

# ACTS & FACTS

A photograph of the Space Shuttle Endeavour in orbit above Earth. The shuttle is positioned in the lower center of the frame, pointing upwards. The Earth's blue surface and white clouds are visible below. In the upper right, a large, complex structure, likely a space station or satellite component, is partially visible, showing various panels and equipment. The overall scene is set against the blackness of space.

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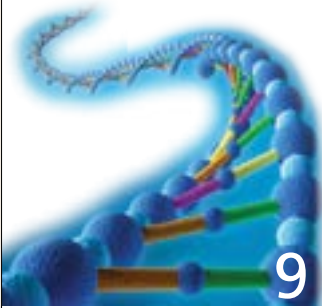
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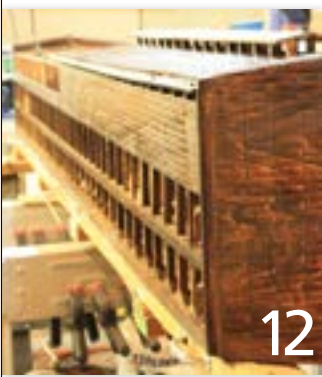
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# The Creator and the Details of Life

**NASA** astronaut Col. Jeffrey Williams recently visited the Institute for Creation Research, and we had the opportunity to talk with him about his life, work, and faith. In our feature this month, we share excerpts from the interview (pages 5-7). Col. Williams talked about his time in space, his love of family, and his relationship with God. I was especially touched by a story he told about God hearing him on a “down day.” On that particular day, he witnessed something that no one else on Earth saw at that moment. He was moved by the way God revealed His wonders of creation, and he even had fun with the experience.

In the full interview, Col. Williams said he continually sees the providence of God in the details of life. He shared some of his testimony—how he grew up on a dairy farm and later became a military test pilot. He went to West Point and served in the Army for over 27 years. Over a period of ten years he persistently applied to NASA, and eventually became an astronaut. He also shared how a family crisis brought him to faith in Christ and how a specific prayer by his wife was answered as he floated in space.

Col. Williams enjoys photography—he’s taken about 200,000 photos from the International Space Station (ISS), and many can be found on NASA’s website. He said the astronauts were continually drawn to the image of Earth outside their station window...that Earth was their constant focal point. Some of the NASA photographs included with our feature and on the cover of this issue were taken by Col. Williams.

Clips from the interview can be seen on our website, ICR.org, and clips will occasionally appear on our social media sites. You can find us on Facebook (Institute for Creation Research) and on Twitter (@ICRscience).

Other articles in this issue also highlight the providence of God. Dr. James Johnson’s article “Genesis in Chinese Pictographs” explains how God providentially used the ancient Chinese language itself to witness to a questioning student (pages 18-20). In “Evolution of a Creation Scientist,” Dr. Jeff Tomkins describes how through a bizarre series of events God placed a Christian roommate in his path at the right time (page 21). And Dr. Vernon Cupps tells of his journey in becoming a young-earth creationist in his mid-50s (page 10).

Col. Williams reminded me how much the Creator of the universe loves us and wants to be involved in our lives. He said, “Look for the little things, the providence of God—He orchestrates the details of our lives.” Our heavenly Father wants to daily interact with us and reveal Himself to us in creative ways. And whether we’re floating in space and looking through an ISS window at the planet that He created as our home, or whether we have our feet firmly planted on this earth, He delights in unveiling His wonders to His children, even on the down days.

*Jayme Durant*

**Jayme Durant**  
EXECUTIVE EDITOR



*The crew of International Space Station Expedition 22: From the left (front row) are Commander Jeffrey Williams and Flight Engineer Oleg Kotov. From the left (back row) are T.J. Creamer, Maxim Suraev and Soichi Noguchi, all Flight Engineers.*

Image courtesy of the Earth Science and Remote Sensing Unit, NASA Johnson Space Center. <http://eol.jsc.nasa.gov/Collections>



*Be exalted, O God, above  
the heavens; Let Your glory  
be above all the earth.*

(P S A L M 57:5)

# Above All the Earth



**F**ew can say they've left planet Earth. Jeff Williams has done it three times. After a lengthy military career, Colonel Jeffrey N. Williams was chosen from among a handful of candidates to become an astronaut for NASA and work on the International Space Station (ISS). He has been a longtime supporter of ICR and recently visited our headquarters for the first time, graciously allowing us an interview.

**ICR:** Why do you support creation ministries like ICR?

**JW:** My affinity for organizations like ICR has to do with what I see as [their] commitment to the truth of Scripture and trying to strengthen, in the minds of Christians, a confidence in the Scripture. And, of course, your interest is in the creation account, and the Flood and the early chapters of Genesis, and that science is compatible with the biblical account.

**ICR:** Are you the only Christian aboard the ISS?

**JW:** There is a generalization that anyone who worked for NASA, or an organization like that, would naturally be an atheist, but that's not true. There are many Christians in the organization, many Christians in other government agencies—there are Christians

“The work that I do and have done through my military career and with NASA has been perfectly compatible with the Scriptures, and I've lived out my life as a Christian, and there's been no issue there.”

everywhere. The work that I do and have done through my military career and with NASA has been perfectly compatible with the Scriptures, and I've lived out my life as a Christian, and there's been no issue there.

**ICR:** Why are you a creationist?

**JW:** I came to Christ in the late '80s. I've studied the Scriptures since 1988. I didn't want to jump on a bandwagon; I didn't just want to be a follower of a religious organization. I wanted to understand what the faith was, and all of my life, since 1988, every day I study the Scriptures to try to understand [them], and one of the things that I've found is the complete internal consistency within the overall Scriptures and that the truth of Scripture is affirmed by every other piece of extra-biblical evidence.

**ICR:** So you don't find any conflict between science and your belief in Scripture?

**JW:** I don't find a conflict with true science—genuine science with integrity—and the Scriptures. I have found that in all cases where there is a conflict, it's not a conflict with the science, it's a conflict with the presupposition going in. So it's more of a philo-



sophical thing. If you study those things, philosophy, science, and religion have always intersected. The lines dividing them have never been clear, and they often get blurred. If somebody perceives science to be in conflict with, for example, the early chapters of Genesis, it's not the science, it's the presupposition that goes into it. If you have a presupposition that excludes the possibility of a god, that excludes the possibility of supernatural acts, and that [believes] everything has to be explained just with natural processes, then you've basically limited what you can let the objective observation of science tell you. That's where the issue comes in. I presuppose God. And I presuppose the truth of the Scripture.

**ICR:** So, before you even look at the data, you have in mind that miracles could have happened?

**JW:** I assume a creator. And it's not just the

“ I don't find a conflict with true science genuine science with integrity and the Scriptures. I have found that in all cases where there is a conflict, it's not a conflict with the science, it's a conflict with the presupposition going in. ”

chance of miracles, the chance of supernatural acts, it's the truth that He is the Creator, He accomplished His creation as He has revealed to us in the Scripture, in Genesis 1 and 2, and reaffirmed throughout the rest of the Bible.

**ICR:** What's the most fascinating thing you've seen out in space?

**JW:** The biggest attraction outside isn't deep space—it's the earth. Everyone on the station is fascinated with the earth. You never get tired of viewing the earth. When I look out the window at the earth (and I've accumulated almost a year in orbit, and we orbit every 90 minutes—sixteen orbits a day), I see the entire globe—except for the poles—over time. And over weeks and months you see the seasons go by. You see all the details and all the different lighting conditions. It's an endless variety of the observations of the details on Earth. When you cross the Middle East, from orbit, and you can see the entire biblical history in one vantage point and the entire geography that Christ came and lived on as a man over 2,000 years ago, that gives deep and profound meaning to that view.

**ICR:** Can you see any evidence of the Flood from the ISS?

**JW:** Absolutely. And it's not just the rising waters. The Scriptures give reference to geological movements and the fountains coming from the deep, and very likely volcanic activity and earthquakes and other things, and shifting of land masses, and when you see the earth from that vantage point you see evidence of all of that, and it looks like it occurred rapidly. It only gives evidence and illustrates the account of Scripture. When you look at the earth from that vantage point, you see volcanos everywhere, some of them still erupting, others dormant, and you see geological formations that are incredible. Or you go to eastern Iran, and you see very unique formations of salt domes—fascinating geometric designs. Or you go to Australia, which looks like we'd imagine another planet to look like. I have about 200,000 pictures from space.<sup>1</sup>

**ICR:** How has your walk with the Lord and your study of Scripture impacted your family life?



*ICR's Brian Thomas interviews  
Astronaut Col. Jeffrey Williams.*



*The International Space Station.*

**JW:** It's had a tremendous impact. We went through a family and marriage crisis in the late '80s and out of that came to faith in Christ and the truth in Scripture. We rebuilt our marriage and family from that point on and made it a priority, and it completely changed our lives and our priorities in life. It has completely transformed us—so it has become central. My first priority is to honor Christ, my second is as a husband. You can only fulfill your duties as a husband if you are submitted to Christ.

