

ACTS & FACTS

INSTITUTE FOR
CREATION RESEARCH

www.icr.org

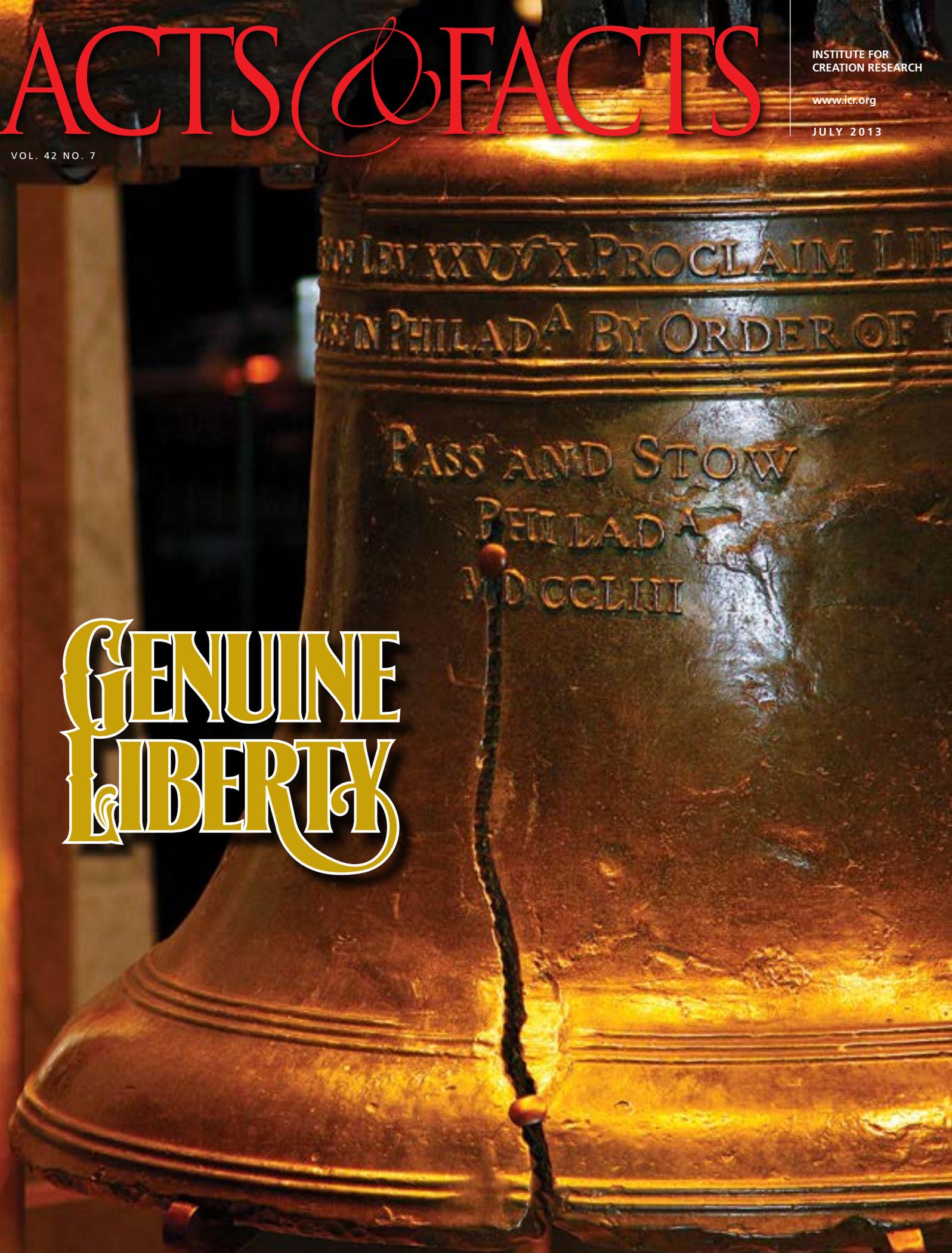
JULY 2013

VOL. 42 NO. 7

AN LEV XXV X PROCLAIM LIB
IN PHILADA BY ORDER OF T

PASS AND STOW
PHILADA
M D CCLXXII

GENUINE LIBERTY



When your child hears the earth is billions of years old...what do you say?

This book has the answers!

NEW!

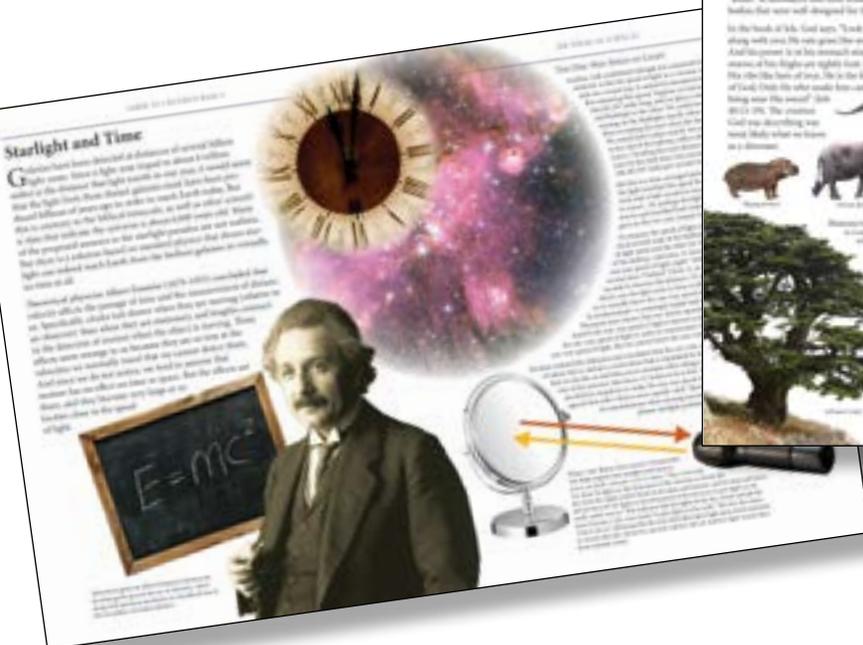
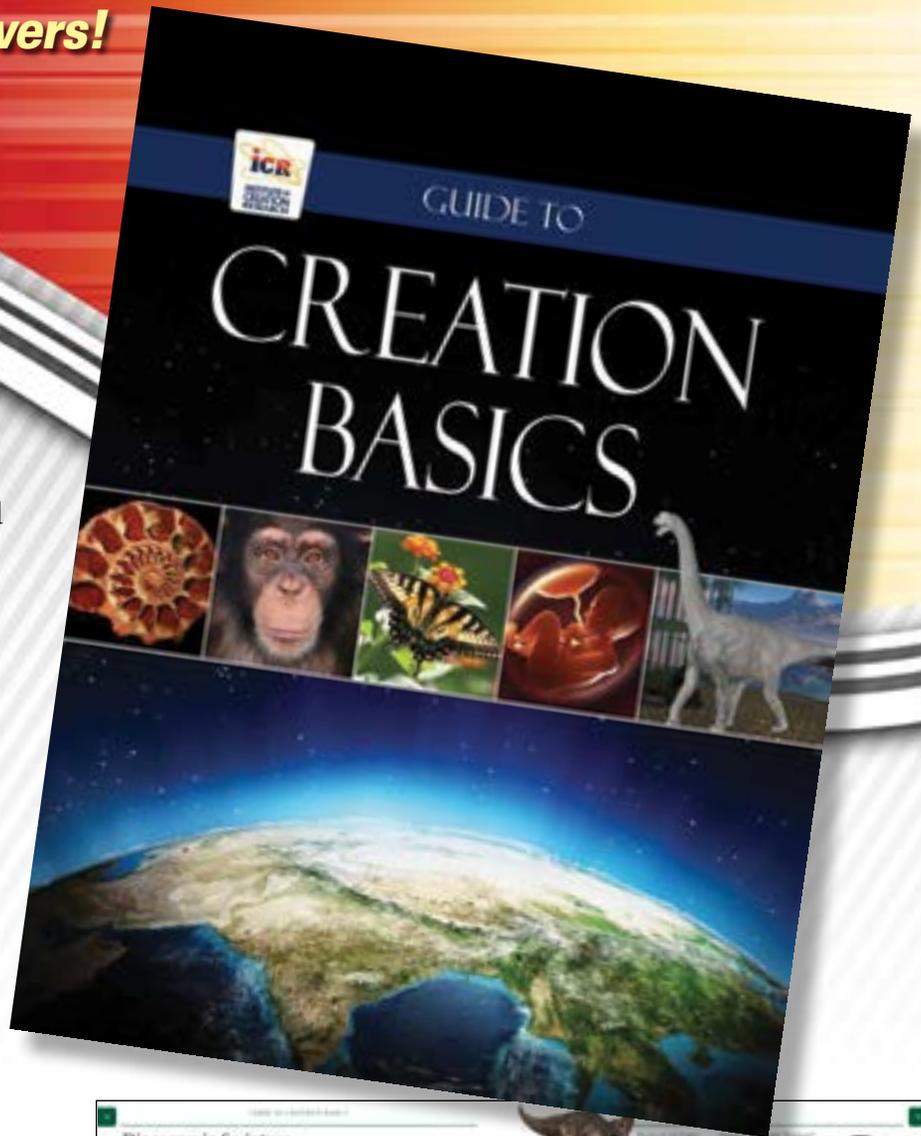
Guide to Creation Basics

(Hardcover)

This comprehensive 120-page guide, authored by ICR scientists and scholars, is loaded with hundreds of full-color illustrations!

