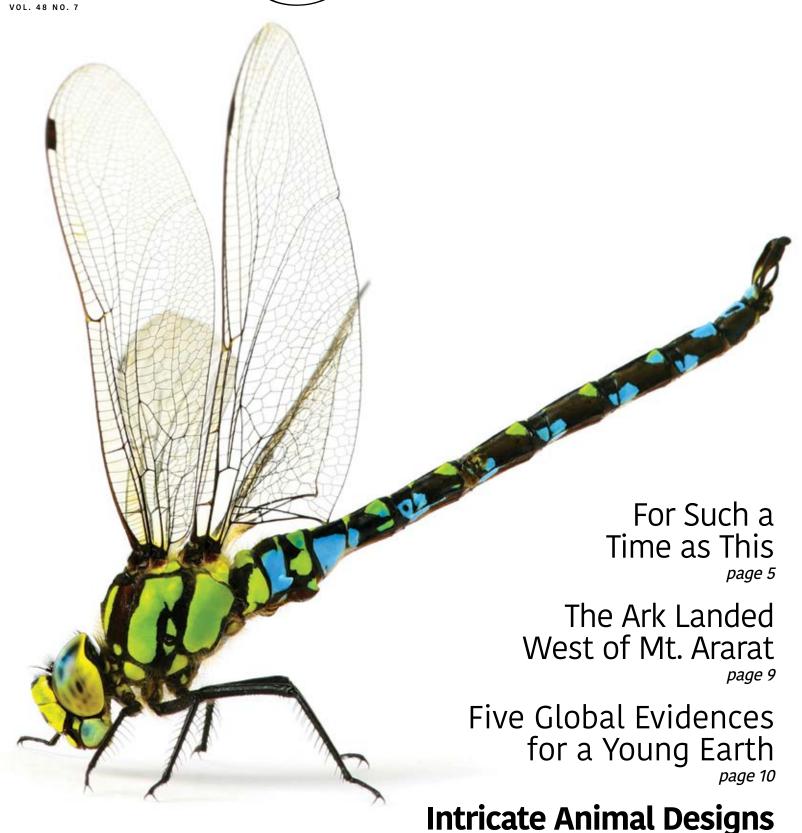
INSTITUTE FOR CREATION RESEARCH

CR.org

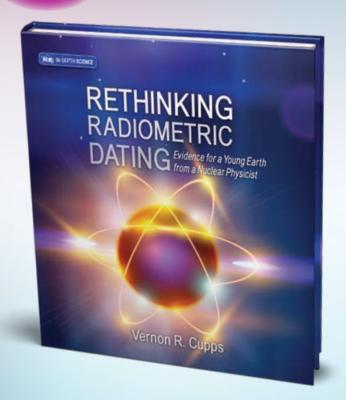
JULY 2019



page 14

Demand a Creator





RETHINKING **RADIOMETRIC DATING**

Evidence for a Young Earth from a Nuclear Physicist

Vernon R. Cupps, Ph.D.

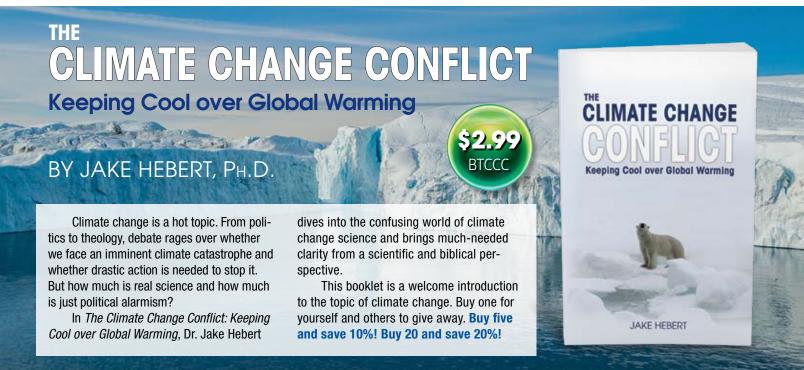


How old is Earth? Many believe it to be around 4.6 billion years. This number is used so often that most people accept it as a scientific fact. But are the dating methods that appear to verify this age valid?

With decades of experience in top nuclear physics laboratories, ICR's Dr. Vernon Cupps tackles this question from a scientific and biblical perspective.

He examines the major radiometric dating methods and the significant problems with the dating methodology currently employed by scientists.

This first in a series of In-Depth Science books from ICR will show why Christians don't need to rely on flawed science to tell them about origins.



ACTS & FACTS

VOLUME 48 NUMBER 7
JULY 2019

Published by

INSTITUTE FOR CREATION RESEARCH

P. O. Box 59029 Dallas, TX 75229 214.615.8300 ICR.org

Acts & Facts is a free publication.

For subscription information,
call 800.337.0375,
visit ICR.org/subscriptions,

EXECUTIVE EDITOR

or write to ICR at the above address.

Jayme Durant

SENIOR EDITOR

Beth Mull

EDITORS

Michael Stamp Truett Billups Christy Hardy

DESIGNER

Dennis Davidson

No articles may be reprinted in whole or in part without obtaining permission from ICR.

Copyright © 2019
Institute for Creation Research

All Scripture quotations are from the New King James Version unless otherwise indicated.







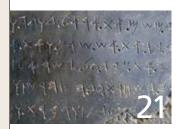
Front cover image: Dragonfly, Image credit: Copyright © 2013 Antagain. Used in accordance with federal copyright (fair use doctrine) law. Usage by ICR does not imply endorsement of copyright holder.











feature

5 For Such a Time as This

HENRY M. MORRIS, PH.D.

research

9 The Ark Landed West of Mt. Ararat

impact

10 Five Global Evidences for a Young Earth

JAKE HEBERT, Ph.D.

back to genesis

14 Intricate Animal Designs Demand a Creator

JEFFREY P. TOMKINS, PH.D.

- **15** Surprise! Deep-Sea Fish See Colors BRIAN THOMAS, PH.D.
- 18 Engineered Features Determine Design Success or Failure, Part 2

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

creation q & a

20 Was the Global Flood Too Extreme?

BRIAN THOMAS, Ph.D.

apologetics

21 Moabite King's Boast Corroborates
Genesis

JAMES J. S. JOHNSON, J.D., TH.D.

stewardship

22 Contend Earnestly

HENRY M. MORRIS IV



Sfrom the editor

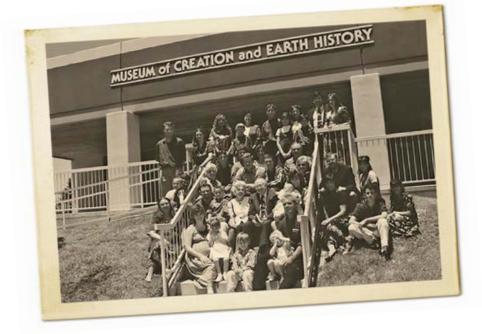
Milestones

n this month's feature article, "For Such a Time as This" (pages 5-7), we see moments, snapshots in time, of the life of ICR founder Dr. Henry Morris: accepting Christ, going to Rice University, joining the Gideons, teaching Bible classes for college students, writing groundbreaking creation books, moving cross-country with his family to pursue God's will, encountering opposition to creation teachings, and being instrumental in the beginnings of several creation organizations, including the Institute for Creation Research. His decisions, circumstances, and opportunities, combined with God's gentle guidance, led to many changed lives over these past 50 years.

I know this, because we often hear from you. Your emails, phone calls, letters, and social media comments are a source of great encouragement to us. Thank you for taking the time to let us know how ICR has impacted your lives!

The challenges Dr. Morris faced in the 1940s and '50s are not very far from ours today. Regarding one scientific meeting he attended, Dr. Morris wrote, "I had thought that since these...scientists and theologians professed to believe in the inspiration of Scripture, they would accept literal creationism and the worldwide Flood if they could just be shown that this is what the Bible teaches." He goes on to say, "I was wrong.... That experience [of Christians rejecting evidence of the biblical account of creation] has been repeated many times" (page 6). And we still see it today. ICR continues to hear from those who question a six-day creation, even though both the Bible and science confirm it.

Since you're reading *Acts & Facts*, I'm assuming you have an interest in creation research. Perhaps God has some opportuni-



ties for you to help us get the creation message out. What's the latest word we need to spread? The ICR Discovery Center for Science and Earth History is opening to the public September 2! The current update in this month's issue about the ICR Discovery Center shows you just how close we are (pages 16-17). This facility, dedicated to sharing the truth about God's work in creation, wouldn't be possible without you! Thank you for your prayers and sacrificial gifts that have enabled us to launch this new extension of ICR's ministry.

Just as Dr. Morris worked to share the science that affirms the Bible, the Discovery Center exhibits will reflect the research of our scientists. You can find their thoughts on many biblical creation issues within this magazine. Physicist Dr. Jake Hebert's article, "Five Global Evidences for a Young Earth," offers strong scientific arguments demonstrating recent creation (pages 10-13). Geneticist Dr. Jeffrey Tomkins shows how "God's creatures are so intricate in form and function they must have been purposefully designed" ("Intricate Animal Designs Demand a Creator," page 14), and paleobiochemist Dr. Brian Thomas showcases God's design in deep-sea fish ("Surprise! Deep-Sea

Fish See Colors," page 15). Medical doctor and Professional Engineer Dr. Randy Guliuzza explains how it is better "to acknowledge the clearly seen design" in creatures and "consider the real superhuman power, intellect, and wisdom of the Lord Jesus Christ" ("Engineered Features Determine Design Success or Failure, Part 2," pages 18-19).

