INSTITUTE FOR CREATION RESEARCH

www.icr.org

DECEMBER 2016

THE ONLY BEGOTTEN

page 5

Earth's Young Magnetic Field Revisited Toppling an Iconic Old-**Earth Argument, Part 2** Who Wrote the Bible?

> There's Nothing Like an Eyewitness page 20

page 9

page 10

page 19

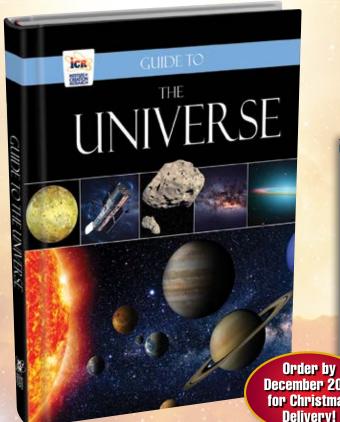


Our Latest Addition to the *Guide to* Series!

GUIDE TO THE UNIVERSE.

\$16.99

BGTTU - Hardcover



Order by **December 20th** for Christmas

rom our radiant sun to the brilliance of distant galaxies, this vast universe reveals breathtaking beauty and majesty. Yet scientists tell conflicting accounts of its origins. Did God create it? Or did the universe just explode into existence? Find answers to these and other intriguing questions, such as...

- How does the moon support life on Earth?
- Are new stars really being born?
- What do astronauts do on the International Space Station?

Guide to the Universe explores evidence of our Creator's power and the truth of His Word—even to the remotest parts of the cosmos.

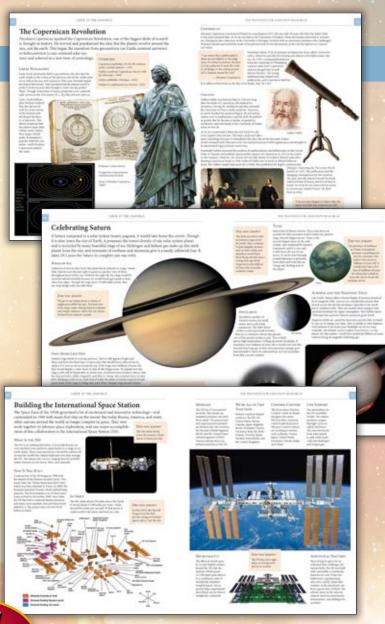
Also available through Kindle and NOOK. Mamazonkindle





To order, call 800.628.7640 or visit ICR.org/store

Please add shipping and handling. Prices available through December 31, 2016.



Buy all five Guide to books for **\$64.95!**

SBGTCB - Hardcover

The perfect gift for homeschoolers or anyone who wants a detailed, easily understood science resource.



ACTS & FACTS

VOLUME 45 NUMBER 12

DECEMBER 2016

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

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 © 2016
Institute for Creation Research





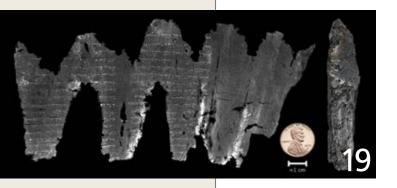




CONTENTS







5 The Only Begotten

HENRY M. MORRIS III, D.MIN.

RESEARCH

9 Earth's Young Magnetic Field Revisited

VERNON R. CUPPS, PH.D.

IMPACT

10 Toppling an Iconic Old-Earth Argument, Part 2

JAKE HEBERT, PH.D.

14 Approaching The Scientific Approach to Evolution

BRIAN THOMAS, M.S.

BACK TO GENESIS

15 Fish as Smart as Apes?

JEFFREY P. TOMKINS, PH.D.

16 Imagining That Life Is Only Chemistry

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

CREATION Q & A

19 Who Wrote the Bible?

BRIAN THOMAS, M.S.

APOLOGETICS

20 There's Nothing Like an Eyewitness

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

STEWARDSHIP

21 The Light of Christmas

HENRY M. MORRIS IV



Extravagant Gifts

s we exchange gifts with loved ones this season, elegantly wrapped packages in red, gold, and green, topped with satin bows, serve as small reminders of the greater gifts we receive from our heavenly Father. Though they may not come in glittering boxes, God purchased them for us at an extravagant price.

Our good Father bestowed His gift of grace—redemption through His Son Jesus Christ—because of His great love for us. His love is pure, unconditional, and free, and we don't deserve it. His holiness melts away any claim to merit on our part because even our best works are like "filthy rags" to Him (Isaiah 64:6). He gives us boundless love because that's His nature.

"For God so loved the world, that He gave His only begotten Son" (John 3:16). Even if you've been in church just a few times, or not at all, you're probably familiar with this verse. I'm afraid some of us have heard it so often that we brush over the significance of God's gift of eternal life. In "The Only Begotten," Dr. Henry Morris III reminds us of the magnitude of God's gift (pages 5-7).

His gift of mercy assures us

that our transgressions are wiped away and that we will not be forgotten, but salvation is only the beginning of His gifts to us. His Holy Spirit indwells us at the moment we first believe. He gives us gifts of the Spirit so we can live by His power and grace. He promises His moment-by-moment presence, provision, and guidance. He gives wisdom. And His love is everlasting—this gift will never be taken away.

In the beginning, He gave us the "very good" gift of creation. Throughout history, we see how He continued to give gifts to His children, even though none of them deserved anything from God. Adam and Eve, Noah, Lot, Jacob, Rahab, Ruth, David, Zacchaeus, Mary and Martha, the disciples, and many, many others. We can

surely add our names to the list.

Not only did He give us light at creation, He came to us as the "light of the world." His Word assures that "he who follows Me shall not walk in darkness, but have the light of life" (John 8:12). His Word is a light to our path (Psalm 119:105). Brian Thomas gives us some details about the gift of God's Word. He says, "God preserved His words from the generations that penned them right up to this generation because He will 'preserve them...forever'" (page 19).

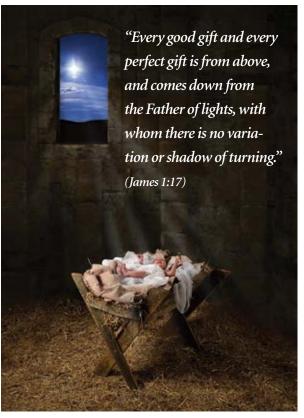
Yes, His gifts have come to us at an extravagant price—the life of His beloved, only begotten Son. And He gives us the privilege of sharing His gifts with others. Henry Morris IV says, "It's imperative that all believers everywhere 'shine as lights in the world'" in our culture today (page 21). So many around us need to hear God's truth and receive the gifts of

grace, mercy, and love that only He can give.

May His gifts be yours this Christmas season—and always. We at ICR wish you and your family a Merry Christmas!



Jayme Durant
EXECUTIVE EDITOR



THE ONLY BEGOTTEN

HENRY M. MORRIS III, D.MIN.

Christ Jesus, who, being in the form of God, did not consider it robbery to be equal with God, but made Himself of no reputation, taking the form of a bondservant, and coming in the likeness of men. And being found in appearance as a man, He humbled Himself and became obedient to the point of death, even the death of the cross.

(PHILIPPIANS 2:5-8)



his famous passage is not often emphasized during Christmas since the season's focus is on the social and circumstantial events surrounding the birth of our Lord Jesus. However, the Holy Spirit gave the apostle Paul a majestic record of what transpired in the courts of heaven to bring about the incarnation of the Messiah. These succinct statements provide a unique picture of who the Lord Jesus is, how the great eternal Creator became man, and what He accomplished on our behalf on the cross.

Jesus Christ Is the Creator

Whenever we pose the gospel, it is incumbent on us to make sure that we introduce Christ as the Creator—setting the stage with who Jesus is before we tell what He did. The Scriptures are abundantly clear:

In the beginning was the Word, and the Word was with God, and the Word was God. He was in the beginning with God. All things were made through Him, and without Him nothing was made that was made....And the Word became flesh and dwelt among us, and we beheld His glory, the glory as of

the only begotten of the Father, full of grace and truth. (John 1:1-3, 14)

For by Him all things were created that are in heaven and that are on earth, visible and invisible, whether thrones or dominions or principalities or powers. All things were created through Him and for Him. (Colossians 1:16)

God...has in these last days spoken to us by His Son, whom He has appointed heir of all things, through whom also He made the worlds. (Hebrews 1:1-2)

In the Philippians passage, Paul covers this major issue with the powerful statement that Jesus Christ did not have to "consider it robbery to be equal with God" but possessed the very "form" of God. The word choices reflect the careful connection and unity of the triune nature of God. The "form" of God that Jesus possesses is defined by the Greek word $\mu o \rho \phi \eta$ (*morphe*), which emphasizes the "external appearance." Paul also told the Colossian church that the Lord Jesus was the "fullness of the Godhead bodily" (Colossians 2:9).

Jesus Christ Is Equal with the Father

When the Lord told His apostles, "I and My Father are one" (John 10:30), He was most certainly speaking of the equality that Paul cites in Philippians. It says that Christ "did not consider it robbery to be equal with God." The unusual choice of words analyzes the reality of the "equality."

The word translated "consider" is ήγέομαι (hegeomai), which

designates a leader who has determined the best solution to a dilemma. The word is used to identify leaders (e.g., chief, governor, judge) as well as the attributes of those who lead well (with the ability to give an account, show esteem, have the rule over, think wisely).

