

ACTS & FACTS

INSTITUTE FOR
CREATION RESEARCH

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A Xiphactinus Dig: Excavating Clues to Noah's Flood

Amber Insect Fossils Still Glow

Comets: Signs of Youth

Introducing Dr. Randy Guliuzza,
ICR's New President and
Chief Operating Officer

50 Years Of
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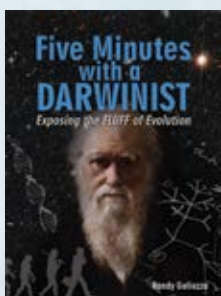
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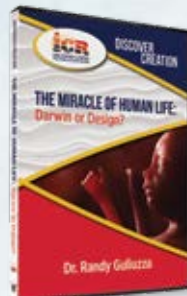
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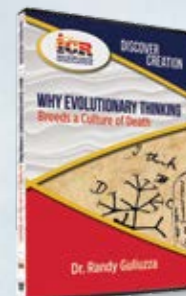
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Front cover: *Xiphactinus*
Image credit: Julian Johnson-Mortimer



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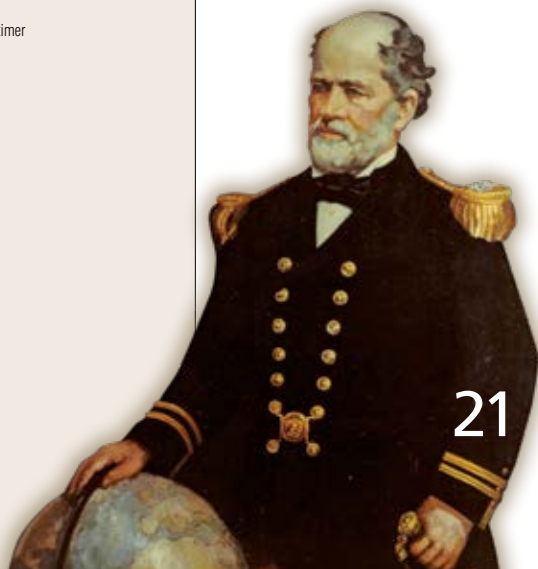
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God's Mysterious Ways



Have you ever found yourself wondering what God was up to? When life took an unexpected turn, you may have gone through difficult circumstances. Or perhaps you encountered situations that just didn't seem to make sense. With all that's going on in the world right now, we can probably all connect with this kind of experience in some way. Sometimes it's hard to see where the road is leading, and we're only able to focus on the next step.

If you can relate, you'll be encouraged to read our feature article this month, "Introducing Dr. Randy Guliuzza, ICR's New President and Chief Operating Officer" (pages 5-8). In it, ICR editor Christy Hardy tells how the seemingly unrelated circumstances of Dr. Guliuzza's life worked together over the years to prepare him to be

the leader of ICR today. Dr. Guliuzza's testimony should encourage each of us that God is actively at work in our lives, even if we don't yet see what He's accomplishing in the current season. Whatever His plan is, we can be confident He'll orchestrate the details with a result that will be far more wonderful than anything we could've ever imagined. That's our God.

The ICR Discovery Center for Science & Earth History is certainly a demonstration of God's mysterious ways. When I think about the years it took for ICR to plan, fund, and build this facility, I'm reminded of all the times we wondered what God was up to as we encountered unforeseen barriers. But the things that once stood in the way are a distant memory—we now experience the joy of greeting many visitors

who are eager to learn more about God's work in creation.

We couldn't have accomplished all of this without God's provision through many of you. Your faithful support as you prayed and gave generous gifts helped us bring this facility to completion and allows us to share God's Word with many more people. We're amazed at God's work through each of you—thank you for your precious friendship!

This past year of welcoming you to the Discovery Center has been enriching—you've shared your stories of faith and how you came to understand biblical creation, and we've been blessed. We look forward to welcoming you again as we commemorate the one-year anniversary together during the first week of September (see page 16). Please also visit ICRdiscoverycenter.org for DC event updates about our week-long anniversary celebration. Many special activities are planned, and we hope to see you here!

We've witnessed God's mysterious ways as He has sustained the Discovery Center—and ICR—through a year of unexpected trials, including the pandemic and temporary shutdown. We're left in complete awe at how He has held everything together. As Christy Hardy writes in the feature article, "As believers we can often trace God's hand through the seemingly mundane moments and unforeseen events in our lives." That's our God. We've witnessed the work of His hands. Come celebrate God's goodness with us.

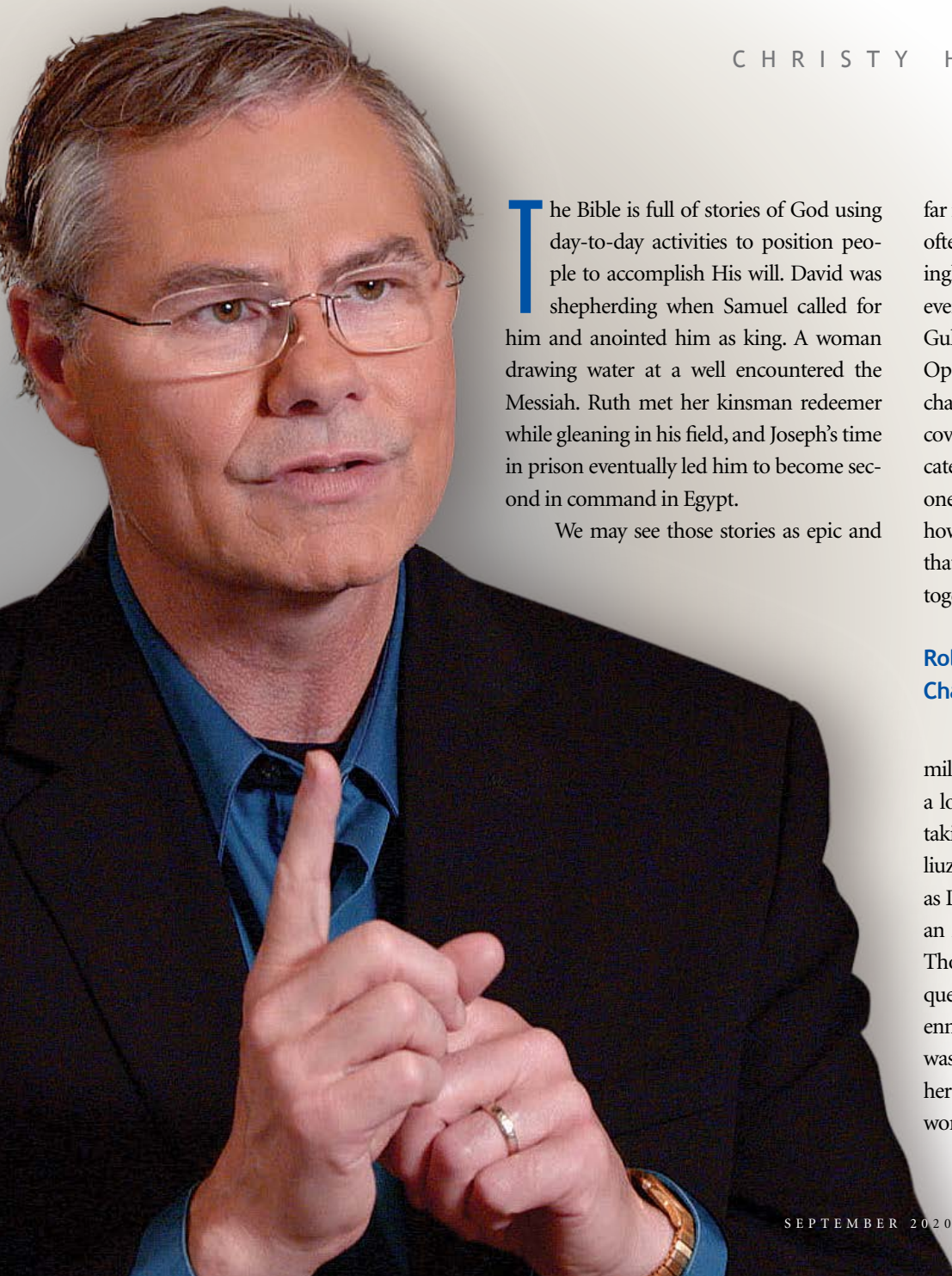
Jayme Durant
EXECUTIVE EDITOR

I N T R O D U C I N G

Dr. Randy Guliuzza,

ICR's New President and Chief Operating Officer

C H R I S T Y H A R D Y



The Bible is full of stories of God using day-to-day activities to position people to accomplish His will. David was shepherding when Samuel called for him and anointed him as king. A woman drawing water at a well encountered the Messiah. Ruth met her kinsman redeemer while gleaning in his field, and Joseph's time in prison eventually led him to become second in command in Egypt.

We may see those stories as epic and

far removed from us, but as believers we can often trace God's hand through the seemingly mundane moments and unforeseen events in our lives. The story of Dr. Randy Guliuzza, ICR's new President and Chief Operating Officer, is no exception. From a change in his high school schedule to a discovery in his college library, from his dedicated service in Iraq to his friendship with one of ICR's early leaders, his life displays how God can weave all things—even those that seem coincidental or disconnected—together for His ultimate purposes.

Roller-Skating, Evangelism, and a Changed Life

Regular *Acts & Facts* readers will be familiar with Dr. Guliuzza's articles, but there's a lot more to the story of this man who is taking the helm as ICR's new leader. Dr. Guliuzza—known to many ICR staff members as Dr. G—grew up in a close-knit family on an Air Force base in Cheyenne, Wyoming. Though military families are known for frequent relocations, his family stayed in Cheyenne throughout his childhood. His mother was a homemaker and dedicated mother to her three children, and his dad was a hard-working Air Force master sergeant.