These faithful creation scientists carry on the legacy of Dr. Morris, who went to be with the Lord in 2006. As I read Dr. Morris' article, originally published almost 25 years ago, I'm reminded how quickly time passes. Life-altering events come in a split second. Milestones are achieved and we move to the next big challenge, need, or opportunity. With each change and new direction, God carefully and lovingly arranges the circumstances. And, as with Dr. Morris, He extends our impact long after we leave this world. While you seek to make a difference in the world, I hope you see His hand in the details of your life.

Jayme Durant

Jayme Durant
EXECUTIVE EDITOR

For Such a CIME A CONTRACT CONTR

article highlights

- As we anticipate the opening of the ICR Discovery Center for Science and Earth History, it's a good time to look back at ICR's beginnings.
- ICR founder Dr. Henry M. Morris penned these words in 1995 as ICR approached its 25th anniversary. He reflected on the events leading up to its founding and on the vital need for a creationfocused ministry.
- The ICR Discovery Center will continue Dr. Morris' vision to reach new generations with God's creation truth.

HENRY M. MORRIS, PH.D.

his article sets forth the background and mission of the Institute for Creation Research, as I have envisioned from the start. A key purpose of ICR is to bring the field of education—and then our whole world insofar as possible—back to the foundational truth of special creation and primeval history as revealed in Genesis. The doctrine of special creation is basic in Christianity, and I trust that God has raised up ICR to help meet this need.

We expect to celebrate ICR's 25th anniversary this year (1995–1996). God has greatly blessed the ministry, but the world's need in relation to the creation message has hardly been touched. Since I am nearing retirement, it's important for the ICR family

to obtain a clear understanding of where we have been and where we are going if we are going to meet effectively the tremendous challenges of the days ahead.

Much of the ICR vision has come out of my earlier study and experience.

There's still a great need for at least one Christian educational center based on and framed around biblical revelation, especially the foundation of strict creationism. This dream resulted from 35 years (1935–1970) as a Christian student, teacher, and administrator in five universities, all dominated by an evolutionary humanistic philosophy. Even though such a dream may seem unrealistic, it represents a goal toward which Christians should aim. Today's young people will be the leaders of tomorrow in every field of human activity. There can be no more vital goal than to pro-

vide as many of them as possible with a solid biblical, Christian, creationist education.

I accepted Christ at age 10 through reading a Bible my mother gave me. This was during the Great Depression, but I was able to get into Rice

University. Although I was a theistic evolutionist at that time, I could see even then that the teachings in science and the humanities were largely atheistic. I graduated in 1939 with a degree in civil engineering and then worked three years for the International Boundary and Water Commission in El Paso, dealing mostly with studies on the hydrology and hydraulics of river flood control.



While in El Paso, my wife and I became members of a good church, and I soon joined the Gideons. Through these I became convinced of the power of God's Word and the importance of winning people to Christ. In 1942, I was asked to return to Rice as an instructor to teach engineering to Navy students who were being trained as officers for the war.

By then I was spending much time in the Word and soon started teaching a Bible class for the students. I also began reading every book I could find relative to science and the Bible in order to answer the questions the students raised, especially about evolution and creation.

There was very little sound creation literature available in those days, so I set out to write a small book myself that would help win skeptical young people to Christ and His Word. *That You Might Believe* was first published in 1946.

When the war ended, I enrolled in the graduate program at the University of Minnesota, majoring in hydraulics and minoring in geology and mathematics. I'd come to realize that the biblical Flood provided the real key to harmonizing the scientific study of Earth's history with the Genesis record and thus was the ultimate answer to evolutionism. The combination of hydraulics and geology seemed the best preparation for effectively dealing with the great Flood in relation to science, and the University of Minnesota had the best combination of facilities and faculty for such study.

I had to take a full-time instructorship

to support my family. The Lord led providentially in many ways during those years, enabling me to get both the M.S. and Ph.D. degrees in record time. A new edition of my book was brought out by Moody Press in 1950—The Bible and Modern Science—which is still in print as Science and the Bible. It was evidently the first book written by a scientist on a secular university

faculty (at least in the 20th century) that presented evidence for recent creation and Flood geology.

We then went to Louisiana, where I served six years as Head of the Civil Engineering Department at the University of Southwestern Louisiana. I continued the

library research and study I'd begun at Minnesota on geology and the biblical Flood, writing several chapters on what I hoped might become a definitive work on biblical creationism and catastrophism. In 1953, I met Dr. John Whitcomb at a meeting of the American Scientific Affiliation (ASA) in Indiana. He'd read *That You Might Believe* as a student at Princeton University and was one of the very few men at that ASA meeting who agreed with a paper I presented there titled "Biblical Evidence for Recent Creation and the Worldwide Deluge."

I had thought that since these ASA scientists and theologians professed to believe in the inspiration of Scripture, they would accept literal creationism and the worldwide Flood if they could just be shown that this is what the Bible teaches.

I was wrong. In the question period, they raised numerous scientific objections but not one answer to the biblical evidence that was absolutely compelling.

That experience has been repeated many times since. The reaction to strict creationism by Christian evolutionists and progressive creationists is almost invariably to defer to "science" rather than Scripture.

> They feel Christians should interpret Scripture to conform to current scientific opinion rather than interpret the scientific data in the context of biblical revelation.

Such an attitude in anyone who professes to be a Christian is dishonoring to God's Word and to the Lord Jesus Christ, who Himself believed in recent creation and the world-

wide deluge.

THE BIBLE AND MODERN SCIENCE

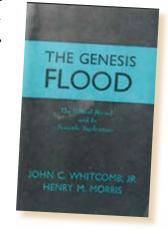
There has been a remarkable revival of creationism in the past three decades. The Scopes Trial in 1925 resulted in such an overwhelming media victory for the evolutionists that Christians as a whole seemed to want to ignore the entire controversial subject of origins.

They no longer dared to question the evolutionary ages of the geologists, and many Bible teachers tried to insert these ages into a postulated "gap" between the first two verses of Genesis. Geologists, of course, could never accept this gap theory because their "ages" were based on the assumption of uniformitarianism, which has no room for the global pre-Adamic cataclysm required by any such theory. The scientific and educational worlds gravitated to total evolutionism, while Christians concentrated on "personal Christianity."

At the great Darwinian Convocation at the University of Chicago in 1959, gathered to celebrate the 100th anniversary of Darwin's *Origin of Species*, evolutionists from all over the world paid homage to Darwin, eulogizing him for delivering the world out of what they thought was biblical bondage into evolutionary freedom. The keynote speaker, Sir Julian Huxley, proclaimed

the complete triumph of evolutionary humanism, and other speakers urged the schools henceforth to center their curricula around the "fact" of evolution.

It was at that very time that John Whitcomb and I were writ-



ing *The Genesis Flood*. Published early in 1961, the Lord graciously used it as a catalyst to stir up the modern creationist revival. There had been a few attempts earlier to establish an organized witness for scientific creationism, but these had floundered. The failure was caused by divisive arguments between strict creationists and those who wanted to accommodate the geological ages in their systems.

These two systems are like oil and water; they will never mix because they are founded on two different premises. One believes Scripture should govern our interpre-



tation of scientific data; the other believes current scientific majority opinion should control our interpretation of Scripture. Neither evolution nor creation can be scientifically *proved* since they are dealing with history instead of repeatable science. It's possible to build a case for either view, and the decision finally boils down to what one *wants* to believe.

We who believe in a recent, six-day, literal creation of all things believe that Christians ought to take God at His Word and allow the Bible to say what its writers, guided by the Holy Spirit, intended it to say. When one holds this high view of Scripture, one must accept Genesis at face value. This not only means six normal 24-hour days of creation but also no geological ages, and that's the pill many Christians refuse to swallow. The Scriptures clearly teach that there was a global and cataclysmic flood. This can only mean that the Flood and its aftereffects must explain most of the stratigraphic and fossil evidences commonly found in Earth's crust.

This is what *The Genesis Flood* tried to show, and it soon found acceptance by many scientists and others who, like John Whitcomb and myself, *wanted* to take God's

Word as divinely inspired and easily understood by anyone willing to believe it.

Two years later, in 1963, the Creation Research Society (CRS) was formed. The time was ripe to establish a society of scientists who were strict creationists and who would do their research in the light of biblical creationism.

The American Scientific Affiliation (ASA) had been organized in 1941, ostensibly to oppose evolution, but it also was soon divided into two camps—those who wanted to accommodate the geological ages and those who did not. The progressive creationists and theistic evolutionists had gained almost complete control of the ASA, and this was another stimulus for forming the Creation Research Society.

Beginning with only 10 scientists, CRS grew rapidly and currently has a membership of hundreds of scientists with postgraduate degrees, all committed to strict creationism and Flood geology.

I had resigned in 1957 from my job as Head of Civil Engineering at the University of Southwestern Louisiana and then taken a similar appointment at Virginia Tech. Although we had six children, the Lord wonderfully provided our needs everywhere we went (six states, nine jobs). We learned to live simply and frugally and have tried to apply these same principles on an organizational level at ICR.

At Virginia Tech, God greatly blessed. Our Civil Engineering Department grew to be the third-largest in the nation, with a strong Ph.D. program and the second-largest research program at the university. My textbook on applied hydraulics and water resources was published in 1963.

I think the most important event during those years at Virginia Tech, however, was the publication of *The Genesis Flood*. Not only did this catalyze the modern creationism revival, but it also drastically changed my own life!

I began to get speaking invitations all over the country. For a while I tried to accept them all, but this eventually became impossible. I was also writing other books and articles, and all of this became practically a full-time job in addition to my teaching and administrative job at the university—not to mention family responsibilities.

The Lord used these extracurricular activities to lead us to California to start our full-time creation ministry. Much of my speaking had been at Christian colleges, seminaries, and churches, and these had greatly increased my awareness of the urgent need for creation teaching even in Christian institutions, not to mention the pervasive dominance of evolutionism in secular schools.