Jesus Christ, during the eternity prior to His incarnation, did not come to the conclusion (using all knowledge) that He was in any way inferior to God the Father. Jesus Christ was "equal to God." Once again the word choice is absolute. Jesus the Creator is $l\sigma\sigma\varsigma$ (isos), the primary word for total equality both in the sense of quantity and quality—with no "robbery" of either amount or value. Whoever and whatever the Second Person of the Godhead may be, there is absolutely no necessity to "grasp" or "steal" or "overcome" any attribute that God possesses.

Jesus Christ Emptied Himself

It is with the word $\kappa\epsilon\nu\delta\omega$ (keno) that the transition from the Second Person of the Godhead to the Son of Man begins. Keno is translated in most Bible versions by the phrase "made Himself of no reputation." Keno is only used five times in the New Testament and is translated with phrases like "make of none effect," "make of no reputation," "make void," and "be in vain," always in the context of emphasizing a self-induced reduction or emptying of power or assets. That is, the person involved consciously "gives up" or "discards" or "nullifies" a condition or set of attributes that they owned or controlled, and they became "lessened" because of that conscious action.

Christ as Fully God

He is called the only begotten. (John 1:14, 18; 3:16; 1 John 4:9)

He is recognized as eternal. (John 17:5, 24; Colossians 1:15; Micah 5:2)

He is given the inheritance of God. (Hebrews 1:2; 3:4, 6)

Christ is God. (Luke 4:41; Matthew 4:3, 6)

He is called the Son of God. (John 3:18; 5:25; 9:35; 11:4)

He has the power of life in Himself. (Romans 1:4; John 10:17-18; Colossians 1:18; Acts 13:32-33)

He performed the works of God. (John 10:36-38)

Christ as Fully Man

He experienced pain, hunger, fatigue, etc. (1 Peter 2:23; Matthew 4:2; Luke 8:23; John 19:28)

He was tempted as we are. (1 Corinthians 10:9; Hebrews 4:15)

He identified Himself as the Son of Man. (Matthew 8:20)

He was representative of all men in His substitutionary death. (John 3:14; 12:32)

He was identified with Adam, the federal head of humanity. (1 Corinthians 15:45, 47)

He ascended bodily into heaven. (Acts 1:10-11; Ephesians 4:10)

He still identifies with man. (Revelation 1:13, 16)

That one key word verifies that Jesus the Creator consciously and with His own volition divested Himself of His "omni" attributes so that He could become fully the "bondservant" and inhabit the "likeness of men."

The succinct passage in Philippians 2 also gives us the additional clarity that this divestiture of attributes accomplished the unique transition from full glorious deity, shared by the Trinity from all eternity past (John 17:5, 24), to the "appearance" and "humility" of humanity. The Creator emptied Himself under His own power and will, "taking" the "form" (*morphe*, the same word used to describe His equality with God the Father) but "found" Himself as a "bondservant."

At this point the voice of the verb changes. Previously, all the verbs describing what the Lord Jesus was doing were in the active voice. That is, the Creator is doing the action (the emptying and the taking) to Himself. Suddenly, active voice changes to passive and the Lord Jesus is acted upon. He "found" Himself in the "appearance as a man." The book of Hebrews tells us that the Lord Jesus understood that "a body" had been "prepared for Me" by His Father (Hebrews 10:5).

All of this was done that He might "likewise [share] in the same" (Hebrews 2:14) because "He had to be made like His brethren" (Hebrews 2:17) so that He could be "in all points tempted as we are, yet without sin" (Hebrews 4:15). The great eternal Creator was willing to become man that He might fulfill all the aspects of the salvation that the triune Godhead had ordained before "the foundation of the world" (1 Peter 1:20; Revelation 13:8).

Jesus Christ Was Both Fully God and Fully Man

But it is also absolutely clear that the Son of Man retained His status as fully God (John 5:43; 6:35-51; 7:28-36; 8:23-58; 9:5-39; 10:7-34; 11:25-26; etc.). The Son of Man demonstrated His power and authority through the seven great miracles of creation recorded in the gospel of John. The simplest display of the Creator's power was in turning water into wine in John 2:1-11. The Scriptures abound with this teaching.

Jesus Christ Became the Unique God-Man to Provide Salvation

No celebration of the incarnation of Jesus Christ, the Creator of all things (John 1:1-3; Colossians 1:16), would be complete or satisfactory if we did not celebrate the *reason* for His incarnation. That reason is summarized in this verse:

For He made Him who knew no sin to be sin for us, that we might become the righteousness of God in Him. (2 Corinthians 5:21)

When you gather with your families or with your church friends—or even as you unwind with your Bible in your private devotions—please give your mind and heart to meditate on these precious words:

Knowing that you were not redeemed with corruptible things, like silver or gold, from your aimless conduct received by tradition from your fathers, but with the precious blood of Christ, as of a lamb without blemish and without spot. He indeed was foreordained before the foundation of the world, but was manifest in these last times for you. (1 Peter 1:18-20)

May your Christmas season be filled with the "praise of the glory of His grace" (Ephesians 1:6).

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

Discipleship University at First Baptist Dallas

Sundays, January 8 – March 28

Featured speaker Henry M. Morris III, D.Min.



The Remarkable Record of Job

ar from being an engaging fable, the Bible's account of Job is one of the most historically and scientifically accurate records of the ancient world. While Abraham was settling into Canaan, Job was being tested by God and Lucifer, and the disruption of the Tower of Babel was barely last year's news. The Ice Age was tightening its grip on both hemispheres of the planet, and dinosaurs roamed Earth. Ur of the Chaldees was a burgeoning city of 250,000, and the land of Uz, where Job lived, was the major trade center between Egypt and Syria.

The Institute for Creation Research will add fascinating insights into these events with its new milliondollar dinosaur DVD series. Join Dr. Henry Morris III for this in-depth 10-week study.

\$10 course fee for the textbook; other materials are available. Visit **ICR.org/events** for more information.

Great Gift Ideas. Special Christmas Prices!

Order by December 20th for Christmas Delivery!



UNLOCKING THE MYSTERIES OF GENESIS

Groundbreaking 12-DVD series! **\$79.99** – DUTMOG01



MADE IN HIS IMAGE

Exploring the Complexities of the Human Body
This four-episode DVD series takes audiences on a journey through the most miraculous creation on Earth—us!
\$34.99 (reg. \$39.99) – DMIHI

Outstanding DVD values! \$7.99 each!



Your Origins Matter: Why Genesis Is Crucial to Your Faith

Dr. Jason Lisle **\$7.99** (reg. \$9.99) – DYOM



Journey Through Space: A View of the Solar System

Dr. Jason Lisle **\$7.99** (reg. \$9.99) – DJTS



Scientific Evidences for Creation

Frank Sherwin **\$7.99** (reg. \$9.99) – DSEFC



Discovering Dinosaurs: Five Details from Fossils and History

\$7.99 (reg. \$9.99) – DDD



That's a Fact

\$7.99 (reg. \$9.99) – DTAF



The Human Body: Divine Engineering

Dr. Randy Guliuzza \$7.99 (reg. \$9.99) – DTHBDE



Human Design: The Making of a Baby

Dr. Randy Guliuzza \$7.99 (reg. \$9.99) – DHDTMOAB

To order, call **800.628.7640** or visit **ICR.org/store**Please add shipping and handling to all orders.

Prices available through December 31, 2016.

Earth's Young Magnetic Field Revisited

hat sustains Earth's magnetic field? Creationists and secularists disagree on the answer, but a recent update from Physics Today seems to lend support to the creationists' hypothesis that the magnetic field is both recent and decaying.1,2

Magnetic fields naturally decay with time. If Earth were billions of years old, its magnetic field should be gone by now. But it isn't. This has forced secular scientists to propose a recharging mechanism called a dynamo that supposedly sustained Earth's magnetic field over billions of years.

The dynamo model for Earth's magnetic field-and that of other celestial bodies such as the sun-has been zealously guarded and nourished within the secular scientific community. In 1919 Joseph Larmor proposed that Earth's magnetic field was caused by the permanent magnetization of materials in the earth.3 However, this hypothesis required modification since it could not account for the polarity reversals that Walter Elsasser observed in rock layers.4 Elsasser based his model on magnetic fields produced by hot, rotating, ionized fluid rather than by permanently magnetized

material. He hypothesized that the magnetic field was a self-sustaining dynamo powered by convection in Earth's liquid outer core. His model promoted the hypothetical presence of unusually long-lived magnetic fields in astrophysical bodies4 and their observed polarity reversals. At least five different equations from electromagnetic, fluid transport, and heat transport theory are necessary to simulate such dynamos.5 But recent experiments challenge the assigned value of a key parameter in these equations. 1,6,7

Within the dynamo theory, the thermal conductivity of Earth's liquid outer core is a critical factor in estimating the age of the inner core and therefore estimating how long Earth's interior has existed in its current state. If the inner core conducts heat to the core-mantle boundary too rapidly, then the dynamo hypothesis—which depends on convective-driven heat transfer-becomes much less probable.

With our current technology, we are unable to directly measure the conductivity of Earth's liquid core. So we are limited to models (hypotheses) of how we believe the inner core's heat is transported through the outer core to the mantle. The heat transport

equation (the rate of heat transfer) is directly proportional to the thermal conductivity of the outer core. This proportionality constant can be measured in the laboratory by experiments that seek to approximate the conditions in Earth's outer core.