Topics include:

- The Flood
- The Fossil Record
- Mount St. Helens
- Carbon Dating
- Problems with the "Big Bang"
- Recent Creation of the Universe
- Life's All-or-Nothing Design
- Dinosaurs in Scripture
- Myths and Fallacies
- Genesis and the Curse
- Design in Creation
- Humans Are Unique



\$16.99

plus shipping & handling

To order, call 800.628.7640 or visit www.icr.org/store

Published by
INSTITUTE FOR CREATION RESEARCH
P. O. Box 59029
Dallas, TX 75229
214.615.8300
www.icr.org

EXECUTIVE EDITOR
Jayme Durant

SENIOR EDITOR
Beth Mull

EDITORS
Christine Dao
Michael Stamp

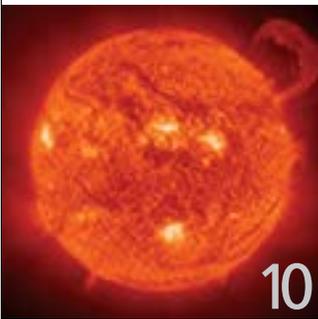
DESIGNER
Dennis Davidson

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

Copyright © 2013
Institute for Creation Research



5



10



13



20

FEATURE

5 Genuine Liberty

HENRY M. MORRIS III, D.MIN.

RESEARCH

9 Pseudogenes Are Functional, Not Genomic Fossils

JEFFREY TOMKINS, PH.D.

IMPACT

10 The Solar System: The Sun

JASON LISLE, PH.D.

BACK TO GENESIS

13 Did Lions Roam the Garden of Eden?

NATHANIEL T. JEANSON, PH.D.

14 God's "Very Best" Creation

JOHN D. MORRIS, PH.D.

16 Insect Arithmetic—Pure Genius!

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

APOLOGETICS

18 Avoiding Identity Fraud

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

CREATION Q & A

20 Do Young C-14 Results Reflect Contamination?

JAKE HEBERT, PH.D.

STEWARDSHIP

21 Notes of Encouragement

HENRY M. MORRIS IV



True Freedom

We often think of freedom in a military sense—a war is won, soldiers return home, prisoners are freed, and bullets no longer fly. People walk their streets in safety, and citizens enjoy such rights as free speech, voting, and worshipping as they choose. From this perspective, liberty is achieved through force—combat or a military presence and maintained through laws, governing bodies, judges, and men and women who fight against those who oppose freedom.

This is certainly a simplistic representation of liberty, because true freedom is so much more than living without war—freedom goes far beyond mere outward order and nominal compliance. Dr. Henry Morris III addresses this in his feature article “Genuine Liberty” (pages 5-7). He points out that true freedom is found at a spiritual level, saying, “The ultimate freedom that is promised is freedom from the rule of evil secured by the salvation granted through the substitutionary sacrifice of our Lord Jesus.”

As believers, we struggle for freedom within, and our opponents aren’t always those wearing an enemy

uniform or a terrorist’s mask. We often face far more formidable enemies—we struggle against our own sin nature, worries, fears, and even our “adversary the devil [who] walks about like a roaring lion, seeking whom he may devour” (1 Peter 5:8).

When we lay down our arms and run to Him, we experience spiritual liberty through the grace of God. He is our refuge, our stronghold, our victor in battle. He releases the captive. He sets us free with the power of His cross and resurrection. Only our Creator God could win the battles that rage within us!

While war memorials rightfully bring tears to our eyes, and heroic tales of battlefield bravery inspire us to reach beyond our personal comfort, our own internal struggles and wars lead us to the strong arms of our Lord. We personally experience liberty when we accept the gift of Jesus Christ—and then He enables us to see a world that cries for true freedom and to offer others the peace that’s found in Christ alone.

Jayme Durant

Jayme Durant
EXECUTIVE EDITOR



GENUINE LIBERTY

HENRY M. MORRIS III, D.M.I.N.

PROCLAIM LIBERTY THROUGHOUT ALL THE LAND UNTO ALL
THE INHABITANTS THEREOF LEV. XXV X
BY ORDER OF THE ASSEMBLY OF THE PROVINCE OF
PENNSYLVANIA FOR THE STATE HOUSE IN PHILAD^A.

PASS AND STOW
PHILAD^A
MDCCLIII

This is the inscription on the Liberty Bell, which is on display in the old town square of Philadelphia. Many of us have visited the bell or at least have seen pictures of it. Most of us also recognize the Scripture passage that was used to declare “liberty” from the oppression of Great Britain (Leviticus 25:10), bringing about the birth of our country in the late 1700s.

The United States celebrates Independence Day on July 4th because the Second Continental Congress approved and signed the Declaration of Independence on July 4, 1776. The famous opening lines read:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness.

Political Liberty

The focus of the drive for independence in the 1700s was political liberty. That is, freedom from the oversight of a distant king whose interests and political advisors had little concern for the welfare of the newly formed colonies so far away from the European continent. Although the Bible may imply political freedom in some of its references about Israel, the ultimate freedom that it promised is freedom from the rule of evil secured by the salvation granted through the substitutionary sacrifice of our Lord Jesus.

The United States has a greater political freedom built into its governmental system than any other nation in history, but that freedom is both tenuous and fragile. In his Lyceum Address, the young Abraham Lincoln is often quoted as saying:

All the armies of Europe, Asia and Africa combined, with all the treasure of the earth (our own excepted) in their military chest; with a Buonaparte for a commander, could not by force, take a drink from the Ohio, or make a track on the Blue Ridge, in a trial of a thousand years.

At what point then is the approach of danger to be expected? I answer, if it ever reach us, it must spring up amongst us. It cannot come from abroad. If destruction be our lot, we must ourselves be its author and finisher. As a nation of freemen, we must live through all time, or die by suicide.

Lincoln's foresight seems very *apropos* today.



Personal Liberty

The verse from Leviticus engraved on the Liberty Bell was quoted correctly but misapplied. Political liberty is not what the declaration in the Scripture was promising. The laws of Israel were dictated to Moses by God Himself—a sequence of sabbatical “sevens” was contained in those laws culminating in the

erty than any other nation, the distortion of that liberty has caused a growth of freedom to do evil among its population.

The nonprofit Freedom From Religion Foundation gains media attention by promoting the so-called principle of separation between church and state. That organization claims to be the nation's largest association of freethinkers (atheists, ag-

THE VERSE FROM LEVITICUS ENGRAVED ON THE LIBERTY BELL WAS QUOTED CORRECTLY BUT MISAPPLIED.

great year of “Jubilee” to be celebrated every 50 years. That Jubilee would liberate everyone from debt, restore personal property ownership, and “proclaim liberty throughout all the land.”

Israel never observed a Jubilee year—in fact, they did not even observe the sabbatical years of rest for their land. As a result, the Lord forced them into 70 years of captivity to punish their disobedience. Although the United States has enjoyed more personal lib-

nostics, and skeptics) with more than 19,000 members. Working with well-known organizations like the ACLU, they have noisily agitated various public forums about religious encroachment and won important lawsuits to end supposed state-church entanglements.

People For the American Way, along with organizations such as Americans United for Separation of Church and

State, has encouraged progressives on the one hand and libertarians on the other to infiltrate the major political parties. Even conservative thinking has begun to endorse such policies as gay rights and the legalization of recreational drugs, introducing various bills in state and federal houses to make such atrocities the law of the land. The freedom of a woman's "right to choose" to kill her unborn child is now a major entrenched "liberty" still being forced on our nation.

God's warning to Israel given through the prophet Isaiah is worth remembering:

Woe to those who call evil good, and good evil; Who put darkness for light, and light for darkness; Who put bitter for sweet, and sweet for bitter! Woe to those who are wise in their own eyes, And prudent in their own sight! (Isaiah 5:20-21)

May God have mercy on our country and bring the conviction and repentance of real liberty to our land.

Glorious Liberty

During his magnificent theological discussion in Romans of what God has done for those who are twice born, the great scholar Paul developed a beautiful description of the "glorious liberty of the children of God" (Romans 8:21). Three chapters are

LIVING ACCORDING TO THE LEADING OF THE SPIRIT OF GOD BRINGS US INTO GENUINE LIBERTY.

central to this wonderful truth.

Romans 6 defines the absolute and eternal condition that results from the new birth. We who were dead because of sin have been made alive to God (Romans 6:11). This entire chapter contrasts the new birth with the old deadness. Sin has no more authority. Holiness and the freedom to reign over sin are granted both in authority and power. Sin's wages are death, but God's gift is eternal life. Once we become the servants of God, it is not possible for us to serve sin. The great liberty that God grants empowers us to "present [our] members as slaves of righteousness for holiness" (Romans 6:19). God's promise is simple and powerful: "Sin shall not have dominion over you" (Romans 6:14).

Romans 7 amplifies the challenge we face even with the power of the "glorious liberty." Even though we are "dead to the law" and are "married" to Christ (Romans 7:4), there is a real battle going on between our flesh and a new law in our minds. In fact, "nothing good dwells" in our flesh (Romans 7:18). That old nature, the "law of sin," is still operative and trying to bring us back into captivity (Romans 7:23). The warnings are clear—the one who serves the flesh cannot

serve God. Instead, God instructs us to serve Him, saying, "With the mind [we] serve the law of God" (Romans 7:25).

The beautiful crescendo of this glorious liberty is outlined in Romans 8. Even though there is a constant battle going on between the flesh and the new mind gifted to us by God at salvation, there is "no condemnation to those who are in Christ Jesus, who do not walk according to the flesh, but according to the Spirit" (Romans 8:1). Since we are dead to the flesh, we are enabled and empowered to be "led by the Spirit of God" (Romans 8:14). Living after the flesh can only lead to death. Living according to the leading of the Spirit of God brings us into genuine liberty and conscious righteousness that provide the "peace...which surpasses all understanding" (Philippians 4:7).

