

ACTS & FACTS

INSTITUTE FOR
CREATION RESEARCH

www.icr.org

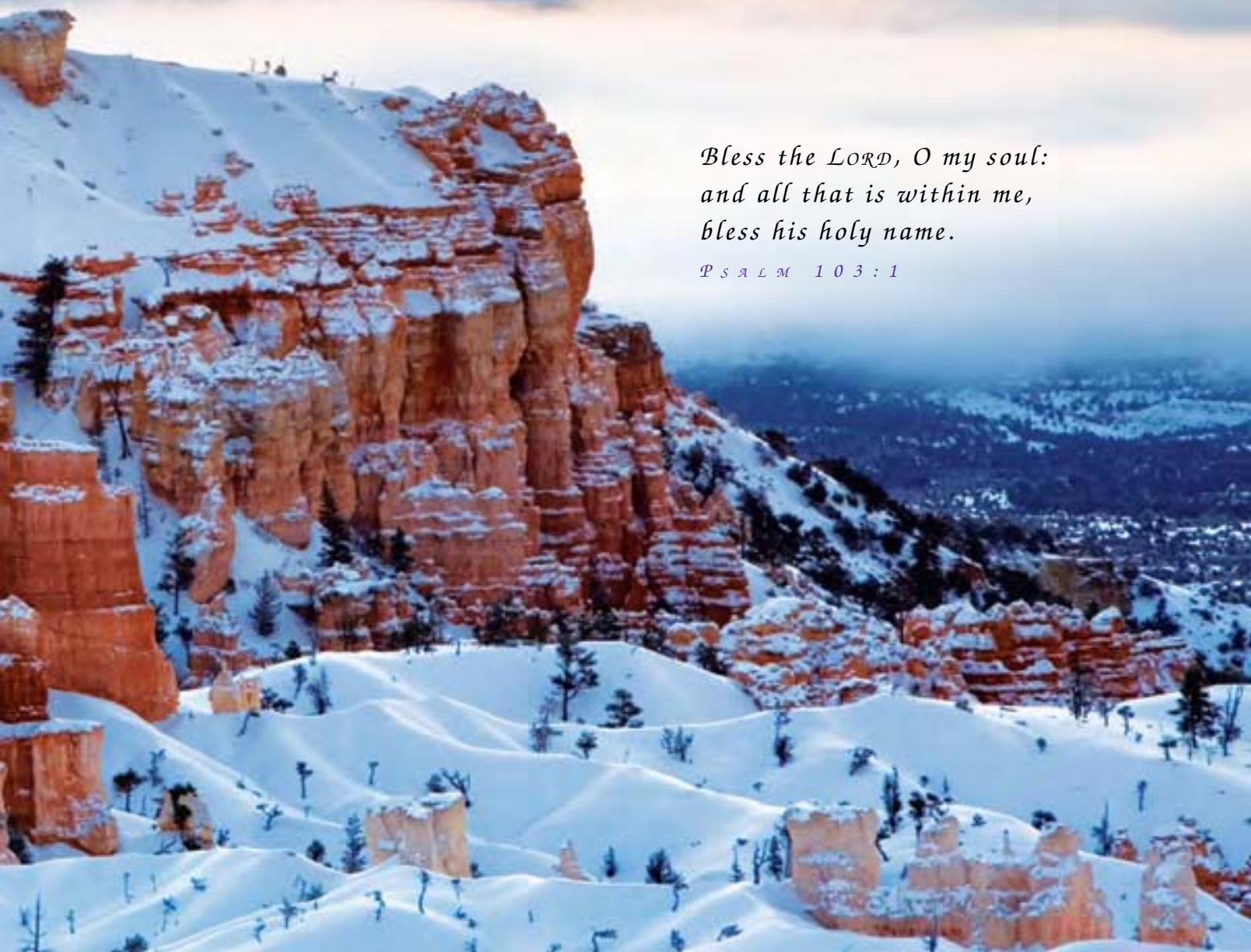
NOVEMBER 2009

VOL. 38 NO. 11

Bless the Lord

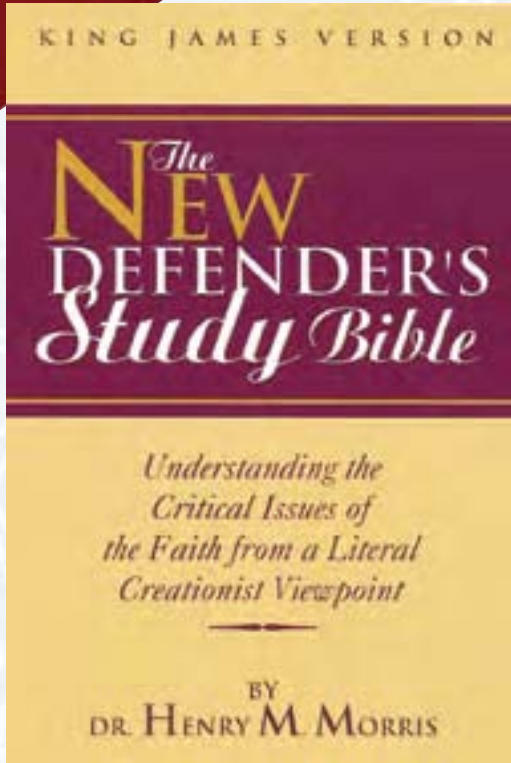
*Bless the LORD, O my soul:
and all that is within me,
bless his holy name.*

PSALM 103:1





This holiday season, give the gift of Truth



The New Defender's Study Bible

In this age of error, it is vital that Christians arm themselves with the truth. This is the only study Bible that stresses the defense of the biblical Christian faith from the perspective of literal creationism and absolute biblical authority. *The New Defender's Study Bible* offers:

- Introductory notes on each Bible book
- Greatly expanded commentary notes
- End-of-verse references
- Words of Christ in red
- Concordance
- 21 topical appendices
- Full-color maps

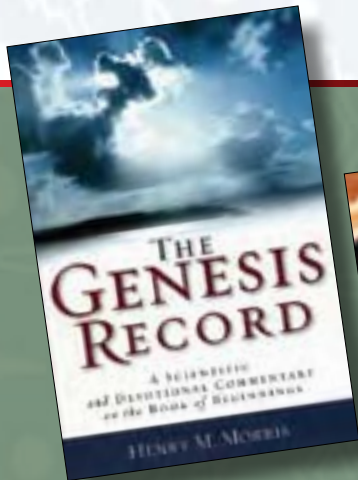
With extensive commentary and notes from Dr. Henry Morris, father of the modern creation science movement and founder of ICR, this is the finest study Bible available. Offered in hardcover and bonded leather editions.

		Regular	Special
BDEBI1	Hardcover	\$39.95	\$34.95
BDEBI2	Black Bonded Leather	\$59.95	\$54.95
BDEBI3	Burgundy Bonded Leather	\$59.95	\$54.95

(Plus shipping & handling)

Call **800.628.7640** to order, or visit **www.icr.org/store**.

Offer good through December 31, 2009. Order early for Christmas.



Delve deeper into the beginning and ending of time with Dr. Henry Morris. *The Genesis Record* is probably the most complete modern commentary on the foundational book of the Bible. Its sequel, *The Revelation Record*, offers an in-depth examination of Revelation's prophecies concerning the climactic culmination of human history. These excellent companion books will expand your faith and deepen your knowledge of the One who created all things for His pleasure (Revelation 4:11).

The Genesis Record, \$40.99 (plus shipping and handling)

The Revelation Record, \$24.95 (plus shipping and handling)



The Best Laid Plans

I've been thinking recently about the sayings of wise King Solomon. He was one of the greatest world leaders of all time, and a really busy man. Solomon wrote in Proverbs 16:9 that "a man's heart deviseth his way; but the LORD directeth his steps." God has given every one of us the intellect to *make* plans, but in the end, it is God who directs *how* our plans are fulfilled (even if He must change our plans to conform to His).

Here at ICR we work hard to plan ministry initiatives, conferences, publications, and educational programs in order to fulfill the plans we believe the Lord has laid on our hearts. One of these projects recently under my responsibility is the new book *Earth's Catastrophic Past* by renowned geologist Dr. Andrew Snelling. Reflecting more than a decade of work by Dr. Snelling, ICR committed to publish this long-awaited update to *The Genesis Flood*, published in 1961 by ICR founder Dr. Henry Morris and Grace Seminary theologian Dr. John Whitcomb. A two-volume set totaling 1,200 pages, with an expected delivery date around Thanksgiving, *Earth's Catastrophic Past* represents a huge commitment by ICR to communicate the evidence for recent creation and the global Flood. But the task for me and my dedicated publishing team, frankly, has been enormous—even overwhelming at times—especially in conjunction with the many other books we are preparing for publication this year. Thank you for upholding us with your diligent prayers.

I am grateful to work with a genuine Christian professional like Dr. Snelling who understands the rigors of scientific writing, editing, and publishing. His patience during our editorial process has been commendable. For me personally, this is one of those occasional projects fraught with interruptions and delays that make me wonder about the

plans and commitments *I* made in contrast to the plans *God* wants to fulfill. It's been a good lesson for me, particularly as ICR continues to expand its ministry to other vital areas of communicating the wonders of God's creation.