When asked about his upbringing, Dr.

G said, “I had a great home, with great parents, loving parents. But neither one of them really knew the Lord and did not teach us biblical things or even go to church, so that was pretty much left to us to decide by the time we reached high school. I had a great home, but we were missing that Christian element.”

In high school, Dr. G was a big fan of woodshop class, held every day during lunchtime. But due to a change in the schedule one year, he transferred his interests from woodshop to a girl named June sitting at the lunch table. Unknown to him, she had recently become a Christian and was passionate about her newfound faith. He asked her out on a date, and she agreed to go roller-skating with him as long as he went to church with her the next day.

Viewing this as a guaranteed second date, he complied. He said, “She went to a good, Bible-believing church where I heard the gospel. Between her constant witnessing on every single date, the Bible she gave me for graduation from high school, the great teaching I was receiving from Sunday school classes and preaching from the pulpit at her church, I repented of my sin and came to faith in the Lord Jesus Christ right after I graduated from high school in 1977.”

And what happened with his bold, Bible-believing skating partner? She’s now his wife, and they’ve been serving the Lord happily together for 42 years.

Magazine in the Moody Library

Higher education has played a significant role in Dr. G’s life. After high school, he moved to South Dakota to study mining engineering at the South Dakota School of Mines and Technology. He took a lot of geology courses, but after the second year he and June felt the Lord was leading them into ministry, so they transferred to Moody Bible Institute in Chicago. Dr. G. said, “What a change that was!...It was really transformational in my life with Moody. I picked up so much education in theology, but mainly I read for the first time the *Acts & Facts* newsletter, and that changed my life.”

That newsletter later became the creation science magazine ICR publishes today. Dr. G had always had an interest in science. In fact, according to his mother he was interested in science before he even knew what it was. She often related the story of him at two or three years old sneaking off to another room to take apart her sewing machine. “She said I would methodically disassemble it, laying all the parts out in a row piece by piece, and much to her pleasure at my interest in science and her dismay at my disassembling her machine, that has always been the case. In fact, science for me has always been my favorite course growing up.”

But finding a copy of *Acts & Facts* in the Moody library changed his view of science and the Bible, and eventually the course of his life. Growing up in a secular culture, he was taught evolutionary theory and believed in it strongly even after he became a Christian—that is, until discussions with fellow Moody students began to raise questions in his mind.

His increasing skepticism about evolution was cemented with the discovery of *Acts & Facts*. He encountered what he said were “two very clear articles, well-written and very concise.” One was about the origin of life and the other about how fossils found today are almost identical to their living counterparts and haven’t changed in supposedly millions of years. He said, “It changed my thinking about evolution—not over a long conversion but in a moment....I sat stunned in my chair thinking, ‘Evolution is wrong—I’ve been lied to,’ and I became devoted and passionate about creation science ministry on the spot.”

In the final year before his graduation from Moody Bible Institute, he needed advice about his next step in starting to work in creation science ministry. Eager to get going, he called the operator in the San Diego area to get ICR founder Dr. Henry Morris’ number. Dr. Mor-

ris encouraged him to finish his engineering education and indicated that the recruitment and training of younger scientists was one of his highest priorities.

So, at Dr. Morris’ recommendation, Dr. G returned to the South Dakota School of Mines and Technology and finished his mining engineering degree. He then worked as an engineer for 10 years in the Navy on the islands of Sicily and Guam, where he managed the construction of an ammunition wharf that’s still in operation today.

An Unexpected Friendship

From that point on, many of Dr. G’s educational decisions were guided by the advice of ICR’s early leaders, who knew of his desire to ultimately devote himself to creation ministry. At an ICR ministry camp, he met creation scientist and renowned debater Dr. Duane Gish. They ended up talking for several hours, and over the next 10 years he continued to cross paths with Dr. Gish, sometimes at events but also at the airport or other unexpected places. “We became fast friends, he took a liking to me, and he began to groom me for the creation science ministry.”



Mentoring from a creationist pioneer. Dr. Guliuzza with Dr. Duane Gish in 2012.

Dr. Gish became his most influential mentor. Dr. G said, “It was through the fact that one man was interested enough and dedicated enough that he would invest his time in me, and he pointed me toward ICR, giving me advice all along the way.” At Dr. Gish’s recommendation, he transferred to medical school at the University of Minnesota. Upon completion of his doctor of medicine degree, he joined the Air Force and served as 28th Bomb Wing Flight Surgeon and Chief of Aerospace Medicine for about nine years.

Saving Lives and Battling for Truth

Dr. Guliuzza was sent to Iraq several times. During one deployment, he served at an Air Force emergency medical clinic stationed on the airport runway in downtown Baghdad. He treated casualties from the battlefield and stabilized them so they could be transported to the hospital for more critical and long-term care. On another assignment, he assisted with the flight transfer of those patients to the hospital in Germany. Thanks to medical and technological advancements, transport was so rapid that he and his colleagues were able to save many servicemen with injuries that would have guaranteed their deaths in previous wars.

When asked what he learned about God while he worked in such extreme conditions, Dr. G said, “It revealed to me that everyone eventually becomes a believer in God in those situations. Clearly, not everybody is a Christian who is transferred to Iraq...but



Hands of a healer. On a tour during Iraqi Freedom, then-Lt. Col. (Dr.) Randy Guliuzza examined a girl at a Baghdad clinic.

Image credit: Master Sgt. Randy L. Mitchell, U.S. Air Force

for people who have to go out every day and mostly at night—we did a lot of our fighting at night—it can be a frightening situation. And so I met a lot of those soldiers, not necessarily in the medical clinic, but I met them in the chapel.”

In fact, at the request of the Air Force chaplain, Dr. G. taught a series of messages on creation science. His topics included the importance of the doctrine of creation to the church’s mission, a critique of the evidence for evolution, the design features of the human visual and reproductive systems, and a session on geological time. It was well-attended by many soldiers who were intrigued to hear things about science and the

Bible that they had never heard in public school. According to Dr. G, being at war “was certainly a time where they took God seriously.”

He was able to introduce several soldiers to the Lord, including an Iraqi physician who was

under his mentorship to become a flight surgeon. Dr. G said, “I was able to talk with him at length one day and point him to the Lord Jesus Christ. About a year later, after I transferred home, I got a call from him. He was anxious to tell me he had become a Christian.”

When Dr. G returned home from his deployment, Dr. Gish heard about his series of creation science messages in Iraq, and ICR ran a feature story about it in the February 2006 issue of *Acts & Facts*,¹ the very publication that had initially stirred his interest in creation science.

During his time practicing as a physician in the Air Force, Dr. G earned a Master of Public Health from Harvard University. Some of the most useful experience he gained in that was analyzing technical papers, mostly medical, to find where the authors’ research was good and where it was flawed. He met with then-ICR President Dr. John Morris, who allowed him to do a speaking tour for ICR at various churches in northern Texas and southern Oklahoma. He also participated in some debates that Dr. Gish had arranged.



Wild blue yonder. Air Force Flight Surgeon Dr. Randy Guliuzza training in an F-16.



Dr. Guliuzza outside the USS Haleakala after completing the ammunition wharf during his time with the Civil Engineer Corps in Guam

Examining Life with an Engineer's Eye

Though creation ministry was Dr. G's long-term goal, his plan was to start working for ICR around the time he was eligible to retire from the military. When the wing commander approached him about the next job to consider after his current assignment, the opportunity would have extended his time in the Air Force several years past his eligible retirement date. Dr. G strongly considered it, but around that time June became seriously ill with an aggressive cancer. Since ministering with ICR was a goal they both shared and June had made a number of sacrifices in order for Dr. G to prepare to work for ICR, he decided to retire from the Air Force so she could experience at least some time in the creation science ministry—even if it was only for a brief while. After visiting and interviewing with ICR CEO Dr. Henry Morris III, Dr. G accepted a position at ICR in 2008. Thankfully, since that time June has been in remission.

Dr. G has spent most of the last 12 years as ICR's National Representative, writing for ICR publications, contributing to ICR video projects, and developing a theory of biological design to explain how creatures rapidly adapt to changing environments. Part of the groundbreaking nature of the theory is that he's conducting the research from a biblical perspective rather than an evolutionary one and viewing biological systems with an engineer's eye rather than the expectation

that organisms developed their traits through trial and error. His unique combination of education and experience has helped him greatly in this endeavor. He said:

All through the time I was going to medical school, I believe I was looking at functions very differently than many of my colleagues. As I was going through, I could clearly see

systems that were operating by engineering principles, and I could see a really, really tight correlation between the function of biological entities and the operation of really sophisticated man-made design....The Lord knew what He was doing through all those years of education and getting those degrees in theology, engineering, and medicine that have helped me in this research.

In addition to his other work, Dr. G has been a prolific speaker at churches, conferences, and seminars throughout the United States. Since he personally experienced a revolution in his beliefs about God, science, and the Bible, he is well able to connect with those who are struggling to reconcile their own beliefs.

His credentials also help him to dismantle barriers to faith for those who think that belief in God must be anti-science. Even with his extensive education in scientific fields at secular universities, Dr. G said, "My view of science has probably come down, realizing that it can be abused, and my view of the Bible has gone up, recognizing that it really, really is accurate, and it is so full of wisdom that I just hold it in awe and respect."

Looking Ahead

Dr. G believes that "the doctrine of creation is the basis for every important doctrine that we have in the Bible." He said, "The Bible tells us who God is. The Bible states right at the very beginning that God

is the Creator. 'In the beginning God created.' So, first and foremost, above all things, God is the Creator and the Originator of all things. So, we build from that."