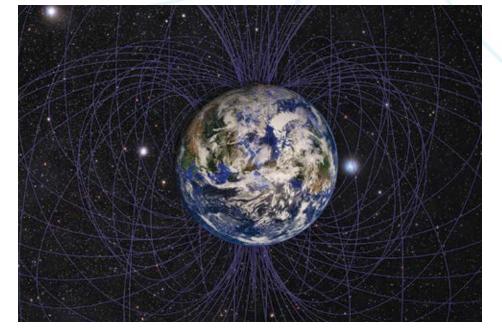
Researchers recently conducted two of these experiments. One indirectly measured the thermal conductivity of iron by measuring its electrical conductivity,6 and the other directly measured the thermal conductivity of iron.7 The former experiment measured the thermal conductivity to be 90 watts/ meter-°K and the latter measured it to be 30 watts/meter-°K. If the former measurement is accurate, which geophysicist David Dobson noted is less dependent on the measurement methodology,8 then that would set an upper bound of 700 million years on the age of Earth's inner core and thus Earth itself. This would pose a serious problem for belief in a 4.5-billion-year-old Earth. The efficacy of the dynamo theory when applied to our sun has also been questioned.9

Perhaps a Bible-based model of a 6,000-year-old Earth with a magnetic field that experienced extreme upheaval during a worldwide flood better explains not only Earth's magnetic field but also the others in our solar system. 🙈

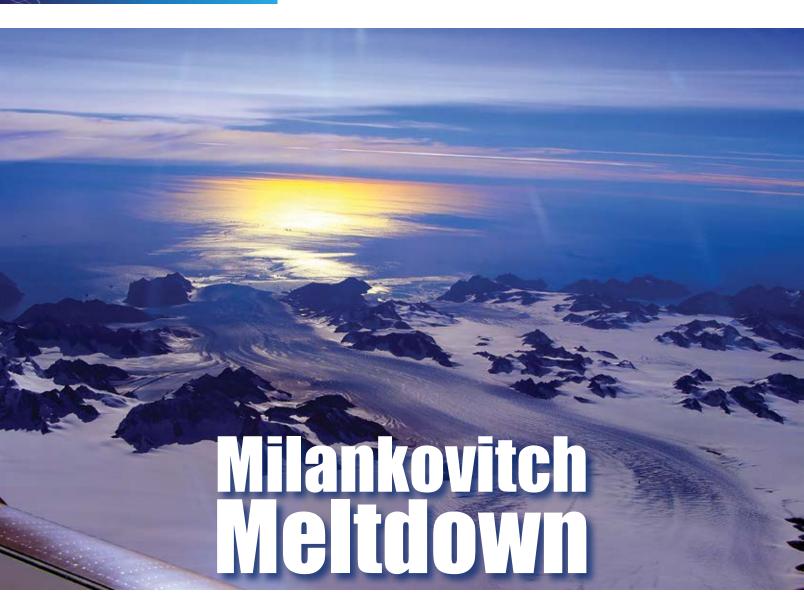
References

- Grant, A. 2016. Experiments relating to Earth's inner core raise questions about its age. *Physics Today*. 69 (7): 25.
 Cupps, V. R. 2016. Earth's Young Magnetic Field. *Acts &*
- Facts. 45 (2): 9-11.
- Larmor, J. 1919. Possible rotational origin of magnetic fields of sun and earth. Electrical Review. 85: 412ff. Reprinted in Engineering, 108: 461ff (October 3, 1919).
- Elsasser, W. M. 1958. The Earth as a Dynamo. Scientific American, 198 (5): 44-78
- https://courses.seas.harvard.edu/climate/eli/Courses/ EP\$281r/Sources/Earth-dynamo/1-Wikipedia-Dynamo-
- theory.pdf
 Ohta, K., et al. 2016. Experimental determination of the electrical resistivity of iron at Earth's core conditions. *Nature*. 534 (7605): 95-98.
- Konôpkova, Z. et al. 2016. Direct measurement of thermal conductivity in solid iron at planetary core conditions. Nature 534 (7605): 99-101
- Dobson, D. 2016. Geophysics: Earth's core problem. Nature. 534 (7605): 45.
- Charbonneau, P. 2016. Solar physics: Dynamo theory questioned. *Nature*. 535 (7613): 500-501.

Dr. Cupps is Research Associate at the Institute for Creation Research and earned his Ph.D. in nuclear physics at Indiana University-Bloomington.







Toppling an Iconic Old-Earth Argument, Part 2

Introduction

The Milankovitch, or astronomical, theory is the dominant secular explanation for the dozens of ice ages said to have occurred within the last few million years. According to this theory, subtle changes in the seasonal and latitudinal distribution of sunlight trigger ice ages. These sunlight changes are thought to be caused by slow, gradual changes in Earth's orbital and rotational motions. Although the Milankovitch theory has many problems, it is today widely accepted largely because of an iconic paper titled "Variations in the Earth's Orbit: Pacemaker of the Ice Ages." This month marks the 40th anniversary of its publication.

This article—the second in a series of three—presents further evidence that the Pacemaker paper is invalid. I encourage readers who may have missed Part 1 of this series to read it online since this article builds on that information.³



Figure 1. The Pacemaker paper used data from the two southern Indian Ocean deep-sea cores RC11-120 and E49-18. The V28-238 core was used to help construct the timescales for the two cores.

Overview

The Pacemaker paper convinced many uniformitarian scientists that the Milankovitch theory is correct. The paper's authors analyzed chemical wiggles from two Indian Ocean sediment cores (Figure 1). Specifically, scientists calculated a quantity called the *oxygen isotope ratio* from the shells of microscopic organisms buried in seafloor sediments. The oxygen isotope ratio, denoted by the symbol δ^{18} O, is seen as an indicator of global climate, with high δ^{18} O values within the sediments indicating ice ages, or glacials, and low values indicating warmer interglacials.

Assigning Ages to the Sediments

Before performing their analysis, the Pacemaker authors had to assign tentative ages to the sediments within the two cores. Because radioisotope dating methods cannot generally be used on seafloor sediments, the authors used an indirect method. Information about Earth's magnetic field is "recorded" when lava hardens into rock. Based on radioisotope dating of volcanic rocks, uniformitarians had concluded that the most recent reversal of Earth's magnetic field, the Brunhes-Matuyama (B-M) magnetic reversal, occurred 700,000 years ago. This magnetic reversal was also recorded within the sediments of a long western Pacific core designated as V28-238 (Figure 1). These scientists assumed that sediments within the V28-238 core were deposited at a nearly constant rate for hundreds of thousands of years. Then they used this assumption to assign ages to features within the core's oxygen isotope "wiggles."

Because uniformitarian scientists believe the $\delta^{18}O$ values represent a *global* climate signal, they think that, in principle, similar $\delta^{18}O$ features within different cores should have the same age. For this reason, they felt justified in transferring the ages assigned to features within the V28-238 $\delta^{18}O$ wiggles to presumed corresponding $\delta^{18}O$ features within the two Indian Ocean cores. They then used these ages to help assign ages to the sediments within the two cores.²

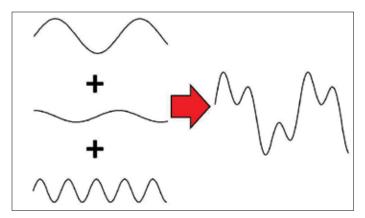


Figure 2. One may construct a wiggly pattern by adding together waves of different frequencies and amplitudes.

Image credit: J. Hebert.

Spectral Analysis

When one plots oxygen isotope values within a core as a function of depth, many wiggles are readily apparent. Because this oxygen-isotope pattern is wiggly, it's not hard to imagine that one could construct that pattern by adding together many waves (which are *themselves* wiggly patterns) of different frequencies and amplitudes. By adding together different waves in just the right combinations, one can construct all kinds of complicated patterns (Figure 2).

A method called *spectral analysis* enables scientists to examine a pattern like the one shown on the right of Figure 2 and "reverse engineer" it. The result of a spectral analysis is a graph showing prominent peaks at the frequencies of the waves making the biggest contributions to the signal. The Pacemaker authors used a technique of spectral analysis called the Blackman-Tukey (B-T) method.⁵ After applying the B-T method to the wiggles within the two sediment cores, they observed prominent peaks at frequencies corresponding to cycles of about 100, 42, and 23 thousand years. Because these were close to the lengths of inferred cycles in Earth's orbital and rotational motions, uniformitarians thought the Pacemaker paper confirmed the Milankovitch ice age theory.

However, around 1990 secular scientists revised the age of the B-M reversal upward to 780,000 years (780 ka).^{6,7} This 80,000-year age revision begs the question: If one were to re-perform the Pacemaker calculations after taking this change into account, would the results still support the Milankovitch theory?

Redoing the Analysis

The Pacemaker authors performed spectral analysis on two other variables in addition to the $\delta^{18}O$ data. Although data from the RC11-120 and E49-18 cores are available online, these newer data sets differ somewhat from the original values shown in the Pacemaker paper. I attempted to contact the two surviving authors of the paper, but to the best of my knowledge they did not respond to my request

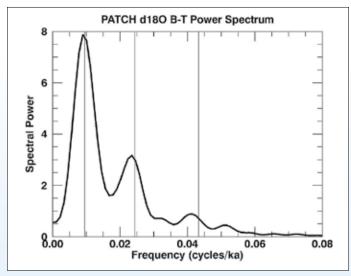


Figure 3. Reconstructed PATCH oxygen isotope power spectrum, using the original age of 700,000 years for the Brunhes-*Matuyama magnetic reversal boundary.*

Image credit: J. Hebert.

for their original data. Therefore, in order to re-perform the analysis, I had to reconstruct the original data by painstakingly reading the numbers off of Figures 2 and 3 in the Pacemaker paper.8 I then used the B-T method and my reconstructed data to reproduce the original Pacemaker results.9 I encourage readers to examine Figures 9-17 in my second paper and to compare them with the nine charts in Figure 5 of the original Pacemaker paper. There is generally remarkably good agreement between my results and theirs, and these results can be viewed online.10,11

This gave me confidence that I understood the B-T method well enough to re-do the calculations after taking into account the new age for the B-M reversal. Re-doing the calculations led to a bombshell result: the results no longer provide convincing evidence for the Milankovitch theory.