Accordingly, in September 1970 I resigned from Virginia Tech and accepted the invitation from Dr. Tim LaHaye to move to San Diego, where we proposed to start a creation-oriented Christian liberal arts college with an associated center for creation research and extension ministry. This center became the Institute for Creation Research.

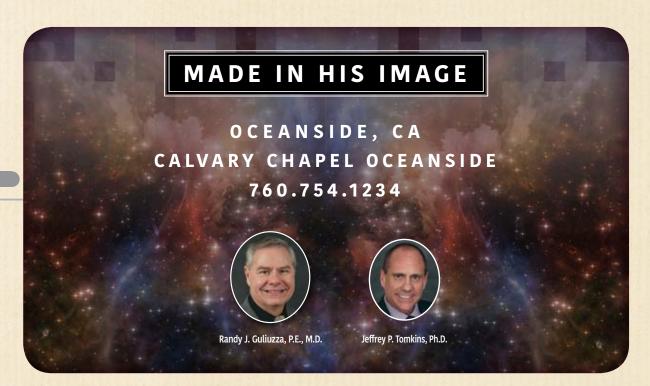
Adapted from Dr. Morris' Back to Genesis articles in the July and August 1995 issues of *Acts & Facts*.

Dr. Henry M. Morris (1918-2006) was Founder of ICR.





Reseda, CA | The Bridge Bible Fellowship | (T. Clarey and J. Tomkins) 818.776.1500



STARTING

SEPTEMBER 2, 2019

Our speakers will give regularly scheduled presentations at the ICR Discovery Center. Look for our upcoming Discovery Center presentation schedule at ICRdiscoverycenter.org.



SAVE THE DATE



Whitesboro, TX | First Baptist Church Whitesboro | (J. Tomkins, J. Hebert) 903.564.3546



College Station, TX | Central Baptist Church | (B. Thomas) 214.615.8364

For information on event opportunities, email the Events department at Events@ICR.org or call 800.337.0375.

For the serious science reader

The Ark Landed West of Mt. Ararat

CR's Column Project, which has been compiling stratigraphic data from across the globe, is currently examining Turkey's geology, including the area around Mt. Ararat. One question of interest is when and where Noah's Ark came to rest. Our results might surprise some people.

The Genesis Flood account says "the waters prevailed" for 150 days (Genesis 7:24) and decreased at the end of the 150 days (Genesis 8:3), leading us to conclude that's when the Flood peaked. The Ark landed on the same day: "Then the ark rested in the seventh month, the seventeenth day of the month on the mountains of Ararat ['al harê 'arârât]" (Genesis 8:4). This was 150 days after the Flood started on the 17th day of the second month (Genesis 7:11).

Our research determined the high-water point of the Flood was near the end of the Zuni Megasequence, at or about the end of the Cretaceous System.¹ Therefore, the Ark was likely grounded around the Cretaceous-Tertiary (Paleogene) Boundary.

Northeastern Turkey is composed of tectonic plates that were squeezed together during the Flood as Africa and Eurasia collided. The crustal rocks consist of highly metamorphosed Mesozoic sediments and ocean crust that were caught between the colliding plates.² Uplift of this crustal complex produced a prominent ridge—with "ridge" here matching the Hebrew phrase "mountains/hills of Ararat"—known as Kagizman Ridge. This ridge extends east-west for over 100 miles, with some peaks standing over 10,000 feet in elevation (Figures 1 and 2).^{3,4} This topographic ridge existed prior to the Eocene (Early Tertiary)⁴ and likely developed close to the end of the Cretaceous, placing its formation on or about Day 150 of the Flood.

After the ridge was emplaced, volcanoes spread lava and ash across the region that intermingled with Tertiary marine sedimentary deposits from the Flood's receding phase—post-Day 150—creating the Erzurum-Kars Plateau.² These Paleocene through Pliocene strata allow us to work out the relative timing of the volcanism in the area.⁴ What is today labeled Mt. Ararat was part of a later and final pulse of volcanism, much of which sits atop the earlier volcanic rocks of the Erzurum-Kars Plateau. Most of the eruptive activity at the current Mt. Ararat was *after* the Flood during the ensuing Ice Age.³ It appears the Ark couldn't have landed there since it probably didn't exist then, at least not to any large extent.

Where did the Ark land? The Kagizman Ridge is the most likely candidate because it was formed about Day 150 and is part of a continuous mountain belt that extends for over 100 miles west of Mt. Ararat (Figure 1), making it part of the "mountains of Ararat." The Ark probably settled on one of the higher peaks of Kagizman Ridge

article highlights

- Genesis 8:4 says the Ark landed on "the mountains of Ararat."
- ICR's Column Project recently determined the landing place was likely west of the current Mt. Ararat.
- Mt. Ararat probably didn't form until after the Ark landed.

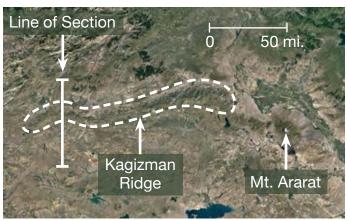


Figure 1. Google Earth image of the area around Mt. Ararat, including Kagizman Ridge. The line of the section depicted in Figure 2 is shown.

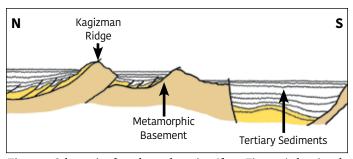


Figure 2. Schematic of north-south section (from Figure 1) showing the geology of Kagizman Ridge. Adapted from reference 4.

as the area was thrust upward. Later, receding-phase sediments and subsequent volcanic activity filled in the basins on the flanks of the ridge. Mt. Ararat likely didn't begin to form until well after Noah had vacated the Ark.

The Ark did land in the "mountains of Ararat," just not on Mt. Ararat itself. Simultaneous development of a high topographic ridge at just the right time and location in the Flood year demonstrates the truthfulness of God's Word and His perfect timing. God truly remembered Noah (Genesis 8:1).

References

- 1. Clarey, T. 2019. A Rock-Based Global Sea Level Curve. Acts & Facts. 48 (2): 9-10.
- Keskin, M., J. A. Pearce, and J. G. Mitchell. 1998. Volcano-stratigraphy and geochemistry of collision-related volcanism on the Erzurum-Kars Plateau, northeastern Turkey. *Journal of Vol*canology and Geothermal Research. 85 (1-4): 355-404.
- Keskin, M. 2005. Domal uplift and volcanism in a collision zone without a mantle plume: Evidence from Eastern Anatolia. MantlePlumes.org.
- Keskin, M. 1994. Genesis of collision-related volcanism on the Erzurum-Kars Plateau, North eastern Turkey. Doctoral thesis, Durham University.



Dr. Clarey is Research Associate at the Institute for Creation Research and earned his Ph.D. in geology from Western Michigan University.

For the serious science reader

Global Evidences for a Young Earth

article highlights

- Scientists use various dating methods to estimate Earth's age, but most provide results that are too young for the evolutionary story.
- Continental erosion, ocean salt accumulation, Earth's magnetic field decay, radiocarbon in "old" specimens, and helium in zircon crystals yield age estimates that contradict evolution but are consistent with biblical creation.
- These five evidences are strong arguments for recent creation.

he evolutionary story requires millions and billions of years, and most people assume that scientific dating has conclusively proved such ages. However, most dating methods yield age estimates that are much too young for the evolutionary story, even given uniformitarian assumptions. These include estimates that look at the earth as a whole. Such estimates should be more reliable because rates averaged over the entire earth should be less subject to local uncertainties.

In this article, we examine five global processes that strongly indicate a young earth.

1 Continental Erosion

Both secular and creation researchers have long noted that the continents are eroding much more quickly than expected in secular thinking (Figure 1):²⁻⁵



Figure 1. Erosion is occurring so rapidly that the continents cannot be hundreds of millions of years old, let alone billions. Likewise, salt is entering the oceans so quickly that they cannot be more than 62 million years old.

Image credit: NASA

North America is being denuded [eroded away] at a rate that could level it in a mere 10 million years, or, to put it another way, at the same rate, ten North Americas could have been eroded since middle Cretaceous time 100 m.y. [million years] ago.⁴

This 10-million-year estimate is comparable to the 14 million years that creation scientists calculated would be needed for all the continents to be planed down to sea level.² Skeptics have criticized this argument, saying it naively assumes erosion rates have been perfectly constant over time. They also claim it fails to take into account factors such as mountain building and lava flows that can replace

some of the eroded material.

Yes, the above calculation did assume a constant rate of erosion, but only to get a ballpark estimate, not to obtain an exact answer. Secular geologists have performed more sophisticated calculations that take into account factors such as climate, slope of the terrain, etc. These calculations still yield erosion rates fast enough to plane down the continents in just tens of millions of years.^{6,7}

But can't mountain building and tectonic uplift replace the eroded rock? And couldn't "old" rocks have possibly been protected from erosion by younger, overlying rocks that were themselves later eroded away? Can't these factors explain the survival of the continents?

No. There are a number of problems with these arguments, but the easiest way to see that they don't work is to recognize that landforms exist that even uniformitarian geologists believe have been exposed to surface erosion for hundreds of millions of years—"an astonishingly long history of subaerial [open air] exposure"8—yet these landforms still exist.

