In years past, the battle has usually been against “evolution” and its errors (which are many), but today that battle seems to be deep within our own ranks. There is a very real battle going on, and it is no longer just a spiritual battle.

The forewords and introductions in many college science textbooks are filled with anti-creation science jargon. We get letters from parents whose Christian children go off to college, and within months they are rejecting their biblical teachings. The only way to successfully fight this attack is to counter with creation science research. We need to capitalize on the successes of our past and get the creation message out to the church, but that is not sufficient. To meet tomorrow’s needs, we are currently pioneering new areas of research to argue against those hot topics in the news today.

As an organic chemist, my entire career was dedicated to studying the process by which things can change. Chemistry is a science that studies the process, but evolution is only a hypothesis based solely on analysis of the end result. As a creation scientist, I want people to realize that evolutionary scientists have never studied the process before claiming that life came from chemicals; they never studied the process before claiming that dinosaurs turned into birds or before monkeys allegedly turned into humans. If evolutionists had studied their processes, they would have

learned that evolution violates those same laws of science their theory is supposedly based on.

I predict that within the very near future, we will hear about a protein being created from an RNA molecule in a synthetic cell. Along with this discovery, we will also hear again the claim that life was formed in the laboratory. When this happens, we will need to have our own creation science research data to counter with. Genesis 2:7 says that life is a gift from God. Let's not let false claims of man-made life take away or deny the truth that "in the beginning, God created" everything—including you, me, the cell, the RNA molecule, and the protein.



Patricia Nason
Chair, Science Education Department

B.A., Sam Houston State University, Huntsville, Texas, 1984
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The secular understanding of forensic/historical science issues is purely evolutionary and promotes humanistic and atheistic perspectives. Creation research in all scientific fields relating to origins helps teachers (homeschool, Christian school, and Bible classes at church) and their students to have confidence in God as the Creator.

Although God and His Word do not need defending, scientific proof that God's Word is truth strengthens faith. Creation science research provides an interpretation of scientific observations that supports the biblical model of creation. We live in an era when individuals are taught to think through ideas and critically analyze them. When most Bible-believing Christians are confronted with purported evidence from the evolutionary perspective and that idea makes sense to them, it is because the believers have not been taught the scientific evidence that disproves evolution and/or supports creation.

Believers must know how to be skeptical observers of scientific articles, nature and science programs, and museum artifacts to defend their faith. But without being taught the creation model from a scientific perspective, they might begin to rationalize that evolution is a fact. Therefore, the scientific research that ICR has done in the past and will continue to do in the future is relevant to the nature of science and scientific inquiry, as well as necessary to advance belief in the God of the Bible.



Jeffrey P. Tomkins
Research Associate

B.S., Washington State University, Pullman, Washington, 1985
M.S., University of Idaho, Moscow, Idaho, 1990
Ph.D., Clemson University, Clemson, South Carolina, 1996

Creation science research is essentially twofold. First, it entails the close following and analysis of published and popularized research in the leading scientific journals and media access points across a wide variety of fields. Second, it involves original research projects in the lab or field that the secular world is not addressing or is avoiding because of its potential to produce results that go against evolutionary philosophy. At ICR, we are doing both. My focus is in the area of biology, genetics, and genomics.



Larry Vardiman
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B.S., University of Missouri, Rolla, Missouri, 1965
M.S., St. Louis University, St. Louis, Missouri, 1967
M.S., Colorado State University, Fort Collins, Colorado, 1972
Ph.D., Colorado State University, Fort Collins, Colorado, 1974

I've been privileged to conduct creationist research at ICR for over 25 years. My specialty is atmospheric science and I explore issues relating to weather and climate, particularly those dealing with the Ice Age. It's exciting trying to fill in some of the details the Bible only discusses briefly.

For example, when did the Ice Age occur and how could thousands of feet of snow fall in the polar regions during only thousands of years since creation? When one thinks biblically the answer is simple—a warm ocean heated by catastrophic processes during the Genesis Flood produced a massive El Niño event. Moisture evaporated from the oceans, fell as snow over cold continents, and formed glaciers and ice sheets for several hundred years after the Flood until the oceans cooled to today's lower temperature. Both numerical simulation studies and analysis of ice core data confirm this model.

God has given man an insatiable desire to know and understand what He does and how He does it. He has given us the ability to reason and to explore the evidence found in the world around us. But He expects us to first study and understand His Word. In it, He has informed us what happened in the past, which is not now directly observable. If we don't understand and believe what is revealed in His Word about the past, we will be led astray and reach false conclusions when we try to interpret evidence from the world today.

Thinking biblically doesn't come naturally if we've been trained to believe in evolution and billions of years. But what a joy to do creationist research when we believe God's Word and, like Isaac Newton and Johann Kepler from previous generations, think God's thoughts after Him. ●

DECEMBER 2009

Events

DECEMBER 6

Dallas, TX – Preston Road Church of Christ
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For more information on this event or to schedule
an event, please contact the ICR Events Department at
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Imagine picking up seashells along a sandy Florida beach, or canoeing down Peace River collecting fossils of mammoths, great white sharks, and a giant sloth bigger than *T. rex*. You can do all that, while learning how your shells and fossils illustrate biblical truths about God's creation. Join ICR's Dr. Gary Parker and wife Mary for a unique adventure in creation science.

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reserve your spot, visit
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call 863.494.9558.

A Season of Giving



Every good gift and every perfect gift is from above, and cometh down from the Father of lights, with whom is no variableness, neither shadow of turning.

James 1:17

This holiday season, as you shop for gifts for your loved ones, have you considered including ICR on your Christmas list?

The Magi brought gifts to honor the newborn King of the Jews. You can honor Him with us as together we uphold the accuracy and authenticity of the Word of God. An investment in defending biblical truth now will provide an eternity of spiritual dividends.

Your contribution would be especially appreciated now as we look forward to starting a new year with the resources needed to continue our vital work in combating the errors of evolution that permeate our classrooms, culture, and even many churches. And all gifts received by December 31st are tax-deductible for 2009.

You can use the enclosed envelope, call 800.337.0375 or visit www.icr.org/donate. May God bless you and your family this Christmas season and in the coming New Year!

Christian Geologists Influential at GSA Meeting

STEVEN A. AUSTIN, P.H.D.

The Geological Society of America (GSA) is the largest and oldest association of professional geologists in North America. Its members are from academic institutions, industry, government, and private practice, and assemble once a year to further the professional practice of the earth sciences.

This year's GSA meeting was at the Portland Convention Center in mid-October. Geologists who are Christians actively participated, and both young-earth and old-earth creationist views were heard. Christian geologists found various ways to bring attention to their practice and faith—by leading a field trip, delivering scientific papers, assembling as the Affiliation of Christian Geologists, identifying with certain Christian academic institutions, and attending the “Darwin Day” presentation.

Mount St. Helens Field Trip

The GSA field trip “Dynamic Landscape on the North Slope of Mount St. Helens” involved 45 geologists, who traveled on October 17 in a full bus from Portland to Johnston Ridge Observatory at Mount St. Helens volcano. They hiked 8.4 miles round-trip to observe the landscape that has formed on the largest landslide deposit accumulated within human history.