**ICR:** What are some personal, spiritual lessons you may have encountered where your walk with Christ—your study of Scripture—has intersected with some of these views of Earth from space and had an impact on your spiritual life?

**JW:** In a broad sense, there is a continuous impact when you have, in the back of your mind, the truth of the Creator with His infinite wisdom in the design, order, and the purpose and plan in the details of His creation.

**ICR:** Do you have any good stories about life on the ISS?

**JW:** One story is my favorite—it happened in May of 2006. I was six weeks into a six-month stay, kind

“If you have a presupposition that excludes the possibility of a god, that excludes the possibility of supernatural acts, and that [believes] everything has to be explained just with natural processes, then you've basically limited what you can let the objective observation of science tell you.”

of having a down day, and I confessed this to my wife, Anna-Marie. I talk with her each day while in space. It was late morning, and I floated over a window where I typically had a camera staged and saw this snow-covered peak poking through the clouds and grabbed a picture. They

were the Aleutian Islands, a series of beautiful snow-covered peaks. Something looked strange about one of them. I went back and reframed the picture and realized it was an erupting volcano. By the plume, I knew it was a brand-new eruption.



*Eruption of Cleveland Volcano, Aleutian Islands, Alaska. Taken by Jeffrey N. Williams, Expedition 13, May 23, 2006.*

I was very animated about this, called NASA, and sent the pictures. We called the Alaskan Observatory from the ISS and told them I witnessed this volcano erupting, and they thought it was a prank. [It was the island volcano named Cleveland.] After 90 minutes, we flew over the volcano again, and it had already stopped by then.

In a very special way, it was the Lord's provision to raise me out of my slump. More specifically—from a Christian point of view—it was a direct answer to Anna-Marie's prayer that the

Lord would bring something into my day. He takes care of us continually in the little things—and I've learned over the years to look for the little things. I have a great love for the study of the providence of God, which is evident throughout Scripture—and if we look for it, it's in our lives. He orchestrates the details of our lives.

**ICR:** Is there anything else you'd like to share with ICR readers?

**JW:** I appreciate the ministry of ICR. I appreciate the ministry of any organization and individuals who are dedicated to reinforcing the truth of Scripture and encouraging believers to have confidence in the

Bible, that it is the truth of God, that it does contain the wisdom of God. He has revealed Himself as Creator, as the Provider, and as our Redeemer in a very explicit way that can be understood and can be trusted. ●

**Reference**

- 1. Colonel Williams' photographs as well as other NASA images can be accessed at [eol.jsc.nasa.gov/Collections](http://eol.jsc.nasa.gov/Collections)

A West Point graduate, Colonel Jeffrey N. Williams served 27 years active duty in the U.S. Army as an Army aviator and experimental test pilot. He has an M.S. in Aeronautical Engineering from the U.S. Naval Postgraduate School and an M.A. in National Security and Strategic Studies from the U.S. Naval War College. Williams was selected for the NASA Astronaut Class of 1996 and has flown 3 space flights to the International Space Station, accumulating about a year in space. He is currently preparing for his fourth space flight, planned for six months, beginning in March 2016.



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## BioOrigins Project Update

Purpose, Progress,  
and Promise

## Part 6

In this series, we are tracing the Institute for Creation Research's efforts to replace the evolutionary model on the origin of species with one that is both biblically faithful and scientifically superior. Previous installments give some background as to why we are pursuing this goal and to our progress.<sup>1,2</sup> This update describes our successes involving the most controversial question of all: the *from whom* of species' origins, or the question of species' ancestry.

For over 150 years, Darwin's answer to this question has troubled scientists and lay audiences alike. Nevertheless, his proposal that all species share a common genealogical thread—i.e., universal common ancestry—has become iconic as the familiar “tree of life” diagram. Surprisingly, despite this icon's popularity, the evidence supporting it has never been scientifically compelling. For example, as we articulated in a previous article (part 5 in this series), the evolutionary arguments from the fossil record, from anatomical and physiological comparisons, and from biogeography are, at best, indirect.<sup>2</sup> Genetics alone directly records genealogical relationships.

However, attempts to corral evidence of common ancestry from genetics have encountered significant challenges. In order to demonstrate the validity of a given hypothesis, scientific tests must eliminate competing hypotheses, and the tests of universal common ancestry have failed to do so. As a case in point, life is organized into a nested hierarchical pattern (groups-within-groups, analogous to Russian nest-

ing dolls), a finding that evolutionists cite as confirmation of universal common ancestry. Yet intelligent humans design things that can be objectively organized into nested hierarchies. Hence, the mere existence of nested hierarchies cannot be used to support Darwin's chief contention.<sup>3</sup>

Evolutionists have tried to eliminate the design hypothesis by other means, but to date their attempts have fallen short. To illustrate, secular scientists have long claimed that “junk DNA” exists, arguing that the apparent lack of design in large portions of human DNA refutes the idea of a creator. Yet recent experiments have revealed precious little evidence of such junk.<sup>4</sup>

Evolutionists have also tried to eliminate the design hypothesis via a different but related argument—the existence of shared mistakes. If two creatures share identical DNA copying errors, then the probability that those two species inherited these errors from a common ancestor, rather than both randomly making the mistakes independently, is quite high. In principle, this fact could connect humans and the great apes, along with all the other species on the planet. However, finding bona fide mistakes has been much more difficult than evolutionists originally thought.<sup>5</sup> Thus, far from being the best-supported aspect of evolution, the question of common ancestry has been one of the most difficult to answer.

These difficulties carry over to the creationist approach, where there is a different ancestry question to solve. Since God created kinds of creatures in the be-

ginning, and since these likely did not represent species but progenitors from which new species could arise, young-earth creationists face the challenge of identifying which species are related and which ones are not.<sup>6</sup>

The most promising lead on this question seems to be a discovery we made over a year ago: the existence of a molecular clock. At the DNA level, this clock has ticked off only 6,000–10,000 years of time, a fact that might be useful to the question of common versus separate ancestry.<sup>7</sup> For example, if the molecular clock for two species can be dialed back to zero in just 6,000 years, then perhaps these two species have a common ancestor. If not, then they might stem from separately created kinds. As research progresses, we plan to detail how this clock might shed light on the origins discussion. Stay tuned! ●

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Dr. Jeanson is Deputy Director for Life Sciences Research and received his Ph.D. in cell and developmental biology from Harvard University.



# Rare-Earth Clocks, Sm-Nd and Lu-Hf Dating Models: Radioactive Dating

## PART 5



*Beware lest anyone cheat you through philosophy and empty deceit, according to the tradition of men, according to the basic principles of the world, and not according to Christ. (COLOSSIANS 2:8)*

**AUTHOR'S NOTE:** I was about nineteen when I realized Darwinian evolution was unscientific and completely rejected it, but I didn't give much thought to a "young earth" at the time. Decades later, when I was in my mid-50s, I came to believe in a young-earth view of creation after taking the time to investigate the actual scriptural, observational, and experimental evidences for both the young- and old-earth hypotheses. Dr. Steven W. Boyd presented a particularly persuasive argument for this interpretation of Scripture in *Radioisotopes and the Age of the Earth*.\*

My search ultimately led me to conclude that the biblical account was absolutely accurate and that God did not expect me to believe in something that was counter to the rational evidence all around me.

I spent my career as a nuclear physicist at the Los Alamos National Laboratory and the Fermi National Accelerator. Now in my 60s, God has placed me in a unique position here at the Institute for Creation Research to further dispel the common notion that radioactive dating somehow proves the earth is billions of years old. The detailed investigation presented in this series provides a compelling case that radioisotope dating does not prove that the earth is old as is routinely taught in schools throughout our country.

\* Boyd, S. W. 2005. Statistical Determination of Genre in Biblical Hebrew: Evidence for an Historical Reading of Genesis 1:1–2:3. In *Radioisotopes and the Age of the Earth: Results of a Young-Earth Creationist Research Initiative*. Vardiman, L., A. Snelling, and E. Chaffin, eds. El Cajon, CA: Institute for Creation Research and Chino Valley, AZ: Creation Research Society. This study is available at [www.icr.org/rate](http://www.icr.org/rate).

**P**ast articles in this series have attempted to establish a foundation for understanding the radioisotope dating models or hypotheses, their assumptions, and how those assumptions lead to a "deep time" picture of our universe.<sup>1</sup> Secularists would have us accept their convoluted, circular arguments as scientific fact simply because the majority of people in the academic community embrace them. Hopefully our readers now understand that using the various types of radioisotope decay as clocks does not consistently produce concordant results, nor is it verified by observational evidence. If these radioisotope decay methods do not properly date rocks of known ages, how can we trust them to date rocks of unknown ages? Trusting these methods to give factual dates would then be a matter of faith, not science. What secularists are trying to instill in us is a strange amalgam of science and their biased philosophy known as *secular humanism*.