The Pacemaker authors analyzed data from the RC11-120 core, the bottom two-thirds of the E49-18 core, and data from a "composite core" that they constructed by combining data from the upper section of the RC11-120 core and the lower section of the E49-18 core. This composite core, which the Pacemaker authors called "PATCH," was especially important to their results because the RC11-120 and the bottom two-thirds of the E49-18 core were simply not long enough to make a convincing case, in and of themselves, for Milankovitch climate forcing. Only the results from the PATCH core were what the specialists call "statistically significant."

In Figure 3 I have reproduced the original PATCH results from the Pacemaker paper, obtained using the same method as the Pacemaker authors. The only difference is that I increased the resolution of the graph (allowed by the B-T method, according to experts¹²) and have zoomed in on the pertinent part of the power spectrum so you can see the results more clearly. The vertical lines indicate the

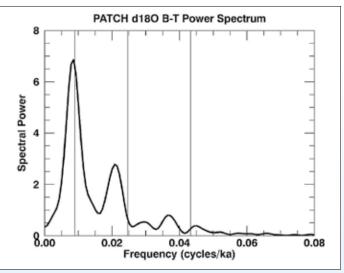


Figure 4. Reconstructed PATCH oxygen isotope power spectrum, using the revised age of 780,000 years for the Brunhes-Matuyama magnetic reversal boundary.

Image credit: J. Hebert.

expected orbital frequencies that were listed in the Pacemaker paper. The fact that the three prominent spectral peaks line up with the vertical lines means there is good agreement between the results and the expectations of the Milankovitch theory.

However, Figure 4 shows the PATCH results after taking into account the revised age of 780,000 years for the B-M magnetic reversal boundary—the age that secular scientists themselves now claim is the correct age of this boundary. The adjusted peaks in Figure 4 are slightly narrower than those in Figure 3 for reasons I explain in my third paper.¹³ Because this revised age changed the timescales assigned to the two cores, it was necessary to re-calculate both the new frequencies predicted by the Milankovitch theory and the new power spectrum results for the PATCH core. After doing so, two out of three of the vertical lines no longer align with the peaks—the results no longer agree with Milankovitch expectations.

To be charitable to the Milankovitch theory, I attempted to confirm the Milankovitch theory in a number of different trials, but even the best-case results did not provide convincing evidence for the theory.13 The Room

A Cause and Effect Problem?

Worse yet, the revised age of 780 ka for the B-M magnetic reversal boundary seems to present a significant cause and effect problem for the Milankovitch theory. The theory can be used to predict not just the lengths of the climate cycles, but also the approximate times at which ice ages end and interglacials begin (and vice versa). These times are approximate because uniformitarian scientists have to estimate how long they think it will take the climate to respond to changes in sunlight distribution caused by changes in Earth's orbital motions. One can use the age of the B-M reversal boundary to estimate the times of these transitions, which are known by specialists as marine isotope stage (MIS) boundaries, discussed in Part 1 of this series.3

When one uses the old age of 700 ka for the B-M reversal boundary to calculate the ages of the MIS boundaries, there is fairly good agreement between the calculated ages and the ages expected from the Milankovitch theory, at least for the 12 most recent MIS boundaries. However, when the ages of the MIS boundaries are calculated after taking into account the revised age of 780 ka for the B-M reversal boundary, nearly all the calculated times occur before the times predicted by the Milankovitch theory. Seven of these ages are at least 27,000 years too early, and one is a whopping 67,000 years too early!¹³ If changes in Earth's orbital motions are influencing Earth's climate, then why would the climate change tens of thousands of years before those orbital changes occurred?

Why Did No One Notice?

Some may find it hard to believe that the results from such a well-known paper could be invalid. After all, wouldn't secular scientists have noticed if this were really the case? Not necessarily. The Pacemaker paper never explicitly mentioned the age of the B-M magnetic reversal. Instead, the paper referred back to another paper published in 1973.4 It's only this 1973 paper that presents the details of the method used to obtain ages for the MIS boundaries. Unless one has read this 1973 paper, one will not really understand how those age estimates were obtained. Apparently, most uniformitarian scientists have *not* read this paper!

Important Results

Unfortunately, the B-T method, which the Pacemaker authors used to obtain their results, is generally not well known. For this reason, I have carefully explained this method in my second research paper.9 Although the paper is technical, non-specialists with an understanding of calculus should be able to follow the argument, provided they are willing to invest the necessary time. I encourage Acts & Facts readers who have such a background to examine this subject in more detail. Even for readers without such a background, it should be obvious from the figures in my third paper (similar to Figures 3 and 4 here) that the new results generally do not agree with Milankovitch expectations.13

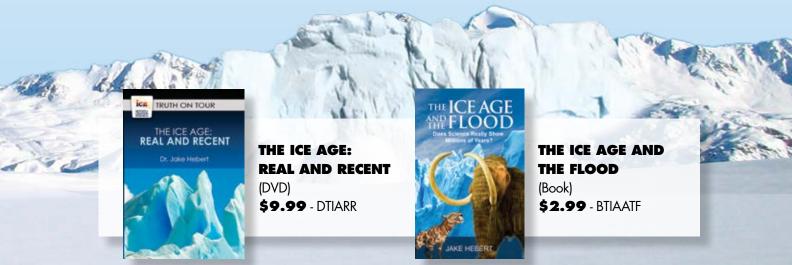
These results have tremendously important implications for uniformitarian dating methods, as well as the global warming/climate change debate, and these are the subject of next month's article, the third and final of this series.

References

- Oard, M. J. 2007. Astronomical troubles for the astronomical hypothesis of ice ages. *Journal of* Creation. 21 (3): 19-23.
- Hays, J. D., J. Imbrie, and N. J. Shackleton. 1976. Variations in the Earth's Orbit: Pacemaker of the Ice Ages. Science. 194 (4270): 1121-1132.
- 3. Hebert, J. 2016. Milankovitch Meltdown: Toppling an Iconic Old-Earth Argument, Part 1. Acts & Facts, 45 (11): 10-13.
- Shackleton, N. J. and N. D. Opdyke. 1973. Oxygen isotope and palaeomagnetic stratigraphy of Equatorial Pacific core V28-238: Oxygen isotope temperatures and ice volumes on a 10⁵ year and 10° year scale. Quaternary Research. 3 (1): 39-55.
- 5. Blackman, R. B. and J. W. Tukey. 1958. The Measurement of Power Spectra from the Point of View
- of Communications Engineering. New York: Dover Publications.
 Shackleton, N. J., et al. 1990. An alternative astronomical calibration of the lower Pleistocene timescale based on ODP Site 677. Transactions of the Royal Society of Edinburgh: Earth Sciences. 81 (4): 251-261.
- Hilgen, F. J. 1991. Astronomical calibration of Gauss to Matuyama saproprels in the Mediterranean and implication for the Geomagnetic Polarity Time Scale. Earth and Planetary Science Letters. 104 (2-4): 226-244.
- Hebert, J. 2016. Revisiting an Iconic Argument for Milankovitch Climate Forcing: Should the "Pacemaker of the Ice Ages" Paper Be Retracted? Part 1. Answers Research Journal. 9: 25-56.
- Hebert, J. 2016. Revisiting an Iconic Argument for Milankovitch Climate Forcing: Should the Pacemaker of the Ice Ages" Paper Be Retracted? Part 2. Answers Research Journal. 9: 131-147.
- As of October 21, 2016, the Pacemaker paper could be accessed online at: http://www.es.ucsc. edu/~pkoch/EART_206/09-0303/Hays%20et%2076%20Science%20194-1121.pdf
- 11. The numbers on the vertical axes of the charts in the Pacemaker paper are about half of what they are supposed to be. Although not terribly important, the Pacemaker authors seem to have made a subtle error in the vertical scale of their graphs.
- 12. Jenkins, G. M. and D. G. Watts. 1968. Spectral Analysis and Its Applications. San Francisco: Holden-Day, 260.
- Hebert, J. 2016. Revisiting an Iconic Argument for Milankovitch Climate Forcing: Should the "Pacemaker of the Ice Ages" Paper Be Retracted? Part 3. Answers Research Journal. 9: 229-255.

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.





Call 800.628.7640 or visit ICR.org/store

Please add shipping and handling. • Prices available through December 31, 2016.

Approaching The Scientific Approach to Evolution

BRIAN THOMAS, M.S

id evolution really happen? That depends on what you mean by "evolution." Rob Stadler's new book *The Scientific Approach to Evolution*, his first, evaluates evolutionary ideas using a brandnew approach. This 200-page book gives readers a straightforward tool that exposes the fuzzy thinking that often muddies origins discussions.