That landscape includes the old breached, abandoned, and repositioned channel of the North Fork of the Toutle River. The geologists contemplated the new landforms produced since 1980 within the landscape at the volcano, and they discussed how landscapes develop river channels. Do landscapes evolve slowly by cumulative processes in a piecemeal way? Or do they appear abruptly by episodic events that surpass certain energy thresholds as barriers are broken? Participants overlooked a breached explosion pit at a rim of a “Little Grand Canyon,” albeit at 1/40th scale of Arizona's canyon.



Creationist photography of Mount St. Helens was prominent at this year's GSA meeting. Photo by Bruce Malone.

This Mount St. Helens field trip was led by Dr. Steve Austin, Senior Research Scientist at ICR, whose peer-reviewed manuscript was published by GSA.¹ Assisting Dr. Austin were geologists Dennis Bokovoy, John Whitmore, Tim Clarey, Van Wingerden, and Marcus Ross. Each participant was given the reprint of Dr. Austin's paper and a 60-inch-wide poster of the landslide deposit next to the volcano. A very positive response was expressed by participants who reflected on those extraordinary events that have occurred during the last 30 years at the volcano.

FAST Scientific Papers

At this year's GSA meeting, many papers were presented by Christian geologists. Four noteworthy papers were delivered by young-earth creationists. These papers specifically focused on answering points of issue between old-earth and young-earth creationists in the areas of sedimentation and tectonics.

Two of these papers were on the petrology of the Coconino Sandstone of the Grand Canyon.² Authors John Whitmore, Stephen Cheung, Ray Strom, and Paul Garner presented evidence that ocean water, not wind, deposited the distinctive crossbedding of the Coconino Sandstone. The evidence of ocean water currents was argued technically from the dolomite beds, dolomite grains, ooids, mica grains,

microfossils, and bimodal texture. A third paper concerned a region of wind-blown sand dunes in Nebraska and how this deposit is very dissimilar from the Coconino Sandstone of Arizona.³ The argument could be made again texturally that the supposed desert dunes of the Coconino Sandstone could be formed underwater.

The fourth paper was on the timing and emplacement of two gigantic rockslide masses in western Wyoming.⁴ Dr. Tim Clarey, professor of geology at Delta College, displayed the field data that demonstrate the order of emplacement—the Heart Mountain rockslide preceded the South Fork rockslide. The above four papers are significant because they represent the preliminary results from the FAST program (Flood Activated Sedimentation and Tectonics), geologic research being sponsored by the National Creation Science Foundation through the Institute for Creation Research. A meeting of FAST researchers was held in Portland just before the GSA annual meeting.

Affiliation of Christian Geologists

Christian geologists also expressed themselves through an organization within GSA called Affiliation of Christian Geologists. Around 40 GSA members attended the evening meeting on October 18, approximately one third of whom were young-earth creationists. This shows that there are many within the GSA that take seriously the creation and Flood narrative text of the Bible. Their numbers and prominence within GSA appear to have been growing over the years.

Christian Academic Institutions

Of course, Christians were identifiable at GSA through their institutions. Noteworthy were Calvin College (Michigan), Wheaton College (Illinois), and Cedarville University (Ohio). Calvin and Wheaton are widely known for their old-earth and local-flood compromise positions. Surprisingly, the geology students from Cedarville University outnumbered the geology students from both Calvin College and Wheaton College. One Cedarville student even presented a research paper at GSA. Cedarville is known for a geology program that takes a young-earth and global Flood stand. The department is chaired by Dr. John Whitmore, a graduate of ICR and student-mentor of ICR's Dr. Steve Austin in the 1980s.

Darwin Day

A distinctive of this year's GSA meeting was "Darwin Day" on October 19 commemorating the 200th anniversary of Charles Darwin's birth and the 150th anniversary of the publication of *Origin of Species*. Notably absent on the program for Darwin Day were creationists!

However, creationists were seen frequently at the sessions, apparently wanting to know what geological insights Darwin offered. Darwin was proven by careful historical documentation to be a geologist, though his geological papers were severely criticized. Powerful critiques of Darwin's interpretation of geology were offered for his understanding of the San Sebastian boulders (Tierra del Fuego) and the tectonics of Chile (Concepcion earthquake and tsunami of February 20, 1835). These critiques were from geologists who are themselves evolutionists! Geology was the major undertaking of Darwin on the voyage of the *Beagle*. Although Darwin's geology was doubtful, evolutionists praised his efforts to illuminate "deep time." One geologist asked, "If Darwin hadn't published *Origin of Species*, would we want to remember his geologic work?"

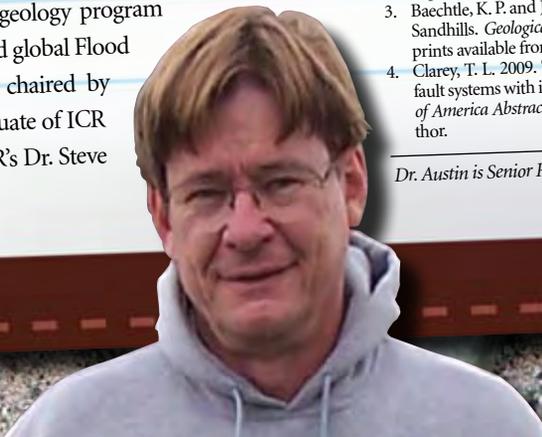
A panel discussion on Darwin Day featured Dr. Kevin Padian (University of California, feathered dinosaur paleontologist, President of the National Center for Science Education) and Judge John E. Jones III (known for the Dover Pennsylvania School Board decision), who was the recipient of this year's GSA President's Medal for Public Service. Judge Jones praised Dr. Padian, saying that he provided the most persuasive testimony that he heard in his courtroom! Judge Jones rehearsed how, as a student, he was taught geology and evolution. Creationists came away with a new awareness of the battle.

Creationists have shown themselves to be influential within GSA. Expect to hear more after next year's annual GSA meeting during November in Denver. ●

References

1. Austin, S. A. 2009. The dynamic landscape on the north flank of Mount St. Helens. *Geological Society of America Field Trip Guide*. 15: 337-344. Reprint available from the author.
2. Cheung, S. P., R. Strom, J. H. Whitmore and P. G. Garner. 2009. Occurrence of dolomite beds, clasts, ooids and unidentified microfossils in the Coconino Sandstone. *Geological Society of America Abstracts with Programs*, session 35-4; Whitmore, J. H. and R. Strom. 2009. Petrographic analysis of the Coconino Sandstone, northern and central Arizona. *Geological Society of America Abstracts with Programs* session 35-24. Reprints available from the authors.
3. Baechtle, K. P. and J. Whitmore. 2009. Characterization of the sand in the Nebraska Sandhills. *Geological Society of America Abstracts with Programs*, session 35-2. Reprints available from the authors.
4. Clarey, T. L. 2009. Timing relations between the South Fork and Heart Mountain fault systems with implications for emplacement, Wyoming, USA. *Geological Society of America Abstracts with Programs*, session 223-10. Reprint available from the author.