Paleogeographic reconstructions indicate that parts of the Australian continent have been subaerially exposed for hundreds of millions of years. Some landforms and regolith are demonstrated to be at least 300 million years old, but their persistence at or near the surface is *inconsistent with long-*

term denudation rate estimates based on cosmogenic nuclides and apatite fission track thermochronology.8

In fact, "very old" landforms are so common that geologists even have a name for them—*paleoforms*. Professional geologists are certainly aware of mechanisms that could conceivably protect these landforms from erosion, yet one uniformitarian geologist acknowledged:

Paradoxically, however, none of the mechanisms that have been proposed to explain the survival of paleoforms hold here [in southeastern Australia]. *These instances may well be typical of large parts of the interior of tectonic plates, and a revision of widely held estimates of modal rates of denudation seems required.*¹⁰

Human agriculture would increase erosion rates. Could "prehistoric" erosion rates have been lower in the past? Yes, but only by a factor of 10 or so at most, which clearly doesn't solve the problem.^{5,11} Despite anti-creationist claims, continental erosion is still very much a valid young-earth argument.

2 Ocean Salt Accumulation

Some of the eroded material contains salt (NaCl), which is continually being added to the world's oceans (Figure 1). Once dissolved in the oceans, the salt separates into sodium (Na⁺) and chlorine (Cl⁻) ions. Creation scientists Drs. Russell Humphreys and Steve Austin used the current amount of sodium in the oceans to calculate how long it would take, starting with a salt-free ocean, for the world's oceans to achieve their present degree of salinity. They used conservative rates of salt input and made allowances for mechanisms that remove salt from seawater, such as sea spray. They found that the oceans could be at most 62 million years old.¹² In fact, revised measurements show salt is entering the world's oceans even faster than Humphreys and Austin thought.¹³ This further lowers the maximum possible age.

A sodium-containing mineral called *albite* removes sodium from the oceans when it forms, so one anti-creationist claimed this fact invalidates these results. Yet, Humphreys and Austin had already considered this possibility. ¹² Albite decomposes in cool water, replacing the exact same amount of sodium that it removes. So, over millions of years, it would have zero effect on the sodium content of the world's oceans. ¹⁴

3 Earth's Magnetic Field

Evolutionary geologists claim Earth has had a magnetic field for billions of years, yet they have no idea how this is possible (Figure 2). As noted by one geophysicist:

We do not understand how the Earth's magnetic field has lasted for billions of years. We know that the Earth has had a magnetic field for most of its history. We don't know how the Earth did



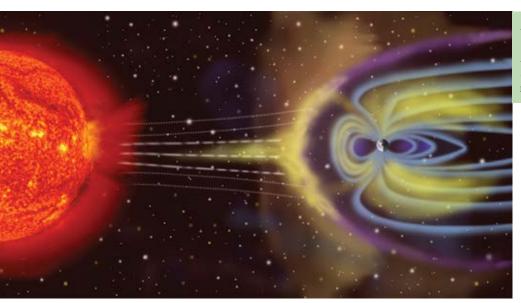


Figure 2. Even after a century of theorizing, uniformitarian scientists cannot explain how Earth's magnetic field could persist for billions of years.

Image credit: NASA

bon in a sample even 100,000 years old, let alone millions.¹⁸ Yet, radiocarbon is consistently found in coal, oil, natural gas, and dinosaur bones, which are said to be many millions of years old (Figure 3).^{18,19} Radiocarbon has repeatedly been detected in diamonds, which are *billions* of years old by secular reckoning!^{18,20}

Secular scientists are aware of these results and try to argue that the detected radiocarbon is "new" radiocarbon that

somehow contaminated the sample. However, the result is so widespread that the contamination excuse quickly wears thin.

Creation critics have also argued that radioactive decay from uranium could transform nitrogen impurities within a nearby sample into radiocarbon. However, scientists had already considered this possibility and showed that it was a woefully inadequate explanation for the measured radiocarbon.¹⁸

Figure 3. Short-lived radiocarbon within "ancient" specimens implies they can't be even a hundred thousand years old, let alone millions.

that....We have less of an understanding now [in 2014] than we thought we had a decade ago.¹⁵

The secular scientists' problem is their belief that Earth is billions of years old. Magnetic fields are produced by electrical currents, yet these currents grow weaker over time. To maintain such a current would require an electrical generator (dynamo) of some kind within the earth's interior. But how could such a generator form naturally? Even after a century of research, secular scientists still don't have a workable dynamo theory. ¹⁶

The problem worsens. Based on historical measurements, we know Earth's magnetic field is losing 50% of its energy every 1,400 years or so. Even if we ignore past reversals of the field, which would have drained the energy even faster, Earth's magnetic field can only be about 20,000 years old at most. If it were older than this, the electrical current required to power such a field would have been large enough to melt Earth's crust and mantle!¹⁷ Clearly, such an immense magnetic field would have been incompatible with life.

Of course, a weakening magnetic field isn't a problem for biblical creationists, since a decaying electrical current within Earth's core could maintain the magnetic field for the 6,000 years or so that have elapsed since creation.

4 Surviving Radiocarbon in "Old" Specimens

Radiocarbon, also known as carbon-14, is an unstable variety of the carbon atom. It's produced from atmospheric nitrogen when energetic charged particles from space enter the atmosphere. Every living thing has some radiocarbon in it. When it dies, its store of radiocarbon begins decreasing as the radiocarbon transforms back into nitrogen.

Radiocarbon decay occurs so quickly that even the most sensitive scientific instruments shouldn't be able to detect any radiocar-

6 Helium in "Old" Zircons

Uranium impurities in zircon crystals produce both helium and lead through radioactive decay. Creation researchers examined zircons from granite within a borehole drilled at Fenton Hill, New Mexico. Assuming constant decay rates, one would conclude, based on the amount of lead in the zircons, that the crystals are 1.5 billion years old.²¹ Yet, just as helium leaks out of a balloon, helium also leaks, or *diffuses*, out of zircon crystals. Although this leakage is much slower than that from a balloon, it still happens relatively quickly.

Leakage rates for a gas through a particular substance depend

on something called *diffusivity*, which varies with temperature. Creation scientists hired an expert to measure how much helium remained in the Fenton Hill zircons. They estimated the diffusivities that would be needed in order for the observed amounts of helium to be retained within the zircons for 1.5 billion years as well as for just thousands of years.²¹ They then hired a respected laboratory to actually measure zircon diffusivity. Before the experimental results were known, creation scientists predicted in print that the results would agree far better with young-earth expectations than old-earth ones.²¹

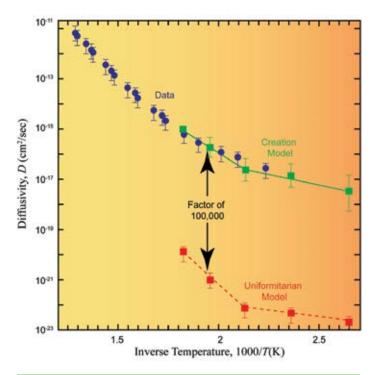


Figure 4. The retention of helium within supposedly ancient zircon crystals is strong evidence for both accelerated nuclear decay and a young world. This chart from ICR's Radioisotopes and the Age of the Earth project shows how the zircon helium diffusion data line up well with the creation model while the uniformitarian predictions are 100,000 times lower than what was measured.²²

That prediction was a resounding success. In order for the observed amounts of helium to be retained in the zircons for 1.5 billion years, the actual diffusivities would have to be 100,000 times lower than what was measured (Figure 4). Either that or the zircons would need to be maintained at ridiculously cold temperatures for long ages.²²

So, depending on whether one uses the helium or the lead in the zircons as a "clock," one could argue that the zircons are either billions of years old or just thousands. The disagreement between these two clocks is itself an argument for accelerated nuclear decay. This invalidates the millions of years coming from radioisotope dating.²³ Moreover, one does not expect accelerated nuclear decay to affect diffusion rates. So, this is also an argument that the zircons

are just thousands of years old.

Apparently sensing the strength of this young-earth argument, anti-creationists have vigorously attacked it, but not convincingly.^{24,25} It's ironic that creation critics claim creation scientists never make predictions, but when we do make an undeniably successful one, they act as if the successful prediction is irrelevant.

Conclusion

Global processes yield maximum age estimates that flatly contradict the evolutionary story. This is true even when we grant generous uniformitarian assumptions. But because these are *maximum* age estimates, the true ages are in agreement with the Bible's short 6,000-year timescale, especially when one takes into account the catastrophic processes during the Genesis Flood.