Dr. Stadler has a master's degree in electrical engineering from MIT, a Ph.D. in biomedical engineering from Harvard, 17 peer-reviewed technical publications, and over 100 U.S. medical device patents related to heart health.² He knows science.

The book begins with six criteria that rank the confidence with which science can answer a given research question. Without giving away too many of the book's nuggets, those criteria include repeatability and the role of biases in investigation.

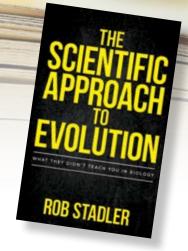
He uses nontechnical language and sprinkles the book with helpful examples that clearly illustrate key concepts. These include how the six criteria effectively evaluate a research question—even a challenging question like "Did humans and chimpanzees evolve from a common ancestor?"

Stadler quickly tutors his readers with examples of how to apply the six criteria. One, a study on heart health, met all six criteria and therefore matches what he calls "high-confidence science." The study was repeatable, restricted bias, and its authors soberly admitted their study's limitations.

Certain experiments designed to test evolution even meet all six criteria! For example, an ongoing study of evolution in bacteria remains repeatable and controls biases and variables. This way, the experiment has the power to determine causes instead of just offering associations.

Stadler applies the six criteria of high-confidence science to King Tut, malaria, Lucy, and human-chimp ancestry. His book even boldly confronts key evolutionary pillars like vestigial organs, homology, biogeography, and fossils. Stadler breaks each of these topics down into bite-size pieces that will appeal to those with little science background. *The Scientific Approach to Evolution* packs enough power to knock the wind out of virtually any claim—be it creationist or evolutionist—that oversteps clear boundaries of high-confidence science.

What else can a reader expect from this book? First, it does not reveal what the author believes about origins. Its tone should appeal as much to an atheistic evolutionist as to a biblical creationist and all beliefs in between, provided the reader likes logic and permits science to challenge origins ideas. Tasteful doses of bold text emphasize certain main



points. Two helpful appendices flesh out the six criteria and handle objections. The power of Stadler's criteria to evaluate grand claims rises from the text even if one leapfrogs a few of the author's many examples.

In an accessible way, *The Scientific Approach to Evolution* explains how six criteria for high-confidence science can expose the exact degree of mismatch between grand assertions about science and the unavoidable limitations of the scientific approach. Along the way, it gives confidence to those willing to let science do what it does best. Like an intellectual judo move near the end of the book, Stadler's inexorable logic delivered with a gracious tone might just turn the tables on what you thought you knew about the limits of science and the merits of evolution.

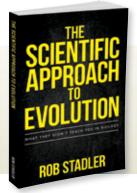
Reference

- Stadler, R. 2016. The Scientific Approach to Evolution: What They Didn't Teach You in Biology. North Charleston, SC: Cre-
- ogy. North Charleston, SC: CreateSpace.Dr. Stadler's research and innova-

Dr. Stadler's research and innovation have contributed to medical devices that are implanted in over one million patients worldwide.

Mr. Thomas is Science Writer at the Institute for Creation Research.





THE SCIENTIFIC APPROACH TO EVOLUTION

Dr. Rob Stadler

\$9.99 – BTSATE

Call 800.628.7640 or visit ICR.org/store

Please add shipping and handling. Price available through December 31, 2016.

Fish as Smart as Apes?

ince evolutionary thinking permeates the entire spectrum of biology, scientists are consistently surprised by the mental abilities of creatures thought to be lower on the so-called tree of life. In this mythical tree of evolutionary progression, apes are thought to be at the top of the intelligence scale—second only to humans. But now we have numerous examples of other land creatures, most notably birds, that rival or exceed apes' mental capabilities. 1-3

But what about fish, the supposed ancient ancestors of all landdwelling animals? With such a low position on the tree of life, they can't be nearly as smart as apes—can they? Perhaps a few captivating and evolution-negating examples are in order.

Let's start things off with the humble frillfin goby, a small marine fish only about three inches long that lives in intertidal zones along the shores of the Atlantic Ocean. When the tide goes out, frillfins stay close to shore in warm, isolated tidal pools. However, a tidal pool can expose them to dangerous predators such as octopuses or sea birds. It pays for the little frillfin to make a rapid exit if needed. But where is a little goby to go? Frillfins employ a seemingly impossible gymnastic maneuver with near perfect accuracy every time—leaping to a neighboring tidal pool.

The basis of this incredible feat lies in the fish's amazing mental abilities. How does the goby know where to jump without ending up on the rocks in defeat and almost certain death? As demonstrated in a 1971 study at the American Museum of Natural History, the gobies actually memorize the topography of the intertidal zone as they swim over it during high tide. With incredible accuracy, their brains record the layout of depressions in the rocks that will form the future tidal pools at low tide. In fact, research showed that with only a single learning session at high tide, the fish could remember tidal pool topography and map out escape routes 40 days later!

Evolutionists once considered the ability to use tools as uniquely human. In the 1960s, they hailed Jane Goodall's reports of tool use

in chimpanzees as stunning evidence for humans evolving from apes. But since then, many land-dwelling animals have been observed using tools, including a variety of birds, dolphins, elephants, and other animals.

But what about fish? In 2009, evolutionary biologist Giacomo Bernardi filmed the first evidence of a fish us-

ing tools. He observed a

tuskfish uncovering a clam

buried in the sand, which it then picked up in its mouth and carried to a large rock 30 yards away.⁵ Then, using several rapid head-flicks and well-timed releases, the fish smashed the clam open against the rock. It performed this feat so efficiently that in only 20 minutes it broke open three clams and

gets even better. The industrious tusk-

consumed them. But the story

fish first uncovers the clams by turning away from the target and rapidly snapping its gill covers shut to generate an intense pulse of water. So the overall forward-thinking process involves more than just tool use.⁵ It includes a planned, logical series of orchestrated behaviors even more complex than chimpanzees using twigs or grass stems to draw termites from their nests.

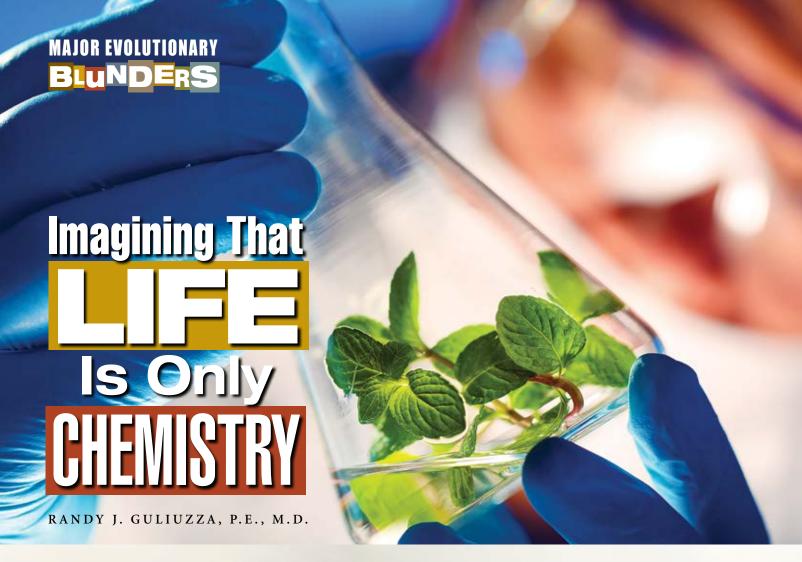
Clearly these complex cognitive fish abilities don't fit the evolutionary paradigm but instead reveal a much more obvious principle in nature: An animal's mental ability is unique to its inherent engineered skill set. These design patterns don't fit the evolutionary story because they exemplify the incredible engineering and creativity of our great Creator God.

References

- 1. Tomkins, J. P. Some Birds Were Created to Boogie. Creation Science Update. Posted on ICR.org May 13, 2009, accessed October 1, 2016.
- Tomkins, J. P. Neuron-Packed Bird Brains Point to Creation. Creation Science Update. Posted on ICR.org June 20, 2016, accessed October 1, 2016.
- Tomkins, J. P. Musical Bird Maestros Befuddle Evolution. Creation Science Update. Posted on ICR.org October 20, 2016, accessed October 20, 2016.
- Aronson, L. R. 1971. Further studies on orientation and jumping behavior in the gobiid fish, Bathygobius soporator. Annals of the New York Academy of Sciences. 188 (1): 378–392.
- Stephens, T. Video shows tool use by a fish. University of Santa Cruz NewsCenter. Posted on ucsc.edu September 28, 2011, accessed October 1, 2016.

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





ome people who watch American football only see players running in zigzags and senselessly colliding until there is a pile of men lying on the field. But to the cheering fans, they just witnessed a quarterback read the defense and call out adjustments to a complicated strategy, followed by precise player movements purposively choreographed like a ballet. This group knows the big picture of the game, which includes the mini-battles between individual players. That insight fits other areas as well.

Evolutionists and creationists seem to debate endlessly about everything. Complicated technical arguments about amino acids, nucleotides, meteorites, thermodynamics, and biological mechanisms may come across as disconnected and irrelevant to daily life, but these seemingly trivial debates are like two opposing football players' mini-battle. Understanding how everything fits together is easier if a person can see the bigger picture.

Therefore, taking one step back from amino acid debates reveals that their context is a widespread provocative claim that "life is only chemistry." For instance, two evolutionary authorities recently said, "Indeed, as van Helmont concluded in 1648, and as is even today the rallying cry at conferences on the origin and evolution of life, it seems quite clear that 'all life is chemistry." Whether that is true or not may affect daily life in areas as diverse as health care policies, religion, or the wisdom of tax expenditures on projects searching for aliens.