Dating methods using the rare-earth elements are not used as frequently as the potassium-argon (K-Ar), argon-argon (Ar-Ar), rubidium-strontium (Rb-Sr), uranium-lead (U-Pb), and lead-lead

(Pb-Pb) methods and are somewhat hidden from general knowledge. The rare-earth elements (REEs) are a group of seventeen metallic elements—i.e., the lanthanides plus scandium (Sc) and yttrium (Y)—that tend to exhibit similar chemical properties and tend to appear in the same ore deposits. They are relatively plentiful in the earth's crust but are so dispersed they are not often found in concentrations that make the ore deposits economically extractable. Thus, the term "rare earths" is archaic and dates back to the discovery of the black mineral ytterbite (later renamed gadolinite) in 1787 at a quarry in Sweden.

Rare earths open a new regime in radioactive dating. In previous articles we dealt with parent-daughter decay schemes where the parent and daughter exhibit different chemical characteristics.<sup>1</sup> When they react with other elements, REEs generally form ions with a charge of +3. Their atomic radii decrease with increasing atomic number (Z) from 1.15 Å in lanthanum (Z=57) to 0.93 Å in lutetium (Z=71). This small size makes the REEs even more mobile during rock formation (crystallization) than either Rb (1.48 Å) or K (1.33 Å).



## SIDEBAR A

The rare-earth elements are further divided into two groups—light rare earths and heavy rare earths. Light REEs have densities that vary from 2.989 (Sc) to 7.9 g/cm<sup>3</sup> (Gd), while the heavy REEs vary from 4.47 (Y) to 9.84 g/cm<sup>3</sup> (Lu). Density is not a definitive differentiating factor between the groups.

### REEs

#### Light Rare-Earth Elements

Scandium (Sc)  
Lanthanum (La)  
Cerium (Ce)  
Praseodymium (Pr)  
Neodymium (Nd)  
Promethium (Pm)  
Samarium (Sm)  
Europium (Eu)  
Gadolinium (Gd)

#### Heavy Rare-Earth Elements

Terbium (Tb)  
Dysprosium (Dy)  
Holmium (Ho)  
Erbium (Er)  
Thulium (Tm)  
Ytterbium (Yb)  
Lutetium (Lu)  
Yttrium (Y)

Because the REEs preferentially exhibit +3 ionization states and have small ionic radii, they can only be absorbed into the structure of certain minerals. Feldspar, biotite, monazite, and apatite tend to concentrate the light REEs, whereas pyroxene, amphibole, and garnet tend to concentrate the heavy REEs.

The concentrations of Sm and Nd in silicate minerals increase with the order in which they crystallize out of magma. Measurements of the ratios of Sm to Nd concentrations in various minerals and rocks verify this expected trend.<sup>2</sup> Since Sm<sup>+3</sup> (1.04 Å) has a somewhat

smaller ionic radius and thus a stronger ionic potential energy, it will bond more tightly to a mineral matrix and tend to precipitate out of a magma before Nd<sup>+3</sup> (1.08 Å). This can lead to crystal fractionation, which is one process by which different rock compositions can be generated from a single-parent magma in a rock formation without appropriating radioactive decay as the agent of change. Figures 1 and 2 provide basic visual illustrations of this process.

Samarium (<sup>147</sup>Sm) decays to neodymium (<sup>143</sup>Nd) via alpha decay with a half-life of  $(1.06 \pm 0.01) \times 10^{11}$  yrs.<sup>3</sup> It is interesting to note that two other radioisotopes of Sm, <sup>146</sup>Sm and <sup>148</sup>Sm, have very long half-lives,  $(1.03 \pm 0.05) \times 10^8$  yrs. and  $(7 \pm 3) \times 10^{15}$  yrs. respectively, and also decay by emission of an alpha particle. <sup>146</sup>Sm is not used in dating because it only occurs naturally in trace amounts, and <sup>148</sup>Sm is not used because its half-life is simply too long—i.e., it does not produce enough decay products for them to be measured. It should be noted that a recent paper<sup>4</sup> used a direct comparison method between the activities of <sup>146</sup>Sm and <sup>147</sup>Sm in activated samples of <sup>147</sup>Sm to obtain the half-life of <sup>146</sup>Sm. Previously, the half-life of <sup>146</sup>Sm had been quoted as 50 Ma, 74±15 Ma, and 103±5 Ma by various authors.<sup>4</sup> At the time of this measurement the accepted value was 103±5 Ma, yet the latest result showed a half-life of 68±7 Ma. Since the half-life of <sup>147</sup>Sm was used in determining the <sup>146</sup>Sm half-life from the measured isotope ratios and activities, this casts serious doubt on the accepted half-life of <sup>147</sup>Sm and the dates determined using the <sup>147</sup>Sm-<sup>143</sup>Nd decay clock.

Lutetium (<sup>176</sup>Lu) decays to hafnium (<sup>176</sup>Hf) via beta (β-) decay with an uncertain half-life; estimates range from 2 to 7 x 10<sup>10</sup> years. As with all of the extremely long-lived isotopes, it is quite difficult to directly measure the infinitesimal amounts of daughter isotope produced in their decay during a human lifetime. Not only is direct measurement challenging, but the small amounts of decay products (on the order of 2% of the parent concentration for objects that are the secular age of the earth) are especially susceptible to small variations from other processes such as cosmogenic production, magma mixing, contamination, errors in estimating primordial abundances, hydrothermal transport, and fractional crystallization. Thus, quantitative values for their half-lives rely heavily on analyses of rocks having a known age. This is circular reasoning at its best!

We will continue this discussion in next month's issue. ●

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Figure 1

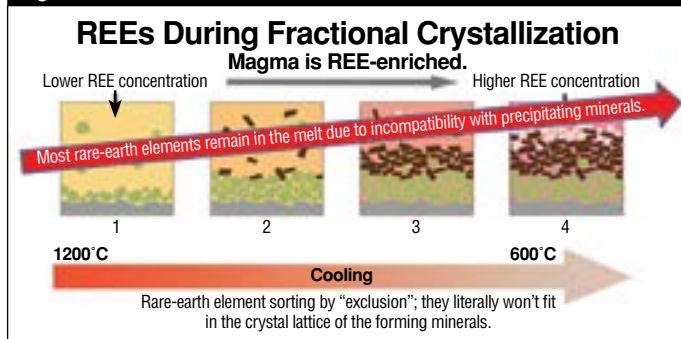
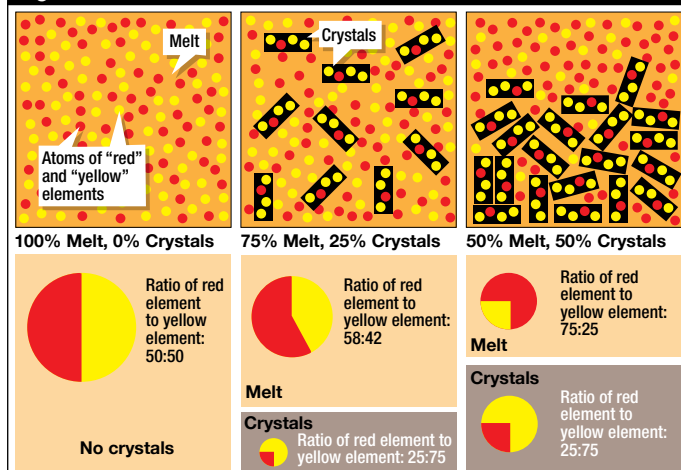
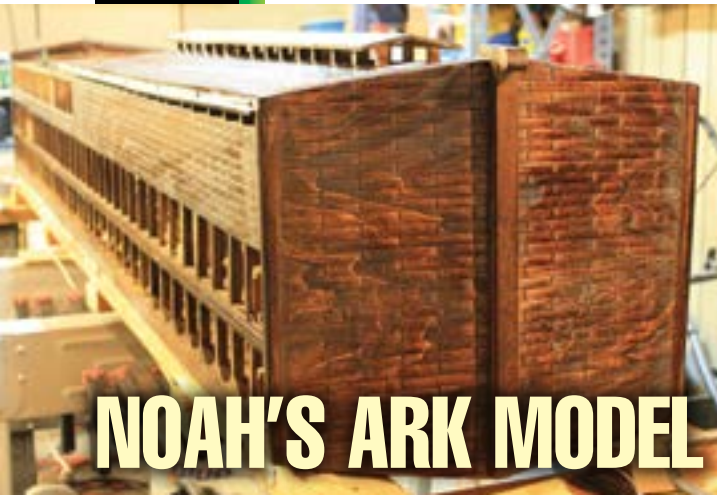
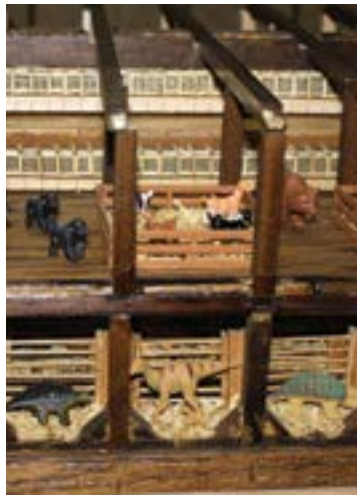


Figure 2





# NOAH'S ARK MODEL



**O**n January 7, 2015, I delivered my model of Noah's Ark to our Institute for Creation Research offices in Dallas, Texas. The project started as part of my Master's in Christian Education at the ICR School of Biblical Apologetics (SOBA), but the idea came to me in the middle of the night in March 2010. Like Noah, God gave me a vision, and while I wasn't given every detail, I did receive a sense of urgency to accomplish the task.