Dr. Austin is Senior Research Scientist and Chair of the Geology Department.



Baby's First Breath

RANDY J. GULIUZZA, P.E., M.D.

In 1967 Dr. Christiaan Barnard performed the first heart transplant. Until that time, if someone's heart was taken out, they died. People were astounded to learn that not only was a man's heart removed, but a non-beating donor heart put in, restarted, and he lived. Years of design efforts and testing resulted in a sophisticated invention that circulated blood and functioned as patients' lungs to bring them oxygen—the all-important “heart-lung” machine.

No doubt in the same hospital in 1967 was a brand-new mother. Her baby had just made a similar transition of survival on an *exceedingly better* “lung machine,” but no reporters covered it. Although the first event was a great feat of human engineering, the second has never been explained by any natural process.

Childbirth is so common it is easy to overlook the fact that a baby thrives in a total water world for nine months—a world that is *utterly impossible* for any person to live in immediately after their very first breath. That feat is accomplished by the baby possessing—only in the womb—blood vessels with a different *arrangement* and *structure* than an adult's.

The Adult Circulatory Arrangement

In an adult human heart, the bottom two chambers, the ventricles, do most of the higher pressure pumping, pushing the blood through one-way valves away from the heart through arteries. The upper two, the atria (plural of “atrium”), receive blood under low pressure from veins and rapidly preload the ventricles by pushing blood into them, also through one-way valves.

The heart is also divided into left and right halves, separated by a solid wall of tissue called a septum. There are two circuits for blood flow from the heart: one to the lungs and

back, and one to the body and back. The *right* heart starts blood on its circuit to the lungs, where less-oxygenated blood picks up a new load of oxygen. The *left* heart pumps freshly oxygenated blood at “normal” blood pressures (much higher than the right side) to the rest of the body.

In adults, oxygen-rich blood travels away from the heart through arteries under high pressures, and oxygen-poor blood flows toward the heart through veins under low pressure. Clearly, the heart and lungs are completely codependent in accomplishing the purpose of getting oxygen to all places in the body.

A baby thrives in a total water world for nine months—a world that is *utterly impossible* for any person to live in immediately after their very first breath.

The Fetal Circulatory Arrangement

For a baby in the womb, almost *everything* about those vital functions is just the *opposite* for one important reason: the baby develops fully functional lungs that are yet *inactive* for oxygen exchange. Consequently, in order for a baby to survive, three major structural differences must exist that enable life in his temporary home.

First, the baby must have a substitute lung—a pretty tall order for even brilliant biomedical engineers. The placenta, a remarkable organ, has a brief existence, but it fulfills a myriad of vital functions—especially as the fetal lung *and* kidney. Second, the circuit to the lungs must be *bypassed*, so vessels must change to allow this temporary detour. (A new route that detours around a circuit is called a *shunt*.) Third, blood vessels must not only connect placenta to baby, but also inside from the point of attachment to normal vessels that lead to and from the heart. The umbilical cord meets the need for a placental-fetal connection, with one large-diameter vein and two smaller arteries. Inside the baby, these continue as the

umbilical vein and *umbilical arteries*.

The umbilical vein carries *oxygen-rich* blood toward the heart. At a spot next to the liver, it connects to a large vein carrying less-oxygenated blood back to the heart. Interestingly, the two combined streams of blood do *not* tend to mix. It just happens that when they reach the right atrium, the more oxygenated blood stream is adjacent to a *temporary opening* in the septum, where it passes through to the left atrium because the blood pressure in the right side of baby's heart is higher than the left side—the opposite of the post-birth situation. The right heart still pumps blood to the lungs, but because the lungs have not yet expanded, the resistance to blood flow is very high and, therefore, the pressure is high. Some blood does make it to the right ventricle (about 10 percent) and flows through the lungs, which is the right amount to meet metabolic needs but *not* for oxygen-carrying purpose—which does not yet exist.

The temporary opening has a piece of septum tissue over it that is located in the *left* atrium. Thus, it acts like a “trap door” valve so that high pressure on the *right* side can push it open with each beat. In adults, it would make no sense for the artery carrying oxygen-poor blood to the lungs to connect by a big blood vessel to the artery carrying oxygen-rich blood (the aorta) to the body. But the baby does have this big connecting vessel in order to *bypass* the lungs and send oxygen-rich blood from the placenta to the body. Most of this blood travels to the part of the body with the highest oxygen demands—the growing brain.

So baby is content in the womb with temporary umbilical arteries and vein, a temporary opening in the septum, the temporary pulmonary artery-aorta shunt vessel, high pressure in the lungs and right



In the one critical minute after delivery, the baby's body has initiated actual structural changes enabling it to survive in its radically different environment.

side of the heart, and low pressure on the left side. With the onset of labor, culminating in delivery, that world is set to radically change. However, crucial mechanisms are built into the temporary structures that enable a safe transition out of the womb.

Vital Circulatory Changes Occurring at Birth

The umbilical cord vessels have features that respond to changes in quantities of oxygen dissolved in blood, stretching, substances commonly called *adrenalin*, and trauma. Obviously, during delivery and the severing of the cord all of these are present. The cord, which has an unusually strong muscle layer surrounding the vessels, reacts with a rapid and powerful constriction of the arteries and vein that is complete in less than a minute. This stops blood flow to and from the placenta, which has two effects. It greatly reduces the risk of either baby or mom losing a lot of blood and also causes an immediate drop in the amount of oxygen baby is getting.

Very sensitive sensors—inside certain blood vessels measuring carbon dioxide

content, and also on the skin detecting temperature drops—stimulate the nervous system's breathing center. Under normal circumstances, increased carbon dioxide blood levels coupled with decreased body temperature after exiting the birth canal trigger an irresistible urge for baby to take a strong breath and inflate his lungs for the first time. The lungs have been prepared for this event by special cells producing a compound called *surfactant*, which significantly reduces the tension holding non-inflated lung tissues together—otherwise, forces required to open the lungs would be too high for almost all newborns to accomplish. Once inflated, pressures necessary to pump blood through the lungs *drop 90 percent* from their intra-womb high values.

Thus, pressure in the right side of the heart immediately drops well below the pressure in the left side. The “trap door” valve (actually two flaps of skin that neatly fold and interlock when pushed together) covering the septum's temporary opening in the left atrium is pressured shut. Cells begin to grow over the edges of the valve, fusing it to the septum. Less

than a minute after birth, signals from baby's nervous system cause strong sphincter muscles to close off the umbilical vein where it attaches near the liver and also close off the temporary pulmonary artery-aorta shunt. (That large vessel permanently closes over the next one to two days.)

The baby's body has started all changes that continue through adulthood. During the next year, those internal umbilical vein and arteries transform from blood vessels into stabilizing ligaments. So in the one critical minute after delivery, the baby's body has initiated actual structural changes enabling it to survive in its radically different environment with all temporary vessels, shunts, and openings functionally *closed* in the first 30 minutes.