As he takes the helm as ICR President and Chief Operating Officer, Dr. G's greatest hope in the coming years is to see a second creationist revival much like the creationist movement initiated by Dr. Henry Morris when he co-wrote *The Genesis Flood* with Dr. John Whitcomb. "[Dr. Morris] put together a model which explained geology so clearly, so concisely, so cleanly that it was compelling for people to believe it. And it helped pastors have confidence in the Bible."

Since ICR has already developed a strong model of geology, Dr. G. wants to see the ministry focus on continuing to establish a strong model of biology. When asked about his vision for the future, he said:

I would love to see ICR become a leader in helping pastors and Christian leaders see biology in a completely different light, in a way that they have never seen it before, and that it will build their faith and strengthen their belief in the Bible as authoritative and accurate. And that will help them to lead their people to completely trust it and to obey it.... If we can have ICR leading the way in a second creationist revival, and we're doing that by developing a solid theory of biological design, that would be a major accomplishment.

In viewing Dr. Guliuzza's journey from the days he took apart his mother's sewing machine to the launch of his leadership at ICR, it's amazing to see how God has brought his gifts, education, relationships, and experience together to make him such a good fit to lead ICR into the next chapter. God is truly weaving all things for good, and we look forward to seeing the good He will bring through ICR, Dr. Guliuzza, and creation ministry in the coming years.² ✉

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1. Staff Writer. 2006. Creation and ICR in Iraq. *Acts & Facts*. 35 (2).
2. Go to ICR.org/meet-dr-g to access the full podcast interview with Dr. Guliuzza, a video of his personal testimony and more.

Ms. Hardy is an editor at the Institute for Creation Research.





Creation Q&A Live!
 Streamed on Facebook Live every Friday at 10:00 a.m. Central
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Explore the wonders of God's creation in our exhibit hall and enjoy stunning planetarium shows and live science presentations. We'll have food trucks, hands-on science experiments, a petting zoo, and more! Each day offers fun and unique experiences, so be sure to check the event schedule and get tickets at [ICRdiscoverycenter.org](https://www.ICRdiscoverycenter.org).

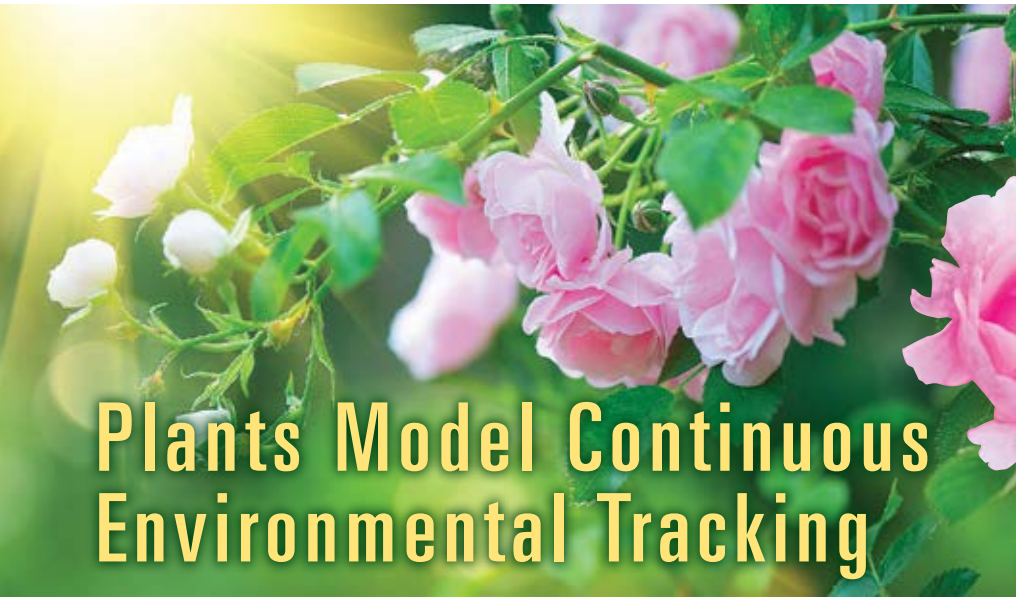
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North Texas Giving Day is September 17! Your generosity will empower ICR and the Discovery Center to help families, children, and students discover how science confirms creation. This 18-hour online giving event draws support for North Texas nonprofits through one easy-to-use website. Please visit [ICR.org/ntgd](https://www.ICR.org/ntgd) to offer a gift of any amount. Partner with us as we equip North Texas and beyond with the scientific evidence that confirms the Bible's accuracy and authority.



How will your gifts impact ICR's ministry?
 Every dollar sent, prayer lifted up, and post shared online is a blessing to us and hundreds of thousands of believers around the world. Today's donations will help ICR produce biblical science resources, host live events, and spread the word about the ICR Discovery Center for Science & Earth History.

Providing a safe and enjoyable experience is a priority for ICR, and we are closely monitoring the COVID-19 novel coronavirus situation. Since the public health recommendations are changing on a frequent basis, please check [ICR.org/events](https://www.ICR.org/events) for the most up-to-date event information. If you have questions about a specific event, please send an email to events@icr.org or call **800.337.0375** and press 6.



Plants Model Continuous Environmental Tracking

- Like animals, plants possess continuous environmental tracking capabilities.
- Plants sense and respond to light, gravity, physical touch, and moisture.
- Although plants may appear simple, they have sophisticated systems that allow them to thrive in a variety of conditions.

article highlights

All plants and animals were divinely engineered with innate systems of adaptation that track various aspects of their environment and respond accordingly—an internal ability known as *continuous environmental tracking*.¹ While animals, including humans, display intricate adaptive systems, plants cannot get up and move around as a means to adjust to their environment. They have to adapt to their surroundings where they are planted. Therefore, the Creator has engineered them with amazing systems that sense and respond to important environmental cues such as day length, light quality, temperature, water availability, gravity, touch, and even chemical signals emitted by other organisms.

We live in a world of seasonal and other environmental fluctuations. When it comes to growing, flowering, and produc-

ing seed, timing is everything for plants. In many climates that aren't near the equator, growth and flowering processes can occur effectively during only certain times of the year. Plants adapt to these seasonal changes by tracking both day length and temperature through an elaborate network of integrated photoreceptors and temperature-sensing mechanisms.² For example, the longer and warmer days of spring trigger light and temperature receptor proteins in plant leaves, turning on a host of flowering and reproductive activity.

Plants also respond to light in such a way that their shoots grow toward light (called *phototropism*). Many people have put a houseplant near a window and noticed that the plant will bend or grow toward it. Not only do the photoreceptors of a plant allow it to monitor seasonal day length (*photoperiod*), they also monitor light intensity and quality (ratio of red to far light). These photoreceptors trigger an increase in growth in the cells farthest from the light, causing the plant to bend toward it. If a plant is located in a densely populated group of plants, it will grow tall and lanky to reach the light, compared to a shorter and more compact shape if there is more distance between it and its neighbors.

Did you ever wonder how plants

know how to grow upright? They do this by special gravity-sensing carbohydrate granules that orient themselves in cells according to the earth's gravitational field. This gravitropic mechanism then triggers targeted gene activity and growth to cause the plant to grow perfectly perpendicular to the earth's surface.

The growth response in plants to physical touch is known as *thigmotropism* and occurs via mechanical sensors. This is how vines are able to sense and curl around structures and perform a climbing action. The response is similar to what occurs when plants bend toward light and involves a coordinated increase in growth on one side of the plant. Plants will also alter growth based on the force of wind patterns. Although not necessarily considered a thigmotropic response, plants also sense when insects chew on them and will even release airborne chemical signals to warn their neighbors of the attack.

Water is important to all life, but plants cannot walk over to a stream to take a drink. They have to respond to both humidity in the air and soil moisture. Based on a number of sensory systems in leaves and roots, plants exhibit both rapid and long-term responses. A rapid response would include the dynamic opening and closing of specialized portals called *stomata* on the lower surface of leaves. A long-term effect would be the alteration of root growth traits to maximize extraction of soil moisture.

There is no simple life. Even basic plants demonstrate the incredible design and engineering of their Creator. ❧

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2. Plant Sensory Systems and Responses. Lumen. Posted on courses.lumenlearning.com, accessed July 6, 2020.

Dr. Tomkins is Director of Research at the Institute for Creation Research and earned his Ph.D. in genetics from Clemson University.





A *Xiphactinus* Dig: Excavating Clues to Noah's Flood

Image credit: Julian Johnson-Mortimer

article highlights

- ICR helped excavate a *Xiphactinus* fossil in Kansas this past June.
- The sedimentary layers in that area are connected to layers that extend over thousands of miles from New Mexico to Manitoba.
- The fossilized *Xiphactinus* appears to have died a violent death, which is only one of the clues that point to its entombment in the Genesis Flood.
- The rock and fossil features of our find clearly fit the global Flood described in the Bible.

A fossil dig team was just finishing its last day of excavating a two-meter-long extinct fish on a private ranch in Kansas. As dusk began to settle on the prairie's badlands, two team members traced some vertebrae embedded in the hillside. They quickly scraped off sediment to uncover something even bigger. They just had to come back and excavate this fantastic find!

ICR took the opportunity to assist them with this dig in June 2020. Rock and fossil features that fit the Flood model of Earth's history became clear through this one-of-a-kind experience. The excavation took place in an outcrop of the Smoky Hill Chalk member of the Niobrara Formation, whose rock layers are famous for fossils of fish, giant clams, and flying reptiles. Each rainy season or even a

rainstorm can erode sediments to expose new fossils.

The excavation team’s first step involved clearing a wide space around the vertebrae, looking carefully for fossilized bones. The sediment was soft enough for wooden chisels and brushes to remove it. Soon more bones emerged. By the first afternoon, we’d exposed long bones, skull remnants, one tooth, and some mysterious dark residue. After we’d uncovered over 40 associated bones, we felt sure this was worth the work.