Speaking of His wonders, I mentioned last month that I would report on the ICR Yosemite Creation Tour. What a wonder of God! Thanks to Danielle Perez, our Tour Coordinator, and our teachers, Dr. Larry Vardiman and Dr. Steve Austin, as well as guest tour guides Dave and Mary Jo Nutting. A packed bus of 54 eager adventurers of all ages enjoyed hiking, creation teaching, and touring at one of the most awe-inspiring spots in America. The weather was great and all of our guests were a delight to know. And to think that so much of Yosemite Valley was created by the judgment of God—the after-effects of the Flood and the Ice Age. What a merciful and gracious God we have!



This time of Thanksgiving is our opportunity to give honor to the One who has been so gracious to us, His children. I encourage you to carefully read our feature article by Dr. Henry Morris III on the blessings of Thanksgiving. His prayer at the end is one that you will want to share with your families during this season of gratitude.

Lawrence E. Ford
EXECUTIVE EDITOR

CONTENTS

- 4 Bless the Lord
Henry M. Morris III, D.Min.
- 6 Manning the Booth
Christine Dao
- 8 Did Humans Evolve from "Ardi"?
Brian Thomas, M.S.
- 10 Made in His Image: Immune Systems, The Body's Security Force
Randy J. Guliuzza, P.E., M.D.
- 12 Sir Ambrose Fleming: Father of Modern Electronics
Jerry Bergman, Ph.D.
- 15 Preadaptation: A Blow to Irreducible Complexity?
Brian Thomas, M.S.
- 16 Noah's Ark: The Search Goes On
John D. Morris, Ph.D.
- 18 Bottom-Up Science
David F. Coppedge
- 20 Letters to the Editor
Radio Log
- 21 A Good Thing...
Henry M. Morris IV
- 22 The Issues of Death
Henry M. Morris III, D.Min.

BLESS THE LORD

Bless the LORD, O my soul: and all that is within me, bless his holy name.

P S A L M 1 0 3 : 1

HENRY M. MORRIS III, D.MIN.



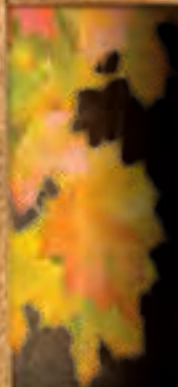
This is the season when we in the United States tend to turn our thoughts to thankfulness for the blessings of prosperity and peacefulness. And well we should. Our country, with all of its struggles, is still the most emulated and sought after civilization of the modern world. And, in spite of the efforts on the part of some, it is still a nation of moral laws and religious stability. We have much to be thankful for.

Yet for those of us whose eternal “conversation [citizenship, administration] is in heaven” (Philippians 3:20), and who seek “a better country, that is, an heavenly” (Hebrews 11:16), there is much, much more for which we should be thankful.

King David wrote Psalm 103 as praise to the great God of creation, thanking Him for the personal blessings he had known as one of God’s redeemed, and “blessing” God for the universal and foundational blessings upon which all of the Kingdom may depend. Surely it is helpful for us to be reminded of all the “spiritual blessings” (Ephesians 1:3) that our wonderful Savior has provided for us—both in the now and in the “heavenly places in Christ.”

The Blessing of Forgiveness

“Bless the LORD, O my soul, and forget not all his benefits: Who forgiveth all thine iniquities” (Psalm 103:2-3). Surely this is worthy of our grateful praise and conscious thanks. We have no righteousness of our own to lay before God’s feet (Romans 3:10). How marvelous is the grace gift of sins forgiven. What wonder is there in God’s transferring the righteousness of Jesus Christ to our account (Romans 4:22-24). Knowing that our sins are “cast...into the depths of the sea” (Micah 7:18-19) should cause a deep joy to bubble from our hearts in praise to our Lord.



The Blessing of Mercy

“Who redeemeth thy life from destruction; who crowneth thee with lovingkindness and tender mercies; Who satisfieth thy mouth with good things; so that thy youth is renewed like the eagle’s... He hath not dealt with us after our sins; nor rewarded us according to our iniquities” (Psalm 103:4-5, 10). Who of us has not known the mercy of God? How often has His hand been evident in our lives? How many times have we known that we have failed or rebelled against His direction, and the discipline we deserve has been stayed? Surely we can “praise the LORD for his goodness, and for his wonderful works to the children of men!” (Psalm 107:8).

The Blessing of Eternal Inheritance

“The LORD hath prepared his throne in the heavens; and his kingdom ruleth over all” (Psalm 103:19). The promise of heaven is the core of our future hope. Were it not for the promise of our resurrection and the evidence of the Lord’s victory over death, we would be “of all men most miserable” (1 Corinthians 15:19). God’s absolute promise of our eternal joy in His presence is summarized by Peter: “Blessed be the God and Father of our Lord Jesus Christ, which according to his abundant mercy hath begotten us again unto a lively hope by the resurrection of Jesus Christ from the dead, to an inheritance incorruptible, and undefiled, and that fadeth not away, reserved in heaven for you, who are kept by the power of God through faith unto salvation ready to be revealed in the last time” (1 Peter 1:3-5). We must rejoice and thank God for this unspeakable gift (2 Corinthians 9:15).

Not only is the inheritance “reserved in heaven,” but the very preservation of our salvation is secured by the “power of God.” One day we will be “joint heirs” with the Creator Himself (Romans 8:17). Our “corruptible” will become “incorruption” and our mortal will become immortality (1 Corinthians 15:52). Our earthly service will be changed into that of “kings and priests” (Revelation 5:10). Surely this deserves our present praise and thankfulness.

The Sacrifice of Praise

Sometimes we forget that “the fruit of our lips” is a “sacrifice of praise” (Hebrews 13:15) that brings joy to our Lord

(Zephaniah 3:17). Would you share this prayer of mine with your loved ones this thanksgiving season? It’s rather crude in light of His inspired Word, but perhaps the Lord will receive joy from our small praise for His goodness.

O Lord, God of Heaven and earth, our finite minds and feeble speech can never produce fitting praise of Thee. Although our hearts sometimes fill with gratitude and overflow with the joy of knowing Thee, we stumble at our attempts to express our love for Thee. Please accept our innermost thoughts. Please hear the groanings of our spirit as we try to hold Thee to our breast. Please, Father, receive our childlike thanks and our murmured whispers of love.

We do love Thee. But, O Lord, our lives are so impacted by the world and the sin that surrounds us. Forgive us for the constant stumbling and groping in the darkness away from Thee. Cleanse us from our sin and bring us into Thy light. Direct our steps, God of all Wisdom, and keep us from the Evil One. Our soul hungers for Thy favor, and we seek to please Thee with our days.

Lord God of the Sabbath, our forgiveness stands alone with Thee. We have reached out in sinfulness to respond to Thy calling, and have received at Thy hand alone the grace of eternal life. We will be unable here in this world to do more than give Thee our words of thanksgiving and our lives in Thy service. Accept them, O Lord, for it is all that we can do.

And, O Father in heaven, we thank Thee for Thy mercy. Every day we claim its renewed power. Every day we must have Thy mercy extended to our lives. Help us, O God, to heed the promptings of Thy Spirit in our hearts and to obey Thy Word. We accept the gentle chastening of Thy loving hand and yield to Thy voice.

O Lord of hosts, holiness belongs alone unto Thee. We would ask as we have been taught to pray that Thy will would be done in earth, as it is done in heaven. We gratefully acknowledge that all things come from Thee, and we pray that Thy bounty would supply our daily bread, and that Thy mercy and grace would forgive us our trespasses as we forgive those who trespass against us. And lead us not into temptation, but deliver us from evil, for Thine is the kingdom, and the power and the glory forever. Amen. ●



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





Manning the Booth

C H R I S T I N E D A O

Seminar and conference attendees may be familiar with seeing the Institute for Creation Research booth. ICR attends over a hundred events every year, and the booth is a great way for people to stop by and chat with ICR staff and faculty.

I recently had the opportunity to attend a local conference where ICR had a booth. As with any event, there are logistical and organizational challenges to meet to get all the necessary equipment and resources from ICR headquarters to the event location. At this particular conference, none of the exhibitors were allowed to sell anything, but that didn't stop us from giving away loads of books, *Acts & Facts* magazines, *Days of Praise* devotional booklets, classroom teaching posters, and all kinds of free information.

This conference was designed for parents and grandparents of school age children, youth pastors and volunteers, teachers, and anyone else who works with young people to some degree. The highlight of my day was simply talking with visitors, meeting current friends of ICR and making new ones. People attended from all around the Dallas/Fort Worth area and other parts of Texas, as well as from Oklahoma, Kansas, Washington state, Florida, Georgia, and even someone from Canada. As a first generation Asian American, I took note of the various ethnicities represented, reminding me with joy that God is the Creator of all our

beautiful skin tones, and that Christ is the Savior of every nation, tribe, and tongue.

Virtually everyone that stopped by our booth was eager to receive information from ICR on science news and the Bible, and many signed up for our free *Acts & Facts*. We also gave away many Fall Resource Guides, featuring ICR books, DVDs, and education materials. Several people expressed interest in the new *Origin of Life* curriculum supplement because it helps close the gap in science education, highlighting what the Bible has to say about scientific matters. I spoke with one enthusiastic woman who said her son was chair of the science department at a Christian school and that she would tell him about the curriculum supplement because it was "precisely the kind of thing he [was] looking for" to add to his school's program.