Conclusion

The reality of fetal to newborn circulatory changes is this: structures *indispensible* for life in the womb are *incompatible* with life out of it, and at birth all structures are *rapidly reversed*, resulting in the *opposite* effect on survival. In either case, if the offspring dies, evolution ends. Darwin wrote, “If it could be demonstrated that any complex organ existed which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down.”¹

Consider it broken...if not a catastrophic failure. Why? Given that a transplanted heart living inside someone is truly an incredible achievement—at what level of accomplishment is getting a *whole person* to live *inside* another person? Absolutely incredible—which is what the Lord Jesus Christ is! As clearly seen, He creates, He directs, He provides, He cares—indeed, everything He does is beautiful beyond description. ●

Reference

1. Darwin, C. 1859. *On the Origin of Species*. London: John Murray, Chapter VI, 189.

Dr. Guliuzza is ICR's National Representative.

TWEAKING THE GENETIC CODE

Debunking Attempts to Engineer Evolution

J E F F R E Y T O M K I N S , P H . D .

A Strange New Hypothesis

A new concept making its way through the scientific community holds that just a few key changes in the right genes will result in a whole new life form as different from its progenitor as a bird is from a lizard!¹ This idea is being applied to a number of key problems in the evolutionary model, one of which is the lack of transitional forms in both the fossil record and the living (extant) record.

The new concept supposedly adds support to the “punctuated equilibrium” model proposed by the late Harvard paleontologist Stephen J. Gould. Dr. Gould derived his ideas from the research of geneticist Richard Goldschmidt, who believed that evolution proceeded by large influential “macro-mutations” rather than small gradual changes.² Goldschmidt affectionately termed this the “Hopeful Monster” theory and the name stuck.³

With the longstanding neo-Darwinian model, one would expect to see many transitional organisms representing small gradual changes brought about by random genetic mutations acted upon by natural selection. While this model has many scientific difficulties, the biggest problem is that the entire fossil record is highly discontinuous, with an overwhelming absence of transitional forms between virtually all major taxa. It is quite obvious that the historical record of life does not provide the needed evidence for gradual evolutionary change.

As a paleontologist, Dr. Gould was painfully aware

of these pervasive gaps in the fossil record and proposed a controversial evolutionary model in which new life forms arose suddenly, explaining the absence of transitional forms. Since the neo-Darwinian view is the predominant evolutionary model, Gould’s idea was never widely accepted.

Does the “Neo-Hopeful Monster” Solve Human Evolution’s Problems?

The idea of evolution occurring quickly with only a few key genetic modifications has gained notoriety with the help of Jack Horner, the famous dinosaur paleontologist who believes that modern birds evolved from dinosaurs. In Dr. Horner’s view, a dinosaur could possibly be reverse engineered by just tweaking a few key genes in a chicken.⁴

This “hopeful monster” concept has also been applied to the supposed evolution of humans. One particular difficulty with hominid evolution is the apparent genetic similarity between humans and apes, most notably the chimpanzee. This perceived close DNA similarity does not match with the marked differences in appearance and behavior. The new hopeful monster idea is seen as providing a fix for this dilemma, since it is believed that only small genetic changes in key primate genes are required to jump-start evolution and create a new form of hominid, like humans.

However, as discussed in previous articles, the

The idea of evolution occurring quickly with only a few key genetic modifications has gained notoriety with the help of Jack Horner, who believes that modern birds evolved from dinosaurs.

supposed genetic similarity between humans and chimps was based on biased and flawed analyses and is in fact changing as more data becomes available.⁵ Interestingly, the most current statistics taken from the genome sequencing websites for human and chimp are now placing the chimp genome at an almost 20 percent difference in total genome size (contiguous DNA sequence) compared to human. Obviously, there is a lot more data that need to be taken into account when comparing these genomes for similarity in sequence—especially considering the fact that the supposed “junk” DNA in the human genome is known to be greater than 90 percent genetically active.

What We Know about Master Genes in Development

The hopeful monster model is based on studies in a field called Developmental Genetics. This area of research focuses on the study of genes that control the development of an organism following fertilization. If one is going to look for some mechanism to support an evolutionary model, the primary supporting data would be found here. In fact, much data is now available in a number of well-studied animal model systems (fruit fly, nematode, mouse) on the early genetic events that occur during embryogenesis.

In the very early stages of embryo development, there are a limited number of master/primary genes that turn on and control the function of many other genes downstream in the cascade of genetic activity. These master genes are typically the ones evolutionists believe would need to be tweaked to create a whole new organism. However, there are a number of very serious problems with this idea from a genetics standpoint. In fact, most molecular cell biologists do not support this concept, with some actually being quite critical and vociferous in their opposition.

The first problem is that the “master genes” in question only control the initial and earliest events in the process of a developing embryo. This stage of development is primarily associated with the polarity, orientation, quantity, and position of specific molecular gradients in the developing embryo that either allow or disallow the function of succeeding genes involved in the finer details of the embryo’s development. Induced mutations in these master genes, combined with observed developmental effects in the embryo, provide a means to assess their function.

For example, in mutation studies with the Hox fruit fly genes, master control switches in early development caused legs to form in place of antennae. In other studies with vertebrates, the number of vertebrae was increased, causing lengthened tails. However, a new type of animal was never created, just some odd-looking creature with an appendage out of place or an increase in the number of some type of body segment. In many cases, embryogenesis was halted and the organism died.

Scientists have determined that these master genes primarily control the location and orientation of major body features; they don’t determine the finer details of how each specific part or organ develops. It is these types of fine-level developments, and not necessarily the master genes, that make

organisms unique in all of their features. These later developments in embryogenesis involve complicated interactions between thousands of different genes. Much less is known about how these later expressed genes fit in the overall scheme of development because things quickly get too complicated past the initial stages and become difficult to research.

Other aspects of gene activity—outside of which genes are turned on and interact with each other—include timing, coordination, dosage of the gene products, and diverse control mechanisms. These things must also be considered in increasingly complex levels as embryo development progresses. And because the whole system of embryo development steadily progresses over time, there are varying degrees of overlap in timing and spatiality of individual genes and gene groups which must be considered in evaluating the roles of genes in development.

What New Technologies Are Revealing About Developmental Genes

Modern high-throughput laboratory technologies and robotics are helping to advance knowledge in this area by allowing the study of large numbers of genes in single experiments. However, to make any sense out of the huge amounts of information generated, the data must be analyzed with the help of high-powered computer systems and complex computational algorithms. Even with these tools, the results are difficult for the human mind to sort through and understand, much less describe in a publication or press release. There is also the challenge of integrating massive amounts of data across experiments and laboratories. This is why molecular geneticists often reject overly simplistic ideas of just being able to manipulate a few key genes to obtain new evolutionary life forms.

Beyond the genetic difficulties associated with the hopeful monster model, one must ultimately ask: “Where did all this information come from to begin with?” Paleontologist Jack Horner is quite fond of saying that the modern chicken genome is really just a dinosaur genome with a few tweaks. But saying that evolution occurs through “tweaking” does nothing to explain the origin of the incredibly complex and highly engineered genetic information contained within the starting organism.