References

- Creation physicist Dr. Russell Humphreys has estimated that 90% of dating methods yield ages that contradict the evolutionary story.
- 2. Nevins, S. 1973. Evolution: The Ocean says NO! Acts & Facts. 2 (8).
- 3. Roth, A. A. 1986. Some Questions about Geochronology. Origins. 13 (2): 64-85.
- 4. Dott Jr., R. H. and R. L. Batten. 1971. Evolution of the Earth. New York: McGraw-Hill. 136.
- Judson, S. 1968. Erosion of the Land, or What's Happening to Our Continents? American Scientist. 56 (4): 356-374.
- Schumm, S. 1963. Disparity between present rates of denudation and orogeny. U.S. Geological Professional Paper 454. Washington, D. C.
- Twidale, C. R., E. M. Campbell. 2005. Australian Landforms: Understanding a Low, Flat, Arid and Old Landscape. New South Wales, Australia: Rosenberg Publishing PTY Ltd, 188. Cited in Oard, M. J. 2017. Revisiting the problem of very old landforms. Journal of Creation. 31 (3): 3-4.
- Pillans, B. 2007. Pre-Quaternary Landscape Inheritance in Australia. *Journal of Quaternary Science*. 22 (5): 439-447. Emphasis added.
- Baker, V. R. Inselberg. Encyclopaedia Britannica. Posted on Britannica.com, accessed April 29, 2019.
- Young, R. W. 1983. The Tempo of Geomorphological Change: Evidence from Southeastern Australia. The Journal of Geology. 91 (2): 221-230. Emphasis added.
- Ball, P. The earth moves most for humans. Nature News. Posted on nature.com March 7, 2005, accessed May 2, 2019.
- Austin, S. A. and D. R. Humphreys. 1990. The Sea's Missing Salt: A Dilemma for Evolutionists. In Proceedings of the Second International Conference on Creationism. R. E. Walsh and C. L. Brooks, eds. Pittsburgh, PA: Creation Science Fellowship. 17-33.
- Moore, W. S. 1996. Large groundwater inputs to coastal waters revealed by ²²⁶Ra enrichments. Nature. 380 (6575): 612-614.
- 14. Sarfati, J. 1998. Salty seas: Evidence for a young earth. Creation. 21 (1): 16-17.
- Folger, T. Journeys to the Center of the Earth: Our planet's core powers a magnetic field that shields us from a hostile cosmos. But how does it really work? Discover. July/August 2014.
- Humphreys, D. R. 2013. Planetary Magnetic Dynamo Theories: A Century of Failure. In Proceedings of the Seventh International Conference on Creationism. Pittsburgh, PA: Creation Science Fellowship.
- Humphreys, D. R. 2008. The Creation of Cosmic Magnetic Fields. In *Proceedings of the Sixth International Conference on Creationism*. A. A. Snelling, ed. Pittsburgh, PA: Creation Science Fellowship and Dallas, TX: Institute for Creation Research.
- 18. Baumgardner, J. 2005. Carbon-14 Evidence for a Recent Global Flood and a Young Earth. In Radioisotopes and the Age of the Earth: Results of a Young-Earth Creationist Research Initiative. L. Vardiman, A. A. Snelling, and E. F. Chaffin, eds. El Cajon, CA: Institute for Creation Research and Chino Valley, AZ: Creation Research Society, 587-630.
- 19. Giem, P. A. 2001. Carbon-14 Content of Fossil Carbon. *Origins*. 51: 6-30.
- Taylor, R. E. and J. Southon. 2007. Use of Natural Diamonds to Monitor ¹⁴C AMS Instrument Backgrounds. Nuclear Instruments and Methods in Physics Research B. 259 (1): 282-287.
- 21. Humphreys, D. R. 2000. Accelerated Nuclear Decay: A Viable Hypothesis? In Radioisotopes and the Age of the Earth: A Young-Earth Creationist Research Initiative. L. Vardiman, A. A. Snelling, and E. F. Chaffin, eds. El Cajon, CA: Institute for Creation Research, and Chino Valley, AZ: Creation Research Society. 333-379.
- Humphreys, D. R. Young Helium Diffusion Age of Zircons Supports Accelerated Nuclear Decay. Radioisotopes and the Age of the Earth: Results of a Young-Earth Creationist Research Initiative, 25-100.
- Vardiman, L., A. A. Snelling, and E. F. Chaffin, eds. Radioisotopes and the Age of the Earth: Results
 of a Young-Earth Creationist Initiative.
- Humphreys, D. R. 2010. Critics of Helium Evidence for a Young World Now Seem Silent. *Journal of Creation*. 24 (3): 34-39
- 25. Vardiman, L. 2011. Both Argon and Helium Diffusion Rates Indicate a Young Earth. Acts & Facts. 40 (8): 12-13.

Dr. Hebert is Research Associate at the Institute for Creation Research and earned his Ph.D. in physics from the University of Texas at Dallas.



vidence of our Creator is all around us.
Romans 1:19-20 states, "What may be known of God is manifest in [people], for God has shown it to them. For since the creation of the world His invisible attributes are clearly seen, being understood by the things that are made."
God's handiwork is certainly manifested in the exquisite engineered design of His creatures.

The Salmon

One example of God's creative genius is the salmon. This fish is born inland in freshwater streams miles from the ocean, migrates to live in the salty sea, and then returns to fresh water so it can spawn. The salmon has a unique ability to maintain a constant healthy level of saltiness. Its internal cellular and organellar systems adjust automatically in response to environmental tracking systems that monitor external salt levels.¹

Chief among these engineered systems are specialized sodium pumps embedded in the cell membranes. The pumps' activity is coordinated not only within the internal apparatus of the cell but also with other systems in the salmon's various organs, especially those on the forefront of osmoregulation (the maintenance of body-fluid pressure) such as the gills and kidneys.

In addition to these integrated cellular systems, the salmon has built-in behavioral traits to also manage its salt levels. Instead of immediately charging into the ocean or back into fresh water, it pauses to temporarily equilibrate its body in transitionary zones between the two.

The Dragonfly

The field of bioengineering makes use of the design found in living creatures. One flying creature human engineers have tried to copy is the dragonfly. These insects are expert fliers. They can maneuver straight up and down, hover in place like a helicopter, and even mate in midair.

The dragonfly's optics are also amaz-

Intricate
Animal Designs
Demand a Creator

article highlights

- A salmon's cellular and behavioral systems allow it to maintain a healthy salt level whether it's living in fresh water or salt.
- The dragonfly's flight capabilities and high-tech visual system enable it to hunt with deadly precision.
- Hummingbirds display amazing wing dexterity, speed, and endurance.
- God's creatures are so intricate in form and function they must have been purposefully designed.

ing, with almost its entire head composed of visual sensors loaded with engineering that's only beginning to be understood. It has very complex eyes constructed of individual visual sensory units called *ommatidia*. A single compound eye has an integrated lens system containing up to 30,000 ommatidia. Each individual ommatidium collects its own stream of visual information that's transmitted to the dragonfly's brain, where it's decoded and processed to form a mosaic image with intricate visual depth and detail.

Combined with its flight capabilities,

the dragonfly's high-tech visual system allows it to track and grab aerial targets like flies with deadly precision. A study of caged dragonflies found they were able to successfully snatch their rapidly moving prey out of the air with 95% accuracy.²

The Hummingbird

The hummingbird is another animal that glorifies the Creator. This little creature is distinctly different from all other bird kinds. Hummingbirds are the only bird that can fly backward. They can literally zip around in just about every direction due to their wings' ability to rotate in a full circle and flap up to 80 times per second.

Hummingbirds have much larger and more complicated brains than insects. One study determined that "the hummingbirds had faster reaction times than those reported for visual feedback control in insects." The endurance and speed of hummingbirds are also phenomenal. They can fly at 25 to 30 mph and dive at speeds of up to 60 mph. The ruby-throated hummingbird has the ability to travel up to 500 miles across the Gulf of Mexico to reach its breeding grounds.

The V-22 Osprey is human engineers' attempt to create something with roughly similar flight capabilities. This military aircraft requires constant fueling, maintenance, supervision, and construction since it can't feed itself or reproduce like the hummingbird. Human efforts to copy the intricate form and function of God's creatures is further evidence of our Creator's engineering genius.

References

 Vargas-Chacoff, L. et al. 2018. Effects of elevated temperature on osmoregulation and stress responses in Atlantic salmon Salmo salar smolts in fresh water and seawater. Journal of Fish Biology, 93 (3): 550-559.

Journal of Fish Biology, 93 (3): 550-559.

Gonzalez-Bellido, P. T. et al. 2013. Eight pairs of descending visual neurons in the dragonfly give wing motor centers accurate population vector of prey direction. Proceedings of the National Academy of Sciences. 110 (2): 696-701.

 Cheng, B. et al. 2016. Flight mechanics and control of escape manoeuvres in hummingbirds. I. Flight kinematics. Journal of Experimental Biology. 219 (22): 3518-3531.

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



SURPRISE! Deep-Sea Fish See Colors

nly sunlight's most intense color (blue) penetrates beyond 180 meters (590 feet) through clear ocean waters. Everyone knows that fish below such depths see an essentially blackand-white world. Only everyone is now wrong. New genetic insights provide a renewed appreciation of the Creator's ingenuity.

Deep-sea fish eyes come loaded with light-sensitive rod cells instead of the mixture of rods and color-sensitive cone cells surface-dwellers like us use. Our cone cells have three different pigments to detect the three primary colors. For humans and many vertebrates, various color intensities combine to generate the thousands of specific colors our visual systems perceive.

Our rod cells have only one pigment. These cells detect brightness in dim conditions but not colors, which means that in the dark our world is monochrome. Surely fish eyes without cone cells would see no colors. But research published in the journal *Science* found that



article highlights

- Deep-sea dwellers see mostly in black and white—or so we thought.
- Some fish have unique eye cells that see colors even way down deep.
- Some of these creatures make their own light, and others see the specific colors of their prey.
- This remarkable visual ability shows fantastic design.

some deep-sea fish eyes use various pigments...in their rod cells.¹

Clearly, these fish swim in a deep, dark, but somehow colorful world. But why?

The researchers found rod cell pigment genes in 13 of the 101 fishes tested so far. Are they just evolutionary missteps—nature's blind experiments that accidentally acted on actinopterygians (ray-finned fish)? Or do these genes serve a specific purpose through the intent of insightful intelligence?

The research seems to support the second option. University of Maryland biology professor Karen Carleton said in a university news release on the study, "It may be that their vision is highly tuned to the different colors of light emitted from the different species they prey on."

But these creatures' equipment goes beyond special rod cells. All kinds of different sea creatures bioluminesce, or make their own light.³ This neat trick requires a very precise lineup of biochemicals to convert chemical currency into radiation. Human inventors long to match its efficiency. Of course, none of it would work without a specialized layer of clear skin cells to protect the underlying lightemitters while letting the light out.

More than that, bioluminescent creatures of all kinds—jelly-fish, squid, clams, shrimp, fish, etc.—use precise biochemicals to emit specific colors. And now it looks like these newly discovered fish-eye rod cell pigments help the creatures see exactly the emitted color or colors of the prey they target. One fantastic fish called the silver spinyfin has 38 specific rod cell pigment genes. Can it see 38 specific deep-sea creatures' colors?