Long ago, King David composed the marvelous acrostic Psalm 119. He speaks of the many ways that the Word of God provides true liberty for those who follow the teachings of our Creator:

Let Your mercies come also to me, O LORD—Your salvation according to Your word. So shall I have an answer for him who reproaches me, For I trust in Your word. And take not the word of truth utterly out of my mouth, For I have hoped in Your ordinances. So shall I keep Your law continually, Forever and ever. And I will walk at liberty, For I seek Your precepts. (Psalm 119:41-45)

Many years later, Paul encourages us to cling to that freedom: "Stand fast therefore in the liberty by which Christ has made us free, and do not be entangled again with a yoke of bondage" (Galatians 5:1). And God continues to reach out to each of us with the offer of genuine liberty. His voice still calls us to follow Him along the path of eternal liberty. ●

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



I C R J U L Y E V E N T S

■ **JULY 3**

Grapevine, TX
MISD Conference 2013
(J. Johnson) 800.933.1445

■ **JULY 6**

C. S. Lewis Society Webcast
The TruthSayer Foundation
(J. Lisle) TruthSayer.org.za

■ **JULY 10**

Fort Worth, TX
Glenview Baptist Church
(J. Lisle) 817.281.3361

■ **JULY 12-13**

Toms River, NJ
Jersey Fire 2013
(J. Lisle) 707.836.3729

■ **JULY 17**

Fort Worth, TX
Glenview Baptist Church
(J. Hebert) 817.281.3361

■ **JULY 23 and JULY 30**

Institute for Creation Research
1806 Royal Lane
Dallas, Texas 75229
(Classroom A)

**The Importance of Names in
the Bible, a Biblical
Apologetics Perspective**

(Back to Genesis Lecture Series,
ACSI-2013-50584)

(J.J.S. Johnson) 800.337.0375

■ **JULY 24**

Fort Worth, TX
Glenview Baptist Church
(B. Thomas) 817.281.3361

■ **JULY 31**

Fort Worth, TX
Glenview Baptist Church
(J. Lisle) 817.281.3361

Four Wednesday Nights

Glenview Baptist Church

4805 NE Loop 820 • Fort Worth, Texas

817.281.3361

— JULY 10 —



Dr. Jason Lisle will be presenting
The Secret Code of Creation

— JULY 17 —



Dr. Jake Hebert will be presenting
The Mystery of the Ice Age

— JULY 24 —



Mr. Brian Thomas will be presenting
The Mystery of the Dinosaurs

— JULY 31 —



Dr. Jason Lisle will be presenting
The Ultimate Proof of Creation

For more information on these events or to schedule an event,
please contact the ICR Events Department at **800.337.0375** or
events@icr.org.



Pseudogenes Are Functional, Not Genomic Fossils

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

One of the past arguments for evidence of biological evolution in the genome has been the concept of “pseudogenes.” These DNA sequences were once thought to be the defunct remnants of genes, representing nothing but genomic “fossils” in the genomes of plants and animals. However, copious amounts of new research—now publicly available in a variety of online databases and described in research publications—are rapidly showing how pseudogenes are not only functional, but key to organism survival.¹

Pseudogenes come in several forms depending on their DNA sequence characteristics. One version is called the “unprocessed pseudogene,” which has all the normal parts of a protein-coding gene, but was originally thought to be incapacitated based on presumed DNA code errors. These are thought to have largely arisen as the result of being duplicated from another gene—a largely hypothetical explanation in most cases. A famous example of this type is the human “beta-globin pseudogene,” which has now been shown to functionally produce a variety of regulatory RNAs. It’s also required for proper blood chemistry. In fact, a variety of reports have shown that mutations in this gene are associated with various blood diseases.^{2,3,4}

A recent news report on the beta-globin pseudogene is available on the Institute for Creation Research website, and an extensive ICR research project analyzing the scientific literature and functional genomics data for the beta-globin pseudogene has recently been submitted to a journal for publication.⁵

Another type is called a “processed pseudogene” because it lacks the intervening non-protein coding sequences called introns, which are typically spliced out when a messenger RNA (mRNA transcript) is produced from a gene. Because of this characteristic, evolutionists have postulated that processed pseudogenes arose from the sequence of an mRNA that was copied (reverse transcribed) and then re-inserted into the genome as a genetic accident. Another name for these types of pseudogenes is “retrogenes.”

Despite the still-prevalent myth that processed pseudogenes

are also genomic fossils, scientists have been identifying important functions for these retrogenes in mammals since 1985.^{6,7} Another ICR news post describes the recent discovery of life-critical function for the human processed pseudogene (retro) PPM1K.⁸ Scientists realized that the PPM1K pseudogene was being actively transcribed, and when the cells of cancer patients were examined, the regulatory RNAs produced by PPM1K were found in abnormally low levels compared to healthy humans.⁹ The PPM1K pseudogene RNAs were not only found to help regulate the protein-coding version of the PPM1K gene, from which it supposedly evolved, but also the NEK8 gene that has also been associated with cancerous cell growth. Therefore, if this pseudogene is not functioning properly, cellular dysfunction and cancer are the likely result.

So why do these evolutionary predictions about the genome continually fail in the light of new research? It’s because scientists who possess an evolutionary mindset are always viewing the genome as the product of chance random processes. Instead, we should be looking at the genome from the perspective of pervasive functionality and incredible bioengineering—the product of an omnipotent and wise Creator. ●

References

1. Wen, Y. Z. et al. 2012. Pseudogenes are not pseudo any more. *RNA Biology*. 9 (1): 27-32.
2. Nuinon, M. 2010. A genome-wide association identified the common genetic variants influence disease severity in beta0-thalassemia/hemoglobin E. *Human Genetics*. 127 (3): 303-314.
3. Giannopoulou, E. et al. 2012. A Single Nucleotide Polymorphism in the HBBP1 Gene in the Human β -Globin Locus is Associated with a Mild β -Thalassemia Disease Phenotype. *Hemoglobin*. 36 (5): 433-445.
4. Roy, P. et al. 2012. Influence of BCL11A, HBS1L-MYB, HBBP1 single nucleotide polymorphisms and the HBG2 XmnI polymorphism on Hb F levels. *Hemoglobin*. 36 (6): 592-599.
5. Tomkins, J. Beta-Globin Pseudogene Is Functional After All. *Creation Science Update*. Posted on icr.org April 12, 2013, accessed May 12, 2013.
6. Soares, M. B. et al. 1985. RNA-mediated gene duplication: the rat preproinsulin I gene is a functional retroposon. *Molecular and Cellular Biology*. 5 (8): 2090-2103.
7. Ciomborowska, J. et al. 2013. “Orphan” Retrogenes in the Human Genome. *Molecular Biology Evolution*. 30 (2): 384-396.
8. Tomkins, J. Pseudogene Plays Important Role in Cell Cycle. *Creation Science Update*. Posted on icr.org April 22, 2013, accessed May 12, 2013.
9. Chan, W. L. et al. 2013. Transcribed pseudogene ψ PPM1K generates endogenous siRNA to suppress oncogenic cell growth in hepatocellular carcinoma. *Nucleic Acids Research*. 41 (6): 3734-3747.

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



The Solar System: The Sun

J A S O N L I S L E , P H . D .

**Then God made...
the greater light to
rule the day.**

GENESIS 1:16

At the heart of our solar system is the sun, a stable hydrogen “bomb” that gives off more energy every second than a billion major cities would use in an entire year. The sun is remarkable in its complexity and power. When we examine the science of the sun, we find that it confirms biblical creation.

The Creation and Purpose of the Sun

The sun and other luminaries in the sky were created on the fourth day of the creation week. Genesis informs us that the purpose for these lights in the sky is (1) to separate day from night, (2) to help us mark the passage of time, and (3) to give light upon the earth (Genesis 1:14-15). A fourth

purpose is revealed elsewhere in Scripture—to declare God’s glory (Psalm 19:1-6).

These four purposes are given to the luminaries in general. But two of these purposes are accomplished almost entirely by the sun. The sun alone separates day from night. And although all the luminaries give light upon the earth, their contribution is insignificant in comparison to the brilliance

of sunlight. The sun and moon are both described as “great” lights in Genesis, perhaps because they appear far brighter than any other lights and also because they appear as large disks, whereas all the other luminaries are visible as points with no discernible size. The sun is the greater of these two, being far brighter than the moon and having its own internal power source. The moon is the lesser great light, being far dimmer than the sun and receiving its power to illuminate from the sun itself. The moon shines only by reflected sunlight.

A fifth purpose of these two heavenly lights is given in Genesis 1:16—to “govern” the day and the night. The Hebrew word rendered as “govern” or “rule” means to have power or dominion. The sun can be said to have “power” over the day because it defines the day and overpowers all other luminaries during the day. The moon “governs” the night by outshining all other nighttime luminaries. The moon is not always visible at night, and the stars can “rule” the night in the moon’s absence (Psalm 136:9). Because they “govern” day and night, the luminaries quickly became a symbol of government. Just think of how many countries have the sun, moon, or stars on their nations’ flags. The Bible portrays the family of Israel using the symbols of the sun, moon, and stars (Genesis 37:9), a symbol that recurs throughout Scripture (e.g., Revelation 12:1).

Curiously, God provided a temporary light source to separate day from night for the first three days.¹ Why was the creation of the sun displaced until day four? Also, why doesn’t the Genesis account mention the sun or the moon by name? They are only referred to descriptively as the “greater light” to govern the day and the “lesser light” to govern the night. (We do know that this refers to the sun and moon from other Scriptures such as Psalm 136:7-9.) The answer to both of these questions may have been to discourage the worship of the sun and moon as “gods” (Deuteronomy 4:19). The sun is not the primary source of life—God is, hence

the beginning starts with God on day one, not the sun. The sun is not a personal being with a personal name—it is part of creation and merely a great light made by God.