The stark fact is that there is no viable molecular genetic mechanism for evolution to occur. Advances in systems biology research do not support any concept of evolution. Instead, modern research is proving that the genomes of all uniquely created kinds are the result of an act of special creation and intelligent design. ●

References

1. Carroll, S. B. 2005. *Endless Forms Most Beautiful: The New Science of Evo Devo*. New York: W.W. Norton and Company.
2. Eldredge, N. and S. J. Gould. 1972. Punctuated equilibria: an alternative to phyletic gradualism. In T. J. M. Schopf, ed., *Models in Paleobiology*. San Francisco: Freeman, Cooper and Company, 82-115.
3. Hopeful Monster. Wikipedia.org. Accessed October 26, 2009.
4. Horner, J. and J. Gorman. 2009. *How to Build a Dinosaur: Extinction Doesn't Have to Be Forever*. New York: Dutton.
5. Tomkins, J. 2009. Human-Chimp Similarities: Common Ancestry or Flawed Research? *Acts & Facts*. 38 (6): 12-13.

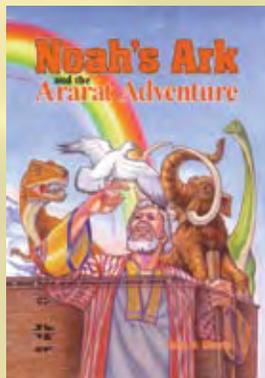
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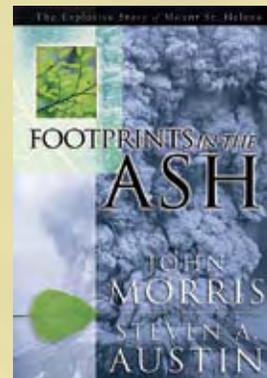
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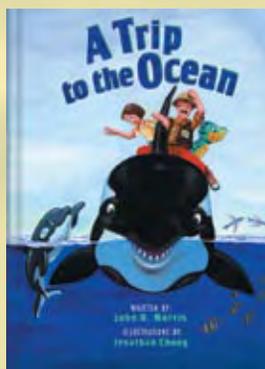
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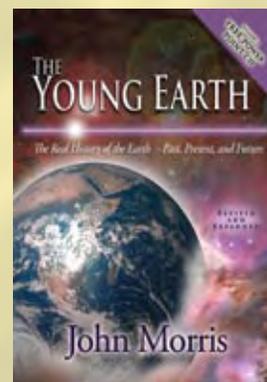
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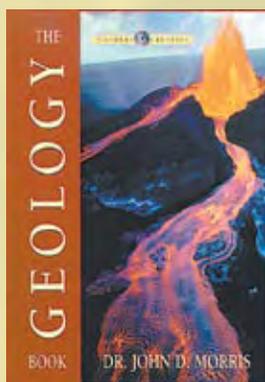
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Just this last September 30, we heard of major earthquakes measuring up to 8.0 on the Richter scale and the resulting tsunami which hit the coast of American Samoa. Many people perished in waves up to two meters higher than normal sea level. Yet for all its ferocity, it paled in comparison to a much greater catastrophe which hit just five years ago.

We all remember when it happened. On the day after Christmas 2004, we were shocked to view the devastation and human heartbreak as a major tsunami hit the coastlines of the Indian Ocean nations and numerous Pacific islands, leaving untold misery in its



The Christmas Tsunami of 2004

JOHN D. MORRIS, PH.D.

wake. Now that the waves have subsided, what lessons can we learn? What inferences can students of earth history, both creationists and evolutionists, draw about the past regarding the question of origins?

The tsunami set was generated by one of the largest earthquakes on record, 9.3 on the Richter scale, along a major convergent plate boundary. Its epicenter was 50 km west of Sumatra at a depth of 30 km, and ruptured a lengthy section (about 1,600 km) of the boundary, with multiple pulses lasting several terrifying minutes. The nearly instantaneous underwater movements imparted great energy to the overlying water, causing waves up to 30 m high to race far inland on the typically low-lying coastal plains and islands, with a maximum run-up of 60 m. The several consecutive inundations and following backwash accomplished much geologic work. This area has often seen such devastation, even in historical times, with such tsunamis as that associated with the Krakatau eruption in 1883.

Previous unwitnessed events that occurred in the distant past were much more dynamic.

The waves scoured the vegetation cover and often removed any soil present, altering coastline geometry. Surprisingly, it left little more than thin, laminated sand and mud deposits in scattered locations on land. Offshore coral reefs were demolished, with their fragments deposited in huge piles. In the ocean, however, subsequent seismic studies showed underwater mudslides had transported huge portions of these reefs intact, along with large sections of rock. In spite of the extensive devastation, the area has begun to recover in many ways. Obviously, earth's design has spurred regrowth and coastline healing more quickly than doomsayers predicted.

For all its devastation, this set of tsunami hardly compares to some we see in the geologic record. From erosion of submarine canyons, to marine fossils washed high atop Hawaiian volcanoes, it appears the past geologic history of planet earth was dominated by

processes and events quite different from and much more dramatic than their counterparts today. One thing is certain. The present is not the key to the past, as oft repeated by those who believe in uniformitarianism.

The Bible presents the great Flood of Noah's day as a great tectonic cataclysm, which restructured earth's surface layers. It mentions the breaking open of earth's internal "fountains," no doubt resulting in devastating earthquakes and continual tsunami. Think of the erosion necessarily caused by such a planetary convulsion and resulting deposition of sediments. The Flood was marked by plate movements, mountain uplifts, basin down-warp, underwater sediment transport, etc. Indeed, "the world that then was, being overflowed with water, perished" (2 Peter 3:6). We live in a rather stable environment, although still quivering from its violent past. Major geologic events which occur today give us a glimpse of past turmoil. ●

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

Beware of Dangerous Definitions

BRIAN THOMAS, M.S., & FRANK SHERWIN, M.A.

According to tradition, in answer to the question of what he most wanted in life, Confucius replied, “I would insist on the exact definition of words.” Indeed, word choices and definitions are critical in conversations about origins. Evolution’s proponents frequently use language that sounds scientific but that actually obscures or skews the issues.

Following is a sampling of terms that typically have unscientific and unbiblical connotations. These should be unpacked and perhaps discarded if progress is to be made in understanding the truth about origins. Especially, they should be sifted through with schoolchildren so they can avoid the pitfalls these words set up.

Macroevolution

“A major evolutionary transition from one type of organism to another occurring at the level of the species and higher taxa.”¹

Exactly how major is “major”? The difference between the world’s largest and smallest dogs could be considered “major,” and their

size difference clearly precludes interbreeding. Yet they both rightly carry the same species name, *Canus domesticus*. In reality, new “species” can be named, but no new phyla ever emerge straight from nature. For that matter, neither do new family names, even among bacteria that produce thousands of generations in mere hours and have undergone thousands of mutations in laboratory tests.

Life forms are clearly discrete, appearing either in one form or another, but never in an in-between form. This definition fails to distinguish between the observable variations within a kind (see below), and the unobserved morphing between kinds required by Darwinian theory. In some cases, it would be more accurate biologically and biblically to refer to organisms as being in “discrete groups” and showing “variation within a kind,” rather than using the term “macroevolution.”