Evidence shows that evolutionary assertions that life is only chemistry constitute another major blunder. While significant, that lesson is secondary. More important is how a "life is chemistry" declaration illustrates that quarrels over details are truly significant when they are recognized as being nested in opposing worldviews that claim to be truth. Discovering the concealed links between basic research and a worldview is a fascinating exercise.

Did God Create Nature, or Did Nature Create Itself?

Detail-level origins disputes ultimately progress to answer this big-picture question: Did God create nature, or did nature create itself? God, in this sense, would reflect His attribute as a sufficient cause so that nature could be an effect. Ideally, studying the properties of nature should indicate one way or another whether God was a necessary cause or whether nature by itself is sufficient (meaning God isn't necessary). Realistically, however, researchers begin work by structuring their research efforts according to a presupposition that one explanation is true. Knowing a worldview's assumptions is the first step to understanding how details like chemical bonds and molecular shapes get interpreted.

The condensed version of those who start with a "God creates nature" position is that they generally hold that matter and natural

law proceed from, and are shaped by, God's pre-existing mind. God, His thoughts, and information—all immaterial—come first and matter later. God's mind, not matter, is the ultimate reality.

The exact opposite presupposition guides research for those embracing the "nature creates itself" view. They hold that the physical universe is the entirety of reality. A key assumption is that matter and some properties of nature are self-existent. They approach research presupposing that the way natural laws govern the interactions of matter will give rise to everything else.

Focusing on the "nature creates itself" view, also known as materialism, will illustrate how adherents of a worldview risk establishing it as scientific dogma. This happens when they automatically use it to shape the research program that is their plan for doing research.

How Worldviews and Research Programs Shape Each Other

The first step in starting a theory about life's origin is to define what life is. Everyone knows that living things grow, reproduce, adapt, and metabolize. However, these functions only describe what living things *do*, but not, per se, what life *is*. A recent scientific article's headline, "Why Life Is Physics, Not Chemistry," exemplifies that the basic premise of materialistic models will be some type of natural process. Definitions must align with the worldview, even if they are counterintuitive. Within materialism, declarations such as "life is chemistry" or "life is physics" define what life is.

Still, for many people it is somewhat odd to declare that life is either physics or chemistry. Something is different in a living person and missing from an essentially dead person maintained on life support—even though, theoretically, all tissues (except the brain) may be transplanted from that person's body to the living person. What exactly is maintained by the living person's biochemical processes? If those processes could be fixed in the body on life support, would life return? Does physics explain why living things seem to act with willful, goal-directed behaviors? Living creatures don't want just any resource but strive for the best ones. They want to reproduce. They want to live. People know they may order a pound of meat but not a pound of life. Nor can they acquire a similar quantity of consciousness or information or volition. Given these distinctions that physics and chemistry have yet to explain, why not simply declare the current scientific status, which is that so far neither human senses nor instrumentation has weighed or otherwise measured life?

There is a reason materialists declare definitions that have been extrapolated past the supporting evidence. Believing that nature created itself, they are constrained to use that belief to frame explanations of natural phenomena for which non-materialistic explanations are inconceivable. By definition, something that is beyond the realm of human detection is mystical, not material—which describes our current understanding of life. One future possibility is that life

itself may be materially quantified and possibly duplicated. But a second possibility is that it may remain mystical. In fact, it may be immaterial. However, many scientists will structure research programs where the criteria to rule out the first possibility are exceedingly high. This means that, for example, no matter how many chemical experiments result only in chemistry and not in life, something like the "life is chemistry" premise survives—since only materialistic explanations are conceivable. This finally takes us to understanding how different worldviews shape research programs.

Most people are uninformed and little concerned with research programs. However, in a scientific age, research programs are indispensable to achieving a dominant worldview. Why? First, a program and its underlying worldview vigorously feed each other. Second, research programs, with their attendant presuppositions,

control what questions are considered legitimate, what research paths are acceptable, what research projects are allowable (i.e., funded), what views should be opposed, and what interpretations of results are permitted.³ If the same "rallying cry" inspires similar programs across research institutions, conformity may be enforced and denial of publication may muzzle contrary voices.

This explains how materialism's declaration—not a conclusion—that life is physics or chemistry initiates and guides research programs that already believe that complex molecules arise from simple chemical elements and that simple life will emerge from complex molecules. Starting only with matter and law, a conscious d—one capable of deciphering this whole preceding scenarios.

mind—one capable of deciphering this whole preceding scenario—could then materialize as a byproduct of countless struggles for survival. Then, perhaps, some of those conscious minds while still in their primitive state will create the notion of God.

Research programs monopolize what findings are reported as science. Thus, we now understand why disputes over methodologies, details, and bias flowing from these programs will be the realm of debate between creationists and evolutionists and why that illustrates how a debate about whether life is chemistry is actually a debate about worldviews.

Materialists Declare "Life Is Chemistry"

Widespread belief that cellular function was extremely simple may explain early researchers pursuing chemistry-based scenarios.⁴ Unfortunately, the wholesale invocation of imagination into scientific scenarios—not a good practice—beginning with Darwin is gently overlooked in historical accounts.

Darwin imagined a scenario in which just the right environmental conditions craft life. Evolutionist John Priscu notes:

It was Charles Darwin who first posed an explanation for life's origin that complemented his evolutionary theory of life on Earth. In a letter written in 1871 to botanist Joseph Hooker, Dar-

win envisioned: "It is often said that all the conditions for the first production of a living organism are present, which could ever have been present. But if (and Oh! what a big if!) we could conceive in some warm little pond, with all sorts of ammonia and phosphoric salts, light, heat, electricity, etc., present, that a protein compound was chemically formed ready to undergo still more complex changes, at the present day such matter would be instantly devoured or absorbed, which would not have been the case before living creatures were formed."5

Darwin may merit a pass on thinking that life is simple due to the limited information of his time. But his introduction of the look-imagine-see methodology into science is contrary to science's distinguishing observation-based methods of learning about nature.

Today, complicated chemical reactions are manufactured everywhere, yet their results have no resemblance to living things. Would any researcher, therefore, invoke the look-imagine-see method to declare that "life is chemistry"? Yes. The materialistic assumption that nature creates itself remains. That mindset leads to imagination-based research programs conceived in minds that visualize—and tolerate—fantastic leaps of evolutionary progress that are achieved through self-coordinated chemical processes. Chemistry, or the hardware of life, remains the focus of research, as one report recently confirmed: "Instead, hardware has dominated the discussion, in accordance with the generally reductionist flavour of biology in recent decades, with its associated assumption that, ultimately, all life is nothing but chemistry."6

Life Is Not Chemistry: Correcting a Blunder That Harms Biology

Life-origins researchers Sara Walker and Paul Davies observed that "although it has been notoriously difficult to pin down precisely what is it that makes life so distinctive and remarkable, there is general agreement that its informational aspect is one key property, perhaps the key property." Their paper explains in depth how information—not chemistry—is the key property of living things.

In a candid interview on their work, Walker stated, "Chemicalbased approaches...have stalled at a very early stage of chemical complexity—very far from anything we would consider 'alive.' More seriously they suffer from conceptual shortcomings in that they fail to distinguish between chemistry and biology." To which Davies added, "To a physicist or chemist, life seems like 'magic matter'... [that] behaves in extraordinary ways that are unmatched in any other complex physical or chemical system." Unlike being just chemistry, living things actually "harness chemical reactions to enact a pre-programmed agenda, rather than being a slave to those reactions."8

A report on the work of physicist Nigel Goldenfeld and microbiologist Carl Woese bluntly synopsized their criticism of all "life is chemistry" beliefs: "Goldenfeld and Woese say that biologists' closed way of thinking on this topic is embodied by the phrase: all life is chemistry. Nothing could be further from the truth, they say."9 That author summarized the bold assessment of Goldenfeld and Woese's

own paper that challenged the "rallying cry" that all life is chemistry, which, they concluded, "has arguably retarded the development of biology as a science, with disastrous consequences for its applications to medicine, ecology and the global environment."10

The Folly of Imagination-Based Research Programs

Reality and such self-affirming statements as "Darwin's 'warm little pond' idea was supported experimentally by two University of Chicago researchers [Miller and Urey] in the early 1950s"11 are enormously different. Walker and Davies opened their paper by acknowledging, "Of the many open questions surrounding how life emerges from non-life, perhaps the most challenging is the vast gulf between complex chemistry and the simplest biology."12 They quoted chemist George Whitesides, who stated, "How remarkable is life? The answer is: very. Those of us who deal in networks of chemical reactions know of nothing like it."13 They reproved simplistic research programs like Miller and Urey's, saying, "Often the issue of defining life is sidestepped by assuming that if one can build a simple chemical system capable of Darwinian evolution, then the rest will follow suit and the problem of life's origin will de facto be solved."14

For those who believe that God created nature, there is also a note of caution. The Bible says that the Lord formed Adam from dust and then breathed into him the breath of life (Genesis 2:7). Did the breath of life turn simple chemistry into complex chemistry or impart something altogether different? Criticisms of "life is chemistry" programs must *not* be aimed solely at the simplicity of their stories and their trivial results-which may leave the impression that life could still somehow be complicated chemistry. The main problem remains evolution's invocation of wholesale imagination to build research programs that, paradoxically, are closed to considering all non-material explanations. Life could be something totally distinct from chemistry, as even Walker and Davies acknowledged: "The heart of the issue is that we do not know whether the living state is 'just' very complex chemistry, or whether there is something fundamentally distinct about living matter."15