The university news release said, "The specific wavelength of light their opsins [light-sensitive proteins] are tuned to overlap with the spectrum of light emitted by the bioluminescent creatures that share their habitat."²

So, these eyes come fully tuned. Tuning requires a tuner. Whoever sees evolutionary accidents here may be dimming their own access to a broader spectrum of God's fine-tuning in creation.

References

- Musilova, Z. et al. 2019. Vision using multiple distinct rod opsins in deep-sea fishes. Science. 364 (6440): 588-592.
- For Some Fish Deep and Dark May Still be Colorful. University of Maryland news release. Posted on umdrightnow.umd.edu May 10, 2019, accessed May 10, 2019.
- 3. Thomas, B. 2013. The Unpredictable Pattern of Bioluminescence. *Acts & Facts.* 42 (4): 17.

Dr. Thomas is Research Associate at the Institute for Creation Research and earned his Ph.D. in paleobiochemistry from the University of Liverpool.



ICR Discovery Center Update

he public grand opening of the ICR Discovery Center for Science and Earth History is scheduled for September 2, 2019!



In his article "Go For It!" in the September 2015 Acts & Facts, Dr. Henry Morris III laid out the vison and background of the Discovery Center and announced the beginning of its construction. God brought several key pieces together and

the time was right to break ground. Dr. Henry wrote, "God's plans stretch out way beyond our lifetimes....

The last days are a troubled time for the world. But we are not of the world; we are told not to fear or cower. We will boldly build!"

The dream for an educational center had been on our hearts for some time. In this age of technology and visual media, interactive museum exhibits and a state-of-the-art planetarium and auditorium will be a highly effective avenue for expanding ICR's creation ministry.

For almost five years, we've invited you to join us in this grand project that has the potential to impact so many people—a legacy for the next generation. We thank all of you who've stood with us in pursuing this vision. Please pray for us and prayerfully consider supporting us as we strive to finish strong and complete the interior exhibits and make this new arm of outreach a reality.



Editor Christy Hardy and CEO Executive Assistant Michael Hansen shiver as they enter the Ice Age Theater.



The Ark exhibit awaits the animals...and you!



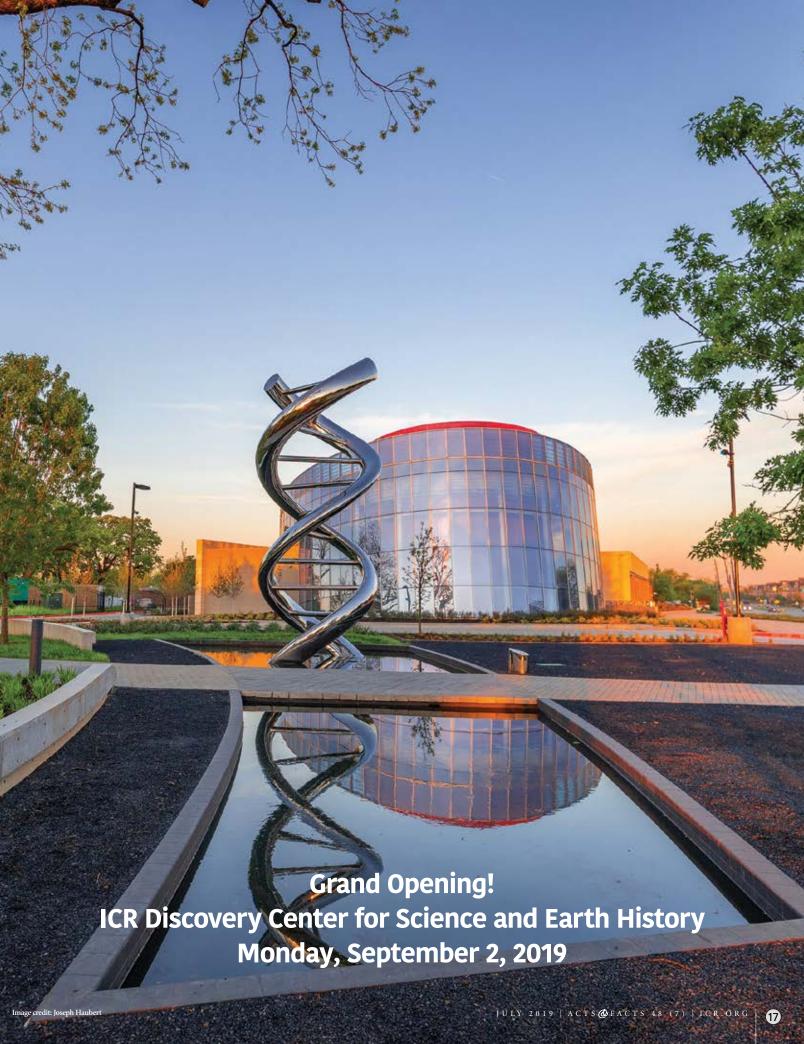
Garden of Eden exhibit



ICR's Dr. Randy Guliuzza gives a spellbinding presentation in Founder's Hall auditorium. We've held several sneak-peek planetarium shows and science talks for pastors, ministers, youth group leaders, and educators.



ICR geneticist Dr. Jeff Tomkins chats with a group of church leaders.



Engineered Features Determine Design Success or Failure, Part 2

To

Tardigrade

article highlights

- An entity's traits—not what it's exposed to—determine its design success or failure.
- Engineered solutions to problems must precede the problem; the existence of a solution is not "due to" the problem.
- A creature's vulnerability reflects operational parameters, not necessarily bad design.
- Selectionists project volitional capability onto nature, resulting in personification of environmental conditions.

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

ast month's Engineered Adaptability article considered two examples of human-designed structures that were exposed to identical conditions but did not respond in the same way. For review, the picture below shows a home designed to withstand hurricanes. The surrounding homes lacked its vital features and were destroyed when Hurricane Michael hit in October 2018. We also considered buildings exposed to a devastating earthquake in Nepal in 2015. Some buildings had built-in features that withstood the earthquake's challenges, but many others did not and collapsed.

These examples demonstrate that every designed entity has some unique traits, features, or combinations of these that determine their capabilities. They highlight two design principles that all engineers utilize:

1. It is an entity's traits—not its exposures—that determine its design success or failure.



Mexico Beach, Florida, home built by Dr. Lebron Lackey with design specifications for materials and construction methods to withstand 250 mph winds.

 $Image\ credit:\ Copyright\ @\ 2018\ ABC\ News.\ Used\ in\ accordance\ with\ federal\ copyright\ (fair\ use\ doctrine)$ law.\ Usage\ by\ ICR\ does\ not\ imply\ endorsement\ of\ copyright\ holders.

2. Engineered solutions to problems must precede the problem; the existence of a solution is not "due to" the problem.

Throughout this article series, we've observed many examples of a tight correlation between human-engineered systems and their elements to systems that perform similar functions in creatures. These observations support a theory of biological design that is based on the premise that biological functions are best explained by engineering principles.

Vulnerability Reflects Operational Parameters, Not Necessarily Bad Design

All known creatures and human-engineered things have vulnerabilities. Since biological systems operate according to the same laws of chemistry and physics human engineers use to govern their designs, there should be a correlation to explain why even the most brilliant designs still have points of vulnerability.

Some critics of intelligent design equate "poor design" with the vulnerabilities of organisms. They believe these vulnerabilities shouldn't exist if the creatures were produced by an omnipotent, omniscient Creator. But if we are looking for evidence of intelligent agency to explain the designs found in creatures, then those designs should be held to the same standard we apply to marvelously designed things by human engineers.

We know engineers don't design things that will have unlimited resources to build them. Even sophisticated designs are expected to operate only within various ranges of different exposures. These ranges are called the *design parameters*.

Engineers usually add a safety factor that enables what they've designed to withstand exposures somewhat outside these parameters. Even so, they know that given an excessive exposure, the entity will

eventually fail. That failure, however, is not indicative of a faulty design. Faulty designs specify features from the outset that are unable to withstand the exposures necessary to meet the design's intended purpose. Thus, even homes that were flattened by Hurricane Michael were not necessarily poorly designed or shoddily constructed. Since they likely withstood prior hurricanes, they probably were not designed to ever resist one of Michael's force.

The same is true for organisms. When one of their appendages or organs breaks because it was exposed to conditions outside its design parameters, it reflects a situation in which design parameters were exceeded rather than a faulty design. Why would anyone think that creatures should have design parameters that could never be exceeded, even if designed by an omniscient Creator? Surprisingly, failure may also be due to parts that are designed to break, like a car's crumple features or a gecko's tail.

Engineered Features Determine Stimuli, Favorability, and More

If two different creatures eat the same shrub, why might it be nutritious to one and toxic to the other? If a man walks his dog and someone blows a dog whistle, why does only the dog respond? Situations where two or more different creatures are exposed to identical conditions clearly show it's an organism's traits—not its exposures that determine design success.

Recognizing that fact helps clarify how biologists' regular use of some terms is misleading. Evolutionists regularly talk about "favorable" or "unfavorable" conditions "working on" organisms to "drive" them in one evolutionary trajectory or another. Since they reject looking at creature features as if they were designed, they fail to recognize that it's an organism's traits—and the capabilities those traits confer that determine whether an exposure is favorable or not.