In an interesting turn of events, ICR was invited to bring materials to a Christian health conference in the same area. Many attendees there were homeschooling parents as well, and they were eager to receive free materials, as well as to have a chance to glimpse the *Origin of*

Life curriculum supplement sample that we had available.

Especially among parents and grandparents at both events, I listened to their discontent with the public censorship of the truth of God's good news. Many are turning to homeschooling simply because public school teaching has been so watered down that children aren't asked to think critically anymore, just regurgitate the information told to them.

They are also tired of the Darwinian evolutionary story "being shoved down my kids' throats," as one mother put it. And while many public schools will permit students' headscarves and pentagram jewelry, some will not allow Christian students to express their own faith by praying before football games.

While we can't attend every Christian event in our country or beyond, ICR's mission still remains the same as when Dr. Henry Morris founded it decades earlier: to equip the believer with scientific truths that point to the accuracy of God's Word. After all, if we can't trust what He said He did in Genesis, how can we trust what He said He did on the cross?

Science testifies to the creation. Our testimonies demonstrate salvation. And our hope longs for His return, when He will finally and completely right all the wrongs of our fallen world. ●

Ms. Dao is Assistant Editor.

ICR NOVEMBER EVENTS

- **NOVEMBER 5-6**
Sturbridge, MA – Association of Christian Schools International Convention (Johnson, Sherwin) 719.528.6906
- **November 5-8**
Souderton, PA – Bucks-mont Coalition for Evangelism Conference (J. Morris, Parker) 215.723.8707
- **November 8**
Dallas, TX – Preston Road Church of Christ (Guliuzza) 214.762.3287
- **November 12-13**
Raleigh, NC – Association of Christian Schools International Convention (McCombs, Nason, Parker) 719.528.6906
- **November 12-13**
Lexington, KY – Association of Christian Schools International Convention (Sherwin) 719.528.6906
- **November 13-14**
Dallas, TX – ICR Demand the Evidence Conference (H. Morris III, J. Morris, Guliuzza) 214.615.8300
- **November 13-14**
Charlotte, NC – 16th Annual National Conference on Christian Apologetics 1-800-77-TRUTH
- **November 23-24**
Anaheim, CA – Association of Christian Schools International Convention (Guliuzza, Nason) 719.528.6906
- **November 23-24**
Dallas, TX – Association of Christian Schools International Convention (McCombs, J. Morris) 719.528.6906
- **November 23-24**
Orlando, FL – Association of Christian Schools International Convention (Parker) 719.528.6906
- **November 23-24**
Washington, DC – Association of Christian Schools International Convention 719.528.6906

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. For information on attending ACSI conventions, visit www.acsi.org or call 719.528.6906.

Share Your Story of ICR's Impact

Thank you to the many people who have responded to our August invitation to share with us how ICR has impacted their lives. It has been an encouragement and a blessing to hear about the ways God has used ICR speakers, radio programs, books, articles, and other materials to touch lives with the truth that the Bible can be believed in its entirety. There is no need to add manmade philosophies or false science, since God-inspired Scripture is complete, accurate, and “profitable for doctrine, for reproof, for correction, for instruction in righteousness” (2 Timothy 3:16).

Has God used ICR in your life? Have you heard an ICR scientist share evidence supporting the biblical account and suddenly realized that the Word of God is trustworthy in all that it says? Has a friend or family member shared with you an ICR book, magazine, or devotional that strengthened your faith in the God who created all things “in the beginning”? Have you visited our website at www.icr.org and explored the evidence for creation or been helped by the scientific information in our archive of articles, technical papers, and other publications?

If so, would you consider sharing your story with us? You can either send a written account or a short video. A written story should be a maximum of three typed, double-spaced pages. A video

can be sent on a DVD or CD-ROM and should be 3-5 minutes. Mail it to:

Editor
Institute for Creation Research
1806 Royal Lane
Dallas, TX 75229

We plan to share these stories in our publications or elsewhere to encourage fellow believers with the work God has done in the lives of those who honor His Word. By sending us your story, you are allowing ICR to potentially use it in print or in a presentation. The story should be of your life rather than another person's, since we cannot publish the story of someone else without their permission. We will withhold your name, unless you request otherwise.

Thank you in advance for sharing with us. When we witness to each other about what God has accomplished through His Word and His provision, we both praise and honor the Creator, and also build up the body of Christ. As the writer of Hebrews urged:

Let us hold fast the profession of our faith without wavering; (for he is faithful that promised;) And let us consider one another to provoke unto love and to good works: Not forsaking the assembling of ourselves together, as the manner of some is; but exhorting one another: and so much the more, as ye see the day approaching. (Hebrews 10:23-25)



DID HUMANS

EVOLVE

FROM "ARDI"?

BRIAN THOMAS, M.S.

Ardipithecus ramidus is an extinct primate whose fossilized remains were first found along the Awash River in Ethiopia about fifteen years ago. Many fragments were collected, including shattered bones from a four-foot-tall female nicknamed "Ardi." She was chosen to represent her kind, apparently because of the comparative completeness of her remains.

Now Ardi's discoverers believe they have collected enough data to reconstruct her history—but what does their data actually reveal?

A Scientific Splash

Ardi was splashed onto the scientific scene with eleven technical articles in a special issue of *Science*, accompanied by depictions of the reconstructions of her bones. The reconstructions are based on CT scans of fossils, interpretative speculation in areas where there were no bones available, and more interpretation on how all the pieces fit together.

According to the researchers who found her, Ardi spent time as a human ancestor, based on their assumption that humans either evolved from her or some creature quite like her. "The *Ar. ramidus* fossils therefore provide novel insights into the anatomical structure of our elusive common ancestors with the African apes," stated one of the *Science* papers, concluding that "*Ar. ramidus* implies that African apes are adaptive cul-de-sacs rather than stages in human emergence."¹

Another paper viewed Ardi as the source of a new model of hominid evolution:

Referential models based on extant African apes have dominated reconstructions of early human evolution since Darwin's time.... *Ardipithecus* essentially falsifies such models, because extant apes are highly derived relative to our last common ancestors.²

Yet none of these statements carry meaning without the presupposition of evolution in general, and unless *Ardipithecus* is presumed to be an ancestor to man.

Evolutionary Guesswork

To place Ardi into human ancestry, as these authors insisted, creates more problems than it solves. For example, *Ardipithecus*' body structure shows no objective or undisputable transition toward uniquely human features. The authors themselves listed some of these differences: Humans have unique and interdependent sexual organs and reproductive biochemistry, unique

feet, ankles and musculature, unique hip structure, unique teeth and crania, totally unique cognitive abilities, a distinct “gut structure,” upright walking, unique vocal apparatus, a “precipitous reduction of olfactory receptors,” mammary glands that retain a stable size, unadvertised female proceptivity, and an “unusually energy-thirsty brain.”³

Speculation and evolutionary guesswork, not scientific observations, are offered to bridge these gaps. Consistent with this is the broad use of speculative verbiage on the part of the authors. In the eleven papers in *Science*, the word “probably” appeared about 78 times, and “suggest,” “suggesting,” “suggestive,” or “suggests” were used 117 times, among other terms that are associated with an unsubstantiated story rather than a scientific description.

If Ardi is presumed to be a human ancestor, then the century-long concept that has been taught as virtual fact—that humans evolved from a chimpanzee-like creature (based most recently on the strength of a supposed 99 percent agreement between their genome sequences)—must be discarded! This is because of Ardi’s unique features, which she does not share with African apes (or humans). In other words, arbitrarily placing Ardi at the foot of humanity’s evolutionary tree means that she negates the long-held concept of an African ape-like heritage. The chimpanzee, then, would have to have evolved on its own separate path.

Getting Off on the Wrong Foot

Ardi’s foot structure presents another problem for her assigned role in human ancestry. A lone *Ardipithecus* foot bone was described in 2001, and “it also shows a mosaic morphology that has features of both apes and *A. afarensis* [a.k.a. Lucy].”⁴ The other bones of her feet present no exception to the concept that Ardi possessed a mosaic of features, characteristics shared with other creatures and yet integrated into a uniquely created primate. She had hands for feet, and the long, curved bones of her fingers and toes clearly show that Ardi was adept at living in trees.

The *Ardipithecus* foot has its big toe “thumb” projecting strikingly sideways, which is hardly human-like. Nor are its other foot bones like those of chimps and gorillas, which have specially flexible feet that enable them to climb vertical tree trunks. Ardi’s feet are like those of some of today’s monkeys, which have a stable platform from which to leap, along with a fully developed grasping structure. Though the authors insisted that this stable platform was adequate for walking, other experts already disagree with this assessment.⁵

Ardipithecus-as-ancestor promoters stated, “The foot of *Ar. ramidus* shows that none of these ape-like changes were present in the last common ancestor of African apes and humans.”⁶ However, *Ar. ramidus* only “shows” what was present in pre-human “hominids” if *Ar. ramidus* is presumed, *a priori*, to be an evolutionary antecedent of apes and humans. It looks instead like an extinct but unique animal, which the authors themselves hinted at when they stated that “the *Ardipithecus* foot was an odd mosaic.”⁶

Did Ardi Walk Upright?