Rocks and Fossils of the Region

The most abundant vertebrate fossil from this region is probably the famous fish named *Xiphactinus* (*zeye-FACT-in-us*), which is what we found. Many fossil museums have one mounted in their halls. The rarest specimen includes a swallowed fish inside an enormous *Xiphactinus* rib cage. *Xiphactinus* looked like a tough fish with its big, toothy mouth.

Flying reptiles were buried among these fish, along with clams, sharks, mosasaurs, plesiosaurs, turtles, birds, and a few dinosaurs.¹ Few (if any) creatures that lived on hard ground—like camels, dogs, or deer—died in the carbonate muds that would become the Niobrara Chalk. Wetlands creatures landed here, like those in other rock layers with similar age assignments and fossils.² Where on Earth today do sea, swamp, and sky creatures get fossilized together in mud? Nowhere. These rocks and their fossils demand a broad-reaching watery catastrophe.

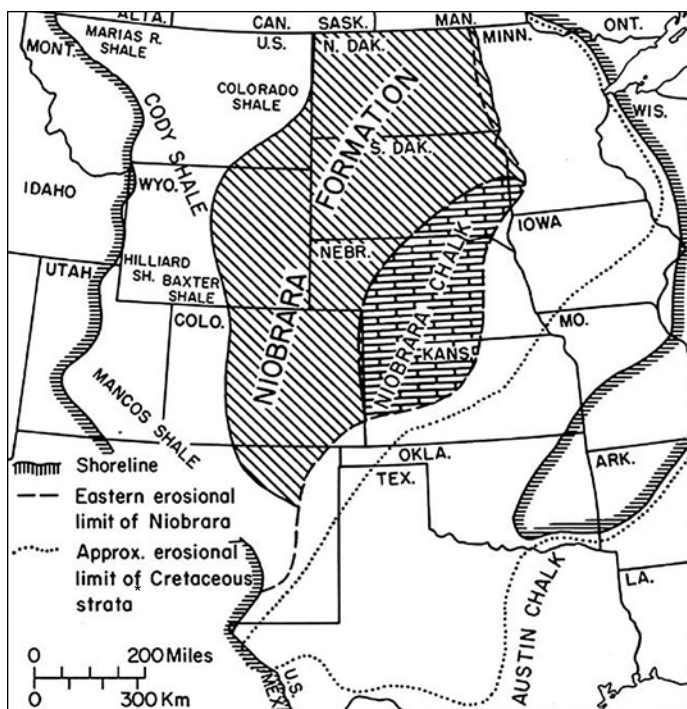


Figure 1. Aerial extent of the Niobrara Formation

Image credit: Donald E. Hattin⁴

*“Cretaceous strata” refers to sediments deposited near the middle of the Flood.

But how broad? Figure 1 reproduces a 1982 map by Donald Hattin of the Kansas Geological Survey that shows the extent of the Niobrara Formation in the United States. But members of this same rock system extend beyond this map from the Gulf of Mexico to Arctic Canada. Outcrops contiguous with the Niobrara take various names in different areas, including Mesa Verde Formation in southern New Mexico, Niobrara Shale Member in northern New Mexico, Mancos Shale in Colorado, First White Specks in Montana and Canada, and again Niobrara Formation in Manitoba. Something deposited all this layered sediment at the same time. Noah’s Flood comes to mind.

Many outcrops of the Smoky Hill Chalk show its characteristic gray-colored layers below light tan layers. The gray rocks have thinner layers than the tan rocks above them. Where on Earth today do the same coloring and layering patterns get deposited across thousands of square miles? Nowhere.

The layers immediately above and below our *Xiphactinus* fossil varied from about one to four centimeters thick. Where today do muds get deposited in layers that stay undisturbed until the mud hardens into rock? It happens at sites of catastrophe. For example, mudflows at Mount St. Helens in the early 1980s deposited layers that are still visible today. Similarly, high-energy marine shelf gravity flows deposit layers with sorted grain sizes, just like those seen in shale rocks on land.³ Smaller storms may deposit layers in streambeds or river deltas, but animals disturb these surface layers within just a few months. No creatures disturbed the Niobrara’s layers. This suggests a very widespread watery catastrophe.

Where did all the mud come from that ended up spread across the west in the Niobrara chalks and shales? Geologist Donald Hattin wrote, “The Niobrara Chalk of Kansas represents deposition of carbonate-dominated muds far from the major, western sources.”⁴ Plenty of fast-moving water must have carried the many grains a long way. Today’s rivers can carry sediment for miles, but they deposit those grains in narrow riverbanks or fan-shaped deltas where river meets sea. In contrast, the Niobrara Formation is many times larger than the world’s largest river deltas. Where is the familiar fan-shape of river deltas? Figure 1 shows no such thing. Clearly, some unusually immense process deposited the Niobrara. The Flood of Noah fills the bill.

The Big Fish

Figure 2 shows the upper surfaces of 48 bones exposed during our excavation. At first, we hoped it might be a *Pteranodon*, but fossil prep back at the lab revealed more bones beneath these 48. By carefully removing matrix from around the topmost bones using a dental pick, a preparator revealed a big *Xiphactinus* maxilla (jawbone) with teeth, shown in Figure 3.

Some of the fossil’s vertebrae remained aligned, but a few were displaced and some were squished. Long bones emerged during ex-



Figure 2. Fossil bones exposed within the Smoky Hill Chalk of Kansas

Image credit: Brian Thomas



Figure 3. The enhanced outline of bones including the maxilla and its teeth uncovered in the lab shows a fish fossil

Image credit: Scott Arledge

cavation from the left but not the right side of the main body. All the bones lie in a single layer approximately three centimeters thick. In life, this fish had an operculum bone that covered its gills. Our fish's operculum had been shoved about 40 centimeters away from its head. Overall, it looks like forces folded, flattened, and flung apart this *Xiphactinus*. It did not die a peaceful death.

The tortured state of its remains contrasts with secular imaginary fossilization scenes of placid fish that sank to the bottom of some ancient calm sea. In which of today's seafloors do fish or bird remains get fossilized? None. They get eaten with haste. Why didn't these creatures fall prey to scavengers? Rapid entombment in mud explains fossils. Forcibly folded and flung-apart fossils imply the violent waters that the year-long Flood of Noah would have supplied.

Our fossil's excavators carefully brushed sediment from the upper and side surfaces of the exposed bones. We added polyvinyl acetate (glue) to bones to keep them from crumbling. Distinguishing bone from matrix in person is easy, but these bones can be hard to see in photographs. The glue's gloss helped set the bones apart for clearer pictures (see Figure 2).

The excavated area took a rounded shape of about 140 × 120 centimeters. We divided this area into four smaller plots, each removed separately. Figure 4 shows the author and the fossil's discoverer trenching out a smaller plot within the fossil area. The inclusion of much of the matrix surrounding each fossil region plus the added plaster casing combined to make very heavy packages. The largest package included the spine and head. Five men struggled to carry it up the hill to a vehicle some 25 meters away from the dig site.

One of the team members spotted a shark tooth between, but one thin layer below, the long bones and fish vertebrae. The tooth resembled that of the modern-day dusky shark. Another lemon shark



Figure 4. The author (left) and the fossil's discoverer (right) use patches (hammer picks) to remove matrix from beneath the fossil.

Image credit: Brian Thomas

look-alike tooth lay on the ground not far away. Some animals in the fossil record went extinct, but others look the same today. These fossils show no evolution—just extinction or sameness.

Our team also found fish coprolites. These once-soft animal waste fossils now look white, feel chalky, and are about the diameter of an adult human finger. Where do coprolites form today? Nowhere. The preservation of such fragile organic material suggests rapid burial and rapid drying. Left wet, bacteria would have degraded it long before it had a chance to absorb minerals and harden. The year-long Flood of Noah’s day gives a sensible context in which to place these clues.

Plenty of shrub roots penetrated the rock layers surrounding the *Xiphactinus* fossil. Figure 5 shows team members removing shrubs at the dig site. Several roots traveled parallel to the long bones, and rootlets wrapped around various fossil bones more densely than in the surrounding sediment. Plant roots use chemotropism to grow toward nutrient sources. That means the bones still have nutrients in them that these plants seek.

These root associations show that some of the original bone chemistry—and possibly even biochemistry—might remain. If so, then these bones have not lain in the ground long enough to completely decay and dissolve. Nor have they totally turned into rock. In either of those cases, roots would ignore them. The Bible’s timing for the Flood only thousands of years ago would account for still-nutritive, fresh-looking fossils.⁵

Learning from a Dig Experience

This fossil fish got trapped in mud along with sea creatures like sharks and clams. Gray mud layers fell first, then tan mud soon after, and this pattern stretched across hundreds of miles. No common processes produce such widespread patterns, so an uncommon process must have done it. The extent of the Niobrara matches the Bible’s Flood description: “And the waters prevailed exceedingly on the earth” (Genesis 7:19), and “the world that then existed perished, being flooded with water” (2 Peter 3:6).

Catastrophic flooding explains the thin layering within the Smoky Hill Chalk. Time would have given mud-dwelling creatures the opportunity to churn up such layers, whereas a catastrophe would have buried layers deep enough to avoid those creatures. The Flood’s implied violence explains smashed and separated fish bones. The fact that fossils exist at all speaks to rapid entombment through the Genesis Flood, which took only 150 days to cover the highest pre-Flood lands (Genesis 8:3). Coprolites suggest that this unique watery catastrophe did not linger like a supposed Western Interior Seaway would have.⁶ Apparently, microbes didn’t have the time or moisture to degrade the fish excrement. It looks as if “the waters subsided” (Genesis 8:1), allowing it to dry.