Convergent Evolution

“The appearance of apparently similar structures in organisms of different lines of

descent.”¹

This term is an ad hoc explanation for why similar features appear in otherwise unrelated creatures. Why do both ducks and platypuses have such similar beak structures? The biblical creation answer is that each one’s beak was created according to a common design. When this term is used, it would be appropriate to ask, for example, “Doesn’t it stretch the imagination to insist, as convergent evolution does, that eyes and their visual systems evolved over 40 separate times?”²

Some evolutionists use “parallel evolution” to describe these or similar features, but the definitive meaning and application of the two terms are highly subjective, and not at all clear.

Hominid

“Any primate in the human family Homidae of which *Homo sapiens* (modern man) is the only living representative.”³

This word presumes evolutionary transitions from ape to man, but there is not necessarily any such thing as a “primate in the hu-

man family.” Science has shown repeatedly that extinct “hominids” are sooner or later determined to be apes, people, or frauds. One might do well to refer to a particular specimen accordingly. For example, the recently discovered *Ardipithecus ramidus* was a tree-dwelling ape.⁴

4 Adaptation

Perhaps no other word in the origins discussion is more fraught with conflict and confusion. Michael Allaby defined adaptation as “that which fits an organism both generally and specifically to exploit a given environmental zone.”⁵ But evolutionist Trevor Palmer stated that “long-lasting arguments are still going on about whether all significant evolutionary change is adaptive.”⁶

As an example, one anthropologist stated that an ape’s “massive jaw may have evolved as an adaptation to a diet of tough meat, raw or lightly cooked meat.”⁷ But this is Lamarckian, the unscientific idea that traits are inherited by use and disuse. The chewing of meat or any other kind of food will not change jaw size for the next generation.

Is adaptation real? Yes, for certain features that are non-essential. These are known to adapt or alter according to certain genetic limits and sometimes in response to circumstances, but they don’t result in a change in kind. Finch beaks shift in size and dogs can acquire various fur textures, but finches remain finches and dogs remain dogs. New creatures or new features are never observed to arise through adaptation.

5 Geologic Column (“standard geologic timescale”)

This is a chart that maps the order of earth’s fossil-bearing sedimentary layers. It typically contains “millions of years,” even though there is strong evidence within fossils that refutes such an interpretation.⁸

Harvard paleobiologist Andrew Knoll remarked, “A great achievement of the 19th century science was learning to use fossils as distinctive time indicators. That allowed this wonderful scale to come into being.”⁹ Thus,

the sedimentary rocks were dated by their fossils, the fossils in turn were dated by what layers of sedimentary rock enclosed them, and both are corroborated by the “geologic column,” a diagram contained in practically all textbooks related to geology and earth history.

There are real rock layers, and they do occur in an order. But this term is almost always associated with evolution’s erroneous time-scale, so it must be carefully defined. Rather than representing nearly immeasurable geological ages, the vast majority of earth’s fossil-bearing strata—and therefore the bulk of the column diagram—formed during the single year of Noah’s Flood. It might be better to refer to the fossil-bearing sedimentary rocks as “rock layers” or “sediment layers,” rather than the “geologic column,” unless there is an opportunity to unpack the term.

6 Speciation

“The evolution of populations of organisms within a species into distinct species themselves that can no longer interbreed.”³

Evolutionary biologists have been engaged in lively debates regarding speciation, yet no consensus is in sight. This is an extremely plastic word, and it is based on the word “species,” whose meaning is “deeply ambiguous.”¹⁰ The danger in using “speciation” is that for some, this signifies a small step along a vast evolutionary progression from one basic kind to another.

To avoid these ambiguities, the term “variation” could be used instead. This describes changes that occur with certain characteristics. For example, breeds of cats, cattle, sheep, and dogs exhibit some differences within their groups, yet remain true to their essential forms.¹¹ Darwin discussed breeding varieties of the wild rock pigeon in *Origin of Species*, but one fact seldom emphasized is that they are all merely varieties of the created pigeon kind. The thirteen “new species” of Darwin’s finches on the Galapagos Islands are also merely varieties, able on occasion to interbreed. The same is true of the marine and land iguanas on these islands.

Conclusion

When these and other evolution-leaning terms arise in conversation, pausing to take a deeper look at them can be well worth the extra effort. Often, it is more effective to discuss definitions by asking for them, rather than by stating them. If a person uses any term, it is incumbent on them to be able to explain what they mean by it. Asking for an example of it is also fruitful. When explored with respect and deference, this tactic can move a conversation in a positive direction and perhaps open someone’s eyes to the possibility that a scientific-sounding term might describe a process that is not based on science, but rather at least partly on unfounded presupposition. ●

References

1. Definitions are from Dictionary.com. *Dictionary.com Unabridged*. Random House, Inc. Accessed October 15, 2009. See also Sherwin, F. 2001. Science vs. Macroevolution. *Acts & Facts*. 30 (1); Sherwin, F. 2001. The Unmasked Question. *Acts & Facts*. 30 (6); and Sherwin, F. 2007. Follow the Evidence! *Acts & Facts*. 36 (4).
2. Fernald, R. D. 2006. Casting a Genetic Light on the Evolution of Eyes. *Science*. 313 (5795): 1914-1918.
3. Rudin, N. 1997. *Dictionary of Modern Biology*. Hauppauge, NY: Barron’s.
4. Thomas, B. 2009. Did Humans Evolve from “Ardi”? *Acts & Facts*. 38 (11): 8-9.
5. Allaby, M. 1992. *The Concise Oxford Dictionary of Zoology*. New York: Oxford University Press.
6. Palmer, T. 1999. *Controversy: catastrophism and evolution*. New York: Kluwer Academic, 123.
7. Pfeiffer, J. 1969. *The Emergence of Man*. New York: Harper and Row Publishers.
8. For example, dinosaur soft tissue. See Schweitzer, M. H. et al. 2009. Biomolecular Characterization and Protein Sequences of the Campanian Hadrosaur *B. canadensis*. *Science*. 324 (5927): 626-631.
9. Sasso, A. 2005. 42: Geologists Create First New Period in 113 Years. *Discover Magazine*. January issue, 37. See also Austin, S. A. 1984. Ten Misconceptions about the Geologic Column. *Acts & Facts*. 13 (11); and Morris, J. D. 2005. How Long Did It Take to Deposit the Geologic Strata? *Acts & Facts*. 34 (10).
10. Agapow, P.-M. et al. 2004. The Impact of Species Concept on Biodiversity Studies. *The Quarterly Review of Biology*. 79 (2): 162. See also Cumming, K. B. 1991. On the Changing Definition of the Term “Species.” *Acts & Facts*. 20 (1); and Sherwin, F. 2003. Species—A Most Elusive Subject. *Acts & Facts*. 32 (4).
11. See Sherwin, F. and B. Thomas. 2009. Do “New Species” Demonstrate Darwinism? *Acts & Facts*. 38 (2): 36.

Mr. Thomas is Science Writer and Mr. Sherwin is Senior Science Lecturer.