Most artists’ depictions show Ardi standing upright in a distinctly

human pose, a portrayal in keeping with the researchers’ contention that she had a human-like walking ability. Clearly, if humans evolved from some other primate, then somewhere along the way the hip and related bone structure must have changed. Most primates waddle when they “walk,” with knees aimed outward. Human hips are angled such that the articulating legs (and knees) instead point forward. What did Ardi’s hips look like?

The paleontologists painstakingly reconstructed her hip bones from the fossilized pieces that had been recovered. Their efforts were hampered by the incompleteness, fragmentation, erosion, and distortion of the bones. They completed their structure by inserting a “conjectural sacrum,” and correcting “various additional dimensions,”⁷ leading one to wonder how close their digital model is to what originally existed.

Adding further reason for skepticism, the authors admitted, “We based the anterosuperior projection of the ASIS on the well-preserved AIIIS and their typical relationship in hominoids.” Since the very word hominoid is a term employed in the study of “human evolution,” one wonders what role evolutionary dogma played in the necessary reconstructions, and whether the data—consciously or unconsciously—was made to appear human to advance Ardi’s candidacy as a human predecessor.

William Jungers of Stony Brook University expressed a concern that the researchers’ presentation of Ardi’s hip structure as being similar to human’s was possibly premature: “This is a fascinating skeleton, but based on what they present, the evidence for bipedality is limited at best.”⁵ Which means the depiction of “Ardi as our ancestor” is limited at best.

Conclusion

In his assessment of the significance of *Ardipithecus ramidus*, bipedality expert C. Owen Lovejoy wrote, “We can no longer rely on homologies with African apes for accounts of our origins and must turn instead to general evolutionary theory.”² Thus, setting aside evolution-inspired ideology, there is no scientific reason—or observed evidence—to believe that Ardi was an ancestor of mankind. In fact, there is every reason to believe it is solely an extinct primate, as uniquely created as any monkey still alive today.

Based on the Bible’s description of origins, one would predict that all “hominids” should actually be either wholly man or wholly ape. Based on the scientific evidence, *Ardipithecus* was clearly an ape, and as such fits the Genesis account that each creature group was created as its own kind. ●

References

1. Lovejoy, C. O. et al. 2009. The Great Divides: *Ardipithecus ramidus* Reveals the Postcrania of Our Last Common Ancestors with African Apes. *Science*. 326 (5949): 100, 104.
2. Lovejoy, C. O. 2009. Reexamining Human Origins in Light of *Ardipithecus ramidus*. *Science*. 326 (5949): 74e1.
3. Ibid, 74e7.
4. Harcourt-Smith, W. E. H., and Aiello, L. C. 2004. Fossils, feet and the evolution of human bipedal locomotion. *Journal of Anatomy*. 204: 404.
5. Shreeve, J. Oldest Skeleton of Human Ancestor Found. *National Geographic News*. Posted on nationalgeographic.com October 1, 2009.
6. Lovejoy, C. O. et al. 2009. Combining Prehension and Propulsion: The Foot of *Ardipithecus ramidus*. *Science*. 326 (5949): 72.
7. Lovejoy, C. O. et al. 2009. The Pelvis and Femur of *Ardipithecus ramidus*: The Emergence of Upright Walking. *Science*. 326 (5949): 71.

Ardi image adapted from White, T. D. 2009. *Ardipithecus ramidus* and the Paleobiology of Early Hominids. *Science*. 326 (5949) 64, 75-86. (This image is used for non-profit educational presentation purposes only.)

Mr. Thomas is Science Writer.





Immune Systems, The Body's Security Force

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

Good neighborhoods provide families a lot of protection, but even the best of communities remain vulnerable to the threat of criminals invading their homes. Our human bodies are also vulnerable to foreign invaders such as bacteria, viruses, fungi, and parasites. But when these infection-causing microbes break in where they don't belong, they face a serious defense force, eventually to be caught and destroyed by a highly trained, cell-sized army equipped with a sophisticated array of weaponry. That security force is called the human immune system. Designed with amazingly dynamic communication networks that pass information back and forth between hundreds of millions of cells, the human immune system strategically fights off microscopic invaders and remembers them each time they attack the body.

Without this defense system, none of us could survive, much less reach maturity. When the immune system becomes weak due to disease, immaturity, or deterioration, death is far more likely from infection or cancer. Medical intervention attempts to keep the immune system intact, but little help can be offered once it collapses.

Preparing the Immune System for Conflict

Like any conflict, the first priority must be to distinguish friend ("self") from foe ("non-self"). Cell surfaces are covered with hundreds of protein *markers* differing in type and combination. One very important marker, the MHC1, is on almost every cell (except red blood cells). Like all proteins, DNA specifies its makeup. But MHC markers are special. The possible genetic combinations as to exactly how it will "look" are so large that *no two people* have the same combination (except possibly identical twins). As cells recycle materials, this marker actually takes tiny portions of their unique cell fragments and displays these on

the surface. In the womb the immune system is "programmed" to recognize "self" by learning, in a sense, what these surface markers look like. Immune cells programmed to recognize self reside in the lymphatic and blood systems. Their color is grayish white not red, so they are called the white blood cells, or WBCs.

New generations of WBCs start forming in bone marrow. Specific hormones in the marrow or the thymus gland control programming so knowledge of "self" is passed on. This is important because WBCs operate on only one creed—any marker on any surface that is not totally "self" is "non-self" and will

An intricate cyclical process ensures that the antigen-antibody fit gets progressively better by becoming even more specific.

be attacked and destroyed. Markers play a pivotal role throughout the process. Non-self obviously includes bacteria, viruses, fungi, parasites, and toxins like snake venom. One's own cells may be included if infected *inside* by viruses or internally transformed by cancer. If so, portions of these non-self proteins are carried from inside and placed on the cell surface by the MHC. This, in effect, marks its own cell for destruction.

How Microbial Threats Are Identified

Hundreds of millions of microscopic invaders that trigger defensive immune responses are collectively called "antigens." Among the WBCs, "T cells" and "B cells" are the key players in mounting very specific responses to threats and then keeping these in memory. Once these cells mature, they not only recognize self but will express a receptor that will bind primarily to *one* type of antigen. Each

of these cells may have over 200,000 receptors on its surface. The process controlling maturation—colloquially called "cellular boot camp"—is exquisitely selective. If T or B cells fail to recognize their specific antigen or show any reactivity *against* "self," they are tagged with proteins prompting self-destruction. About two percent of manufactured cells make it through boot camp. These cells have not yet been exposed to antigens so they are "naïve" to their threat. They are sent to lymph nodes, other tissues, or simply circulate waiting to be exposed. Exposure for some is almost immediate, while others may never be exposed.

Since T or B cells make well over one billion different receptors, some researchers assert that *no* environmental threat exists for which a matching receptor has not *already* been made. So humans are not passively waiting for invading microbial antigens to determine which receptors will be made. Rather, the body has cells ready to meet any antigen that arrives. Some cells even have receptors for antigens that have never existed in nature. This incredible inventory of receptors is specified by genes in DNA, yet the total number of genes currently identified in humans is about 26,000. Actually, T or B cells in the boot camp only use a few hundred genetic bits of information, but these are controlled by an elaborate process that shuffles segments, allowing an astronomical number of combinations. One



Designed with amazingly dynamic communication networks that pass information back and forth between hundreds of millions of cells, the human immune system strategically fights off microscopic invaders and remembers them each time they attack the body.

receptor region determines its classification and allows it to interact with other cells. Another region is variable and will “fit” to some antigenic marker that initiates identification and the attack.

Microbes commonly invade through the mouth, lungs, or broken skin. Anticipating the invasion are millions of cells called APCs (Antigen Presenting Cell), which are strategically located in places like the tonsils or just under the skin. APCs constantly sample anything entering the body, and invaders are killed, their cells are broken apart, and many tiny portions—the antigens—are carried by these APCs to lymph nodes and “presented” to T or B cells.

T cells that “fit” the antigen become activated. Some T cells may also run into APCs on chance encounters while circulating in blood. A race begins the moment an invader enters the body. Many microbes reproduce rapidly, so the body must destroy them while they are fewest in number.

Activating a Specific Immune Response

Activated T cells initiate immediate and wide-ranging responses. At least 20 different chemical signals are sent throughout the body. Some attract “helper” T cells, “natural killer” cells, “cytotoxic” T cells, and other WBCs to home in at the site of infection. B cells are activated by these T cells, APCs, or directly by antigens. The chemical signals also drive many other important functions.

Activated B cells start reproducing lineages of exact clones. Most clones are directed to undergo dramatic internal restructuring,

thereby becoming cells able to make an *antibody*—an extremely important protein for fighting infection. These antibodies have regions that “fit” to antigens via similar genetic shuffling mechanisms as its “ancestor” B cell. However, an intricate cyclical process ensures that the antigen-antibody fit gets progressively better by becoming even more specific. How? The B cell’s genes prescribing variable regions have genetically unstable areas guided by a mechanism that fosters *hypermutation*—totally random genetic mutations resulting in very slight changes to variable regions from one lineage of antibodies to another. A few new antibodies will fit to the antigen a little better than others. Right on schedule, another type of cell takes the best fitting antibody-antigen package to a special location inside lymph nodes. The B cell making that antibody continues to the next cycle, while all other B cells that made less specific antibodies are sent a signal to self-destruct. After about six days of these mutation-selection cycles, thousands of cells will be making highly specific antibodies—and each of these cells manufactures antibodies at rates of about 2,000 *per second*.