I intended to donate the project to ICR from the very beginning, which motivated me to strive for excellence in its construction. Except for the nautical experience I picked up in the twelve years I spent in the U.S. Navy, I brought no special building skills to the project—I didn't even have the tools. I trusted God to provide the vision, imagination, resources, and skill necessary to complete the Ark. He taught me as I applied my hand to the task—I give all the glory to Him.

As the task progressed, however, I realized it would not be finished in time for my November 2011 graduation. I wrote a thesis instead. But that did not assuage my desire to complete the model and make good on my promise.

On January 8, 2015, the ICR staff gathered around the Ark for a time of dedication. My prayer is that God will use the model as an effective teaching tool to remove the Ark's mythical stigma, give life to the Genesis Flood account, and remove any doubt of the truth of God's Word.

The Ark, according to the biblical description and based on an 18-inch cubit, was a massive barge 450 feet long, 75 feet wide, and 45 feet high—a perfect seaworthy design. Because of my naval training, I knew I needed a fore and aft, a bow (stem) and a stern, and a port and starboard to keep myself orientated while constructing the model. But the Ark itself had no bow or stern, as it was not designed to sail. All it had to do was float and survive the catastrophic Flood.

Like Noah, I received a vision to create a tangible object lesson demonstrating not only the feasibility of such a phenomenal vessel, but to teach that even in His judgment, God is merciful and He provides the path to salvation.

## Ark Model Facts and Features

- Completion time: 4.75 years / 1,379 hours / 574 days / 172.4 8-hour days
- Scale: 1/60, comparable to S-gauge 1/64 scale railroad model
- Inside dimensions: length 90" (7.5 feet), width 15," height 9"
- Water storage:
  - 6 cisterns, 2 per deck located at opposite ends of the ark
  - 37,361 gallons x 6 cisterns = 224,166 gallons total capacity
  - Replenishment: Following the 40 days of continuous rain, periodic rains would refill their stores via piping water from the roof into the cisterns.
- Grain storage:
  - 2 grain storage silos fore and aft
  - Between 2nd-story deck and 1st-story deck
  - Volume: 10,526 bushels of grain at 52 lb./bushel = 547,352 lb. or 274 Tons
- Human passengers:
  - 8 (4 men, 4 women)
  - The figures on the model are ~ 1 1/8" tall; x 60 would make them 6'6"
- 1st-story deck houses the large animals—reptiles and mammals
- 2nd-story deck houses the “clean” animals and features small animal cages
- 3rd-story deck features:
  - The small roof above the main roof is the ventilation exhaust flue, the window mentioned in Genesis 6:16.
  - Below the main roof at the top of the hull is the fresh-air intake that runs the length of the Ark from port to starboard.
  - The forward section is open for viewing and features aviaries, port and starboard, sleeping quarters, a family area, a work area, stone oven, and storage rooms.
  - Fill ports for the grain silos are located at the forward end next to the cistern. ●



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Mammal brains contain over a thousand different types of nerve cells, each networked to many other nerve cells in a dazzling, three-dimensional architecture that researchers are only just beginning to understand.<sup>1</sup> Brain cells coordinate muscle motion; process visual, audio, temperature, pressure, and olfactory data; and also manage hormones, store ideas, and replay memories. Scientists who bravely tackle the mysterious ways that mammal brains grow from a single cell recently found a new reason to reverse an evolutionary story that tells of ancient viruses infecting mammals.

According to this tale, a unique class of invasive viruses long ago inserted DNA segments called *transposable elements* (TEs) into mammal genomes. Numerous infections supposedly eventually injected gobs of useless code in mammal genomes. However, the authors of a new study published in *Cell Reports* noted that this tall tale is toppling:

TEs are repetitive mobile genetic elements that were originally considered [by evolutionists] to be parasitic DNA without any function, popularly termed “junk DNA.” Today, it is becoming increasingly clear that TEs can act as gene regulatory elements....[and thus] are very well suited to influence gene expression and may play an important role in controlling and fine-tuning gene networks in the brain.<sup>1</sup>

When TEs were first discovered, researchers noticed that they had some of the same genes that viruses use to infect cells. How tempting it was for them to jump to the conclusion that TEs arose from viral

infections that merely generated reams of genetic garble! Nevertheless, as researchers gather more and better data, they are witnessing cellular scenes that force them to alter that old script. Will the replacement evolutionary story stand up to scrutiny—or fail like its predecessor?

right coding to become integral to so many complicated cellular tasks, as well as contribute to healthy brain development?

Yet, that’s just what the replacement evolutionary story asserted. Did they observe this supposed viral invasion? No, but the alternative is not appealing. If ancient infections did not insert DNA sequences resembling certain viruses into mammal cells, then someone must have fashioned these mobile genetic elements from the beginning.<sup>2</sup> That sounds like creation, an option that evolution’s defenders disdain.

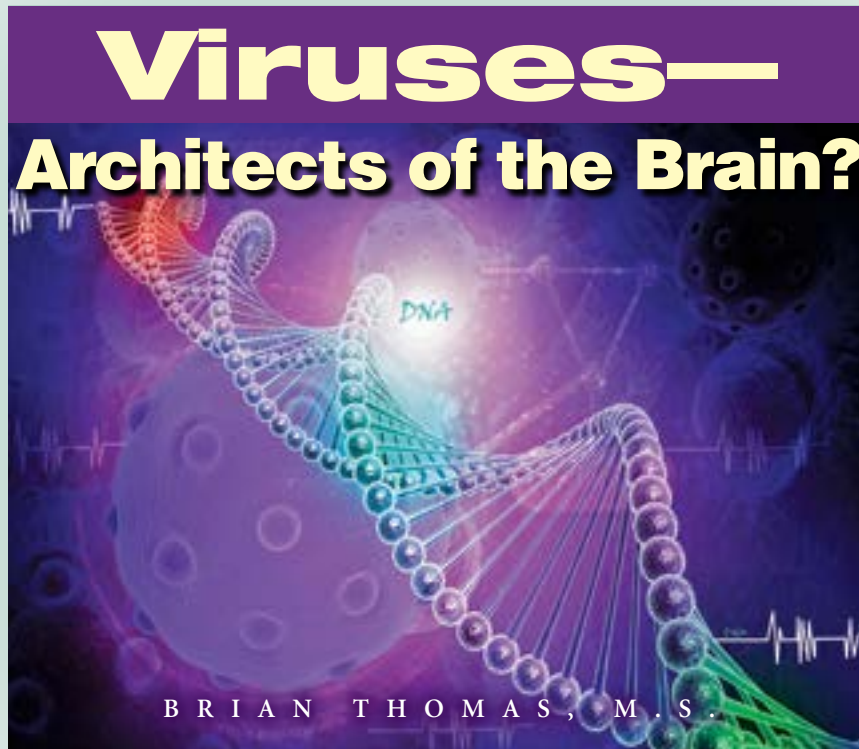
To summarize, when secular scientists initially saw no uses for TEs, they declared the sequences were junk. Happily for them, this provided evolution with extra DNA for tinkering and gobs of genetic trash that a supposed creator

would not have put there on purpose.<sup>3</sup> But now that researchers see plenty of uses for this DNA, what gets the credit for integrating TEs’ precise functions, for example, in developing brain cells? Viruses do. How strange. Surely the Creator God of the Bible would be a better candidate than viruses for orchestrating the coordinated and integrated tasks that TEs perform in constructing mammal brains. ●

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Any new explanation for TEs should include these details: First, TEs are not stagnant. The *Cell Reports* study authors, working mostly with mice, found that young nerve cells access a certain type of TEs during brain development.<sup>1</sup> Moreover, genetic features *unassociated* with viral origins precisely interact with those TEs. Last, other research shows that TEs attract transcription factors to specific DNA sites, recruit silencing complexes that shut down DNA regions, and alter splicing patterns to produce useful proteins. TEs also enhance gene expression, repress gene expression, promote expression, rewire gene networks, and supply start sites for cellular machinery to transcribe long non-coding RNAs, which in turn regulate other processes. What are the odds that parasitic infections would inject just the

# THE WHOPPER SAND

**T**here's a huge deposit of sand in the deep Gulf of Mexico, and no one seems to know how it got there—except maybe Flood geologists.

Early in my career as a geologist for an oil company, we were told not to prospect in water deeper than 2,000 feet. Most offshore oil is found in sand layers sandwiched between thick layers of mud and clay, and our management believed no sand could get that far offshore, and drilling costs were too high.