Properties of the Sun

It may appear small in our sky at a distance of 93 million miles, but the sun is actually 109 times the diameter of Earth and over a million times the volume of Earth. The sun is the largest single object in our solar system and comprises 99.86 percent of all its mass. If a ten-pound bowling ball represented the mass of the sun, then all the planets, moons, comets, and

**The sun
is not the primary
source of life—God is,
hence the beginning
starts with God on
day one, not
the sun.**

everything else in our solar system could be represented by the combined mass of one nickel and one penny. Jupiter would be the nickel.

The sun is comprised almost entirely of hydrogen and helium gas. But how do we know this? We measure it by analyzing sunlight using a spectroscope, which breaks white light into a rainbow of colors called a “spectrum.” Careful analysis of the solar spectrum reveals narrow dark bands that indicate certain wavelengths of light are missing.² The position of these bands corresponds to the substance that produced the light. It’s like an atomic fingerprint. In fact, helium was actually discovered on the sun through spectroscopy before it was found on Earth. This is why it has the name “helium” from “Helios,” the ancient Greek deity of the sun. Similar analysis of starlight re-

veals that stars are also spheres of hydrogen and helium gas like the sun—but at much greater distances. The sun is so hot that for most of its interior, the atoms are completely ionized—their electrons have been stripped away from their nuclei.

Solar Structure

For a ball of ionized gas, the sun is remarkably complex. It is naturally divided into several layers that differ by temperature and motion. The solar core is the hottest region of the sun, with temperatures exceeding 15 million degrees Celsius (27 million degrees Fahrenheit). At such high temperatures, the protons from the hydrogen atoms move so quickly that they smash into one another and—through a series of steps—form helium. This process, called “nuclear fusion,” releases an enormous amount of energy that propagates outward, replenishing the energy that the solar surface is constantly radiating into space.

The process of nuclear fusion also produces tiny particles called “neutrinos.” These particles have the ghostlike ability to travel right through ordinary matter. Once created in the solar core, neutrinos travel outward at nearly the speed of light. In fact, several hundred trillion solar neutrinos pass harmlessly through your body every second. Amazingly, this is even true at night, when the neutrinos first travel through the earth (taking less than a second) before they pass through you. Scientists have constructed neutrino detectors that confirm that neutrinos are indeed coming from the sun, which serves to demonstrate that nuclear fusion is truly taking place in the solar core.

The solar radiative zone is the layer extending outside the solar core to about 2/3 the radius of the sun. The temperature in this region is still millions of degrees, but it is not hot enough for nuclear fusion. The convection zone is the outermost third of the sun. In this region, the ionized gas moves in large overturning cells on multiple scales of incredible complexity. The convection zone rotates differentially, with the equatorial re-

gions rotating faster than the polar regions. So the outer third of the sun is constantly twisting itself up. This twisting is thought to be partly responsible for the fact that the sun reverses its global magnetic field every 11 years.

The convection zone is encased within the photosphere—the visible surface of the sun. The photosphere has a temperature of about 6,000 degrees Celsius. The smallest overturning convection cells, called “granules,” are visible in high-resolution images of the solar photosphere. The photosphere also (often but not always) has small darker regions called “sunspots.” These are caused by magnetic fields that inhibit convection, preventing energy transport from below. This causes the sunspots to be cooler than the surrounding regions, which is why they are darker. Sunspots would actually appear quite bright if you could somehow separate them from the sun, but they seem dark by contrast to the much brighter surrounding solar surface. The number of sunspots grows and fades in an 11-year cycle and is correlated with the reversal of the sun’s global magnetic field.

Beyond the photosphere is the nearly transparent chromosphere. The gases in the chromosphere have very low density, which is why it is not visible under normal circumstances. The only way to see the chromosphere by eye is during a total solar eclipse at the very moment of totality.³ In an eclipse, the moon blocks the brighter photosphere, revealing a ring of the chromosphere, which often appears complex and very colorful. This is how the region came to be named, since “chromo” means “color.”

Beyond the chromosphere is the solar corona—a large envelope of extremely thin and highly structured ionized gas. “Corona” means “crown,” which is fitting as it surrounds the visible disk of the sun. Paradoxically, the solar corona is much hotter than the region below it, with temperatures exceeding one million degrees Celsius. The exact mechanism by which the corona is heated is not precisely known.

The sun is the largest single object in our solar system and comprises 99.86 percent of all its mass.

Designed for Life

Astronomers classify the sun as a main-sequence star. Its composition is roughly the same as other stars, and its temperature and brightness are in the middle of the range of other stars as well. In many ways, the sun is just an ordinary star. But in other ways, it is clear that the sun is designed for life to be possible on Earth. Some stars have superflares that release enormous amounts of deadly radiation. Fortunately for us, the sun doesn’t. Solar flares are mild. The sun’s temperature and distance from Earth are ideal for life. By contrast, hotter stars produce far more ultraviolet radiation that would have harmful effects on living tissue. And cooler stars emit far more infrared “heat” for a given amount of visible light.

Even the position of the sun in the galaxy seems optimized for life and for science. If the sun were close to the galactic core, harmful radiation could be a big problem. If the sun were on the outer rim, half of the sky would be nearly void of stars, making it harder to measure seasons or to investigate the universe. Strangely, the sun is depleted in lithium by a factor of 100 compared to other similar stars. We have not yet discovered the reason for this, but perhaps it will turn out to be yet another feature of design—an intriguing possibility for the Christian.

The Sun Confirms Creation

The sun has long been a problem for

those who reject Genesis. Secularists believe that the sun has been fusing hydrogen for nearly five billion years. But nuclear fusion gradually changes the density in the core, causing a star to brighten over time. The effect is negligible on a 6,000-year timespan. However, if the sun were billions of years old, it would have been 30 percent fainter in the distant past. But if the sun were that much fainter, then Earth would have been a frozen wasteland and life would not have been possible.⁴

The sun resists naturalistic formation scenarios. Secular astronomers currently believe that the sun (as with other stars) was formed by the collapse of a nebula—a giant cloud of hydrogen and helium gas in space. Astronomers have discovered thousands of nebulae, but no one has ever seen a nebula collapse in on itself to form a star. The outward force of gas pressure in a typical nebula far exceeds the meager inward pull of gravity. As far as we know, nebulae only expand and never contract to form stars. Even if gravity could somehow overcome gas pressure, magnetic fields and angular momentum would tend to resist any further collapse, preventing the sun from forming at all. It seems that science confirms what Scripture teaches: God made the greater light to rule the day. ●

References

1. Some people have supposed that these cannot be ordinary days without the sun. But in fact, the rotation of Earth relative to a light source determines the length of the day. So, of course the first three days would also have been 24-hour days.
2. Such wavelengths are actually present but at only a fraction of the intensity of the surrounding wavelengths. To the eye, they appear to be completely absent.
3. During totality—and only at that time—it is safe to look at the fully-eclipsed sun with the unaided eye. However, it is never safe to view the sun with the naked eye at any other time without special equipment. This includes partial or annual eclipses, total eclipses before or after totality, or when the sun is not eclipsed at all. The solar photosphere emits ultraviolet radiation that can cause permanent damage to the human eye.
4. This problem is known as the “faint young sun paradox.” It continues to frustrate secular astronomers. See Faulkner, D. 1998. The Young Faint Sun Paradox and the Age of the Solar System. *Acts & Facts*. 27 (6). See also Goldblatt, C. and K. J. Zahnle. 2011. Faint young Sun paradox remains. *Nature*. 474 (7349): 744-747.

Dr. Lisle is Director of Research at the Institute for Creation Research and received his Ph.D. in Astrophysics from the University of Colorado.



Did Lions Roam the Garden of Eden?

NATHANIEL T. JEANSON, P.H.D.

Lions look designed to kill, both inside and out. Sharp teeth and claws, a short digestive tract, powerful limbs—all these features suggest “predator,” not tame and gentle pet. Yet in the beginning, God gave “to every beast of the earth...wherein there is life” *plants* as food, not animal flesh (Genesis 1:30). Only after man sinned (Genesis 3) did human and animal death enter the world (Genesis 1:31; Romans 5:12; 8:20-22). So where did today’s carnivorous lions come from?

Our modern conception of lions stems from the meat-eating cat species that currently dwells in Africa and India. Recent hybridization evidence indicates that this species belongs to the cat “kind,” a grouping of related species that includes tigers, jaguars, leopards, ocelots, domestic cats, and likely all cat species large and small.¹ Since God commanded Noah to take two of every “kind”—not two of every species—on board the Ark, our modern lion species was probably not on the Ark but, rather, descended from the two cats (felids) that did board the Ark.

Could lions have existed before the Flood? God permitted predatory behavior among all potentially carnivorous animals when He instituted the Curse of Genesis 3. Furthermore, the fossils of now extinct feline carnivores indicate that ferocious-looking saber-toothed cats once inhabited this planet. Hence, lions of a different sort may very well have attacked animals in the pre-Flood world.

How did these big cats acquire their sharp teeth? At the Curse, God probably didn’t speak sharp teeth into existence out of nothing. His acts of global creation were

finished by day seven of the creation week (Genesis 2:1-3; Exodus 20:11; Hebrews 4:3). So where did the lion’s teeth come from?