Eliminating Threats

Invaders now face an extraordinarily fierce two-pronged attack. Antibodies may directly neutralize some threats like toxins, cause some antigens to clump together harmlessly, or most importantly, cover other microbes with thousands of antibody “bull’s eyes” targeting them for certain destruction. Once microbes are marked as non-self, there are very few places to hide. Once found, immune proteins may attach to microbes and punch hundreds of holes in them, additional cells may split them apart, other cells may attach to them and inject substances causing them to self-destruct, and many more may engulf them and force them into internal “sacks” filled with

acid, hydrogen peroxide, or bleach.

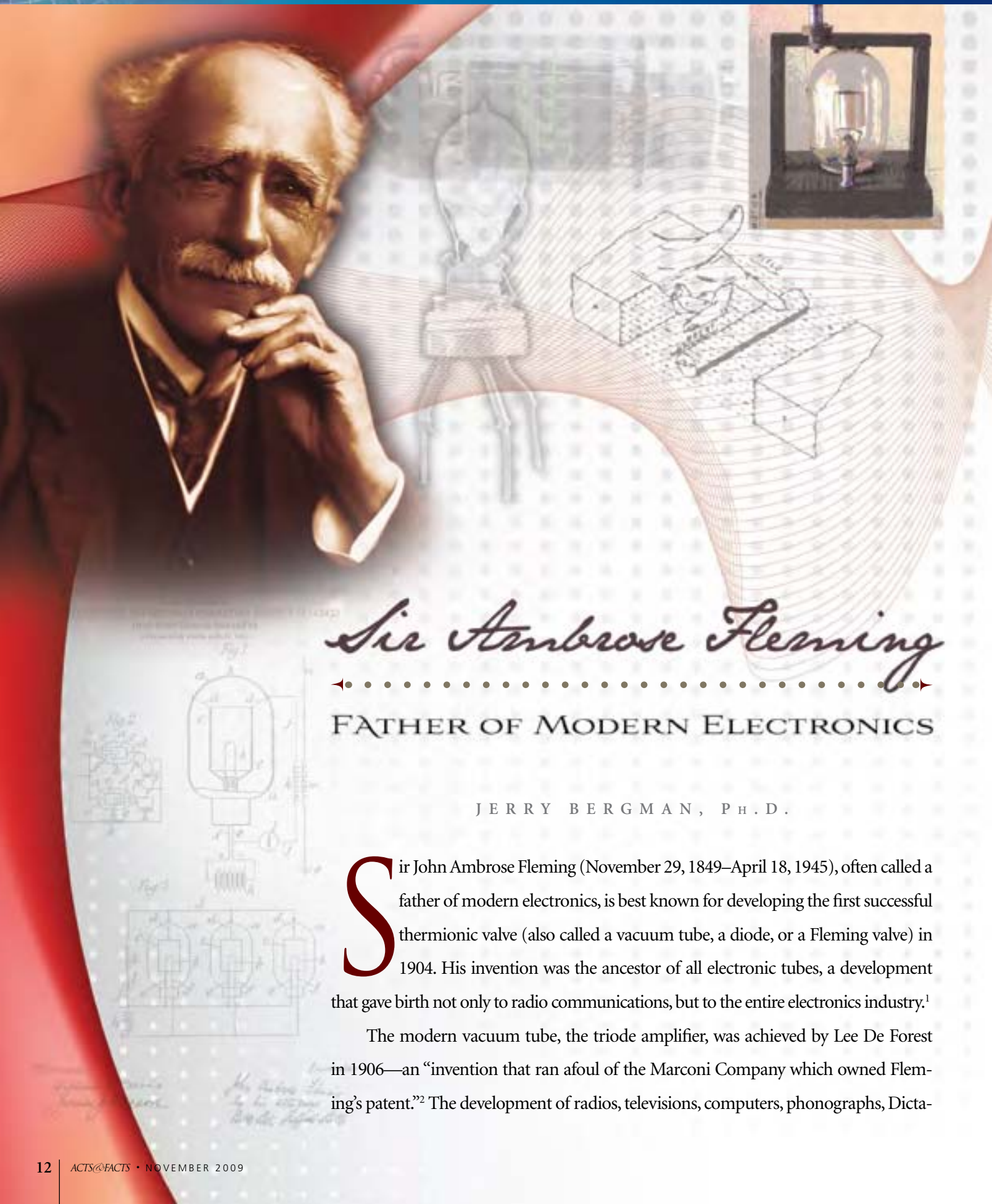
Toxins like those from tetanus bacteria or snake bites act so fast that ready-made antibodies from another person or a horse must be injected in victims to neutralize the toxin. More often, after someone’s initial exposure to an antigen, a few B cells that made the most specific antibodies transform into long-lived cells called “memory” B cells. When memory B cells (and memory T cells) see that antigen later, the entire immune response revs up stronger and produces huge quantities of antibodies in just a couple of days. Vaccines are compounds containing portions of dead or weakened antigens to deliberately expose people and, thereby, get their immune system primed. Often-fatal childhood diseases like smallpox, measles, and polio have been greatly reduced with this strategy. A newborn’s immune system needs developmental time, but is conferred good initial protection by antibodies from his mother that cross the placenta and from his mother’s milk.

Conclusion

The immune system doesn’t have even one central dedicated organ—it is a *functional* system dependent on every other body system, which themselves would not survive without immunal protection. It’s a complex system, and every area fights selflessly to rid the body of its foe and cleanse it of deteriorated cells. The immune system’s Creator, the Lord Jesus, is even more astounding. For “Christ also loved the church, and gave himself for it” (Ephesians 5:25). As typified in the immune cells He created, He, too, is mighty to save and protect His Body, even when acting to His own detriment. ●

Dr. Guliuzza is ICR’s National Representative.





Sir Ambrose Fleming

FATHER OF MODERN ELECTRONICS

JERRY BERGMAN, P.H.D.

Sir John Ambrose Fleming (November 29, 1849–April 18, 1945), often called a father of modern electronics, is best known for developing the first successful thermionic valve (also called a vacuum tube, a diode, or a Fleming valve) in 1904. His invention was the ancestor of all electronic tubes, a development that gave birth not only to radio communications, but to the entire electronics industry.¹

The modern vacuum tube, the triode amplifier, was achieved by Lee De Forest in 1906—an “invention that ran afoul of the Marconi Company which owned Fleming’s patent.”² The development of radios, televisions, computers, phonographs, Dicta-

phones, film projectors, and the cultural and intellectual achievements they created are all a direct result of the vacuum tube. The vacuum tube was a key component of radios and most electronic devices until it was replaced by the transistor in the 1970s. Fleming was the “common thread that linked the work” of Thomas Edison, Guglielmo Marconi, and Lee de Forrest, and Nikoli Tesla, who—according to a 1943 U.S. Supreme Court decision—invented the radio.³

AN EMINENT SCIENTIST

Fleming showed an early genius for scientific and technical studies. As a student he studied under James Clerk Maxwell at Cambridge, graduating with a first-class-honors degree in chemistry and physics. He was in the top two percent in his class for his B.S. degree. He then earned a doctorate from the University of Cambridge in 1880.⁴ Dr. Fleming taught at both Cambridge University and the University of Nottingham. He was the first professor and chair of electrical engineering at the University of Nottingham and University College of London, a post that he held for 41 years. Dr. Fleming was an outstanding teacher in the classroom and very successful as a public lecturer on science.

He also worked with both the inventor of the radio, Nobel laureate Guglielmo Marconi, and the inventor of the electric light bulb, Thomas Alva Edison, in developing a variety of inventions.⁵ From Edison, Fleming learned about the ability of a vacuum tube to convert alternating current into direct current.⁶ From this information he developed his thermionic tube. When working with Marconi, Fleming helped to design the transmitter that Marconi used in his successful 1901 trans-Atlantic broadcast.⁷

In 1904 Fleming designed a vastly improved radio receiver for Marconi.⁸ Fleming even helped design and build much of the equipment that makes wireless communications possible. For example, he contributed greatly to the development of electrical generator stations and distribution networks, helping to usher in the electronic age by allowing long distance transmission of telephone signals. He even made significant contributions to radar, which was of vital importance in helping the Allies to prevail in World War II.

His many awards include the Hughes Medal in 1910, the Gold Alber Medal in 1921, the Faraday Medal in 1928, the Institute of Radio Engineers medal in 1933, and the highest distinction in the Royal Society of Arts. His most important honor, however, was a knighthood, awarded in 1929.⁹ In his career, Fleming authored 19 major

physics and electronic textbooks and almost 100 scientific articles, many published in leading scientific journals.¹⁰ His 1906 and 1908 textbooks made critically important contributions to electronics. Fleming also authored several creationist books, including *The Intersecting Spheres of Religion and Science* and *Evolution or Creation?*

THE EVOLUTION PROTEST MOVEMENT

Sir Ambrose Fleming was an active creationist for most of his life. Henry Morris wrote that Fleming was an eminent scientist and one of the most outstanding creationists of the 19th century.¹¹ Fleming was the first president of the group that had a major influence on American creationists, the British Evolution Protest Movement (EPM). The society was founded in 1932 by Fleming with ornithologist and prolific author Douglas Dewar.