How long have these *Xiphactinus* bones been underground? The secular world assigns an evolutionary age of over 85 million years to the Smoky Hill Chalk, but the biblical Flood happened about 4,500

years ago.⁵ The fact that plant roots still seek nutrients from these bones shows their youth. Each aspect of this splendid fossil and its surroundings confirms the global Genesis Flood. 🌿

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Figure 5. Workers remove shrubs from the dig site. The shrub roots grew around the still-nutritive bones, which implies recent bone burial.

Image credit: Brian Thomas

Fossilized tree resin is called amber. Its translucent sheen and natural beauty have been appreciated for centuries. Amber is mentioned four times in Scripture, such as in Ezekiel 1:4:

Then I looked, and behold, a whirlwind was coming out of the north, a great cloud with raging fire engulfing itself; and brightness was all around it and radiating out of its midst like the color of amber, out of the midst of the fire.¹

In the pre-Flood world, animal and plant material was caught in the sticky resin that solidified into amber.

Many of these specimens survived the global Flood that happened around 4,500 years ago. Worms, frogs, lizards, crustaceans, spiders, and insects such as bees and cockroaches have been discovered, many remarkably preserved and all within their individual created kinds. For example, a class of mollusc called a *gastropod* (i.e., snail) complete with soft tissue, “exceptional soft-bodied preservation,” was found in mid-Cretaceous amber—about 90 million years old by evolutionary dating.² Even an amber-encased bird³ and a snake⁴ have been found.

Recently, paleontologists made a rare find in northern Myanmar (also known as Burma)—three fossil insects entombed in amber.⁵ What makes the discovery amazing is that according to the evolutionists the wasp, beetle, and fly were 99 million years old but “their true color could be identified.” The insects have “iridescent structural hues,” or fine colors produced on the surface of their bodies by the interference of reflected light. “Blue, green, and purple iridescent colors are all clearly visible in the specimens.”⁵

God designed the exoskeletons of the

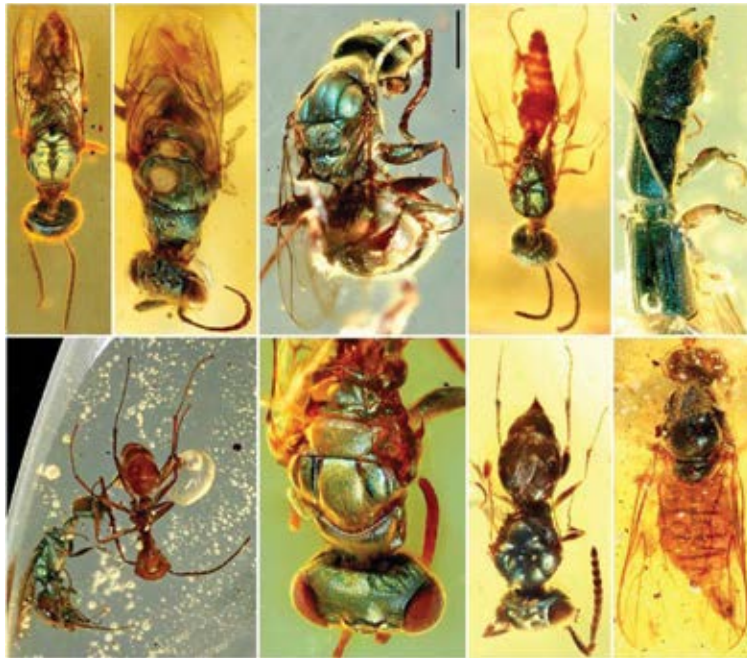


Image credit: Nanjing Institute of Geology and Palaeontology, Chinese Academy of Sciences

Amber Insect Fossils Still Glow

article highlights

- Amber sometimes encases remarkably preserved insect fossils or other organic material.
- A recent find displays iridescence in three different insects supposedly 99 million years old.
- Evolutionists can't explain the origin of the iridescence seen in many of God's creatures.

insects in such a way as to cause light waves to combine with one another, a phenomenon called *interference*. Depending on the viewing angle, a combination of constructive and destructive interference causes colors on the insect to change, much like the rainbow sheen on a soap bubble. This is true not only in these particular insects but throughout God's creation, from beetles to hummingbirds.

How did these insects achieve such iridescent hues? Was it by time and chance, or plan and purpose?

An evolutionist who wasn't part of the study, University of West Virginia paleobi-

ologist James Lamsdell, says, “They seem to have each evolved iridescent traits independently.”⁵ The article reporting the find stated that this was frustrating, and “although scientists can speculate as to what evolutionary pressures drove all these different insects to iridescence, there's no way to know for sure.”⁵ According to evolutionists, the significance of iridescence “remains elusive.”⁶

Creation scientists suggest that as long as iridescence is seen as originating through blind evolutionary “pressures,” evolutionists will never know its origin for sure. Because the amber was found within the Cretaceous period, “that means there's no way to trace the evolution of these iridescent traits back further in time.”⁵ Translated, the evolutionists are admitting that insect iridescence shows up suddenly and fully formed in a very un-Darwinian manner.

Could it possibly be God who designed this sophisticated effect, showing the full shimmering vivid spectrum of colors purely for aesthetic value? He created all things in this world for His pleasure (Revelation 4:11, KJV), and we get to share in their beauty too. ✨

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HAPPY ANNIVERSARY TO THE ICR DISCOVERY CENTER FOR SCIENCE & EARTH HISTORY!

September 2, 2020, marks the ICR Discovery Center’s first anniversary. We’re celebrating the occasion with extra-special offerings for guests who visit during the first week of September as we reflect on all God has done through this new facility over the past year.

In spite of the mandatory COVID-19 shutdown for a few months, this past year we welcomed over 25,000 people through our doors to discover how science confirms creation. This included visitors from all over the United States, as well as some international guests. Group visits were especially popular throughout the fall and winter as we hosted large groups of seniors, church ministries, homeschoolers, and students from Christian private schools.

Chris Kinman, Director of the Discovery Center, said, “It has been a great joy to welcome so many to the new ICR Discovery Center since our opening last fall. With the Lord’s provision, we have created a top-notch, world-class facility for so many to enjoy, and for us to be able to witness this each day is such a blessing.”

Customer Service Specialist Ivana Semidey assists guests at the ticket counter and exhibit hall, answers the phone, and manages projects behind the scenes. Seeing the significant impact of this ministry,

she said, “It’s exciting to watch guests of all ages engage our ministry with excitement and intrigue as they marvel at the works of our Creator, build their faith, and gain a better understanding of creation science. I love it here!” As one visitor commented:

Absolutely phenomenal exhibits, excellent presentations from ICR scientists, and top-notch planetarium shows! This is a must for everyone to take their family to! People need to understand that science confirms God’s Word! — C. H.

If you have yet to visit the Discovery Center, we hope you’ll plan your trip soon. We’re doing everything we can to make your time here safe, faith-building, and fun. Get details and tickets at ICRdiscoverycenter.org.



After the shutdown was lifted, the ICR Discovery Center reopened with new hours of operation, limited occupancy, specialized cleaning protocols, and social distancing measures. Due to the Dallas County court order, guests age 3 and older must wear a mask inside the Discovery Center. Please visit ICRdiscoverycenter.org for ongoing updates. 🦺



Comets: Signs of Youth

J A K E H E B E R T , P H . D .

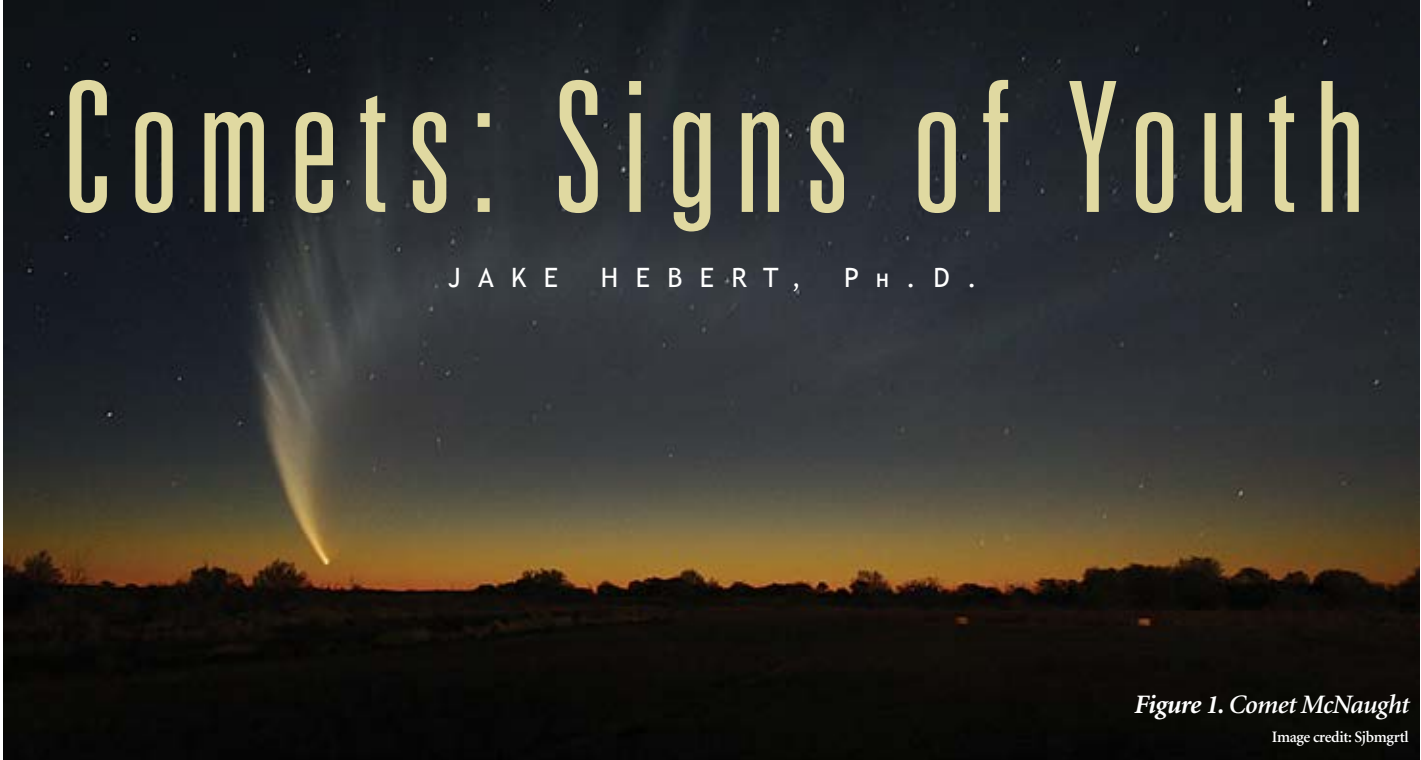


Figure 1. Comet McNaught

Image credit: Sjbmgrtl

A comet in the night sky is an awe-inspiring sight (Figure 1). People throughout history have sometimes seen comets as portents of doom. However, God warned the people of Israel not to fear such signs in the heavens:

Thus says the LORD: “Do not learn the way of the Gentiles; do not be dismayed at the signs of heaven, for the Gentiles are dismayed at them.”¹

Comets are indeed a sign of sorts, but not in the way many ancient people thought.

Dirty Snowballs

Although comets are known for their long, beautiful tails, a tail isn't necessary for an object to be a comet. Comets are defined as solar system bodies that have at least a temporary visible atmosphere, or coma, even if a tail isn't present.²

Comets are comparatively small, with typical diameters of about 10 kilometers (six miles).³ They are composed of a mixture of rock, dust, and frozen ices, including water ice, and have been described as “dirty snowballs.”

When a comet's trajectory brings it close to the sun, solar radiation causes the ices to vaporize, and the escaping gases often carry dust along with them. The released dust and gases form a coma and usually two

article highlights

- Comets are icy objects that orbit our sun. When they get close to it, the sun's radiation causes their ices to vaporize.
- Since comets lose mass with each near-sun orbit, they can't last for millions of years.
- Secular scientists suggest that solar system comets continually repopulate from reservoirs of comet material, but there are major problems with this idea.
- Comets appear to be recent creations.

tails, one composed of charged gas particles (ions) and another composed of dust. The gas tail always points directly away from the sun because the ionized gas particles are pushed away from the sun by the solar radiation. A dust tail isn't always present, but when it is it's curved because the heavier dust particles are not influenced as much by solar radiation (Figure 2).

Short Lifetimes

Because material escapes from the comet nucleus during each approach toward the sun, the comet eventually loses all its volatile material. At that point, the comet



Figure 2. Comet NEOWISE during this year's appearance, with its bluish ion tail and white dust tail

Image credit: SimgDe, CCA-SA 4.0 International License

nucleus can no longer produce a coma or tail, and the comet won't be visible even though its rocky core may still remain. A comet nucleus usually has enough volatile material to be continuously expelled for around 10,000 years.⁴ The effective lifetimes of comets will vary depending on how often their orbits bring them near the sun, but these lifetimes are usually measured in only tens of thousands of years.

Secular scientists claim that comets are leftover fragments from the formation of the solar system 4.6 billion years ago. If comet nuclei are billions of years old, why are thousands of comets still visible? Creation scientists would argue that this is because both comets and our solar system are only about 6,000 years old.

If the solar system really is billions of years old, then new comets must somehow replace the old ones that die out. Secular scientists have suggested that comets are replenished by reservoirs of comet nuclei. Because different comets have different kinds of orbits, they think more than one such reservoir is needed.

Comet Types

Comets can be classified into two broad categories: long-period and short-period comets. Long-period comets are those that take more than 200 years to orbit the sun. They have very long, stretched-out orbits, and these orbits can be highly inclined to the ecliptic plane—the plane of Earth's orbit around the sun. Creationists think that God simply created these comets with very large orbits and that we are now seeing many of these long-period comets for the first time.

Short-period comets take less than 200 years to orbit the sun. These comets can be further subdivided into two categories: Halley-type comets (HTCs) and Jupiter-type comets (JTCs). HTCs are designated as such because they have orbital characteristics similar to those of the famous Halley's Comet. Their orbits are sometimes highly inclined to the ecliptic plane.⁵ Some HTCs

are said to have retrograde orbits because they orbit the sun "backwards" compared to the planets.⁶ Their orbital periods are between 20 and 200 years.⁵

JTCs have orbits that generally lie between Mars and Jupiter, and it's thought their orbits are significantly and frequently influenced by Jupiter.⁷ Their orbits tend to lie near the ecliptic plane, and they have orbital periods of less than 20 years.⁸

The Kuiper Belt

Secular astronomers have proposed two or three different reservoirs of potential comet nuclei (Figure 3). One of these is a doughnut-shaped collection of bodies beyond the planet Neptune called the Kuiper Belt.⁹ This is older terminology, and since these bodies orbit beyond Neptune they are often called trans-Neptunian objects (TNOs). I use the older term here to clearly distinguish between this group of TNO bodies and another collection of TNOs called the scattered disk. Because both Kuiper Belt objects (KBOs) and Jupiter-type comets tend to orbit near the ecliptic plane, the Kuiper Belt is usually said to be the source for JTCs. It's thought that gravitational nudges by Neptune can cause KBOs to move toward the sun, enabling them to become visible comets.

However, it's not clear that the Kuiper

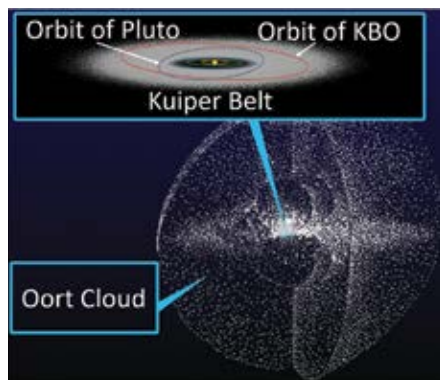


Figure 3. Secular scientists think the Kuiper Belt, a portion of the Kuiper Belt called the scattered disk, and the Oort cloud serve as sources for new comet nuclei. KBO refers to a specific Kuiper Belt Object.

Image credit: NASA, text added by author

Belt contains enough material to serve as an adequate source for the JTCs. Comet nuclei are generally hundreds of meters to tens of kilometers in diameter, with a few that are roughly 100 kilometers across. But nearly all identified KBOs are at least 100 kilometers across, with some (like Pluto and the other dwarf planets) thousands of kilometers in diameter. Nearly all observed KBOs are much too large to be comet nuclei. Secular astronomers think collisions between larger KBOs can result in smaller objects that could serve as comet nuclei and that these smaller objects are too small and dim to be detected. This may be reasonable, but the true number of smaller KBOs is "quite uncertain."¹⁰

The Scattered Disk

What about the Halley-type comets? Scattered disk objects (SDOs) are objects beyond Neptune that can have more extreme elongated orbits with high inclinations to the plane of the solar system. Their name is due to the fact that their extreme orbits are thought to be the result of "scattering" due to gravitational interactions with the giant gas planets. Some scientists count the SDOs as part of the Kuiper Belt, while others consider them as distinct from it.

Because both SDOs and HTCs can have highly inclined orbits, secular astronomers used to think that the scattered disk was the source of HTCs. However, they later concluded that the scattered disk contains only about a tenth of the material needed for it to act as a source for new HTCs. For this reason, some astronomers now claim that the Oort cloud is the source for new HTCs in addition to being a source for long-period comets.¹¹ But one expert has acknowledged that the details of how this might work are "controversial."¹²

The Oort Cloud

The Oort cloud is thought to be an enormous cloud of trillions of icy comet nuclei. It supposedly consists of an inner

disk-like cloud of comet nuclei and a much larger outer spherical shell (Figure 3). However, there is an obvious problem with the idea that the Oort cloud can act as a source for new comets, one that was acknowledged even by prominent secularists Ann Druyan and Carl Sagan: “There is not yet a shred of direct observational evidence for its [the Oort cloud’s] existence.”¹³

The lack of observational evidence for the Oort cloud is the least of its problems. Remember that secular astronomers think comets are leftovers from the solar system’s formation 4.6 billion years ago. According to their theory, the comet nuclei that eventually ended up in the Oort cloud would have originally formed much closer to the sun. Interactions with the planets then supposedly caused these comet nuclei to migrate to much greater distances from the sun to form the Oort cloud. However, a computer simulation showed that most of the nuclei would have been destroyed during the migration process.^{14,15} This would make the mass of the Oort cloud much less today than scientists’ estimates.

This may be one of the reasons experts have acknowledged that the standard Oort cloud theory is incapable of accounting for the observed number of long-period comets.¹⁶ They have proposed that our sun formed near a cluster of other stars and that it somehow “stole” comets from these stars.^{16,17} But as in the case of the Oort cloud itself, this idea is highly speculative.

Another problem with the Oort theory is that it tends to overpredict the number of returning long-period comets compared to the number of first-appearing long-period comets. In order to bring the theory into alignment with observations, Jan Oort invoked an ad hoc “fading parameter.” However, one author said, “Still, the uncertain nature of the fading parameter on which its [the Oort theory’s] success depends remains disconcerting.”¹⁶

Definitely Young

Scientists were shocked to discover



Figure 4. Secular scientists were shocked to find that Comet Hartley 2 is still outgassing carbon dioxide, even though it is supposedly billions of years old.