Traditionally, creationists have invoked several types of mechanisms to explain how the creation went from “very good” (Genesis 1:31) to “cursed” (Genesis 3) without a second creation event. For example, God may have created creatures with latent genetic information to be “switched on” only after Genesis 3, a concept similar to the “mediated design” model.²

Alternatively, God may have created anatomical and physiological features capable of multiple purposes. Powerful jaws, now used to kill and tear flesh, may have initially been used to open fruits and plant seeds of the size and hardness of modern watermelons and coconuts. Could the lion’s teeth have been used for tearing tough plants and roots in the beginning?

Biblically, this latter hypothesis is compelling. Consider the effects of the reversal of the Curse in Isaiah 11:6-7: “The wolf also shall dwell with the lamb, and the leopard shall lie down with the kid; and the calf and the young lion and the fatling together...the lion shall eat straw like the ox.” In reversing the Curse, God doesn’t seem to change the lion’s anatomy; He simply changes the lion’s behavior.³ Furthermore, Scripture explicitly mentions God switching the mental states of animals after the Flood (Genesis 9:2). Might He also have done something much like this at the Curse?

Scientifically, predatory behavior and



herbivorous diets show up in unexpected places. “Darwin’s finches”—the species inhabiting the Galápagos Islands—seem designed to crack plant seeds and probe cactus flowers. Yet one of these gentle-looking species drinks the blood of other birds.⁴ Conversely, the panda bear has sharp teeth and a short digestive tract—hallmarks of a flesh diet—yet it survives strictly on bamboo, a phenomenon that continues to puzzle scientists.⁵ Clearly, the diet of an animal cannot be identified solely from its anatomy.

Did lions parade past Adam in the Garden, sharp teeth and all? Quite possibly, though they would have been tame and strictly herbivorous. ●

References

1. Pendragon, B. and N. Winkler. 2011. The family of cats—delineation of the feline basic type. *Journal of Creation*. 25 (2): 118–124.
2. Wood, T. C. 2003. Mediated Design. *Acts & Facts*. 32 (9).
3. Special thanks to Dr. Paul Benware for bringing these verses to my attention.
4. Weiner, J. 1994. *The Beak of the Finch*. New York: Vintage Books.
5. Li, R. et al. 2010. The sequence and *de novo* assembly of the giant panda genome. *Nature*. 463 (7279): 311–317.

Dr. Jeanson is Deputy Director for Life Sciences Research and received his Ph.D. in Cell and Developmental Biology from Harvard University.



I recently attended a church lecture by a popular “semi-creationist” who advocates his special melding of mainstream science with a self-described “literal” view of Scripture. In his model, the universe began with the Big Bang around 14 billion years ago, our solar system appeared some 10 billion years ago, and Earth made its entrance about 4.6 billion years ago. Life commenced one to three billion years ago followed by—in order of appearance—invertebrates, vertebrate fish, amphibians, mammals, and, finally, man.

If this sounds familiar, it should. This model is exactly the order postulated by secular scientists for evolution. However, in this

speaker’s model, creation was directly accomplished and orchestrated by the Bible’s Creator God. Where differences become apparent, the lecturer “stretches” Scripture—as if he has a license to do so—to make the ideas seem to fit together.

Obviously, in this compromised view, death and extinction reigned long before man was created and, thus, long before man’s sin brought the curse of death into the once “very good” creation (Genesis 1:31). According to this semi-creationist, the fossil record of dead things was deposited long before Adam, and it recorded not only death, but horrible death, suffering, carnivorous activity, cancer, parasites, and all sorts of other bad things.

Yet, after the creation of mankind, God called it all “very good.” The speaker’s teachings led some of those in the audience to question the semi-creationist’s perspective: *Did God know how bad things were? Does He occasionally call bad things good?* When questioned, the speaker insisted that death and extinction were and are actually good because over time they allow for more recent (i.e., more advanced) creations to dominate and somehow keep the ecology fresh. The lecturer has written for decades that this world full of death may have been God’s “very good” creation, but it wasn’t His “very best” creation, thereby justifying his concept of a death-filled but still “very good” creation.

GOD’S “VERY BEST” CREATION

JOHN D. MORRIS, P.H.D.

Initially, I reacted with a measure of disgust that a fellow Christian would so besmirch the Word and work of God with this tortured reasoning, but there is a sense in which he is correct that God's initial created world was not "very best."

The Bible teaches that this present world with all its difficulties, suffering, and death caused by man's sin will one day "pass away with a great noise" and be recreated as the "new heavens and new earth, wherein dwelleth righteousness" (2 Peter 3:10, 13). The physical material will "melt with fervent heat," and will be made new once again. God's perfect intention for creation has been delayed by sin and its "wages"—death—but will not ultimately be thwarted (Romans 6:23). He will ac-

complish exactly what He planned; His Word shall not return void.

The Edenic world and the new earth are in many ways comparable, but they certainly are not the same. Once more, there will be no death or tears, and we will live forever in perfect fellowship with our Redeemer (Revelation 21:4). Furthermore, the new earth itself will be even better than the old. For instance, Adam's ability to choose sin and its consequence will not be present in the new. Satan, the great deceiver and tempter to sin, will certainly not be there—his total destruction will have been accomplished by then. Adam saw the glorious Edenic world and actually "walked with God," but still rejected Him and His authority (Genesis 3:8).

Regarding the new earth, we are told, "Eye hath not seen, nor ear heard...the things which God hath prepared for them that love Him" (1 Corinthians 2:9). The new earth will be even better than before but not for the reasons old earth advocates claim!

Best of all, we will be there. Those who have accepted God's free gift of forgiveness and eternal life bought by the death of His only begotten Son will participate in sweet, unbroken fellowship once again with the One who created and redeemed us. What a heritage and hope—what an eternal future awaits us! ●

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



IN THIS COMPROMISED VIEW, DEATH AND EXTINCTION REIGNED LONG BEFORE MAN WAS CREATED AND, THUS, LONG BEFORE MAN'S SIN BROUGHT THE CURSE OF DEATH INTO THE ONCE "VERY GOOD" CREATION.

INSECT ARITHMETIC —

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

As entomologists study insects and spiders, they regularly discover examples of mathematical genius hardwired into the tiny-brained arthropods. These amazing insect algorithms light the path of insect origins.

Some insects precisely count years. Residents of the United States' East Coast anticipated an insect invasion—at least in the more rural areas—in the spring of 2013, which marks 17 years since a particular brood of a unique kind of red-eyed cicada last emerged *en masse*. They are called “magicicada” for the way these insects seem to magically appear at the same time after 17 years of living as larvae underground. People often mistakenly call them locusts.

According to a recent Associated Press (AP) article that warned New Englanders of the cicadas' impending romp, some estimate that the mass emergence will produce a trillion cicadas. When the ground temperature reaches precisely 64 degrees Fahrenheit, magicicadas in “Brood II” will tunnel upward and then crawl up the side of a nearby tree or structure. The males emerge first, squeezing out of their molted exoskeletons to fly around and join a half-trillion others searching for mates.

Of course, their onboard precision equipment enables their simultaneous emergence from the soil. Somehow the cicadas count the passage of years, and they also each clearly possess a thermometer to measure the soil temperature while napping underground. Counters and thermometers are useless unless they can communicate—according to appropriately written software—with a central processor. Only then can the organism attach meaning to the data input and act accordingly.

Since similar devices are available at hardware stores, mankind has obviously achieved this technology—machines that send a thermometer's temperature signal to a central processor. But no human inventor has approached the scale of miniaturization found in insects. No wonder University of Illinois entomologist May Berenbaum told the AP, “It's just an amazing accomplishment. How can anyone not be impressed?” Similarly, Mike Raupp, an entomologist at the University of Maryland, said, “These guys are geniuses with little tiny brains.”¹

So, even secular scientists recognize the genius inside insect instincts. But unfortunately, they wrongly identify the origin of that genius. Even young students understand that genius programming

PURE GENIUS!

always arises from a genius programmer. Nevertheless, Raupp said, “These guys have evolved several mathematically clever tricks.”¹

Why would anyone conclude that evolution, which supposedly involves natural processes that know nothing about prime numbers, counting, or anything mathematical, somehow implanted math skills into insects? Why not a more realistic source, such as a real-live intelligent mathematician?²

Even secular textbooks teach that one way to recognize a clear signal from an extraterrestrial intelligence would be to track the prime number signals it might transmit if it existed.³ Like most magicicada broods, Brood II will wait exactly 17 years. Others wait 13, and both are prime numbers. If secularists discovered prime-number signals coming from outer space, they would base their proclamations of intelligent alien life as the signal's source on the fact that mere natural processes don't generate prime-number sequences. But for some reason, inference-making skills lapse when the same prime-number algorithms occur in creatures right at the secularists' feet.

No, evolution is not responsible—God is. The Lord Jesus is the original mathematician. He infused His mathematical signature into the counting cicada and many other insects, too.

While some count years, other insects count steps. Ants walk at an amazing speed for such tiny feet and legs. Voluntary muscles contracting that fast is impressive enough, but researchers have dis-



and using the natural communication systems of highly social animals can open new horizons in studying numerical cognition.⁷

And insect math goes beyond just counting. A group of researchers recently witnessed ants solving the “towers of Hanoi” puzzle.⁸ The game involves transferring disks of tapering size from one of three stacks to another without placing a larger disk on top of a smaller one. For the ants, though, researchers transposed the different stacking options onto a maze of hexagons, where the shortest route to food corresponded to the best solution to the puzzle. Of course, the ants solved it. They even reworked new solutions to overcome blocked tunnels. In addition, the pioneer ants that solved the puzzles somehow explained the correct route to their relatives.