The first meeting was held in the office of naturalist and author Captain Bernard Acworth. Other active founders of this group included Professor Douglas Savory, Dr. W. C. Shewell Cooper, and Dr. James Knight, vice president of the Royal Philosophical Society. An active Congregationist, Fleming remained involved in the

EPM for most of his life, serving as a president of both the EPM and the Victoria Institute of England, another creationist organization.

Fleming argued that, as science progresses, more and more knowledge was uncovered that supported intelligence and design in the universe.¹² A major reason Fleming rejected evolution was because “organic Evolution is not an ascertained scientific truth fully established by facts but is a philosophy...without regard to the absence of any rigorous proof.”¹³

THE CASE AGAINST EVOLUTION

In his book *Evolution or Creation?*, Fleming argued that evolution, like all naturalistic theories of origins, has failed to account for life, the mind, and humankind. He reasoned that, for a theory to be true, it must “not fail in critical places,” as does evolution.¹⁴

After giving several historical examples, Fleming noted that in physics, even one fact can force revision or falsification of a theory. Fleming then lists numerous examples of evolution’s failures, such as the unbridgeable gap between living and non-living matter or between the cell and organic compounds such as methane. His argument in this area, although strong then, is far stronger today.

For example, Fleming, in harmony with the understanding of

FLEMING'S INVENTION WAS THE ANCESTOR OF ALL ELECTRONIC TUBES, A DEVELOPMENT THAT GAVE BIRTH NOT ONLY TO RADIO COMMUNICATIONS, BUT TO THE ENTIRE ELECTRONICS INDUSTRY.



the science of his day, described the cell as a “very small drop or lump of a jelly-like material called protoplasm.”¹⁵ Science then knew next to nothing about the cell and its parts compared to today. The mitochondria, rough ER, smooth ER, DNA, histones, and thousands of other organelles and protein systems—plus around 100,000 different proteins in the cell—were all unknown or very poorly understood in 1939. For this reason, Fleming’s argument is immensely stronger today. Professors Green and Goldberger wrote just 30 years later:

[T]he macromolecule-to-cell transition is a jump of fantastic dimensions, which lies beyond the range of testable hypothesis. In this area all is conjecture. The available facts do not provide a basis for postulation that cells arose on this planet. To postulate that life arose elsewhere in the universe and was then brought to earth in some manner would be begging the question; we should then ask how life arose wherever it may have done so originally. This is not to say some parapsychical forces (meaning beyond material, such as God) were at work. We simply wish to point out the fact that there is no scientific evidence.¹⁶

Since then, the case against molecule-to-human evolution has grown even stronger with the advance of science. Fleming recognized that “evolution is essentially atheistic” and is actually “an attempt to dispense with the very idea of God and substitute for an Intelligent Creator an impersonal non-intelligent agency,” namely mutations, time, chance, and natural selection.¹⁷ He concluded from his study of the evidence that the “assumptions underlying Darwin’s theory...and the general theory of inorganic evolution have not withstood the valid criticisms leveled at them.”¹⁸

THE INFINITE VARIATION THEORY PROVED WRONG

Another argument that he expounded, which has been confirmed today, was against the Darwinian assumption that infinitesimal natural variations accumulate in life, allowing natural selection to function.¹⁹ Fleming has been vindicated in this argument—Mendel disproved this aspect of evolution, showing that the source of variation is genes. Today the “infinite variation” of Darwin’s genetic transmission theory has been discarded and replaced by Mendelian genetics, involving discrete units called genes.

Of much interest is Fleming’s historical survey of evolution. For example, he noted:

[Professor] de Vries’ theory of Mutations and Mendel’s discoveries on the transmission of the unit characters have come in as antagonists more or less of the original Darwin ideas, and it cannot

be denied that no theory of organic evolution or explanation of its causation has commanded perfectly general acceptance. Rather, as H. F. Osborn, the late eminent American palaeontologist, said to the British Association in 1931: “We are more at a loss than ever to understand the causes of evolution. One after another the Buffonian, Lamarckian, Darwinian, Weismannian, and de Vriesian theories of causation have collapsed.”²⁰

Noting the conflicting views of a large number of biologists, Fleming concluded:

[W]hilst freely admitting the insufficiency of all so far advanced explanations of precise causes and nature of evolution, [they] still cling to a belief in the existence of...evolution...[and] dismiss from their view any acceptance of deliberate creation as an impossible solution of the problem of species.²¹

SUMMARY

Sir John Ambrose Fleming was a leader in the electronics revolution that changed the world. As a professor at a major university, he care-

fully researched the evidence for Darwinism, concluding that the theory is not supported by science. He also influenced hundreds of students to evaluate the evidence in science for Darwinism. An outstanding scientist and creationist, he played a significant role in the development and maturation of the early creation movement. As

Travers and Muhr wrote, he “had an unusually long and active life,” and his life changed the world as did few other scientists.²² ●

References

1. Morris, H. M. 1993. *History of Modern Creationism*. Santee, CA: Institute for Creation Research, 68-69.
2. Travers, B. and J. Muhr, eds. 1994. *The World of Invention*. Detroit, MI: Gale Research Inc., 253.
3. *Ibid.*
4. Brittain, J. E. 2007. John A. Fleming, *Proceedings of the IEEE* 95 (1): 313-315.
5. Fleming, A. 1934. *Memories of a Scientific life*. London: Marshall, Morgan & Scott, 238.
6. Travers and Muhr, *The World of Invention*, 253.
7. *Ibid.*
8. *Ibid.*
9. Brittain, John A. Fleming, 315.
10. Morris, *History of Modern Creationism*, 238.
11. *Ibid.*, 68, 120.
12. Fleming, A. 1938. *The Intersecting Spheres of Religion and Science*. Pembroke, Villas: Christian Press.
13. *Ibid.*, 42.
14. Fleming, A. 1938. *Evolution or Creation?* London: Marshall Morgan and Scott.
15. *Ibid.*, 64.
16. Green, D. and R. Goldberger. 1967. *Molecular Insights into the Living Process*. New York: Academic Press, 406-407.
17. Fleming, *Evolution or Creation?*, 9.
18. *Ibid.*, 13.
19. *Ibid.*, 35.
20. Fleming, *The Intersecting Spheres of Religion and Science*, 42.
21. *Ibid.*
22. Travers and Muhr, *The World of Invention*, 253.

Dr. Bergman is an Adjunct Associate Professor at the University of Toledo Medical School in Ohio.





PREADAPTATION: A Blow to Irreducible Complexity?

BRIAN THOMAS, M.S.

Molecular biologist Michael Behe described a system made of several interacting parts, whereby the removal of one part would disrupt the functioning of the whole, as *irreducibly complex*. Both creation scientists and intelligent design proponents highlight examples of irreducible complexity in their studies. The very structure of these systems—with their interdependent parts working all together or not at all—demands design, not chance.

Nevertheless, a team of evolutionary molecular biologists think they may have refuted irreducible complexity. They recently studied the parts of a particular cellular machine involved in protein transport, claiming that it was actually reducible to its component parts.¹

The researchers, led by Trevor Lithgow of Australia's Monash University, assert that since analogs of some of the parts of this molecular machine are found elsewhere, they could have assembled naturally when they were brought together at some time in the distant past.² What originally appeared to be an irreducible system could now be considered reducible because proteins were found that look very similar to some of its parts, albeit engaged in different cellular activities.

However, these researchers misunderstand irreducible complexity. ID theorists have not claimed that a machine must have been designed merely because it has parts, but rather that an imaginary, not-yet-complete machine has no function, and is thus invisible to natural selection, making it “unevolvable.” If it does not work, it confers no advantage to its organism, and therefore no occasion for its selection.

To circumnavigate this dilemma, the authors suggested a “core machine” assembly phase:

We proposed that simple “core” machines were established in the first eukaryotes by drawing on preexisting bacterial proteins that had previously provided distinct functions. Subsequently, and in a step-wise process in keeping with Darwinian evolution, additional modules would have been added to the core machines to enhance their function.¹

Labeling this process as “preadaptation,” they hypothesize that just the right components assemble themselves in just the right configuration. Also referred to as a form of “neutral evolution,” one favorable reviewer reminds us that preadaptation “falls outside the descriptions of Charles Darwin.”³

However, the very label “preadaptation”

counters the authors' claims. The idea admits that not-yet-evolved “proto-machines” are not subject to Darwinian selection of adaptations. Preadaptation is observed nowhere; it is a devised assumption “in keeping with Darwinian evolution.” The fact that non-functioning “machine parts” are invisible to Darwinian selection is exactly what design theorists have observed.

Brandon Keim wrote for *Wired Science* that “it requires only that existing components be repurposed,” as if adding purpose to parts occurs simply and “naturally.” Plans and purposes, however, are only known to arise from *intelligent* planners, never from mindless and chaotic laws of matter.