References

- Goldenfeld, N. and C. Woese. 2011. Life Is Physics: Evolution as a Collective Phenomenon Far from Equilibrium. Annual Review of Condensed Matter Physics. 2: 375-399.
- 2. Why Life Is Physics, Not Chemistry. MIT Technology Review. Posted on technologyreview.com November 22, 2010, accessed September 27, 2016.
- 3. Gould, S. J. 2002. The Structure of Evolutionary Theory. Cambridge, MA: Harvard University Press, 61, 157-159, 451.
- Meyer, S. C. 2009. Signature in the Cell: DNA and the Evidence for Intelligent Design. New York: HarperCollins, 43-44.
- Priscu, J. C. Origin and Evolution of Life on a Frozen Earth. National Science Foundation. Posted on nsf.gov, accessed September 27, 2016.
- 6. Walker, S. I. and P. C. W. Davies. 2013. The algorithmic origins of life. Journal of the Royal Soci*ety Interface*. 10 (79): 1-9. 7. Ibid. 1.
- 8. Derra, S. ASU researchers propose new way to look at the dawn of life. Arizona State University news release. Posted on asunews.asu.edu December 12, 2012, accessed September 26, 2016.
- 9. Why Life Is Physics, Not Chemistry.
- 10. Goldenfeld and Woese, Life Is Physics, 375.
- 11. Priscu, Origin and Evolution of Life on a Frozen Earth.
- 12. Walker and Davies, The algorithmic origins of life, 1.
- 13 Ibid 14. Ibid.

Dr. Guliuzza is ICR's National Representative.



Q: WHO WROTE THE BIBLE?

I recently encountered a young man with no confidence in the Bible. His high school teacher taught him that a cluster of Catholic clergy cobbled the Scriptures together long after the events they describe—events like the Lord Jesus rising from the dead and the apostles traveling the world to proclaim His resurrection. Was his teacher right?

The Bible claims to convey God's exact words across time. For example, "The words of the LORD are pure words, like silver tried in a furnace of earth, purified seven times. You shall keep them, O LORD, You shall preserve them from this generation forever." In contrast, my new friend believes that those who supposedly scribbled Scripture from scratch actually mangled it with man-made mistakes. But significant archaeological discoveries provide new reasons to reject this idea.

The Dead Sea Scrolls rank near the top of a long list of Bible-confirming archaeological discoveries.² Hebrew scribes hid this library in remote cliffside caves overlooking the Dead Sea in Israel and then covered the cave entrances before the Roman 10th Legion overwhelmed them in 68 A.D. Discovered by accident in 1946, the recovered scrolls include many books of the Bible.

Jars preserved the ancient documents like time capsules. When compared with modern texts, the Dead Sea Scrolls reveal virtually no differences after 2,000 years of Bible transmission. The few spelling

The words were "100 percent

identical" to the Hebrew book

changes and such did not alter the basic content of any verse. This disproves false stories about church authorities who supposedly sullied Scripture in its collection or transmission.

Another archaeological discovery also confirms biblical integrity. Archaeologists recovered third-century scrolls from Ein Gedi, Israel, in 1970. Unfortunately, they had been burned, leaving no hope to physically unroll them without them crumbling at the touch. But recent technological advancements enabled experts to virtually "unroll" 3-D images using sophisticated software and X-ray scans that pick up ink remnants.³ Now, for the first time, experts can decipher Hebrew characters from inside a rolled-up, charred scroll.⁴

Emmanuel Tov from the Hebrew University co-authored a technical report on the scroll scans.⁵ He told the Associated Press that the words were "100 percent identical" to the Hebrew book of Leviticus used today for Bible translations. "This is quite amazing for us. In 2,000 years, this text has not changed."⁴

This finding should come as no surprise. God preserved His words from the generations that penned them right up to this generation because He will "preserve them…forever."

Did humans write the Bible's words? Yes, but not apart from God. Those "holy men of God spoke as they were moved by the Holy Spirit." And His faithful servants have been meticulously copying those exact words ever since.

References

- 1. Psalm 12:6-7.
- 2. Price, R. 1997. The Stones Cry Out. Eugene, OR: Harvest House Publishers.
- The process resembles the computed tomography (CT) scanning technology used in hospitals.
 Estrin, D. Scanning software deciphers ancient biblical scroll. Associated Press. Posted on big-
- story, ap. org September 21, 2016, accessed September 22, 2016.

 5. Seales, W. B., et al. 2016. From damage to discovery via virtual unwrapping: Reading the scroll
 - from En-Gedi. Science Advances. 2 (9): e1601247.
- 6. 2 Peter 1:21.

Mr. Thomas is Science Writer at the Institute for Creation Research.

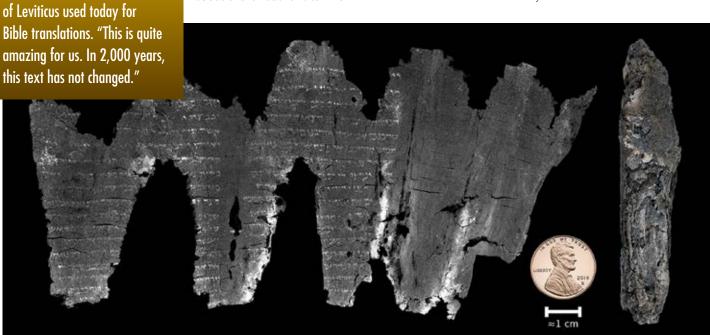


Image: S. Halevi, courtesy of the Leon Levy Dead Sea Scrolls Digital Library, IAA. Adapted for use in accordance with federal copyright (fair use doctrine) law. Usage by ICR does not imply endorsement of copyright holders.

There's Nothing Like an Eyewitness

ow was one of the largest German warships ever built sunk?¹ How did marine animals get fossilized alongside dinosaurs?² Do we need reliable eyewitness reports to know the real truth about non-repeating historic events? In a word, yes.

After the fact, historic causes routinely leave behind physical effects, often with observable characteristics such as fingerprints, tire-tread impressions, or DNA. These can provide reliable inferences about what occurred at a specific location and time.³

However, for complete accuracy, there is nothing like a reliable eyewitness.

Eyewitnesses can report relevant observations—about who, what, how, or why—that otherwise could leave a mystery misunderstood or unsolved.⁴ At other times, eyewitness testimony may clarify minor details with major ramifications.

Eyewitness testimony relies upon honesty, opportunity to observe, an accurate memory, and testimonial clarity. These forensic principles apply to the challenging task of reconstructing unique actions that happened in the past, because these events (unless recorded on film or video) can't be seen in the present.^{3,4} This applies to learning about past occurrences as different as the sinking of a German warship or how sea creatures got fossilized along with landroaming dinosaurs.

During World War II, Germany's two largest battleships were the "twins" *Bismarck* and *Tirpitz*. The *Bismarck* was sunk in 1941. In a book chapter titled "The Formidable *Tirpitz* Succumbs," historian Astrid Karlsen Scott summarizes the sinking of Germany's surviving monster battleship. Ms. Scott emphasizes the role of Norwegian resistance fighters who assisted Allied operations as spies and saboteurs. This account was reviewed by a Norwegian immigrant friend of mine, Mimi Fossum, who served in the



Tirpitz in 1941.

Norwegian resistance as a teenage spy during the war.

Concurring with the book's overall accuracy, Ms. Fossum recalled how the British Lancaster bombers "snuck thru a gap in the mountains" and bombed the ammunition storage on November 12, 1944. This was after most of the Lancasters had braved a "wall" of anti-aircraft fire from the *Tirpitz* without a "good hit."

Ms. Fossum ended her handwritten memoir with: "I know. I was there." Of course, the destruction of the *Tirpitz* was an unforgettable experience for the young underground agent, whose business it was to carefully observe military activities.

Some of what happened to the *Tirpitz* and the surrounding area could be inferred from the physical effects (e.g., Tallboy bomb craters near the site where *Tirpitz* was sunk) of the repeated attacks. However, as in all forensic investigations, there is nothing quite like a reliable eyewitness.^{1,5,6}

But what about the mixture of marine animals and dinosaur remains? How would land-based reptiles get buried in the same (later hardened) mud layers as squid, shrimp, mussels, lobsters, scallops, oysters, clams, sturgeon, flounder, herring, and orange roughy fish?² Can we know anything about what caused these physical effects?

In a word, yes—but only if we rely on Genesis 6–9, the inerrant report given by the global Flood's perfectly reliable eyewitness, God Himself.⁶ He inspired Genesis, and we hear Him clearly say throughout the Genesis narrative, "I know. I was there."

References

- Scott, A. K. 2004. Silent Patriot: Norway's Most Highly Decorated WWII Soldier and Secret Agent. South Jordan, UT: Nordic Adventures, 203-206. See also "RAF bombers sank the German battleship Tirpitz! 1944" and "Tirpitz: The Battle for Hitler's Supership Full Documentary" on youtube. com.
- 2. Thomas, B. 2016. Mesozoic Seafood Menu Caters to Noah's Flood. *Acts & Facts*. 45 (10): 15.
- 3. Johnson, J. J. S. 2014. Is the Present the 'Key' to Our Past? Acts & Facts. 43 (6): 19.
- Johnson, J. J. S. Mystick Mystery: Scientists Investigate Connecticut's Pequot War Battlefield. Presented at the Creation Research Society Conference, Dallas, Texas, July 31, 2015, posted on answersingenesis.org July 8, 2015.
- posted on answersingenesis.org July 8, 2015.