Harvester ants access another algorithm to solve a different critical problem. If the ant foragers gather too much food, they clog pathways and food storage chambers, as well as waste time and energy. If they forage too little, the ant colony starves. A balance is required, and an ant algorithm supplies it. Stored somewhere in the ant, this data-processing software governs their foraging frequency. The algorithm relates at least three critical variables: the rate of outgoing foragers, the amount that the rate increases with each returning ant, and the amount that the rate decreases with each outgoing ant. Researchers discovered that this ant algorithm closely matches the one that programmers wrote to regulate Internet traffic. The algorithm uses two formulae:⁹

1. $\alpha_n = \max(\alpha_{n-1} - qD_{n-1} + cA_n - d, \alpha_0)$
2. $D_n \sim \text{Poisson}(\alpha_n)$

Who knew ants were so smart?

Insects like cicadas and ants possess enough “genius” to impress smart scientists. Those who constantly attribute that genius to chance, time, and natural processes probably wallow in frustration, since “nature” is far from a genius. Satisfaction, not frustration, awaits those who ascribe insect math to a real live Mathematician. “For by him were all things created, that are in heaven, and that are in earth” (Colossians 1:16). ●

References

1. Borenstein, S. 2013. East about to be overrun by billions of cicadas. Associated Press. Posted on hosted.ap.org May 7, 2013, accessed May 9, 2013.
2. “It’s not a problem for the biblical creationist to have conceptual entities existing before human minds because human minds are not the only minds that exist in the Christian worldview. Numbers are a reflection of God’s thoughts. Numbers existed before people because God’s thoughts existed before people.” Lisle, J. 2012. Evolutionary Math? *Acts & Facts*. 41 (12): 11-13.
3. Pomerance, C. 2004. Prime Numbers and the Search for Extraterrestrial Intelligence. *Mathematical Adventures for Students and Amateurs*. Washington, D.C.: Mathematical Association of America.
4. Gross, M. 2012. How ants find their way. *Current Biology*. 22 (16): R615.
5. *Ibid*, R616.
6. *Ibid*, R618.
7. Viegas, J. 2011. Are Ants Smarter Than Fifth-Graders at Math? *Discovery News*. Posted on discovery.com April 11, 2011, accessed May 10, 2013.
8. Reid, C. R., D. J. T. Sumpter and M. Beekman. 2011. Optimisation in a natural system: Argentine ants solve the Towers of Hanoi. *Journal of Experimental Biology*. 214 (1): 50-58.
9. Prabhakar, B., K. N. Dektar, and D. M. Gordon. 2012. The Regulation of Ant Colony Foraging Activity without Spatial Information. *PLoS Computational Biology*. 8 (8): e1002670.

Mr. Sherwin is Senior Lecturer at the Institute for Creation Research and Mr. Thomas is Science Writer at the Institute for Creation Research.



covered that ants actually count each rapid step to aid in finding their way as they search. “Essentially, when the ant leaves its nest to go foraging, it counts the steps and keeps a record of how many steps it is away from home at any given time, like a pedometer,” wrote evolutionist and biochemist Michael Gross.⁴

“The biggest challenge is to find out how the insects store complex geographical information in their very small brains.” Amazingly, “certain parts of the brain of insects reconfigure themselves when exposed to information related to navigation,” according to Gross.⁵

Evolutionist and biologist Jochen Zeil of the Australian National University at Canberra summarized his considered opinion:

I think that every animal we look at [including the ant] is a more competent, more robust, more flexible, more miniaturized and a more energy-, material-, sensor- and computation-efficient agent than anything we have ever built.⁶

What a great, albeit unwitting, testimony to our great Creator! Every animal is a signpost pointing to His excellence. Reconfiguring a brain when exposed to information and computational efficiency both require high-order math. Writing for *Discovery News* online, Jennifer Viegas reported that scientists might learn even more useful math from insects.

[Ants can] perform simple arithmetic operations with small numbers. We suggest that applying ideas of information theory



Avoiding Identity Fraud

JAMES J. S. JOHNSON, J.D., T.H.D.

Identities matter. I recently lost my credit card, triggering a host of worries and questions: Where and when did I last use the card? Did I leave it in my pants pocket? Is it on the floor of my car? Should I slowly look through every part of my wallet for the ninth time?

After exhausting my mental checklist of where it could be, I called the credit card company to report a “lost or stolen” card and cancel the account. Once I convinced the person on the phone that I was the true cardholder, I asked about the card’s latest transactions to see if it was being fraudulently used. The last use was at a Texas steakhouse the night before. Whew! Abandoning the request to cancel the card with an optimistic prayer, I called the restaurant—and

yes, they had my credit card stowed away in their safe.

Only time will tell if my card’s information was stolen and kept for future fraudulent purchases. It is reassuring to know that God is providentially controlling the details of our lives, so whatever trials we encounter were approved by Him before they reach us (1 Corinthians 10:13; Romans 8:28; Genesis 50:20).

Misplacing a credit card is no trivial concern—identity fraud is a terrible crime and a messy problem to fix. And when one’s personal identity as a special creation is counterfeited, it produces another kind of “identity fraud” that is even scarier, with much graver problems.

How Can Your Family History Suffer Evolutionary “Identity Fraud”?

When I attended public school as a child, my personal identity was compromised when I was taught that Earth is billions of years old and that my family descended from subhuman “cave men,” alleged precursors to *Homo sapiens* (true “man”). In short, I was taught that the family history reported in Genesis was unhistorical and unreliable. If my teachers and textbooks were correct, the biblical account of my family history was not true.

So, what was my real family history?

If the evolutionary tale were true, I am not the human creature described in the Bible. If Darwin’s “natural selection” hypoth-

esis were true, the Bible's teaching about the origin of animal kinds and humans is untrustworthy.

Answers that I sometimes received in church—for example, the Bible is only “inspired” when it teaches “spiritual” truth but not on details about “non-spiritual” matters—further confounded the problem. But every spiritual aspect of Scripture is inextricably contextualized by “non-spiritual” details. Jesus came as a Jew, not a Mede or

When I attended public school as a child, my personal identity was compromised when I was taught that Earth is billions of years old and that my family descended from subhuman "cave men."

.....

Persian (Galatians 3:16). Jesus was born in Bethlehem (as prophesied in Micah 5:2), not in Damascus or Dallas. The resurrection of Christ is a spiritually crucial fact, but what about the three days (instead of two or four) He was in the grave? Was it spiritually crucial that Christ be *physically* resurrected? One clergyman told me that it was only important to believe Christ “lives again” in the lives of His followers as they follow His teachings. But that spiritualizing interpretation obviously clashes with the comprehensive explanation Paul gave us on the risen Christ (1 Corinthians 15).

How Can You Recover Your “Missing” Family History?

As a college freshman, I wrestled with these big-picture family history questions, not realizing how much “identity fraud” I had already experienced. But God soon provided answers to these questions and clarified the truth about my actual family history, disproving those Genesis-contradicting misrepresentations.

It was like the helpful credit card company employee who provided clues to where I had been in the past so I could restore what was missing. Several of God's servants helped me in my critically important college years, applying 1 Peter 3:15 and Jude

1:3 to real-world apologetics. Only two will be mentioned here to illustrate how real answers can be given to real questions.

My first major hurdle was recognizing that the Genesis record conflicts and is unresolvable with the evolutionary depiction of human origins.¹ Despite strained attempts by theistic evolutionist harmonizers to blend Scripture and Darwinism, the bottom line is Genesis and evolutionary theory cannot both be true.¹ Chaplain Bob Webel,

my college pastor, clarified that fundamental fact for me by explaining the authoritative relevance of Romans 5:12-21—the Bible teaches that our redemption through Christ depends upon the Genesis history being literally true.² That meant that the evolutionist explanation of life was not even close to being true.

But what about the fossil “evidence” for evolution? Webel provided a quick solution to that problem in a thought-provoking tract, *Have You Been Brainwashed?*, written by Dr. Duane Gish of the Institute for Creation Research.³ Although I didn't appreciate the scientific details then, it was immediately clear that the biblical creationists had a lot to say, and they obviously had scholarly reasons for their beliefs (1 Peter 3:15).

Dr. Gish raised challenges that embarrassed the evolutionary accident scenario, such as how did an imagined primordial “soup” accidentally and unerringly form *all* left-handed amino acids to make life eons ago when the statistical odds for forming each amino acid as either right-handed or left-handed was always 50-50?⁴

Then Webel loaned me Dr. Gish's book *Evolution: The Fossils Say No!* Next, he told me to read *The Genesis Flood* by Drs. John C. Whitcomb and Henry M. Morris. Webel also encouraged me to sign up for a free subscription to *Acts & Facts*.

As the ICR materials gave me a worldview “housecleaning” by showing how the evolutionary scenario was illogical, unscientific, and unreliable, Webel guided me and my friends through the Scriptures. There, I discovered my true family history, including my own personal identity as a human creature redeemed by Christ my Creator. This dismantled earlier identity fraud confusion.

Pass It On

What are you doing to help people escape the identity fraud they may have suffered from evolutionary teachings—from schools, television, movies, textbooks, secular museums, and even churches?