Preadaptation may be indistinguishable, in principle, from magic, and it was clearly invented to patch the gaping hole that separates Darwinian philosophy from scientific reality.

Instead of relying on unknown “self-organizing” principles and magical impossibilities to have constructed the living world, scientists can instead rely on Acts 4:24: “Lord, thou art God, which hast made heaven, and earth, and the sea, and all that in them is.” Thus, a real, effectual, adequate Cause is responsible for irreducible molecular machines such as mitochondrial transport complexes. ●

References

1. Clements, A. et al. 2009. The reducible complexity of a mitochondrial molecular machine. *Proceedings of the National Academy of Sciences*. Published online before print August 26, 2009.
2. They found that certain α -proteobacteria possess proteins similar to Tim23, Tim44, and Tim14/Pam18. All three are required for the mitochondrial transport machine called TIM23. To convert these analogs into the real TIM23 parts, the chemicals they found would not only have to coalesce, but would require precise modifications and re-fitting according to a mitochondria-specific plan. Even then, the parts of another mitochondrial transport machine called TOM, without which TIM23 would be useless, are exclusively found fully formed in eukaryotes. The authors offer no suggestions on where TOM came from.
3. Keim, B. More ‘Evidence’ of Intelligent Design Shot Down by Science. *Wired Science*. Posted on wired.com August 27, 2009, accessed August 30, 2009.

Mr. Thomas is Science Writer.



NOAH'S ARK:

The Search Goes On

JOHN D. MORRIS, P.H.D.

The search for the remains of Noah's Ark began in earnest in the 1950s with several individuals attempting to research the evidence and even search the majestic Mt. Ararat in Turkey. The Institute for Creation Research published the first serious compilation of this extensive evidence for the Ark's existence in 1972 in a book titled *Noah's Ark: Fact or Fable* by Earl and Violet Cummings. Numerous explorers, including myself, "caught the bug" and extended the search to uncover more evidence. I traveled to Mt. Ararat over a dozen times and led many expeditions to the mountain. Unfortunately, a discovery has still not been made. Since that time, overly optimistic reports have continued to surface, resulting either from press enthusiasm or fundraising efforts, but the Ark has still not been found. There are many "eyewitness

accounts" that are convincing, but they don't always stand up to critical analysis. Now some within Christianity claim the Ark may be on a different mountain (still within the biblical "mountains of Ararat") and are focusing their efforts on sites in Iran or southern Turkey, with little evidence to guide them, and again with no success to date.

Scripture makes no claim that the Ark survived the thousands of years since the Flood of Noah's day, nor prophecies that it will be discovered. Indeed, the ravages of the volcanic Mt. Ararat make it unlikely that it could have survived. But I remain compelled by the voluminous evidence that it did survive, and am convinced by the evidence that

points to Mt. Ararat in eastern Turkey as the proper site. Indeed, the eyewitness evidence is the only reason to look anywhere. However, discovery of the Ark is a job for younger men, and so I have "retired" from leading expeditions, although I often consult those who are active in the search.

Parenthetically, while we suspect the remains will one day be found in the country of Turkey, we also recognize that the word "turkey"

is the name of the tasty bird prominent during our Thanksgiving season. This bird is also known for not being the brightest bird around. The bird lives in Turkey as well and shows no more promise than those here. The fiercely proud and defensive Turks know the English word for that dumb bird is the same as our word for their country, and they don't like it. Predictably, in Turkish, they call it by another name—"hindi"—their word for the country of India!

Summer 2009 saw three expeditions making plans to travel to Mt. Ararat, each with specific goals and sites to inspect. Thankfully, they coordinated their efforts and cooperated in planning and while on the mountain. Ararat is 17,000 feet high and is covered year round by a dangerous and moving ice cap, which we suspect normally hides the Ark from sight. Research shows that about every twenty years or so the ice cap melts to an unusual degree, allowing the Ark to protrude, but this past summer the melt-back was no better than average. Even those sites that have been checked before must be checked again, for the mountain dramatically changes each year. Expectations were high as they embarked, but now that the summer is over, there is still no discovery to report.

The expeditions did report a most severe series of storms on the ice cap, with tent-destroying winds and equipment-ruining temperatures. Their stories brought back memories

of my first expedition, when similar storms devastated us with lightning strikes. Actually, I and two

others were struck by such a bolt and lay paralyzed for hours in the snow. Only God's protection and provision allowed us to survive and continue the search. This year the expeditions were plagued by unexpected financial woes and caught in a crossfire between the government and local rebels, as well as life-threatening accidents. I'm glad I was left behind to pray. As I write this in early fall, one group has not yet ceased their efforts, and may try again as weather and circumstances permit.

Why go at all? What good would a discovery accomplish? May I suggest there are several potential benefits, each of which would be sufficient.

Archaeologically, discovery of the Ark could be the greatest discovery ever. Keep in mind, the purpose of the great Flood of Noah's day was to fully destroy every semblance of humankind and their wicked, violent civilizations. The Ark would be the one remaining link to that long-ago time.

Scientifically, discovery of the Ark would forever demonstrate that uniformity, the basic underlying assumption of evolution, is completely false. Finding a 450-foot boat on top of a 17,000-foot mountain would lead to the conclusion that earth's past has been quite different from anything possible today. Without uniformity, evolution cannot stand and would crumble in the eyes of anyone with an open mind.

Biblically, many would see obvious proof that the Bible is true, even these difficult stories of creation and the Flood, and be encouraged to consider the rest of Scripture. The Bible's veracity is not in jeopardy even if the Ark is not

discovered, but wouldn't it be an encouragement to believers to see such overwhelming evidence? It would be His gift to His children.

Spiritually, many would be forced to confront the claims of Christ over their lives when faced with evidence of the Ark's existence. Here we see that God judges sin. He did so in Noah's day and He hasn't changed. Before, He sent a worldwide judgment by water; in the future is coming a worldwide judgment by fire. But even in time of judgment, He provides a means of escape—Noah's Ark in the past, and Jesus Christ in the present. By climbing on board the Ark, believers of the pre-Flood world escaped the watery penalty for sin and were placed in a better world. Likewise, by "climbing on board" our present-day Ark, Jesus Christ, and accepting the free gift offered through His redemptive work accomplished on the cross, we will escape the coming fiery judgment of sin and be placed in a better, eternal world to follow.

In my opinion, the search for the remains of Noah's Ark is worth the effort. Skeptics would be confronted with irrefutable evidence. Unbelievers would learn of God's justice and grace. Evolution would see its foundation eroded. And Christians would be encouraged to continue with steadfastness, equipped with a new tool.

Yes, the search for Noah's Ark does go on and should go on. Some day, when the time is right, God will reveal it to a lost and dying world that needs it so. And when He does, may He receive all the glory. ●

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



Evolutionary philosophy is a bottom-up storytelling project: particles, planets, people. Naturalists (those who say nature is all there is) believe they can invent explanations that are free of miracles, but in practice, miracles pop up everywhere in their stories. This was satirized by Sidney Harris years ago in a cartoon that showed a grad student filling a blackboard with equations. His adviser called attention to one step that needed some elaboration: It said, “Then a miracle hap-

just leaped over the size barrier. Chambers said, “Objects must have grown very rapidly from sub-metre-sized pebbles into 100-km-sized bodies, possibly in a single leap.” In the same article, he remarked, “Dust grains coalesced into planetesimals, objects of 1–1,000 km in diameter, through an unknown process.”¹

Don’t miracles involve unknown processes, too? Chambers undoubtedly believes that sufficient natural processes will be found in some future model. But that requires faith.

appeal to miracles, the very concept that Enlightenment science was invented to avoid. It has become the caricature stated in Finagle’s 6th Rule of Science: “Do not believe in miracles. Rely on them.”

Fred Hoyle used to respond to critics—who regarded his “steady-state” cosmology as unscientific because it required the continuous creation of matter out of nothing—by pointing out that Big Bang cosmology does the same thing; it just creates it all at once. Deduction: everyone believes in miracles. Instead of needing to invoke continual bottom-up miracles in the evolutionary story, creationists get the world right by a top-down miracle of creation. The difference is that the creation miracle was intelligently designed for a purpose.

The top-down approach leads to superior science in two ways. For one, it matches the laws of nature we know. We see asteroids proceeding from the top down—colliding and grinding down into dust, not leaping from dust into planetesimals by some “unknown process.” For another, creation science provides the basis for rationality. For science to succeed, it needs a philosophical anchor for the belief that the world is rational and can be understood. The Genesis account of man being created in the image of God provides that anchor.

Rationality in science requires reference to causes necessary and sufficient to produce the effects. If miracles are necessary, then an omnipotent Creator is sufficient. Appealing to chance miracles, however, is no more useful than stating “Stuff happens.”³ Creation, the “top-down” method, provides the solid foundation for rational scientific explanation. ●

References

1. Chambers, J. 2009. Planetary science: Archaeology of the asteroid belt. *Nature*. 460 (7258): 963-964.
2. Morbidelli, A. et al. Asteroids Were Born Big. *Icarus*. Article in press, available online July 16, 2009.
3. See Coppedge, D. 2009. “Stuff Happens”: A Review of Darwin’s Influence on Modern Astronomy. *Acts & Facts*. 38 (2): 37.