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"Darwin was a poor naturalist," noted Phillips, who led the team on this historic expedition. "While on the Galapagos, he improperly recorded his observations and later drew fundamentally wrong conclusions from the findings that he made. One hundred and fifty years after the publication of his *magnum opus*, his errors are clearer to see. It is not surprising that key arguments he advanced to support his theory of evolution have been rejected by evolutionists themselves. By retracing his steps, we show exactly where he erred."

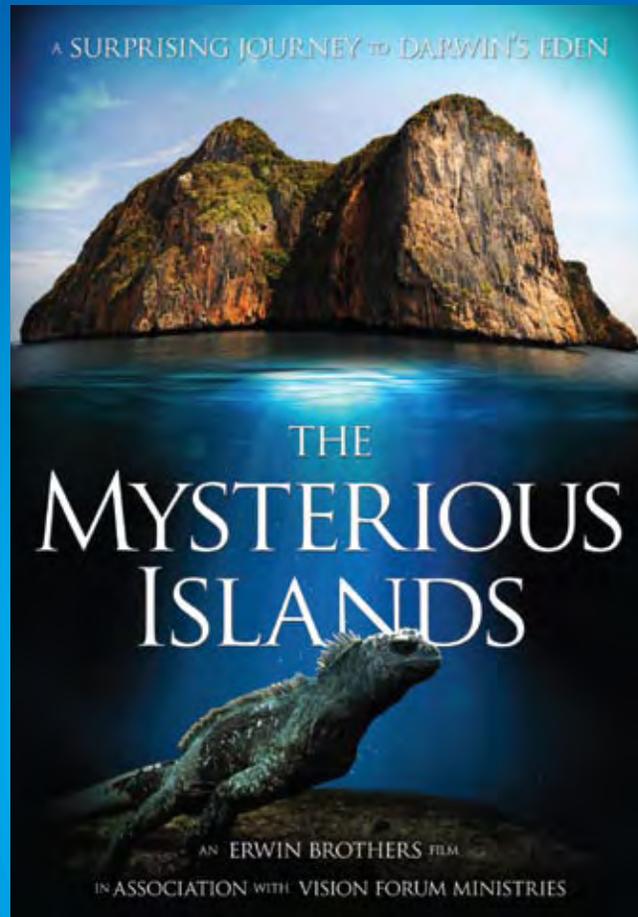
This beautiful 90-minute documentary takes viewers deep beneath the ocean waves among hundreds of white-tip sharks, into volcanic craters with giant lizards, and to the unusual habitat of the blue-footed booby. Featuring the only team of creation scientists to shoot a documentary on the Galapagos during Darwin's bicentennial, *The Mysterious Islands* brings a fresh evidence-based perspective on creation, evolution, and natural selection, and presents sweeping cinematography of one of the most remote, desolate, and fascinating locations in the world. ●

THE MYSTERIOUS ISLANDS

D V D

“Christians look to Jerusalem; Muslims look to Mecca; but evolutionists look to the Galápagos as the spiritual center of their scientific faith.”

— DOUG PHILLIPS



At the far end of the world, there exists a chain of strange islands, steeped in controversy. *The Mysterious Islands* is the story of one boy and a team of researchers who take an amazing adventure to the heart of the mystery in search of clues that will expose the truth in a centuries-old dispute.

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LETTERS TO THE EDITOR

We are so blessed and learn so much from *Science, Scripture, & Salvation* and from the ICR free magazine *Acts & Facts*. I'm sure many enjoyed the October 2009 article on dinosaur protein sequences by Dr. Jeffrey Tomkins....Hopefully more will hear, read, and accept the facts of soft tissue decay rates that show that the dinos lived only thousands of years ago like the Bible teaches.

— T.I.

I live for *Days of Praise* and I am blessed every day. Henry Morris is my hero and I thank you for letting his life continue to give direction, hope, and discernment to my life. God be glorified.

— K.N.

I recently contacted your ministry and subscribed to your magazines *Acts & Facts* and *Days of Praise*. I also ordered *The New Defender's Study Bible*....I cannot tell you how blessed I have been by all of them. The *Defender's Study Bible* is by far, without question, the best study Bible I have ever read during my 16 years since being saved. The information in this Bible is so thorough. I'm now viewing Genesis and creation in a whole new light.

— G.M.

We love your magazine and use it often with homeschooling our 5 kids. The new format is even easier to read. Thanks for all your dedication to printing the truth.

— S.O.

It is encouraging to know your work continues in force and is even expanding despite these perilous times. We support your ministry because we know it is a unique, startling testimony to the entire world, scientific and otherwise.

— D. & M.K.

I use the *Days of Praise* on the Internet daily. I have trouble reading when I first get up and I can make the pages large enough to read comfortably. Thanks so much for all you do for the cause of Christ.

— P.K.

Editor's Note: Our *Days of Praise* devotionals are updated daily on our website. Just go to icr.org and click the link that says "Read today's devotional." You can also click the Free Subscription button to receive *Days of Praise* by email.

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 DECEMBER 5

God's Treasures

While gold, silver, and precious stones are of great value, there are other treasures talked about in the Bible that are far more significant. As a matter of fact, without these gifts from God, we would die. What are they? Come search with us and discover God's "treasures in creation."

WEEKEND OF DECEMBER 12

Characters in a Christmas Play

During the Christmas season, we often display nativity scenes and enjoy church plays depicting the advent. These are heart-touching ways to rejoice in the birth of our Savior, but have you ever considered the special way in which the people involved in the first Christmas were used of God? Listen in as we discuss the Characters in a Christmas Play.

WEEKEND OF DECEMBER 19

The Creator at Christmas

At Christmas let us consider who the babe in the manger really is. He's the Son of God, the Savior, the Creator of all! And even though the world may try to take the Christ out of Christmas, Jesus is still the Reason for the Season! Join us as we celebrate the Creator at Christmas!

WEEKEND OF DECEMBER 26

Winter Wonderland

In the chill of winter, we often look forward to spring, when trees, plants, and flowers burst into bloom. While plants and trees may appear to be dead in their wintry habitat, they are very much alive! Just how do they survive? Tune in to find out!

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 Greatest of All Gifts

H E N R Y M . M O R R I S I V

We cannot fathom what it meant for the infinite Creator God to become finite man. Yet Jesus, who was “so much better than the angels” (Hebrews 1:4), willingly emptied Himself and, setting aside certain outward features of His deity, stooped from the glory of heaven’s throne, took on “the form of a servant, and was made in the likeness of men” (Philippians 2:7). Thus, the King of heaven allowed Himself to be “made a little lower than the angels” (Hebrews 2:9), and taking on “the likeness of sinful flesh” (Romans 8:3), He “became obedient unto death, even the death of the cross” (Philippians 2:8). In this way, God mercifully showed His great love for us by giving us “his Son to be the propitiation for our sins” (1 John 4:10).

This most special gift is the reason we celebrate Christ’s birth on Christmas Day, and it is especially appropriate that we remember the greatest of all verses during the Christmas season: “For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life” (John 3:16). This is surely the

best known, most loved verse in all of Scripture, and it has been by far the most effective verse in illuminating blinded minds and breaking hardened hearts to bring them to Christ and salvation.