Like Bob Webel and Dr. Gish, who provided real answers, we all can provide help to those who have ears to hear and eyes to see the truth. ICR stands ready to help. Please use our resources to help solve identity fraud problems. Although many refuse the truth about Christ's creation, some will gladly learn and love the truth when it arrives:

He was in the world, and the world was made by him, and the world knew him not. He came unto his own, and his own received him not. But as many as received him, to them gave he power [literally “authority”] to become the sons of God, even to them that believe on his name (John 1:10-12). ●

References

1. “One of the most common misunderstandings among Christians is that the biblical account of creation can be allegorized or harmonized with the evolutionary system of science.” Morris III, H. 2013. *Willingly Ignorant. Acts & Facts*. 42 (3): 5-7.
2. Yugoslavian immigrant and WWII refugee Bob Webel became a pastor who taught biblical apologetics to teenagers and college students. See Johnson, J. J. S. 2013. *Volksdeutsche by the Dozen, Part One: Jakob and Katarina Agreed to Marry Before They Ever Spoke to Each Other (A True Example of Love at First Sight...and First Sound). Journal of the German-Texan Heritage Society*. 35 (1): 25-32.
3. Dr. Duane Gish's fruitful ministry with ICR, promoting biblical creation apologetics as a speaker, writer, debater, and teacher, concluded with his heavenly homegoing earlier this year. See *Remembering Dr. Duane T. Gish, Creation's “Bulldog.”* *Creation Science Update*. Posted on icr.org March 6, 2013, accessed May 17, 2013.
4. McCombs, C. 2004. *Evolution hopes you don't know chemistry: the problem of chirality. Acts & Facts*. 33(5)

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



Q: Do Young C-14 Results Reflect Contamination?

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

A: The presence of carbon-14 (C-14) in specimens that are supposedly millions of years old is a serious problem for believers in an old earth. C-14 is a radioactive variety or “isotope” of carbon that eventually decays into nitrogen. Because this occurs relatively quickly, no C-14 should be detected in any specimen that is more than about 100,000 years old.¹ The fact that C-14 has long been detected in coal, oil, fossilized wood, and natural gas samples is genuinely surprising to those who believe these samples to be millions of years old. By evolutionary reckoning, such samples should be radiocarbon “dead.”²

Evolutionists were initially able to dismiss these results because of a source of error in the earlier “scintillation” method of detecting C-14. However, a newer technique, acceleration mass spectrometry (AMS), is not subject to this error.

Yet when secular researchers tested supposedly very “ancient” organic specimens with the newer AMS method, C-14 was *still* present! The number of specimens tested with the AMS method is relatively small, as it is considerably more expensive to process samples than with the earlier technique. Nevertheless, scores of instances of “anomalous” AMS detection of C-14 have been reported in the secular literature, including around 70 within just a 14-year period.³

ICR’s RATE⁴ creation research project confirmed these earlier results: 10 high-quality coal samples obtained from the U.S. Department of Energy were submitted for testing to one of the world’s most reliable radiocarbon laboratories. C-14 was detected in all 10 samples. The RATE researchers even found preliminary evidence of C-14 in diamond, which is supposedly 1 to 3 *billion* years old!

Naturally, skeptics have tried to dismiss these findings, generally claiming that they are the result of contamination that occurred either during the laboratory procedures used to measure the C-14 or

in situ (in the soil or rock where the specimen was originally found).

However, C-14 lab technicians take great pains to reduce or eliminate sources of contamination. They know very well that any contamination may likely ruin the test results, and their frequent cross-checks virtually ensure that they only measure carbon integral to the sample. Also, any C-14 that could inadvertently be introduced to a sample during the measurement process will be negligible compared to the C-14 already present, provided that sufficiently large sample sizes (about 100 mg) are used, which is usually the case.



What about *in situ* contamination? While *in situ* contamination can sometimes occur, are we to believe that *all* the “anomalous” C-14 detected by the AMS method is the result of contamination? At some point, the contamination excuse begins to wear thin. Furthermore, contamination should not be assumed without

good cause to suspect that it has occurred—and a test result that simply contradicts long-age dogma does not provide enough scientific reason to make such an assumption!

Skeptics may object that the number of reported instances of “anomalous” AMS C-14 detection is too small to justify questioning the iconic long-age timescale. We disagree, but we encourage these skeptics to submit additional dinosaur bones, fossilized wood, coal, and diamond for further AMS testing. We are confident that additional testing will only strengthen the case for a biblically consistent age of the earth. ●

References

1. Hebert, J. 2013. Rethinking Carbon-14 Dating: What Does It Really Tell Us about the Age of the Earth? *Acts & Facts*. 42 (4): 12-14.
2. 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*. Vardiman, L., A. A. Snelling, and E. F. Chaffin, eds. San Diego, CA: Institute for Creation Research and Chino Valley, AZ: Creation Research Society, 587-630.
3. Giem, P. 2001. Carbon-14 Content of Fossil Carbon. *Origins*. 51: 6-30.
4. Radioisotopes and the Age of the Earth. See www.icr.org/rate.

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



PRAYERFULLY CONSIDER SUPPORTING ICR

(GALATIANS 6:9-10)

Through

- Online Donations
- IRAs, Stocks, and Securities
- Matching Gift Programs
- CFC (federal/military workers)
- Gift Planning
 - Charitable Gift Annuities
 - Wills
 - Trusts

Visit icr.org/give and explore how you can support the vital work of ICR ministries. Or contact us at stewardship@icr.org or **800.337.0375** for personal assistance.

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

not walking with God, my mother and father constantly prayed that the Lord would guard my mind to the influence of secular academia. My...science major included numerous geology and geography classes [and]...they feared my studies...would cause me to turn my back on my faith. But God honored their faithfulness...and used your ministry and my parent's endless prayers...to see the truth. I now see science through the infallible Word of God. Thank you for all your hard work. The Lord is using ICR to bring honor to His Name."

Such wonderful testimonies remind us that God is using and blessing ICR's ministry, often in ways we are unaware of. It is my hope these testimonies will encourage our supporters—as well as encourage new ones—to keep on praying, and giving, as the Lord leads. For you "know that your labour is not in vain in the Lord" (1 Corinthians 15:58). ●

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



Notes of Encouragement

HENRY M. MORRIS IV

Our "adversary the devil" is very real and works actively against all believers in the battle for God's truth (1 Peter 5:8). The ministry of the Institute for Creation Research experiences such persecution on a consistent basis, and I admit we do grow discouraged at times. But then, seemingly at our lowest moment, an encouraging note from a supporter will arrive. Such notes are a great blessing to me and the entire staff at ICR. Since blessings are best when shared, here are excerpts from a few of my favorites:

From a pastor in California: "When I was in seminary I had opportunity to take Hugh Ross' class on Genesis. It was interesting...but in the end I have to go with the young earth position. The Bible isn't hard to understand, even Revelation; it is just hard to believe without faith. Fortunately it doesn't take much faith when your faith is in the right person, Jesus Christ our Creator, Lord, and Savior! To all the folks at ICR, thanks again for having the boldness to do what you do and putting it all on the line for Him."

From a supporter in Indiana: "Thank you for the awesome book *The Fossil Record*... I had been considering ordering it for my grandsons, but you have solved that problem! Of course, they won't be seeing it for a while until I've gone through it. It has truly been my pleasure...to support ICR,

and you should know that ICR has done more for me than I can ever repay. If God had not led me to read *The Genesis Flood* back in 1984, I doubt I would have ever discovered the miracle of salvation."

From a public school teacher in Georgia: "The extent of my teaching on creation/evolution consisted of a preacher saying, 'Bless God, I didn't come from no monkey!' While I agree with the sentiment, I needed more substance than that.... One day...I happened upon a book by Dr. Henry Morris called *Science and the Bible*. I had never heard of Dr. Morris or ICR before this. Needless to say, I became a creation junkie. I went on to become a high school math teacher [and] have been teaching at a public school along with my wife... We view ourselves as missionaries and...get as much creation science info out there to the kids as possible. Thank God for your grandfather and thanks for all you do. Keep on the firing line!"

From a businessman in Colorado: "Thank you, to the Morris family and the team at ICR for teaching me 'the other side' that never gets presented in the classroom—or in the church, for that matter. You have touched many hearts and minds with the evidences you present...Thank you for taking a strong stand for Christ over so many years! You have been such a blessing to me."

Finally, from a recent college graduate: "During my college years when I was

[I] read about brother Duane Gish today; thank you for sharing his wonderful testimony. [I] found it very inspiring and encouraging, especially the fact that, despite mockery, he maintained his gentleness among evolutionists. I have a great regard for him, there are very few who love Him so much. Two old friends are together in heaven once again, what a great Savior we have. Although I had accepted Christ before I was introduced to ICR, you have helped me a lot in sharing my faith logically, so I love you all very, very much. Regards.

— Ritu, India

On October 20, 2012, I had a catastrophic accident resulting in four broken bones in my left leg. My orthopedic surgeon had been referring to “mother nature’s” ability to bring healing to my leg. I would try to interject with comments referencing “God’s design.” I recently had my final visit with my orthopedic surgeon. My husband had copied the chapter on God’s bone design from *Made In His Image*, by Dr. Randy J. Guliuza. We were able to present this awesome account of God’s design to him. We have been avid supporters of ICR’s great work for thirty-six years. How desperately the church needs its ministry!

— G.H.

Thanks for the February issue of *Acts & Facts*! I love the detailed explanations which prove Creation. It’s hard to pinpoint one article, but “God’s Amazing Invertebrates” was great! (Especially the explanations about



how parasites were made that way at the Fall.) Does ICR plan to produce a book of scientists and others who have faithfully defended creation through-

out history? Articles about them in your magazine are fascinating! God Bless You.

— C.D.



I immensely enjoy reading your articles and viewing your *That’s a Fact* videos. Your work in the analysis of chimp/human DNA is especially impressive... When it becomes established that there is no connection between simians and humans, a landslide will begin to occur in the acceptance of Genesis as the literal history of the universe and the [Genesis] genealogies as the true history of mankind.

— M.B.

My family and I have been so very blessed by ICR over the years. God raised up such a ministry just when it was needed the most. I read the Bible with much more care, insight, and understanding now. And my faith grows day by day. ICR has had a lot to do with that happy development.

— K.S.