However, in 2001 the BAHA 2 well was drilled through almost 7,800 feet of water and into the Wilcox Sand at the base of the Tejas Megasequence. The drillers found 1,100 feet of nearly continuous sand. This discovery shocked geologists, who termed it the “Whopper Sand,”<sup>1</sup> and paved the way for numerous nearby discoveries of billions of barrels of oil.

The Whopper Sand extends over 40,000 mi<sup>2</sup> in water depths between 7,600 and 10,000 feet, and is over 225 miles from the nearest onshore discoveries of Wilcox-equivalent sands (Figure 1).<sup>1</sup> It is commonly more than 1,000 feet thick and can be up to 1,900 feet thick. Some layers even contain a high amount of metamorphic,

volcanic, and sedimentary rock fragments, making this less like a winnowed-clean beach sand and more like a braided river sand.<sup>1,2</sup> And it is not just the extent and thickness of the sand that makes this section unique, it is also the lack of interbedded clay and mud layers. The Whopper Sand is nearly 70 percent pure.<sup>3</sup>

Several hypotheses, bordering on the bizarre, have attempted to explain this enigma. One idea argues that sea level fell close to 6,000 feet in the central Gulf of Mexico, leading to the deposition of the Whopper Sand in the resulting great depression.<sup>4</sup> Others use analogies of modern rivers and submarine canyons to explain the sand's appearance.<sup>3</sup> However, sea level dropping thousands of feet is not a reasonable cause. It is perhaps just as unlikely to claim that pure sand could travel 225 miles over a nearly flat basin floor. Modern deep-water deposits contain high amounts of clay that are necessary to maintain sand in suspension while traveling down a slope.<sup>1</sup>

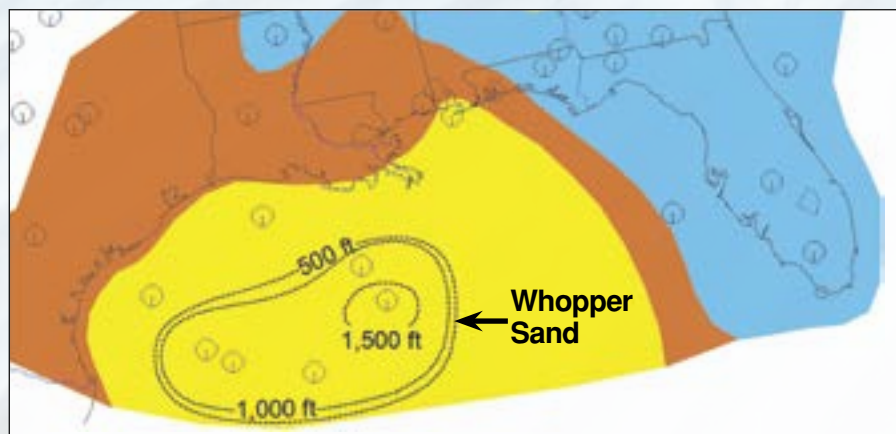
So, where did the Whopper Sand come from? The answer appears to be related to the receding stage of the great Flood (Genesis 8:3). The Whopper Sand is near the base of a worldwide sedimentary

sequence—the last of six—formed during the Flood.<sup>5</sup> Drainage across the United States changed dramatically as these layers were being deposited, with most of the water flowing toward the Gulf of Mexico.<sup>6</sup> It is logical that the floodwaters that inundated whole continents would have flowed off in catastrophic volumes. High-velocity sheet-like flow would tend to transport large volumes of sand and rock fragments first, dumping the Whopper Sand into deep water.

This type of flow would only have occurred once during the recession of the Flood's water. Today, we find mere “trickles” of flow to the deep water, transporting a mixture of clay and sand down submarine canyons. Because the Flood was global, there are likely other whopper sands to be found in deep water worldwide. ●

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**Figure 1.** Map of the basal rock units of the Tejas Megasequence. Sand is shown in yellow, clay in brown, and limestone in blue. The Whopper Sand makes up much of the sand shown in the deep Gulf of Mexico. Image credit: Davis J. Werner.

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# Q: Where Could Adam's Sons Find Wives?

BRIAN THOMAS, M.S.

**A:** According to Genesis, Adam and Eve had sons, and 1 Corinthians 15:22 teaches that all of us descended from Adam. But if they only had sons, then where did their children find the wives necessary to continue the human race? Three lines of evidence point to a good answer to this common yet perplexing question.

The first line of evidence comes from Genesis 5:4, which states, "After he begot Seth, the days of Adam were eight hundred years; and he had sons and daughters." Adam's sons apparently found wives among his daughters. While today that would be creepy and illegal, following the lines of evidence reveals that it was healthy and normal back then.

Genesis 11 contains the second line of evidence. From Noah to Abram, the numbers reveal an overall steep trend of diminishing lifespans. What caused this pattern? Mutations, which are like copying errors

in the genetic instructions for building and maintaining living things, are probably at fault. When the data are plotted on a graph, a slope emerges that resembles many similar curves showing the negative effects of genetic mutation over many generations.<sup>1</sup>

These mutations damage instructions in the DNA, slowing down or disrupting important processes that happen inside cells and thus reducing an animal's lifespan. This points to a key biological reason why Cain and Seth could have married their sisters. The first generations of people had very few mutations. Even long after the Flood, marriage between close relatives was common. Abram married his half-sister Sarah, for example. God did not declare marriage between close relatives off-limits until He gave the Law to Moses long after Abraham. Today, when we take husbands or wives who are not close relatives, we *decrease* the chances that our many stored mutations will show up as diseases or shortened lifespans in our children.

Scientists race to discover which mutations cause what diseases, and they have identified thousands.<sup>2</sup> These studies reinforce the fact that each generation suffers its own set of new mutations and inherits its ancestors' existing mutations; we each have more mutations than our parents. Genes are not improving, and new genes are not arising to replace damaged ones. Instead, mutation-caused diseases keep arising. Our DNA is definitely going downhill fast, contradicting evolution's required millions of years, but confirming recent creation.

By winding back the clock of mutational buildup, we eventually reach a point of perfect human genes.<sup>3</sup> Can you guess who had those? This third line of evidence—mutation buildup—shows that because Adam's sons and daughters had so few mutations, they could have married one another without fear of disease or the abbreviated lives that mutations bring.

Genesis 5 says sisters were available as wives, and Genesis 11 shows a decreasing lifespan that we link to mutations. Today, scientists measure a mutational buildup over time. When we wind that mutation clock back to the beginning, we find what the Bible said all along: At one time there was a perfect man and a perfect woman who raised genetically pure children. Adam and Eve's sons and daughters could have married their close relatives with no problems at all. ●

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3. However, Adam and Eve had DNA differences right from the start. Called "common variants" because they are common throughout the world, secular researchers assert that mutations caused them. However, creation geneticist Rob Carter and others see them as variants that God embedded into Adam and Eve's DNA. Mutations since the Genesis 3 curse resulted in "rare variants" that occur within family lineages and establish relatedness in forensics studies.