Image credit: NASA/JPL-Caltech/UMD

that the dumbbell-shaped Comet Hartley 2 still contains a large amount of carbon dioxide and that this CO₂ was outgassing from the comet nucleus.

Its [Comet Hartley 2’s] nucleus contains an abundance of carbon dioxide (CO₂—or, in solid form, dry ice). This is a volatile material—it burns [turns to gas] easily—and so scientists would expect much more of it to have burned away in the 4.5 billion years since the comet formed along with the rest of the solar system.¹⁸

A news report said this presence of large amounts of carbon dioxide was “inexplicable.”¹⁸ It’s not hard to see why. The abundance of CO₂ would require outgassing to be ridiculously slow for billions of years, or else Comet Hartley 2’s CO₂ content was replenished somehow. Did CO₂ gas flow from interstellar space back inside the comet nucleus? It makes sense for CO₂ to be escaping *from* the comet nucleus to outer space but not for it to be flowing *back in!* But if Comet Hartley 2 is just thousands of years old, the continued presence of volatile CO₂ in its interior is much easier to explain.¹⁹

Conclusion

Comets’ short lifetimes and the absence of a plausible way to replenish them over billions of supposed years testify that our solar system is young, fully consistent with the Bible’s 6,000-year timescale. Com-

ets are a reminder that since God’s Word has told us the truth about Earth’s history and the creation of the universe, we can also trust it to tell us the truth that God loves us, and if we turn from our sins and believe in the Lord Jesus Christ we have God’s gracious promise of salvation and eternal life.²⁰ ✨

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article highlights

- Many determined searchers have tried to find the remains of Noah's Ark.
- Eyewitness accounts describe an Ark-like structure in the vicinity of Mt. Ararat in Turkey, but the Ark has not been found.
- We don't need the Ark to verify the Bible's account of the Flood—the sedimentary layers and billions of fossils give plenty of evidence.

Q: Did Someone Really Find Noah's Ark?

A: I recall a tough conversation with a skeptical student after speaking on creation and the Flood at a Christian school. This young man insisted he would never believe the Genesis Flood unless someone could show him Noah's Ark. I tried to explain that such a standard of evidence is unreasonable considering the low likelihood of wood lasting for millennia. He refused to listen.

Would such an apparently stony soul take God at His Word if researchers found the real Ark? At least two factors keep serious Ark researchers primed for the hunt despite grave challenges.

First, the prize would be high. Noah's Ark remnants would become the world's oldest archaeological artifacts according to the Bible's timeline. They would confirm biblical history more convincingly than even the Dead Sea Scrolls.

Second, 20th-century eyewitnesses independently described broken Ark-like remains in similar settings on Mt. Ararat in Turkey. A half-dozen reports describe Noah's Ark remnants sitting on a ledge in a meltwater pond. Ed Davis' account from 1943 has perhaps the most details. These accounts were the main reason ICR's Dr. John Morris led a dozen expeditions to Mt. Ararat during the 1970s and 1980s. Those efforts returned tales of terrifying times but no Ark.¹ Some speculate that high temperatures in the mid-20th century exposed Ark remnants that the ice has since covered.

Decades ago, explorer Ron Wyatt claimed that a boat-shaped feature was Noah's Ark. ICR scientists reviewed the evidence and concluded it was instead a geological formation.² A group of Chinese Ark researchers called NAMI claimed to have found Noah's Ark in 2010. Those claims proved false after locals admitted to being hired to haul wood up the mountain to make a fake Ark for money.³

The 2015 film *Finding Noah* chronicled expeditions to the

summit of Mt. Ararat leading up to 2014. It showed researchers using radar and drill cores to penetrate the ice cap. Although they found no Ark either, the film somehow buoys hope.

Then in 2016, a faction of Turks failed a coup attempt on President Recep Tayyip Erdoğan and his Turkish government. The aftermath led to a tighter Muslim grip and persecution of Turks and Christians. Ark researchers long to return but must wait until safer times. Even then, should explorers bother to go back?

ICR's Dr. Tim Clarey suggests that Mt. Ararat arose after the Ark had landed.⁴ This geological consideration might disqualify Mt. Ararat as a likely Ark landing site, but it does not deal with the eyewitness evidence. Even if the Ark did land there, Mt. Ararat has been very active over its existence. Could remnants of a roughly 500-foot-long wooden box survive volcanoes, earthquakes, scavengers, and grinding glaciers?

These challenges dim, but do not douse, hope for an Ark discovery. Some locals point to the eyewitness testimony to justify their belief in the Ark on Ararat despite challenging arguments against it.

We don't yet have Noah's Ark, and it looks unlikely to turn up. But the good news is we don't need the Ark to believe Genesis. We already have a world full of rock layers and fossils from the Flood.⁵ God has given us every reason to trust Him and His Word—even the parts about Noah's Ark. ✎

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Today's oceanography and meteorology owe a great debt to Matthew Maury. He exemplified the biblical principle that whatever we do, we should do it "to the glory of God" (1 Corinthians 10:31). Maury's scientific research revered God's Creatorship while benefiting his fellowman.¹

On a monument erected by the state of Virginia to his memory is found a plaque that reads as follows: "Matthew Fontaine Maury, Pathfinder of the Seas, the genius who first snatched from the oceans and atmosphere the secret of their laws. His inspiration, Holy Writ, Psalm 8:8; Ecclesiastes 1:6."²

Genius indeed! Maury epitomizes the godly investigator whose creation science begins with the Creator's written revelation—the Bible.³

I have been blamed by men of science, both in this country and in England, for quoting the Bible in confirmation of the doctrines of physical geography. The Bible, they say, was not written for scientific purposes, and is therefore no authority in matters of science. I beg pardon! The Bible IS authority for everything it touches.¹

As a child, Maury was taught the Psalms at home, and that divine book of praises imprinted upon his intelligent, investigative mind. Decades later Maury would live out his lifelong commitment to doxological creation science.⁴ Maury recognized the Holy Bible as perfect in whatever it taught, including being authoritatively relevant and accurate in scientific matters.^{1,4} Among the insights he gleaned are:

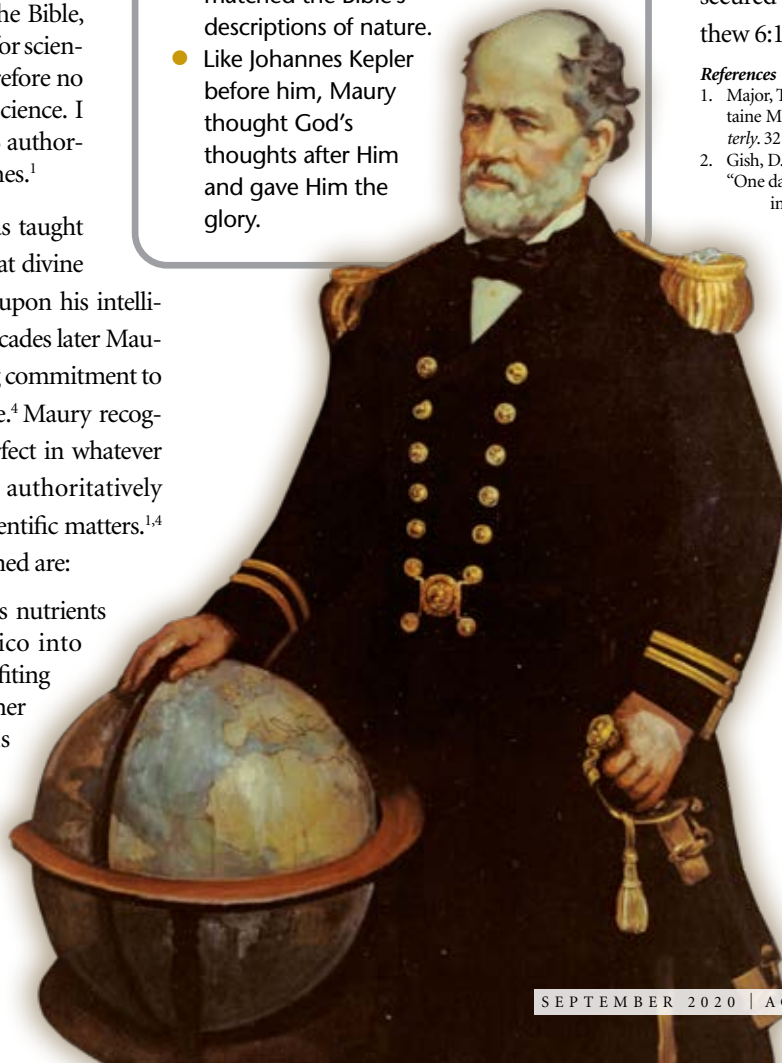
1. The Gulf Stream washes nutrients from the Gulf of Mexico into the North Atlantic, benefiting whales, seabirds, and other oceanic creatures. This illustrates the scriptural principle of God's providential care for animals (Job 38:41; Psalm 147:9; Matthew 10:29; Luke 12:6).

Matthew Maury's Paths of the Sea

2. The general system of atmospherical circulation is referred to in Ecclesiastes 1:6.
3. The water cycle matches Ecclesiastes 1:7.
4. Atmospheric pressure is a geophysical reality mentioned in Job 28:25 as the "weight for the wind."
5. Maury's most famous Scripture-based insight is that the oceans have subsurface currents with regular circulation patterns—the "paths of the seas" in Psalm 8:8.⁵

article highlights

- Matthew Maury was a groundbreaking oceanographer and meteorologist.
- His profound scientific discoveries matched the Bible's descriptions of nature.
- Like Johannes Kepler before him, Maury thought God's thoughts after Him and gave Him the glory.