 5. Personal correspondence from and conversation with Mimi Fossum, native of Tromsø, Norway.
- 6. John 5:44-47; 17:17; 2 Peter 3:1-7. Regarding the importance of eyewitness testimony, see also Acts 1:3; 1 Corinthians 15:3-8; 2 Peter 1:16-21; 1 John 1:1-3.

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



THE LIGHT OF CHRISTMAS

ver the last two millennia, December 25th became the customary commemoration of the birth of Christ. But this was not always so. Other dates were recognized by different groups over time, while the early church apparently never observed Christmas at all. It wasn't until the fourth century that December 25th became identified with Jesus' birthday. Scholarly evidence shows that Christmas celebrations actually replaced old pagan rituals centered around the winter solstice during the longest nights of the year.

Frankly, the actual date of Christ's birth isn't known. But one interesting clue is found in the gospel of Luke when, on the night Jesus was born, shepherds were "living out in the fields, keeping watch over their flock by night" (Luke 2:8). It's highly unlikely this could have been in late December since shepherds would have stabled their flocks by then to protect them from the cold of Judean winter nights. Rather, it's far more likely shepherds would have been pasturing their flocks sometime during the early fall.

If so, it's remarkable that early Christians in Britain celebrated the feast of Michaelmas on September 29. Also known as the Feast of the Archangels, Michaelmas literally means "Michael sent," just as Christmas means "Christ sent." Scripture always portrays Michael the archangel as leading God's angelic host (Revelation 12:7), and while the text doesn't say, it's possible that Michael was the same "angel of the Lord" sent with "a multitude of the heavenly host" to announce the birth of the "Savior, who is Christ the Lord" (Luke 2:9-13).

When the apostle John wrote "the Word became flesh and dwelt among us" (John 1:14), he used the unique Greek word σκηνόω (*skēnoō*) to emphasize that Christ the Creator literally "tabernacled" with us for a time.

It's also significant that this date occurs just before the joyous Feast of Tabernacles. Ancient Israelites celebrated this feast each fall in thankfulness for the harvest by dwelling in handmade tents, or "tabernacles." When the apostle John wrote "the Word became flesh and dwelt among us" (John 1:14), he used the unique Greek word σκηνο'ω (skēnoō) to emphasize that Christ the Creator literally "tabernacled" with us for a time. So, just as Michael and the angels proclaimed "good tidings of great joy...to all people" (Luke 2:10), Christ's entrance into the world may have come at the Feast of Tabernacles, a time of great rejoicing in the nation.

But as marvelous as the birth of our Savior is, this wasn't His miraculous incarnation. That moment occurred nine

months earlier when Jesus willingly emptied Himself and took "the form of a bondservant" in Mary's womb to be made "in the likeness of men" (Philippians 2:7). As such, the date of Christmas (i.e., "Christ sent") may very well have been nine months earlier than Michaelmas—which again brings us back to December 25. There are 278 days between September 29 and December 25, which is remarkably close to the average period for normal human gestation! We cannot be dogmatic about this, of course, but wouldn't it be fitting that Jesus "tabernacled" with us during the season of the longest night to come as "the light of the world" (John 8:12)?

These conjectures give us a deeper appreciation for the wondrous Christmas gift of God Himself, who "abolished death and brought life and immortality to light through the gospel" (2 Timothy 1:10).

As the world grows more hostile to Christ, it's imperative that all believers everywhere "shine as lights in the world" in the "midst of a crooked and perverse generation" (Philippians 2:15). ICR has a long history of shining the light of Scripture, and we aim to proclaim the light of Christ in an increasingly public way. Please prayerfully consider "shining" with us this Christmas through your gifts to our ministry.

From all of us at ICR, may God richly bless you and your family as we celebrate

the true Light of the season. Merry Christmas!

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



PRAYERFULLY

CONSIDER SUPPORTING

GALATIANS 6:9-10 -

Through

- Online Donations
- Stocks and Securities
- **IRA** Gifts
- Matching Gift Programs
- CFC (Federal | Military Workers)
- Gift Planning
 Charitable Gift Annuities
- Wills and 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.

LETTERS TO THE EDITOR

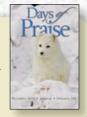
As always, I find your monthly *Acts & Facts* articles fascinating and informative. The October 2016 issue was no exception. Just to name a few:

- The series on Subatomic Particles by Dr. Lisle and Dr. Cupps has been outstanding. They bring very abstract concepts a little closer to a layman's understanding while reinforcing the truth about the orderly design of God.
- Dr. Guliuzza's article on God's amazing design of the human eye [Major Evolutionary Blunders: Evolutionists Can't See Eye Design] provides very convincing evidence of the wisdom of God while exposing the foolishness of "so-called" science. True science will always confirm the marvels of God's creative work.
- I really enjoyed Brian Thomas' whimsical article on the Mesozoic seafood [Mesozoic Seafood Menu Caters to Noah's Flood]. Who says science can't be fun? Yet, the truth from the creationist point of view is inescapable.

Keep up the excellent work!

-A. Q.

Nobody in this present world will ever know or realize how much these devotionals from *Days* of *Praise* mean to me. They are the absolute very best.



— A. B.

Your publications over the years changed me and my family. My son is pre-med at a college on the East Coast. You can see what an incredible impact you have on him from his text:

I have developed some very interesting points of view surrounding biology, evolution, and religion. I could and want to write a book about it. It's becoming increasingly hard and I'm facing more and more retaliation for being a biologist and a creationist. But through the conflict I'm really finding God and biology is having the opposite effect my professor would hope. It's only strengthening my faith.

These are his words, but this comes from years of your influence on me, passing on to the next generation. Thank you, and God bless!

— D. A.



Comments about October Oceanside Conference

I was captivated. Thank you Dr. Morris, Dr. Lisle, and Dr. Hebert for your dedication and integrity!

— J. V.

Wonderful, insightful—and it helped me get even closer to the Lord! I thank God for how He used all of the speakers' gifts. Perhaps next year you all can consider my church: Calvary Community Church, Westlake.

— D. A.

I hope such topics can be done in South Africa; we need such theological education for proper growth, knowledge, and wisdom.

— T. S.

Discovery Center

I owe so much to ICR going back to the Saturday mornings when I heard the 30-minute radio programs in the '80s. The infor-



mation I received really convinced me that the universe was created and the Word of God could be trusted completely even to the creation in six literal days. It is a privilege to send [this gift] as a token of my appreciation to ICR. We will continue to pray for the ministry and for the funds to come in to build the Discovery Center. We look forward to the day we can bring our grandchildren.

— J. M.

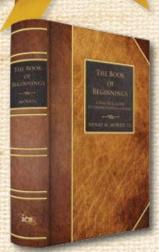
Over the last 20 years your materials have been a great help to me and the ministry God has entrusted to me. I am glad God has now placed me in a position to be able to give financially. I am very excited about the building of the ICR Discovery Center. I had purposed in my heart last year to make a donation then and another one this year. Your recent article entitled "Complete the Doing" was a good reminder to follow through with that second donation. I will continue to pray for the work, and I look forward to the possibility of visiting one day.

— D. D.

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.

Gift Books from ICR

Order by December 20th for Christmas Delivery!

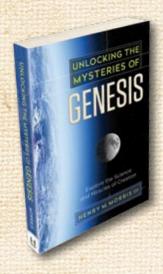


The Book of Beginnings A Practical Guide to Understanding Genesis

Dr. Henry M. Morris III **\$39.99** (reg. \$49.99) BTBOB

- New Expanded Hardcover Edition — a Classic Keepsake!
- Extensive Subject & Scripture Indexes

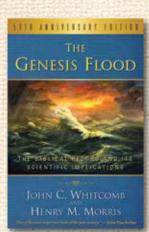
This comprehensive edition of *The Book of Beginnings* addresses the difficult issues in Genesis. The in-depth answers will help you communicate the richness of Genesis.



Unlocking the Mysteries of Genesis

Dr. Henry M. Morris III **\$15.99** BUTMOG

This new book is a great companion to our *Unlocking the Mysteries of Genesis* DVD series or can be used as a standalone study!



The Genesis Flood
50th Anniversary Edition
Dr. Henry M. Morris and
Dr. John Whitcomb
\$14.99 (reg. \$16.99)
BTGFFAE

Scientific Creationism
Dr. Henry M. Morris
\$9.99 (reg. \$13.99)
BSC



The Henry Morris Study Bible

With apologetics commentary and explanatory notes

Dr. Henry Morris

\$34.99 each (reg. \$39.99) Hardcover: BTHMSB-C

\$59.99 each (reg. \$69.99) Imitation Leather: BTHMSB-IL

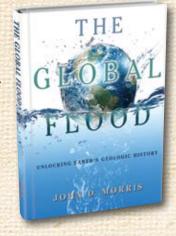
\$79.99 each (reg. \$94.99) Genuine Leather: BTHMSB-L



The Global Flood

Unlocking Earth's Geologic History

Dr. John D. Morris BTGFO — Hardcover **\$12.99** (reg. \$19.99)



Call 800.628.7640 or visit ICR.org/store

Please add shipping and handling to all orders. • Prices available through December 31, 2016.



Order by December 20th for Christmas Delivery!



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

UNCOVERING THE TRUTH ABOUT DINOSAURS