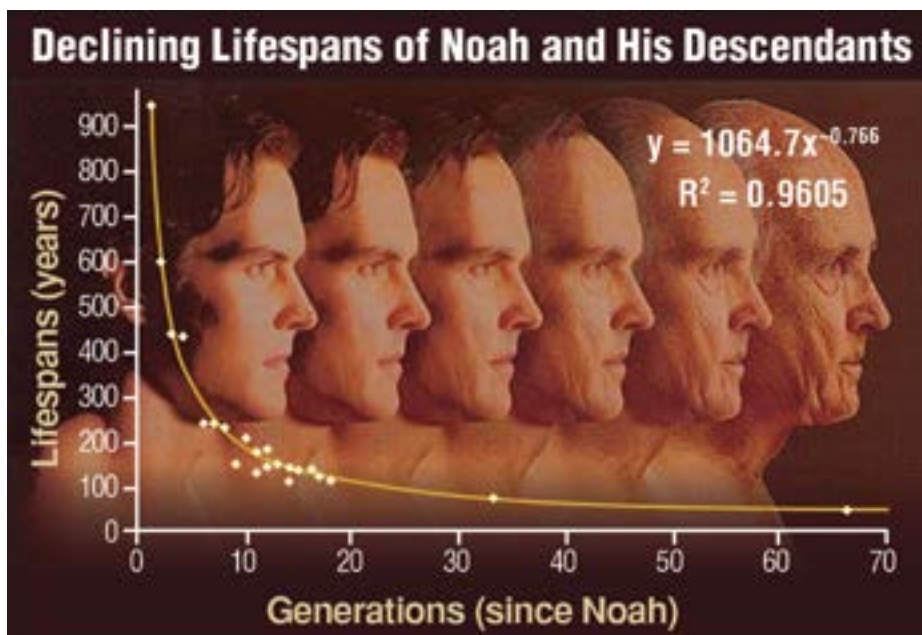
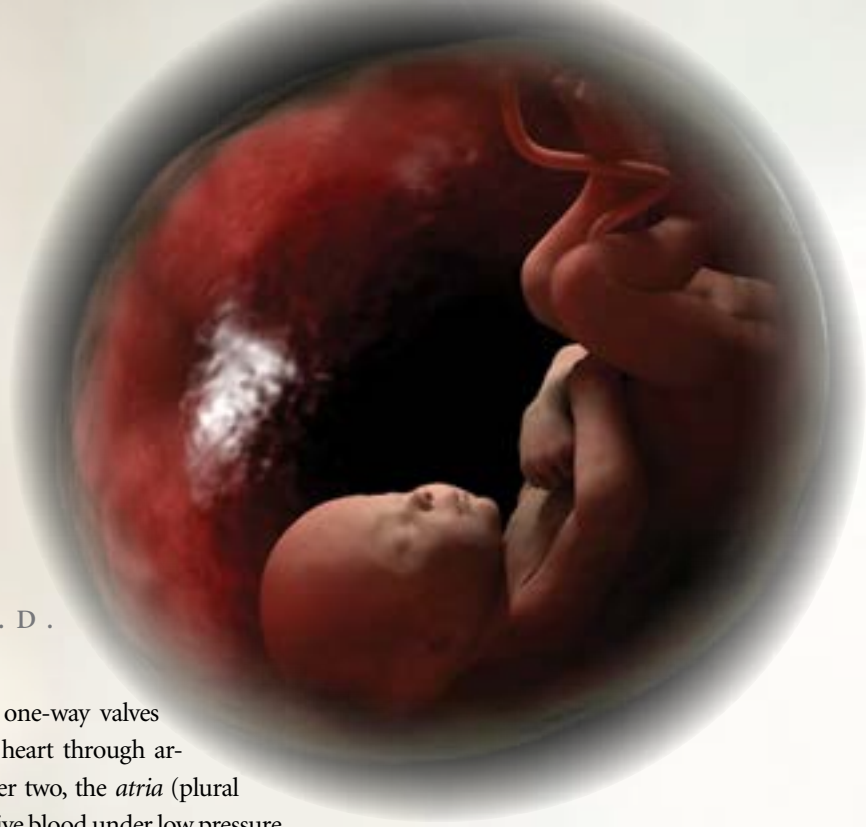


Figure 1. After the Flood, human lifespans quickly began to decline. Image data credit: Sanford, Pamplin, and Rupe, "Genetic Entropy Recorded in the Bible?"

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# MADE IN HIS IMAGE: 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* from 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 half starts blood on its circuit to the lungs, where less-oxygenated blood picks up a new load of oxygen. The left half 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.

## 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 the 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 bloodstream is adjacent to a temporary opening in the septum, where it passes through to the left atrium because



Consider Darwin's theory 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?

.....

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 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 (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 *indispensable* 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.”<sup>1</sup>

Consider Darwin's theory 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, directs, provides, and cares—indeed, everything He does is beautiful beyond description. ●

Adapted from Dr. Guliuzza's article “Made in His Image: Baby's First Breath” in the December 2009 issue of *Acts & Facts*.

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Dr. Guliuzza is ICR's National Representative.



# Genesis in Chinese Pictographs



**A**ncient Chinese pictographs are silent witnesses, like fingerprints, of historical events reported in Genesis. In particular, the details of these word-symbols are clues that point to how the earliest Chinese must have known basic facts of Genesis 1–11 at the very time their pictographs were invented.

Chinese is not an alphabet-based language—its word characters are both abbreviations of and combinations of picture symbols.<sup>1</sup> The simplest symbols are combined to construct composite symbols that denote compound words.<sup>1,2</sup> However, the actual pictures that were chosen, and especially their associated meanings, are what give us an amazing insight into Chinese history. The pictographic clues to that mysterious past have remained hidden in plain view for thousands of years.

Whereas most written languages construct words from the letters of an alphabet, the Chinese language uses *radicals* [i.e., root meaning-symbols], also called *keys*, *roots* or *primitives*, as the basic units and building blocks for the word characters. Each character contains one or more root symbols.<sup>3</sup>

The creative selection process that invented ancient Chinese characters produced the earliest form of Chinese pictographs, sometimes called *ideograms* or *oracle bone pictographs* because the texts were often carved onto bones or tortoise shell plastrons.<sup>1,2</sup>

But linguistic changes have occurred over the centuries, so pictographic analysis requires a forensic perspective, because the present is not the key to China’s linguistic past. The basic written vocabulary of the Chinese language is not being invented today, so the origin of their pictographs cannot be observed by empirical science methods.<sup>4</sup> Rather, an investigative study of how the earliest Chinese historically selected relevant symbols to denote word meanings, during the invention of their written language, requires historical cause-and-effect analysis—what forensic scientists call “cause and origin” analysis.<sup>5</sup> In this investigation, the forensic cause-and-origin question is: *Where* did the Chinese picture concepts come from—concepts that are memorialized in ancient Chinese pictographs? And a corollary question is: *Why* do these figures match Genesis history?



Chinese pictographs include many themes and associations that readers of Genesis will recognize.

esis will recognize: God the Creator; creation of heaven and Earth, including a garden; man made from earth; man with stewardship responsibility; warning provided by God, hand, and a tree; man and woman as demonstrating completeness; covetousness involving trees and woman; temptation represented by garden, trees, and devil; death involves hands, tree, and mouths; thorns indicate weeds and punishment; alienation shown through man, woman, and garden; goodness involves woman and “seed”; sacrifice is represented by God, hand, and blood; “Lord” is designated by God and blood; “me” plus sheep equals righteousness; trust/dependence is represented by God covering a couple with clothing; violence is shown by an elder brother with a mark; flood involves universal water, and “universal” is conveyed by the number *eight*, united, and earth; boat is illustrated as a vessel or container and eight people; mankind plus one mouth/speech equals a type of unity, yet that unity combined with weeds (which depict the curse) equals ambition, and that ambition plus clay/bricks equals a tower; rebellion/confusion is represented by a tongue—and the list of correlations goes on. A few visual examples of this Genesis-relevant pattern follow, but note that there are many more documented in scholarly sources.<sup>1,2</sup>

The pictographic word for “to create” in ancient Chinese is composed of the components “to speak/talk” and “walking”—consistent with the Genesis account of God using His mouth to create and Adam being created fully mature and thus able to walk, as follows.



Figure 1. “Create.”

Kang and Nelson recognize that this etymology retains information from Genesis 2:7, since Adam (whose name means “ground” in Hebrew) was made from and received the breath of life from God, and was created fully formed, able to walk and talk, etc.<sup>7</sup> Interestingly, the Chinese have a memory of a seven-day week, depicted pictographically as “the returning seventh day”—which is itself a monument to the creation week.

Recollection of the Garden of Eden is also evident in the ancient Chinese word for “garden.”<sup>6</sup>

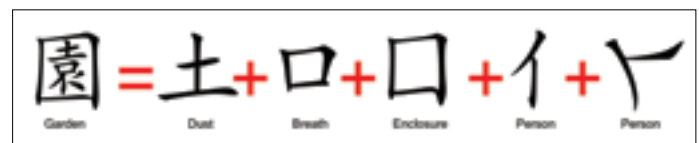


Figure 2. “Garden.”

If this does not link to the Genesis account, why else would the early Chinese combine the ideas of “two persons” who received the

During the invention of a pictographic language, creating pictographic “words” involved selecting picture symbols that were relevant and meaningful to whoever invented those written symbols. But what motifs would signify meanings that the ancient Chinese would portray about 4,500 years ago? What ideas were familiar to those who invented China’s original written language?

Since Chinese civilization began soon after the Tower of Babel fiasco, the first Chinese settlers still had a fresh memory of mankind’s origins—from creation week to the dispersion of languages at Babel. Thus, they not only knew the history highlights in Genesis 1–11, but they would also have regarded those same events as important in human history and experience.<sup>6</sup> It is unsurprising, therefore, that many of the picture-symbol characters, in the ancient Chinese language, match the thinking of a soon-after-Babel people who retained important memories of historic events reported in Genesis 1–11.

These creation-through-Babel events observed in Chinese pictographs include many themes and associations that readers of Gen-

“breath” of life after the first one of those two persons (Adam) was made from the “dust” of the earth?

Additionally, the pictographic characters for “boat” and “flood” recall information recounted in the adventures of Noah and his Ark-borne family, as recorded in Genesis 6–9. These Chinese characters recall that there were exactly eight survivors of the worldwide Flood.<sup>7</sup>



Figure 3. “Boat.”



Figure 4. “Flood.”

Although the illustrations above only serve to introduce this fascinating trove of pictographic philology (word study), they do show what forensic professionals call a “beyond-genuine-dispute” witness of God’s historic workings in Chinese history, producing a form of providential history and evidence of biblical truth.

Before concluding this fascinating study a qualification is appropriate, because this writer is not an expert in ancient Chinese pictographs. Has this author ever seen the apologetics value of these Chinese pictographs tested in the real world? The answer is yes, as a previous *Acts & Facts* article indicated years ago.