Maury trembled at the privilege of uncovering the logic God carefully built into His creation, noting that scientific discovery is discovering God's own mind.

As a student of physical geography, I regard earth, sea, air, and water as parts of a machine, pieces of mechanism, not made with hands....And when, after patient research, I am led to the discovery of one of these [mechanisms], I feel, with the astronomer of old [Johannes Kepler], "as though I had thought one of God's thoughts," and tremble. Thus, as we progress with our science, we are permitted now and then to point out here and there in the physical machinery of the earth a design of the Great Architect when He planned it all.⁶

Virginia's monument to Matthew Maury reminds us of his historic testimony and scientific achievements. The more important "monument" to his godly work is the ongoing impact of Maury's life of reverent research in God's service, which has secured for him "treasures in heaven" (Matthew 6:19-21). ✍

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1. Major, T. J. 1995. Honor to Whom Honor...Matthew Fontaine Maury (1806-1873). *Creation Research Society Quarterly*, 32 (2): 82-87, quote from page 83.
2. Gish, D. Paths of the Seas. *Days of Praise*, October 6, 1993. "One day, while reading Psalm 8, [Maury] was struck by an important truth in the 8th verse... 'the fowl of the air, and the fish of the sea, and whatsoever passeth through the paths of the seas.' He immediately saw the great practical significance of that verse, recognizing that there must be currents of water in the oceans, just like vast rivers, as well as in the atmosphere (Ecclesiastes 1:6)."
3. Maury, M. F. 1855. *The Physical Geography of the Sea and Its Meteorology*. Mineola, NY: Dover Publications, Inc.
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5. Adapted from Major, Honor to Whom Honor, 85.
6. Meyer, J. R. 1982. The Life and Philosophy of Matthew Fontaine Maury, Pathfinder of the Sea. *Creation Research Society Quarterly*, 19 (2): 91-100, quoting from page 95 (from Maury's keynote address "at the laying of the corner-stone for the University of the South in the Sewanee Mountains in East Tennessee on Nov. 30, 1860").

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



One Generation Away



In 1967, Ronald Reagan delivered one of the most memorable lines of his storied career: “Freedom...is never more than one generation away from extinction.”¹

The truth of his statement appears downright prophetic in light of the recent turmoil across our nation. It only takes one generation to forget, or reject, the principles and ideals we once held dear.

This notion is not new, of course. Christians should recognize it from the pages of the Bible written thousands of years ago (e.g., Deuteronomy 6:6-8). As a professing Christian himself, Reagan may have borrowed this biblical concept, as well as many others, and applied them to his views on government and the American way. Any principle, whether it is of freedom or biblical values and morals, must be taught and promoted to the next generations if there is to be any hope those principles will continue.

The first biblical reference to national decline and generational apostasy is found in the book of Judges, which depicts how rapidly people can deviate from their original principles and convictions. During the glory years of conquest, Israel “served the LORD all the days of Joshua, and all the days of the elders who outlived Joshua, who had seen all the great works of the LORD which He had done for Israel” (Judges 2:7). But once this founding generation had passed away, “another generation arose after them who did not know the LORD nor the work which He had done for Israel” (Judges 2:10).

This is likely the very *next* generation, composed of the children and grandchildren of the founding generation. The fact that they “did not know the LORD” or the miraculous

article highlights

- People forget important truths from one generation to the next when they aren’t passed down.
- Christians especially are given the responsibility to diligently train up children.
- The Institute for Creation Research exists to disciple and educate this generation and the next in biblical truth.

events God had performed on their behalf is a sad commentary on their lack of biblical education. Joshua and his contemporaries had failed to teach the younger generations the great lessons of God’s providence and protection, and the covenantal promises the people had made to follow the Lord (Joshua 24:14-16).

Israel’s wholesale abandonment of God and His principles ushered in a period of great trial and persecution. If we fail to teach biblical values to our children and grandchildren, that could very well happen here. The Christian ethos that permeated

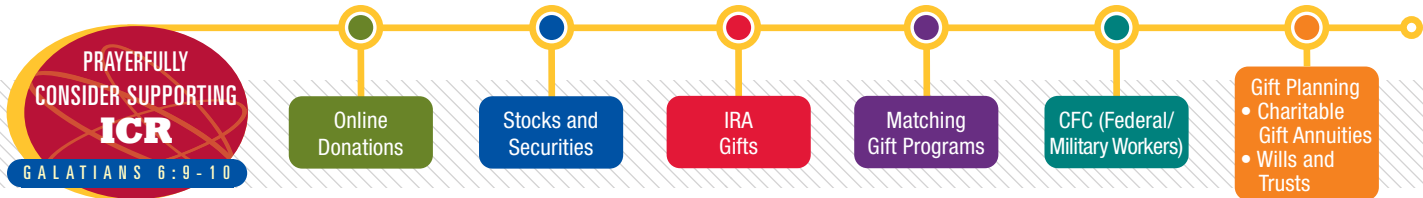
the origin of our nation is quickly evaporating, and only God knows if we have already passed the tipping point. But thank God for His mercy and grace if we will just return again to Him!

This is not meant as a political commentary but rather as a clarion call to godly parents and grandparents to train up children in the way they should go (Proverbs 22:6). The very heart of ICR’s ministry lies in biblical education and discipleship—particularly on matters of science that affirm the accuracy and authority of Scripture. We encourage you to use our resources for all their worth and bring your family to the ICR Discovery Center for Science & Earth History. And should God impress upon you to help, we welcome your gifts of support to enable us to reach coming generations with the truths of creation and our Creator, the Lord Jesus Christ. ✨

Reference

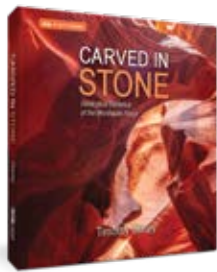
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I am a retired teacher who had a lifetime all-secondary sciences Wisconsin state teaching license. I originally graduated from the University of Wisconsin—Milwaukee with a B.S. in geology. Having just finished reading Dr. Timothy Clarey's book *Carved in Stone*, I have to tell you I think it is one of the best creation science books on geology I have ever read. **He presents a data-driven case for the validity of the Flood and does a magnificent job of it....**I have to say that all of the contributors to *Acts & Facts* put forward strong evidence to support the creation science worldview.

— R. A.



★★★★★ Always a great educational experience. It is refreshing to have a 1st-class creation museum [the ICR Discovery Center for Science & Earth History] in DFW!

— R. G.



I used to be an atheist, I do not have a Christian background. One day, someone online tried persuading me to the cross.



I was pretty honest with evidence, so I examined the Christian's arguments. They all lined up to truth!

After a month I came upon ICR; I did not know a ministry like this existed. **I searched your technical articles, and they made so much sense to me. Especially the**

dinosaur blood ones. You convinced me! I started crying at the foot of the cross because I finally understood what was going on 2,000 years ago. The young-earth arguments differ so much from old-earth ones, that's for certain. I used to believe in old-earth. The breaking point is that the young-earth ones are very convincing at first and last look! Also, these flood legends. I tend to look at physical evidence [rather] than what scientists think. It's been 13 months with the Lord. Hallelujah! I love attending your online Zoom events.... I wish I could've been told of this the first time these events began. It feels lively and special. I like reading deep technical articles although I am still in school.

— U. S. (India)



f Great choice with Dr. Randy [Guliuzza] taking over the leadership. He has big shoes to fill. But with God's help, he will accomplish a lot.

— J. F.

Excellent choice! Congratulations, Dr. Randy Guliuzza! Thank you, Dr. Henry Morris III...first for your heart for and dedication to our Lord and Savior Jesus Christ and the inerrant and inspired Word of God. **Thank you for your stewardship of ICR over the years and leading the way to enable the works of ICR to change the lives of common followers of Christ like me.** Thank you for overseeing and bringing to life the vision known

as the ICR Discovery Center for Science & Earth History.

— G. S.



Oh, I'm so happy to hear that! It's the best choice, and I'm praising the Lord with you for guiding you in the right direction! **When I first heard about the search for a new president, I had on my heart to suggest Dr. Guliuzza but didn't get around to suggesting it!** God is good!

— M. P.

Congratulations, amazing credentials! Looks like we [will] have some new books to read.

— P. D. H.



Perfect choice, congratulations, Dr. Randy Guliuzza, may the Lord keep you energized and your family support you always. **One who understands engineering and the design in biology is simply the perfect combination to lead ICR.**

Congratulations, God bless you, Dr. Randy Guliuzza, and thank you for upholding 6-day creation in the infallible Word of God and the scientific disciplines that glorify the Creator Yahweh.



Wisdom and understanding, a Proverbs 4 man who strives for both. **Congratulations to ICR for an answered prayer.**

Congratulations to Dr. Guliuzza for being a willing servant to a very high calling. May the Lord bless your endeavors and all the scientists at ICR.

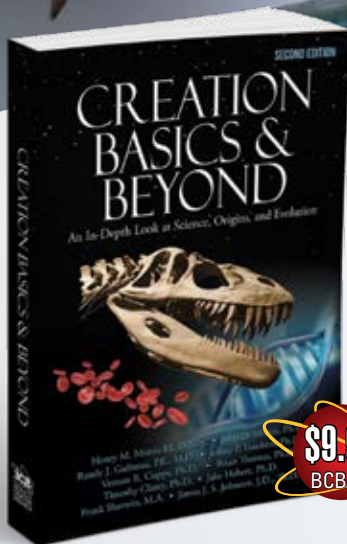
— J. T.

Congratulations and blessings, Dr. Randy Guliuzza! Thank you and blessings, Dr. [Henry] Morris, for your leadership and example. Blessings to ICR!

— T. C.

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