The [*Days of Praise*] booklet has had a profound impact on our family’s devotional time. Not only does it draw us straight into the Word of God on a daily basis, but on so many occasions it has provided biblical answers and perspectives at precisely the time we have needed it, and for the specific battles we were facing that particular week. We thank God for all the scientists in your organization who have shepherded us throughout the years in our homeschooling. We know the abuse you receive for the work you do. We pray for you and depend on you to continue on.

— T.W.

“It seems that no matter how many books we read, we are always being introduced to something new or are made aware of our God in a new way that causes us to rejoice.”

We continue to be impressed with the quality of research and literature about creation that you make available to anyone wanting answers, and the devotion to our Lord Jesus Christ that is evident in your organization. It seems that no matter how many books we read, we are always being introduced to something new or are made aware of our God in a new way that causes us to rejoice. Of course, it points to our infinite God and His beautiful, infinite ways. We are so happy to be able to share with you financially as God blesses us. Even when financial blessings come from the passing of a loved one, we feel that if they could come back, he/she would tell us to give it all to God!

— K.L.

We feel humbled and blessed to be able to give out of our earnings this year. I could not help but include ICR on my short list of missions to support. *Acts & Facts*, your online resources, and the several books that I own have truly blessed my life. For the first time (in my 40s!) I finally feel equipped to defend my faith, and am so encouraged to have multiple resources to use as I try to equip my children. What a glorious revelation to find that science and the Bible DO agree. I had no access to that information until a friend pointed me to ICR. Thank you for all you do.

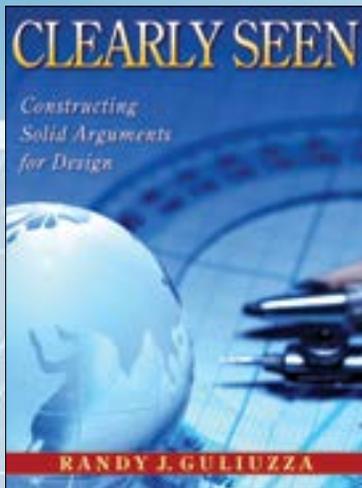
— C.M.

Have a comment?

Email us at editor@icr.org

Or write to Editor,

P. O. Box 59029, Dallas, Texas 75229



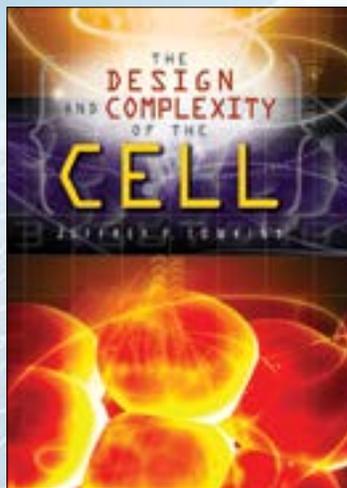
Clearly Seen

Constructing Solid Arguments for Design

Dr. Randy J. Guliuzza

BCS1

\$9.99



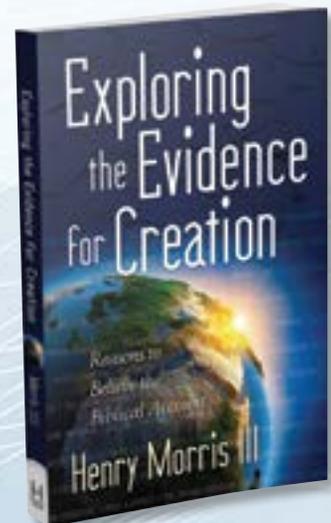
The Design and Complexity of the Cell

Dr. Jeffrey P. Tomkins

BDCC1

Hardcover

\$19.99



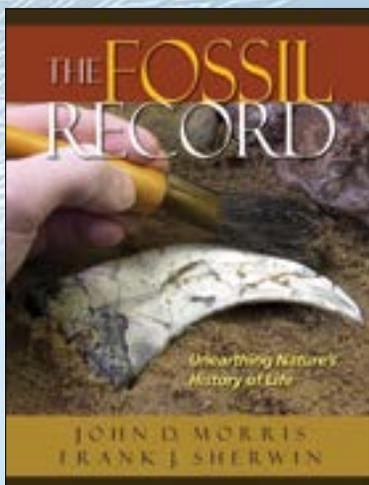
Exploring the Evidence for Creation

Reasons to Believe the Biblical Account

Dr. Henry M. Morris III

BETEFC1

\$13.99



The Fossil Record

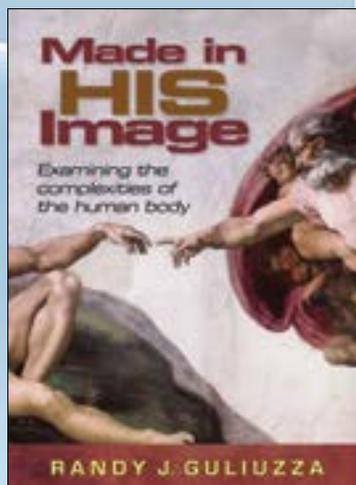
Unearthing Nature's History of Life

Dr. John D. Morris and Frank J. Sherwin

BFORE1

Hardcover

\$19.99



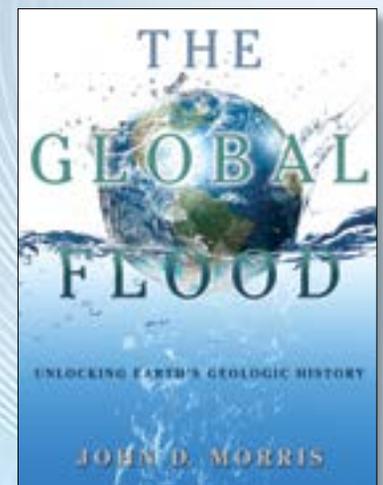
Made in His Image

Examining the complexities of the human body

Dr. Randy J. Guliuzza

BMIHI1

\$9.99



The Global Flood

Unlocking Earth's Geologic History

Dr. John D. Morris

BTGF

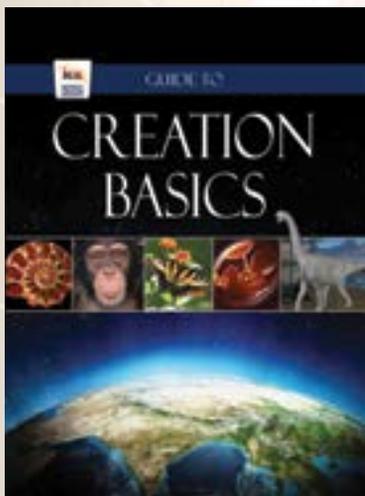
Hardcover

\$19.99

For all books, add
shipping & handling

Visit the ICR store today at
www.icr.org/store or call **800.628.7640**

NEW!



Guide to Creation Basics

BGTCB
Hardcover
\$16.99

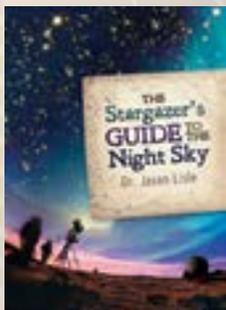
This comprehensive 120-page guide—authored by ICR scientists and scholars—is loaded with hundreds of full-color illustrations!

- Build your child's confidence in biblical creation with this one book!
- Cutting-edge scientific information
- Homeschoolers have trusted ICR resources for over 40 years



P. O. Box 59029, Dallas, TX 75229
www.icr.org

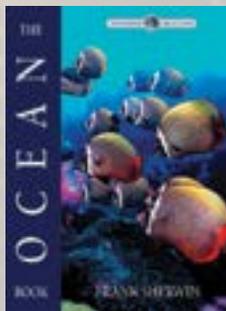
Homeschool Resources



The Stargazer's Guide to the Night Sky
Dr. Jason Lisle

Your first step into the vast universe with a one-of-a-kind guide to the night sky! Includes 150 beautiful photos, full color star charts, easy-to-use illustrations, and video links for expert advice. The heavens truly declare God's glory...now understand why!

BSGTTNS
Hardcover
\$34.99

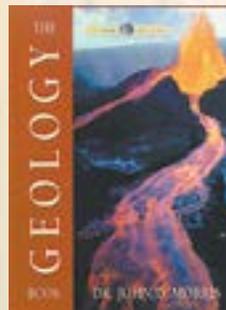


The Ocean Book
Frank Sherwin

The Ocean Book will teach you about:

- Giant squid and other “monsters” of the seas
- Centuries of ocean exploration
- Icebergs and coral reefs
- Ships, submarines, and other ocean vessels
- El Nino, whirlpools, and hurricanes
- Whales, dolphins, fish, and other sea creatures

BOCB01
Hardcover
\$15.99

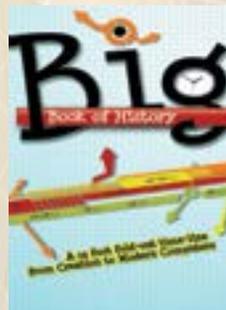


The Geology Book
Dr. John D. Morris

The Geology Book will teach you about:

- What really carved the Grand Canyon
- How thick Earth's crust is
- How sedimentary deposition occurs through water, wind, and ice
- Fossilization and the age of the dinosaurs
- The powerful effects of volcanic activity
- And much more!

BGEB01
Hardcover
\$15.99



Big Book of History
Ken Ham and Bodie Hodge

A big look at history for young learners ages 7-12! *The Big Book of History* is the perfect way to engage your child in an adventurous trip through time—from the first day of creation to the present!

BBBH
Hardcover
\$19.99

WHILE SUPPLIES LAST!

Add shipping & handling to all orders | Visit the ICR store today at www.icr.org or call 800.628.7640