In 1990, a graduate student from communist China—raised on atheistic evolution—asked me the following question: “Why should I believe in the Bible God, the Bible is true, and God is fair, when China was never given Bible truth about God to believe?” Simply put, this young man was asking: “Why should I believe in your Bible’s God?” and “Why should I believe in your God’s Bible?”<sup>8</sup>

Recalling that I learned somewhere that the Chinese character for “flood” somehow contained the symbol for “eight,” I asked my Chinese friend to write out the Chinese word for flood, and to describe what its component symbols represented. As indicated above, his description of flood included the number eight—a fact he had no explanation for, other than he guessed that it might have once been a phonetic symbol, similar to how “4” can be shorthand

for “for” or “8” for “ate.”

Then I read 1 Peter 3:20 to him and pointed out how Genesis 6–10 reports that *exactly eight humans survived the global Flood*, a fact that perfectly made sense of the Chinese pictographs. Then, he added that the Chinese character for “boat” also contained the number eight, and he began to realize that *his own language contained latent clues that the Bible’s early history was once well known to the Chinese people.*

After further discussion about how the biblical God is a loving shepherd who seeks to secure wandering sheep into His heavenly sheepfold (Psalm 23; Luke 15; John 10), my friend concluded that, long ago, the Chinese people had known the truth about the God of the Bible, including the early history of God’s dealings with mankind as Genesis records, but that somehow this precious truth had been lost or wasted. During the wee hours of the morning, with joy in knowing that God had caringly revealed Himself to the Chinese people, my friend trusted Christ as his personal Savior, and he has enjoyed belonging to Him since (Luke 15:7; Romans 4:3; Luke 10:20).

The silent-yet-testifying witnesses of ancient Chinese pictographs, which remind us that the earliest Chinese generations knew much of what we read in Genesis, are a monument to God’s truth, preserved in simple pictographic symbols. That historically preserved truth points to the accuracy of the Scriptures, which in turn always point to and glorify the Lord Jesus Christ (John 5:39, 46). ●

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1. This study is a forensic perspective on pictographic philology. The two best overviews are co-authored by Dr. Ethel Nelson: Kang, C. H. and E. R. Nelson. 1979. *The Discovery of Genesis: How the Truths of Genesis Were Found Hidden in the Chinese Language*. St. Louis, MO: Concordia Publishing House; Nelson, E. R., R. E. Broadberry, and G. T. Chock. 1997. *God’s Promise to the Chinese*. Dunlap, TN: Read Books Publishers, which discusses oracle bones and tortoise shell plastrons on page 11.
2. Voo, K. S. and L. Hovee. 1999. The Lamb of God Hidden in the Chinese Characters. *Creation Ex Nihilo Technical Journal*. 13 (1): 81-91.
3. Kang and Nelson. *The Discovery of Genesis*, 23.
4. Johnson, J. J. S. 2012. Genesis Critics Flunk Forensic Science 101. *Acts & Facts*. 41 (3): 8-9; Johnson, J. J. S. 2014. Is the Present the “Key” to our Past? *Acts & Facts*. 43 (6): 19.
5. *United States v. Hebshie*, 754 F.Supp.2d 89, 114 (D. Mass. 2010) (discussing cause-and-origin techniques used in forensic science investigations); *Layton v. Whirlpool Corp.*, 2007 WL 4792438, \*3 (S.D. W.Va. 2007). In medical science and in other origin science contexts, the term *etiology* is often used to denote cause-and-effect history.
6. Just as modern Norwegian Sami care about snow and reindeer, and Jamaicans care about jerk chicken and reggae music, the first settlers of China cared about their cultural heritage, which included fresh memories from Babel and the oral histories of earlier events, so far as their ancestors transmitted reports of those events. See Johnson, J. J. S. 2014. Job’s Icy Vocabulary. *Acts & Facts*. 43 (12):19.
7. Kang and Nelson, *Discovery of Genesis*, 40-41 (create—see also Genesis 2:7), 54 (garden), 55 (week of seven days—see Genesis 2:2-3 and Exodus 20:11), 95-97 (boat, flood—see Genesis 6–9 and 1 Peter 3:20).
8. Johnson, J. J. S. 2010. Understanding Effective Biblical Apologetics. *Acts & Facts*. 39 (4): 8-9.



Dr. Johnson is Associate Professor of Apologetics and Chief Academic Officer at the Institute for Creation Research.





# Evolution of a Creation Scientist

Unlike many researchers working in the field of creation science, I was not raised in a strong Christian background. The occasional trip to some nominal church with my parents—my father, a successful research chemist for a large corporation, and my mother, a school teacher—was simply something we did to round out our social experience. For the most part, my secular upbringing was steeped in evolutionary science and philosophy.

During high school in Vancouver, Washington, I became very interested in biology and especially plant science. My school had an excellent two-year horticulture program, along with a very dynamic teacher who inspired me to continue my science education after graduation. After completing my sophomore year at a small, local college in 1982, I transferred to Washington State University. Biblical Christianity was definitely *not* on my agenda. However, God had other plans.

Through a set of bizarre diversions and circumstances, and thanks to the bu-



JEFFREY TOMKINS, PH.D.

reaucrazy of university housing services and the providence of God, I ended up with a Christian roommate in my dorm. He shared the gospel of Jesus Christ with me, and I ended up praying and giving my life to the Lord. Nonetheless, not long after my conversion I began having questions about evolution due to both my upbringing and the college classes I was taking.

.....  
**After reading this book, I was absolutely elated—everything made perfect biblical and scientific sense. The arguments for creation were thoroughly rock solid.**  
.....

When I first began studying the issue of origins, I acquired literature that attempted to reconcile evolutionary ideas and hypothetical long ages of time with Scripture. However, the material really did not add up biblically or scientifically, and I ended up with more questions than answers. Then I came across the seminal book *Scientific Creationism* by Henry M. Morris, the founder of the Institute for Creation Research (ICR). After reading this book, I was absolutely elated—everything made perfect bibli-

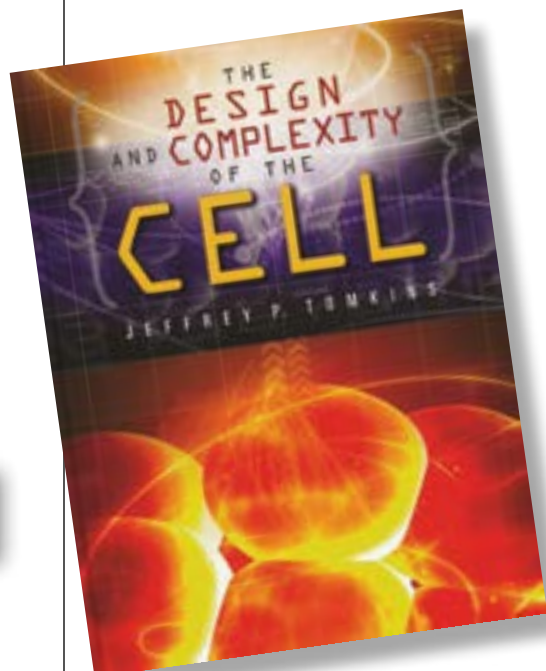
cal and scientific sense. The arguments for creation were thoroughly rock solid. I then began reading other ICR books, especially those by the late biochemist Dwayne Gish, and was completely hooked.

Regardless of being heavily influenced by these pioneering ICR scientists, never in my wildest dreams did I believe that I would some day be adding to their legacy. When I completed my B.S. in agriculture education, I went on to obtain an M.S. in plant science at the University of Idaho and a Ph.D. in genetics at Clemson University. After working as a post-doctoral scientist in genomics for several years, I became a faculty member in the Department of Genetics and Biochemistry at Clemson University—even running a highly successful genomics institute for five years.

Although in the world of academia, many modern academics claim to be open-minded about origins, evolution is definitely the prominent faith and ruling religion at the majority of universities. Despite the fact that creation science theories best explain the observable scientific evidence, they are typically not well tolerated. Thus, I generally kept a low profile during this stage of my career.

Despite years of remarkable success in research, grantsmanship, publishing, and teaching, I eventually came to realize that my talents would be much better spent working full time in the creation science arena. Taking a huge leap of faith, in 2009 I left my career in secular academics to work at ICR. The rest, as they say, is history. Now I am part of the next generation of ICR scientists leading the charge in proclaiming God's truth through the wonders of science and incredible research discoveries. ●

*Dr. Tomkins is Research Associate at the Institute for Creation Research and received his Ph.D. in genetics from Clemson University.*



Dr. Jeffrey Tomkins' book *The Design and Complexity of the Cell* provides an excellent resource that documents and explains the intricate processes of cells and demonstrates the obvious hand of the Creator. Available at [ICR.org/store](http://ICR.org/store)

# Heavenly Investments

It is an indispensable fact of human existence that we are not self-sufficient beings. Our very lives depend on procuring and consuming certain amounts of food and water, and our bodies are often poorly equipped to cope with our environment without adequate clothing and protection. But these basic necessities of food, clothing, and shelter are external to us, so we must acquire them in order to survive. It follows that acquisition is fundamental to human life—if we do not acquire, we die.