Last month, we learned of the "superhero" traits of a tiny creature called a tardigrade, which withstood the radiation of space for 10 days. If humans and tardigrades were exposed to the same radiation, selectionists would say that it's "unfavorable" to humans but "favorable" to tardigrades. The difference isn't the radiation but the fact that for tardigrades "it is mainly down to a bizarre protective protein...that somehow shields their DNA from radiation damage....[It] appears to work by physically cuddling up to DNA and cocooning it from harm, but without disrupting its normal functions."3

Evolutionists talk about environmental "stresses" that "induce" a genetic response. But not all exposures are equally stressful. Just as a one-pound load applied to a steel beam or placed on a piece of spaghetti has different stresses, so it is with organisms that their traits determine the extent that any condition is a stress. In addition, we now know that intracellular machinery is what controls genetic responses.

One organism will live in a certain location but another will not. It is a creature's traits that define its environmental niche. A space isn't even a "niche" until creatures inhabit it. Mars is exposed to some of the same conditions as Earth, but these conditions are only stimuli on Earth. Conditions are not stimuli in and of themselves. It's information in a creature that specifies certain conditions to be stimuli to the exclusion of others. Additionally, creatures must be equipped with a sensor to detect that specific condition...or it remains a non-stimulus.

Engineering Causality Exposes the Mysticism of Selectionism

Suppose you are the lead engineer of a board recommending new hurricane-resistant building codes in Mexico Beach, Florida. Would you be satisfied receiving a study that doesn't contain an engineering analysis of successful construction methods, building materials, and designs but rather claimed that the differential survival of homes was because Hurricane Michael "selected for" Dr. Lebron Lackey's home and "selected against" the demolished homes?

How would your counterpart engineer in Nepal react if the study he or she received didn't include detailed analysis of buildings' design features but rather explained that some withstood ground motion because they were "favored" by the earthquake and demonstrated "highly selectable traits" when "driven" by the "strong selective pressure" of seismic loads? Asserting that hurricanes and earthquakes can select for buildings is just as magical as claiming that antibiotics, droughts, cold weather, or any other condition can "select for" or "disfavor" organisms.

Engineers would sound silly if they incorporated these personifications of conditions into their explanations. No one has ever seen nature "select," ever quantified a "selection pressure," or accurately identified the "unit of selection." Selectionists readily absorb mystical mental constructs into biological scenarios that other scientific fields wouldn't accept. Prior to Darwin, biologists didn't invoke magical metaphors.⁴

Conclusion

For buildings, tardigrades, or humans, the unique traits that determine their capabilities explain their range of responses. It is the anti-design bias of most evolutionary biologists that leads them to view organisms as passive modeling clay molded by personified environmental conditions. How much better to acknowledge the clearly seen design and consider the real superhuman power, intellect, and wisdom of the Lord Jesus Christ, through whom and for whom "all things were created" (Colossians 1:16).

- Guliuzza, R. J. 2019. Engineered Adaptability: Engineered Features Determine Design Success
- or Failure. *Arts & Facts*. 48 (6): 17-19.

 2. Carr, W., J. McDonald, and E. Shapiro. Mexico Beach home survives Hurricane Michael virtually untouched: We intended to build it to survive. *ABC News*. Posted on abcnews.go.com October 15, 2018, accessed April 29, 2019.
- Coghlan, A. World's hardiest animal has evolved radiation shield for its DNA. *New Scientist*. Posted on newscientist.com September 20, 2016, accessed April 2, 2019. Guliuzza, R. J. Doolittle's Recycled Evolutionary Theory Is Old News. *Creation Science Update*.
- Posted on ICR.org May 10, 2018 accessed on April 2, 2018.

Dr. Guliuzza is ICR's National Representative. He earned his M.D. from the University of Minnesota, his Master of Public Health from Harvard University, and served in the U.S. Air Force as 28th Bomb Wing Flight Surgeon and Chief of Aerospace Medicine. Dr. Guliuzza is also a registered Professional Engineer.

Quick and easy answers for the general science reader

Was the Global Flood Too Extreme?

Bible critics have long claimed the God of the Old Testament was unjust and mean. Some cite Noah's Flood as an example: If God is really good, then why would He drown all those humans? The best answer to give depends on the attitude of the questioner.

Most who say God is unjust probably have little interest in the truth.1 Those with bad attitudes don't listen well, and Christians shouldn't waste time trying to defend our good God to people with closed hearts. But how can we be sure of another person's attitude?

One way is to ask questions that test their intention. For example, if they express a problem with the way they think God handled something, then ask which book, chapter, and verse from the Bible they object to. Often this is all it takes. A scoffer may just walk away. They may even offer unkind words as a parting shot. If that happens, your kindness will speak more than words.

But someone may actually take you up on the offer to discuss Bible verses. That rare person may want a real answer to why a good God would flood the whole world. What would you say?

You could ask how they know that the pre-Flood people's punishment was more than their crimes deserved. Does your friend have some special insight into the good behavior of those ancients that suggests they didn't actually deserve the divine death penalty? Of course, such insight is impossible without a time machine to reveal how the ancients behaved. Without that machine, we access the past through reliable eyewitness accounts. The Genesis text the skeptics want to dismiss has just that. It says about pre-Flood man: "Every intent of the thoughts of his heart was only evil continually."2

The pre-Flood people must have committed similar crimes to those of later na-



He loves us enough to both judge sin and save us from it.

tions that brought down judgment. Survey the Bible to learn what happened when God had enough of their murdering, lying, bribery, violating the weak, and burning their babies on pagan altars.3 And we're not talking about one nation before the Flood—the whole world sold out to total violence.4

What would have resulted had God allowed that evil to persist? Would those who say that God should not have flooded that world also invite jailers to release all the imprisoned murderers into their own neighborhoods? God really did the right thing.

When He flooded the world, He was even thinking of the very person who now tries to pin injustice on Him. If the Lord had not sent a flood, then humans would have snuffed themselves out. We would never have been born. God wanted us alive!5 He wanted to give us a chance to honor and enjoy Him forever.6 He gave the pre-Flood

people plenty of chances, but they ignored Noah's message to repent.7 God loves us enough to have judged them. We now have a chance to repent of our sins and trust in the Lord Jesus Christ, who absorbed our punishment in Himself before He defeated death.8

Was a worldwide flood judgment too extreme? Only to those who don't want to acknowledge the just penalty for their own sins by pretending that God lacks love.

References

- Such as the people cited in Romans 1:18 who "who suppress the truth in unrighteousness.
- Genesis 6:5.
- 2 Kings 23:10; Leviticus 20:2-5. Other crimes that helped condemn whole tribes or nations included homosexual gang rape (Judges 19:22; Ezekiel 16:46-50), incest (Leviticus 18:3, 6, 7, 24), bestiality (Leviticus 18:23), harlotry (Leviticus 19:29; Hosea 6:10; Ezekiel 16:35-39), and occultism (Leviticus 19:31; 2 Kings 21:6).
- Genesis 6:13. See Thomas, B. 2015. Pre-Flood Human Fossils Revisited. Acts & Facts. 44 (11): 14-15.
- Would you exchange your and your ancestors' lives for those of the pre-Flood peoples so they could have lived long enough to annihilate themselves? Psalm 16:11.
- 2 Peter 2:5
- 1 Corinthians 15: 3-4; Job 40:23.

Dr. Thomas is Research Associate at the Institute for Creation Research and earned his Ph.D. in paleobiochemistry from the University of Liverpool.





article highlights

- The Mesha Stele, better known as the Moabite Stone, sheds light on biblical history.
- The Moabite Stone mentions YHWH and numerous kings, and details Old Testament facts reported in 2 Kings 3.
- One particular boast on the stone corroborates Jacob's prophecy in Genesis 49.

 Detail of the Moabite Stone written by Mesha, king of Moab, around 830 BC. (Louvre, Paris.)

Image credit: Copyright © 2012 Mbzt. Used in accordance with federal copyright (fair use doctrine) law. Usage by ICR does not imply endorsement of copyright holder.

Moabite King's Boast Corroborates Genesis

he Moabite Stone was discovered in 1868 in Dibon (Dhiban in modern-day Jordan). Also called the Mesha Stele, it was set in place as a monument by King Mesha of Moab around 830 BC. The stone is not only a reminder that archaeology is riddled with speculation, it also has interesting implications for biblical apologetics.

Recently, a secular archaeologist advocated a new guess about two letters in the Moabite Stone's inscription. Israel Finkelstein used high-resolution photographs to scrutinize damaged portions of Line 31 and decided that an earlier expert, André Lemaire, was wrong. Lemaire reported one part as BT [D]WD.² Finkelstein speculated that B[??] is correct, which could be BLQ—i.e., Balak, a Moabite king.¹

The Moabite Stone corroborates some Old Testament history from a Moabite perspective, specifically the military conflict reported in 2 Kings 3.^{3,4} Echoing biblical history, King Mesha refers to his home as Dibon (Lines 1-2), the Israelites' God as YHWH (Line 18), Moab's god as Chemosh (Lines 4-5, 9, 12), Omri as dynastic head of Israel's Northern Kingdom (Lines 4-5, 7), and mentions many Moabite place names known to Scripture: Ataroth, Mehdeba, Beth-Baal-Meon, Kiriathen, Nebo, Jahaz, Beth-Dib-

lathain, Beth-Bamoth, Horonain, the Arnon riverbed, etc.

Mesha also boasts success as a "sheep master" (Lines 30-31), although he conveniently omits the embarrassing fact that Moab paid Israel an annual tribute in sheep—literally thousands (see 2 Kings 3:4). Mesha exaggerates like a politician (Line 7), claiming to have destroyed Israel: "destroyed, destroyed forever!"