Giving is a prominent theme in the Bible, with such words as “give,” “gift,” “gave,” etc., appearing more than 2,000 times. Genesis 1:17 records the first occurrence, when on the fourth day of creation, God created the sun, moon, and stars “to give light upon the earth,” and the last is Revelation 22:12, when Christ will return with His rewards to “give every man according as his work shall be.” Clearly, though, the greatest of all gifts was when God gave Himself for a lost and undeserving world—because it revealed the greatest love, met the greatest need, and had the greatest scope and purpose of any gift that could possibly be conceived in the heart of the omniscient Creator.

This greatest gift of God is exceedingly sufficient to provide salvation and everlasting life for the whole world. But a gift only becomes a gift when it is accepted, and the greatest of all tragedies is to see this greatest of

all gifts ridiculed and scorned by humanity, or simply ignored by vast multitudes who need it so deeply. Ultimately, when God’s free gift of everlasting life is brazenly refused, the end result can only be everlasting death. God did all He could do when He gave His Son to suffer and die in our stead. Then what joy is ours to accept it, knowing we shall spend eternity in heaven with Him!

For this reason, it is fitting that we give gifts at Christmastime to emulate God’s first, and most perfect, “Gift” to us. ICR is so very grateful to all those who follow this example, thanking God daily for those who uphold our ministry with gifts of prayer and finances. If you are able, please prayerfully consider how you can help this season—we promise it will be carefully applied to our work to bear much everlasting fruit for His glory.

From all of us at ICR, may the Prince of Peace be your joy and strength this Christmas and throughout the New Year! ●

Mr. Morris is Director of Donor Relations.



Perspectives on LIFE

HENRY M. MORRIS III, D. MIN.

The past several decades have seen a rise in “Mother Earth” movements that include such pseudo-religiously-oriented ideas as the Gaia Hypothesis, Wicca, and various parapsychology cults. All of them have their roots in mysticism and evolutionary naturalism, with many of their devotees claiming a “scientific” basis for their tenets. Common to all these varied movements, whether cultic or scientific, is the unshakable belief that life arose from natural elements in some form, and that “higher” life forms (including plants) have some sentient perception.

Many embrace the concept that Mother Nature is actually the collective intelligence of ecosystems (from climate zones to solar systems and galaxies) that are observed by science with “apparent design” in all things.

Difficulties with Perspective

Modern science speaks of life in terms of cellular function. That is, all replicating and self-functioning systems are composed of cells. The cell performs all the functions for movement, reproduction, response, and growth, and many biological pathways are common in the cells of plants, animals, and man. Plants represent the most complicated level of life that can be maintained simply by the functioning of multiple cells working together.

Evolutionary thought ties the function of life all the way from single-cell organisms to humanity. Paramecium, plants, pollywogs, primates, and people are merely increasingly more complex assemblages of cells that have “developed” over deep time. In practice, plants are considered to be just as alive as are people. The life sciences include botany as well as biology.

If this practical perspective were merely a scientific debate, the impact on Christian thinking might not be much. Surely no one “believes” that a plant has

the same value as a human being. We eat plants—as indeed the Creator Himself insisted that they were designed to be used (Genesis 1:29).

However, there is a popular teaching among evangelicals that physical death was part of God’s original “good” creation. This dangerous doctrine is partially based on the “scientific fact” that plants are living things, and since God commanded humans to use these living plants as food, they “kill” plants when they eat them.

The Biblical Perspective

On Day Three of creation, the “earth” (the same Hebrew word as in Genesis 1:1) was commanded to “bring forth” (“sprout,” Genesis 1:11). The earth responded by “shooting out” (verse 12) three categories of earth products: grass—all ground-covering vegetation; herbs—all bushes and shrubs; and trees—all large woody plants. The “herbs” and “tree yielding fruit” are specifically said to have a “seed”—to specify and program growth. These marvelous and beautiful earth products were to be food for each man, beast, fowl, and creeping thing that lived upon the earth (Genesis 1:29-30). No one who is familiar with the Bible argues this point.

The debate comes over the question of what “life” is. As mentioned earlier, the evolutionary assumption is that all systems that function by cells are “alive.” The evangelical brethren who use that scientific idea as a basis for their understanding of plants would justify the conclusion that since cells die when plants are eaten, therefore physical death processes are a part of the original design of the Creator.

There is, however, much more to be considered. God “created” (Hebrew *bara*) on Days One, Five, and Six. That is, God brought into existence something that did not exist before. The other days record God

“Britain’s Prince Charles... talked to plants but he is no longer alone with a rising number of people joining his campaign to treat plants with respect.”¹



“making” and “shaping” that which was created earlier. The point to be observed here is that life was created on Day Five, as was the image of God created in man on Day Six.

The Hebrew terms used for Days Five and Six are rich in descriptions of this life. *Sherets* is used for the “moving creatures.” *Chay* is the “life” of verse 20. *Nephesh* is translated “living creature” in verse 21, but translated “living soul” in Genesis 2:7 (as well as most of the other times it is used in Scripture). These are the terms used for living creatures—along with the Hebrew *ruwach*, most often translated “spirit.” Leviticus 17:11 clearly states that “the life of the flesh is in the blood.”

Summary

In no passage of Scripture are plants associated with any of the terms for “life.” Plants do not have *chay* or *nephesh* or *ruwach* or any blood. Period. Neither are they “moving creatures.” Multicellular plants do not have independent mobility. Most land plants are tied directly to the ground. Some are symbiotically related to hosts (such as moss, lichen, various algae, etc.), but none move about on their own—as does all biblical life.

Yes, plants (earth products) are marvelous, beautiful, and incredibly information-rich. But the chasm between the cellular structure of plants and that of “living creatures” is vast in depth and breadth. Beyond the similar biological pathways, there is both a clear difference in form and a huge informational gap. Plants are not “related” to animals or to man, nor is there any evidence that petunias hear when we talk to them.

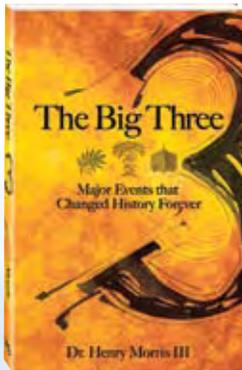
Why this emphasis? The insistence by some evangelical scientists and theologians that death is a “normal” part of creation is based on the evolutionary doctrine and scientific perspective that all cellular-based systems are “alive.” Thus, plants “die” when eaten, thereby requiring physical death to be a part of the created design. That logic, however, negates or deflects the awful results of sin (Romans 5:12) and makes the physical death of Jesus Christ not much more than a vengeful execution of God the Father on His only begotten Son, rather than the absolutely necessary substitutionary atonement and “shed blood” on the cross of Calvary (Matthew 26:28). ●

Reference

1. Goldsmith, B. More gardeners join Prince Charles in plant talk. Posted on reuters.com September 18, 2007.

Dr. Morris is Chief Executive Officer of the Institute for Creation Research.

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CHAPTER 1
IN the beginning God created
the heaven and the earth.
And the earth was without
form, and void; and darkness
was upon the face of the deep,
and the Spirit of God moved
upon the face of the waters.
And God said, Let there be
light; and there was light.

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