But the pursuit of such basic needs is certainly not the sole purpose of mankind's existence. While all creatures must acquire sustenance, mankind, made in the image of God, was created with much more sophisticated capacities for a far greater purpose. God first established humans as stewards of His creation, tasked with the special responsibility to study the earth and its creatures (science) and then apply that knowledge (technology, commerce) for the optimum benefit of mankind and the earth—all for His glory (Genesis 1:28). Therefore, an essential part of true biblical stewardship includes the sound investment and application of those resources God has granted to each of us.

Today, some Christians may deny

this, viewing those fellow believers who are financially motivated as temporal-minded or too focused on building “bigger barns” (Luke 12:17-19). This may be true for some, but it certainly doesn't apply to all. On the contrary, the Bible contains many examples showing our responsibility for prudent investing, and nowhere is this more clearly illustrated than in the familiar parable of the talents from Matthew 25.

In this passage, Christ tells the story of a master who gave various portions of his estate to three servants before leaving on an extended trip, expecting each man to invest what had been entrusted to him. The Scriptures do not specify how the first two servants invested, but it is clear that they did and were commended and rewarded for earning a return. The last man buried his share and incurred the terrible wrath of the master, who called him a “wicked and lazy servant” and promptly stripped his portion from him (Matthew 25:26-28). The parable portrays this simple truth: Whatever resources God has provided, He expects believers to invest and grow that portion entrusted to them.

While the parable's main emphasis pertains to the signs of a true believer and the resulting rewards in the heavenly King-

dom, it also squarely applies to the wise investment of our resources, financial or otherwise, that God has graciously provided here on Earth. The Lord evaluates service and gives rewards in relation to the believer's motivation and opportunity, calling for more from those with greater ability and resources. He rightly expects something in return, for every true believer is “His workmanship, created in Christ Jesus for good works” (Ephesians 2:10). And since “faith without works is dead” (James 2:20), a life with no evidence of good works is not a life of authentic faith in Christ.

Whatever portion God has given you—whether in skill, influence, or wealth—He calls all believers to invest faithfully in His work here on Earth. How are you managing your portion for the Lord? Why not “invest” with ICR, a ministry dedicated to the perfect Word of God and uniquely invested in the work of the Kingdom? As a ministry, we commit to steward your portion wisely and effectively for the cause of Christ so that, together, our service will lead to a rich heavenly return that will please the Master. ●

*Mr. Morris is Director of Donor Relations at the Institute for Creation Research.*



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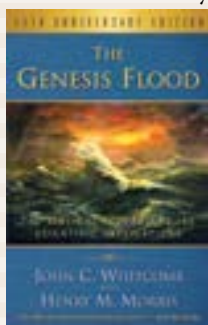


I wrote to you a couple years ago (and surprise, you printed my letter) saying I wanted to use *That's a Fact* [videos] in my Good News Club, but I was never able to figure out a way to download from your website. Hooray! You did it for me! Right inside the front cover of the January [2015] issue of *Acts & Facts!* I ordered it today. Please put all of these wonderful short videos on DVD. I will take mine to the Child Evangelism Fellowship Teacher Training Meeting to share with everyone and ask them to stock the DVD in their Resource Center.



— B.R.

This is to thank ICR for the gift *Noah's Ark: Adventures on Ararat*. I had previously read Dr. John Morris's book about his search for Noah's Ark, and this topic has always been highly fascinating for me. I have a master's and doctorate in geology from Leoben University in Austria, and I suspect that I am the only creationist geologist living in Austria. It was through reading *The Genesis Flood* [by ICR founder Dr. Henry Morris] that I decided to study geology so I could better understand the mechanisms of the Flood and its impact on the earth, sedimentation, and fossilization. I regularly hold lectures on the topic of creationism vs. evolution in Austria.



— L.G., Tragwein, Austria

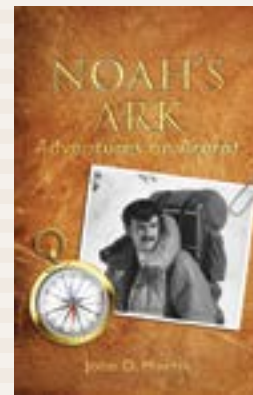
“The Whole Counsel of God” in the January 2015 issue of *Acts & Facts* was thrilling to read! YES! God's Word is the anvil that wears out all hammers that come against it.

— C.C.

We have greatly benefited from the scholarship of your ministry, beginning in 1989 when we first visited the museum in Santee, California, and attended several creation science presentations. We were blessed by Dr. Henry Morris and Dr. Duane Gish, as well as Frank Sherwin and Dr. John Morris. Now we live in New Mexico, fortunately belonging to a church that preaches six-day creation. We sent some of our men to the Shepherds' Conference, where they heard science based on the truth of the Bible from ICR presenters and returned reinforced and better armed to present to others.

— M.D.

I received the booklet about the adventure on Mt. Ararat seeking Noah's Ark [*Noah's Ark: Adventures on Ararat*]. As I read through and absorbed the diary of near-death occurrences, I was amazed at how focused Dr. John Morris and his team stayed. They never gave up, all the time seeking to give God the glory. Surely his heart was bent to have more believe—masses to believe as in Acts 4. I was wondering myself why God had not gifted Dr. John with the discovery of the Ark, and then it came to me. Perhaps, as with the hidden grave of Moses, God did not want the gravesite to be a place of worship, and perhaps the Ark would have been that as well? Or maybe, we must believe as Peter penned in 1 Peter 1:8-9, “Though you have not seen him, you love him. Though you do not now see him, you believe in him and rejoice with joy that is inexpressible and filled with glory, obtaining the outcome of your faith, the salvation of your souls.”



For certain, I know that God does not reveal everything to us, for whatever His divine reasoning is, Deuteronomy 29:29, and as well I know for certain that I am blessed with men such as Dr. John, and ICR, who *write of God's* creation and scientific evidence and lovingly document it as God's disciples. ICR is serving Him in a mighty way.

—A.V.



I got to hear your radio segment this afternoon on our Christian network station 90.1—Mars Hill [Syracuse, New York]. I wasn't expecting what I heard—a segment discussing the creation worldview. This is great new content on this station; they are a wonderful network, but the ICR broadcast was just exceptional. It is a subject our station needed. Thank you for reaching us out here! Praying for you always!

— M.K.



Thank you very much for this [Werner von Braun] article in the January 2015 issue of *Acts & Facts*. It made me recall a newspaper article about von Braun years ago which mentioned his creationist Christian beliefs. Too many do not realize there are top-notch scientists who follow Christ and oppose the evolutionist worldview.

— T.J.

Have a comment? Email us at [editor@icr.org](mailto:editor@icr.org) or write to Editor, P. O. Box 59029, Dallas, Texas 75229.  
Note: Unfortunately, ICR is not able to respond to all correspondence.

# SCIENCE CONFIRMS THE BIBLE



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## MARCH 15

### *Your Origins Matter*

10:00 a.m.

Faith Community Bible Church  
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El Cajon, CA 92020  
619.461.2245  
www.FaithSD.org



## MARCH 15

### *Science Confirms Biblical Creation*

6:00 p.m.

Skyline 6 Church  
11330 Campo Road  
La Mesa, CA 91941  
619.660.5000  
www.Skyline6SD.com



## MARCH 16

### *The Secret Code of Creation*

7:00 p.m.

San Diego Christian College  
200 Riverview Pkwy  
Santee, CA 92071  
619.201.8700  
www.SDCC.edu



## MARCH 17

### *Your Origins Matter*

6:30 p.m.

Greater Victory Church  
1045 S. 29<sup>th</sup> St.  
San Diego, CA 92113  
619.236.9041  
www.GreaterVictoryChurch.org



## MARCH 18

### *Science Confirms Biblical Creation*

7:00 p.m. (LIVE WEBCAST)

Calvary Chapel Santee  
10920 Summit Ave.  
Santee, CA 92071  
619.258.1946  
www.CCSantee.com

LIVE WEBCAST! ▶



## MARCH 19

### *The Heavens Declare! Astronomy, Cosmology & the Bible, Part 1*

6:30 p.m.

Creation & Earth History Museum  
10946 Woodside Ave. N  
Santee, CA 92071  
619.599.1104  
www.CreationSD.org



## MARCH 20

### *The Heavens Declare! Astronomy, Cosmology & the Bible, Part 2*

6:30 p.m.

Shadow Mountain Community Church  
(Lower Campus Chapel)  
Sponsored by Southern California Seminary  
2100 Greenfield Drive  
El Cajon, CA 92019  
619.201.8956  
www.SoCalSem.edu



## MARCH 22

### *Your Origins Matter*

9:00 / 10:30 a.m. (LIVE WEBCAST)

Sonrise Community Church  
8805 N. Magnolia Avenue  
Santee, CA 92071  
619.596.7667  
www.Sonrise.net

LIVE WEBCAST! ▶