The king also bragged about defeating the tribe of Gad at Ataroth (Lines 10-13). The Bible, however, designates this and other place names on the stone as the territory of the tribe of Reuben.⁴ King Mesha designated Ataroth as land of the Gadites, but the Reubenites he never mentioned. Why were the Reubenites ignored, and why were the Gadites recorded with such respect, as if Gadite presence in Reubenite territory was noteworthy to the conquering king?⁴

The answer lies in Jacob's prophecy in Genesis 49:1-4, 19. Jacob foretold that Reuben was "unstable as water" and would not excel (v. 4). When Mesha completely ignores Reuben, it corroborates the prophecy about Reuben. Even when Mesha brags about all his conquests in Reubenite territory, he sees no value in bragging about his conquest of Reubenites themselves.

Jacob prophesied about Gad differently: "He shall triumph ['fight,' 'battle'] at last" (v. 19). Gad was a warrior tribe, an aggressive force to be reckoned with. They proved themselves as overcomers, although Gad's future included some defeats—one of which, at Ataroth, Mesha records in Line 10. When Mesha brags about defeating the warrior Gadites, he verifies Jacob's prophecy.4

The Moabite Stone is relevant to biblical apologetics. If the new study of Line 31 is correct, it reflects the King Balak referred to in the Bible's Balaam story (Numbers 22–24). But regardless, the Moabite Stone *already* substantiates other aspects of biblical history, and even provides unintentional corroboration of fulfillments of Jacob's prophecies about Reuben and Gad.

References

- Finkelstein, I., N. Na'aman, and T. Römer. 2019. Restoring Line 31 in the Mesha Stele: The 'House of David' or Biblical Balak'. Tel Aviv. Journal of the Institute of Archaeology of Tel Aviv University. 46 (1): 3-11. "The name on Line 31 [could] be read as Balak, the king of Moab referred to in the Balaam story in Numbers 22–24."
- Lemaire, A. 1994. 'House of David' Restored in Moabite Inscription. *Biblical Archaeology Review*. 20 (3): 30-37.
 Johnson, J. J. S. The Moabite Stone, a New Translation, Ana-
- Johnson, J. J. S. The Moabite Stone, a New Translation, Analytically Cross-Examined in Light of the Bible and Moabite History, pages 23-28, 103-121. Presented to the Evangelical Theological Society conference November 16, 2000, in Nashville, TN.
- 4. Johnson, J. J. S. 2014. How the Moabite Stone Corroborates a Prophecy in Genesis 49. *Bible and Spade.* 27 (3): 68-74, with quotations from page 73.

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



Contend Earnestly

he little book of Jude is a short but powerful statement against those who dilute and warp the gospel of grace and salvation through Christ. Written nearly 2,000 years ago to address the teachings of ungodly men who had "crept in unnoticed" (Jude 1:4), it seemingly could have been written last week. The problems in Jude's day are still very real in ours, and we would be wise to heed his warnings.

Jude had apparently intended to write a straightforward exposition of the doctrines "concerning our common salvation" (v. 3)—that is, the great salvation held in common by all believers who have been "called, sanctified...and preserved" (v. 1). But he was compelled instead, evidently by the Holy Spirit, to call for a vigorous defense of the faith in light of the arrival of apostate teachers. Jude "found it necessary" (v. 3), a strong word in the Greek that conveys the idea of urgent distress in view of a pending calamity. False teachers preaching and living out a counterfeit gospel were misleading those who needed to hear the true gospel, and it was imperative for Christians to quench such doctrinal error in all its forms.

Jude's urging to "contend earnestly" (v. 3) doesn't mean to be argumentative or contentious. Rather, the single Greek word epagonizomai, used only this once in the New Testament, literally means to "agonize over" or to "struggle with intense determination." Like a warrior entrusted with a crucial task, our defending and contending for the faith is serious, urgent business. The adversaries are many, and like "ravenous wolves" (Matthew 7:15), they will tear and rend the coming generations if we don't

PRAYERFULLY CONSIDER

SUPPORTING

article highlights

- Jude's epistle defending the gospel is as valid today as it was in the early church.
- Christians then and now must confront error.
- Contend with us as we finish the ICR Discovery Center for Science and Earth History, which opens to the public this fall!

defend the faith wherever it is under attack.

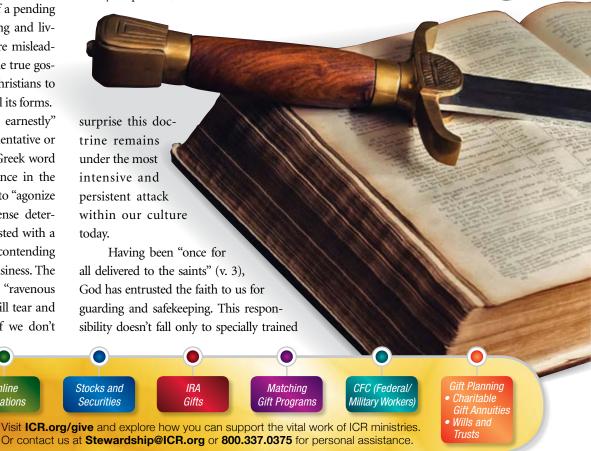
"The faith" (v. 3) we are to defend incorporates "the whole counsel of God" (Acts 20:27), the entire body of Christian truth recorded in His Word. This includes a rigorous defense of the doctrine of special and recent creation, which serves as the foundation for all doctrines in the metanarrative of Scripture. And because it's so vitally important, it should come as no

theologians, apologists, and scientists, but to all "the saints" who have placed their trust in Jesus Christ. We must keep it intact and undefiled, teaching and preaching all of it to the greatest extent possible to every generation until Christ returns.

The Institute for Creation Research has stood in defense of the faith, and for the truth of special creation in particular, for nearly 50 years. And by God's grace and provision, our ministry will soon enter a new phase when the ICR Discovery Center for Science and Earth History opens this fall. We invite you to "contend earnestly" with us through your prayers and gifts of support to reach many more with the evidence that God's Word is true and Jesus

is coming again! 🛸

Mr. Morris is Director of Operations at the Institute for Creation Research.



ICR is a recognized 501(c)(3) nonprofit ministry, and all gifts are tax-deductible to the fullest extent allowed by law.

Online

Donations



How has ICR changed your life?



66

ICR has saved my life. That's change, right? Truth-tellers like you gave me hope!

— I

It was amazing to me that all through high school science, whatever I was teaching the boys you also covered it in an article in the magazine! God has that sense of timing perfect!

- A. M.

ICR caused me to realize that I was compromising on a fundamental truth that God created the heavens and the earth in six days...not millions/billions of years. I realized that I had been discrediting God and His character by doubting His Word.

- E. W.



Upon looking over my shoulder at this [picture on the ICR Facebook page], my six-year-old guessed Mount St. Helens. He has been intrigued with documentaries from creation research groups since [he was] about four years old. I'm blown away by my little guy's knowledge. I hope perhaps his love of science will lead him into apologetics or creation research when he gets older.

— S. E. A.



Kudos for your May articles in *Acts &*Facts on "Toppling Ten Fake Facts That

Prop Evolution"
and "Six Biological
Evidences for a
Young Earth."
I think either one
would make a
great pocket-size
piece that could



be handed to someone with questions or to have for a quick reference.

- D. W.

Editor's note: Our *Creation Q&A* booklet is the perfect quick reference guide for creation science questions. Visit ICR.org/ store to get copies to share!



With a passion for paleontology, our seven-year-old granddaughter continues her backyard dig in search of bones... "relics," as she refers to any rock that displays significant markings. Her fascination with fossils—especially dinosaurs—recently found her poring over my collection of *Acts & Facts*, searching for and meticulously cutting out pictures. **Then with tape, pipe cleaners, cardboard, and markers, she created her own 3-D museum display. Perhaps she has a future with the ICR Discovery Center!** As she browsed the magazines, she was

also drawn to the Science for Kids books

described on the back cover. They're already on order!

— S. A.



Dear Dr. [Brian] Thomas,

I've been reading and learning from your articles in *Acts & Facts* for several years and just noted in the May edition in the end notes to your articles that you have earned your doctorate degree. Congratulations! May the Lord Jesus continue to bless you and to use you to write more of the great articles that you present every month. I thoroughly enjoy your articles and really appreciate how you always point out that real, honest science clearly agrees with God's Word in the Bible that He created everything in six 24-hour days about six thousand years ago. To God be the glory!

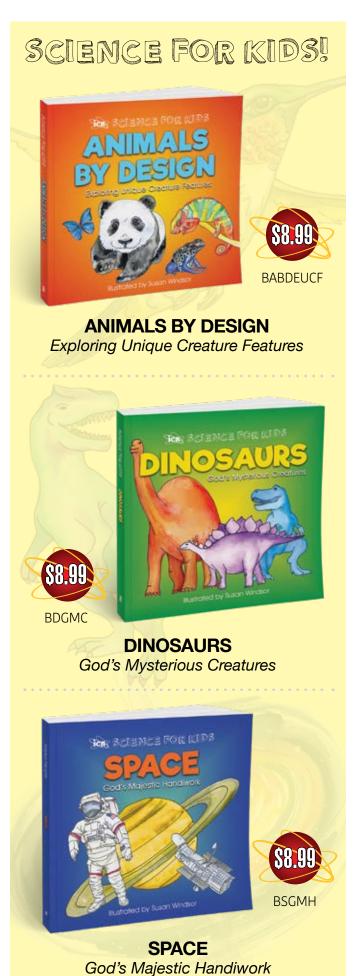
- G. H.



I just wanted to say thank you so very much for the wonderful tour and resources you blessed us with last week! We so enjoyed the first of the four *Made in His Image* videos! I can't wait to show them to my students! **They will fit for biology and anatomy and physiology classes so well.** I look forward to a wonderful relationship we can share bringing glory to the name of our great King, Jesus.

— L. E.

Have a comment? Email us at 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.





P. O. Box 59029, Dallas, TX 75229