David Coppedge works in the Cassini Program at the Jet Propulsion Laboratory. The views expressed are his own.



BOTTOM-UP SCIENCE

DAVID F. COPPEDGE

pens.” Examples of miracles in evolutionary philosophy include the sudden appearance of the universe without cause or explanation, the origin of life, the origin of sex, the origin of animal and plant body plans, and the origin of human consciousness.

An egregious example of appeal to miracle appeared recently in *Nature*. John Chambers of the Carnegie Institute was commenting on recent ideas about planet formation. Scientists have had a difficult time in their models getting pebble-size rocks to grow into planetesimals (bodies large enough to attract material by gravity, usually kilometers across). New pressure has been put on the models by the realization that small bodies spiral into the star on short timescales (in just a few hundred orbits). So here is their new idea: the pebbles

So here we see faith in an unknown process keeping the naturalistic story together. Chambers referred to a paper in *Icarus* that stated the miracle even more starkly: “Asteroids were born big.”² The authors of that paper explained the miracle in these terms: “The size of solids in the proto-planetary disk ‘jumped’ from sub-meter scale to multi-kilometer scale, without passing through intermediate values.” That is functionally a miracle.

If this were the only example of appealing to a miracle in secular cosmology, it might be forgiven. But miracles are rampant in the evolutionary story. The literature of biological evolution is replete with statements that this or that animal “evolved” whatever complex systems are needed along the way, as if stating it makes it so. It’s time to call this what it is: an

THE COMPLETE AQUARIUM ADVENTURE



Get ready to weigh anchor for a delightfully wet and wild voyage to aquariums around the world!

Learn about amphibians, fish, aquatic mammals, reptiles, pelicans, penguins, jellyfish, octopus, and more. Get all hands on deck and prepare to cast off—your nautical-themed adventure is about to begin! Aquarium lovers of all ages can learn:

- Why birds need “air sacs” attached to their lungs
- The important relationship between clownfish and sea anemones
- Incredible design features of the unusual hammerhead shark
- Where coral reefs are found, and why they are endangered
- Which mammals live in the water and have cone-shaped teeth

Designed for on-the-go learning, the convenient activity kit can be removed to take with you to the aquarium, your local lake, or the beach. Includes devotionals and other materials to help in preparing for your visit to the aquarium, as well as activities and helpful tips during your trip to make it safe, enjoyable, and educational. *The Complete Aquarium Adventure* provides all you need for an aquarium trip of a lifetime.

Only **\$18.95** (plus shipping and handling)

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

THE COMPLETE ZOO ADVENTURE

Turn a field trip into an unforgettable learning adventure with this unique, evolution-free guide to the incredible world of animals. In *The Complete Zoo Adventure*, Gary and Mary Parker set the stage for learning with fascinating facts and tools for your trip to the zoo.

Only
\$16.95
(plus shipping and handling)



LETTERS TO THE EDITOR

Thank you for the very interesting, informative article “Dinosaur DNA Research” in the October 2009 publication of *Acts & Facts*...I find it incomprehensible that this “eureka” discovery (fresh dinosaur bone evidence) is buried in obscurity. Kind of like the old timer gold miners discovering this funny gold metal material and putting it back in the ground. It’s just amazing that these dogmatic evolutionists cannot see the evidence for “thousands not millions of years” right in front of their faces.

— R.B.

Your *Days of Praise* [devotionals] are indeed what the doctor ordered. They are for me like insulin for the diabetic. Like water for the thirsty; like food for the hungry. Just what I needed...Your efforts have blessed me and for this I wish to say thank you.

— W.R.

As a graduate of Christian Heritage College, Henry Morris and Dr. Gish were common names, as was ICR in Santee. Yet, I took them for granted! It was [in] traveling to Sweden and meeting my future father-in-law that I realized your impact. He was a subscriber and loved all your in-depth articles. I was floored and humbled. I now plan on teaching my children all your straightforward and scientific-based principles.

— J.M.

I visit your website daily, especially your *Days of Praise*. I find it very strengthening to my faith. And of course your scientific articles on creation are very instructive to me.

— L.T., Indonesia

I saw your web address on the whaling boat featured in “the whale wars” program on Animal Planet channel. Is this what your company is a part of, the slaughter of so many whales in the name of research? If so, Please Stop!

— L.R.

Editor’s Note: The Institute for Creation Research gets criticized for many things, but this is the first time we’ve been accused of slaughtering whales. If you visit our website at www.icr.org, you’ll see that our focus is on scientific research that supports the accuracy and authority of the Bible. You should direct your concerns to the Institute of *Cetacean* Research.

Have a comment? Email us at editor@icr.org. Or write to Editor, P. O. Box 59029, Dallas, Texas 75229.



This month on “Science, Scripture, & Salvation”



WEEKEND OF NOVEMBER 7

Basic Laws of Nature

In the biblical account of creation, there’s no room for evolution. We find this to be true in science as well, since natural laws back up Scripture. Is evolution against the law? You be the judge this week on *Science, Scripture, & Salvation!*



WEEKEND OF NOVEMBER 14

Is Creation Science a Religion?

Over and over again we hear the false assertion by evolutionists that creationism is “religion” while evolution is “science.” But why is this? Is it possible that evolutionists have a biased definition for the term “science”? Tune in to find out!



WEEKEND OF NOVEMBER 21

Thankfulness

As Thanksgiving Day approaches, we’re reminded how grateful we should be for all of God’s blessings. We teach our children to say “thank you” but are we, as humans, the only part of God’s creation capable of expressing appreciation? Join us this week—you’ll be thankful you did!



WEEKEND OF NOVEMBER 28

Flightless Birds

Have you ever heard the saying “birds gotta fly”? For certain birds, this is an impossible feat! God has created some beautiful flightless birds. Evolutionists claim that these creatures used to fly but gave up that ability. Don’t “chicken out” and fly the coop! Instead, listen in on this interesting discussion!

To find out which radio stations in your city air our programs, visit our website at www.icr.org. On the radio page use the station locator to determine where you can hear our broadcasts in your area. You can also listen to current and past *Science, Scripture, & Salvation* programs online, so check us out!

A long-time supporter recently wrote me with encouragement and helpful advice on raising funds for ICR ministries. His letter ended with a quote from Psalm 92:1, wherein the psalmist proclaims, “It is a good thing to give thanks unto the LORD.” How appropriate, in this month of Thanksgiving, that we should refocus our thoughts on the “good thing” of thanking our gracious Provider for all He has done. In this vein, ICR invites you to prayerfully consider the following ways you can “give thanks unto the Lord” by partnering with us in work for the Kingdom.

Gifts from IRAs—IRA withdrawals are taxable to you and your heirs, if left to them. But individuals 70½ years or older can make direct charitable gifts up to \$100,000 from their IRAs without having to declare it as income, providing a way to make gifts completely tax-free. Even those over 59½ may be able to accomplish similar results by combining a tax-deductible gift with a withdrawal. What an excellent opportunity to practice godly stewardship and support the Kingdom through tax-exempt ministries like ICR!

Gifts of Appreciated Securities—With the economy on the rise, now may be a good time to consider gifts of stocks, bonds, or mutual fund shares before year end. Securities owned for longer than one year and worth more than they cost can be deducted from income tax at full current value, plus you pay no tax on any gain. Even securities worth less than they cost may be worth giving, since the loss may be deducted from taxable income—and when combined with a gift deduction, the total deduction may be worth more than the current value. Contact ICR for our brokerage account information and let us help facilitate your gift.

Giving through the CFC—United States federal and military employees can support ICR’s research and educational programs through this year’s Combined Federal Campaign (CFC). If you believe in ICR’s work and desire to support our ministry, please prayerfully consider designating ICR as the charity of your choice. Our CFC identification number is **23095**, or look for us in the “National/International” section of your campaign brochure.



H E N R Y M . M O R R I S I V

Matching Gift Programs—Many companies offer matching gift programs to their employees and retirees for donations made to qualifying organizations. Did you know that ICR’s graduate degree programs and research projects may qualify for matches related to higher education and research? With matches typically made dollar-for-dollar (up to certain

limits), this is a great opportunity to “sow bountifully” (2 Corinthians 9:6) for eternity by doubling your gift value! Check with your HR department today to get started.

Charitable Gift Annuities—With rates on Certificates of Deposits (CD) hovering around 3 percent, rates on Charitable Gift Annuities (CGA) are much more attractive—usually 5 to 8 percent, depending on age. But unlike CDs, these special annuities offer guaranteed income for life, a present tax deduction, and a tax-free portion of future payments. Contact ICR for a customized proposal, or log on to the Planned Giving section of ICR’s website (www.icr.org) to create your own.

Planned Gifts through Wills and Trusts—Changes to estate tax law provide opportunities to leave more to family members and charitable interests free of tax. After providing for your family (1 Timothy 5:8), your will or trust can include charitable gifts of a specific amount, a percentage of your estate, a certain property, or “what’s left.” To discover how you can best use your resources for God’s work, ICR offers free educational guides and interactive calculators within the Planned Giving section of ICR’s website (www.icr.org). Log on and try it today!

ICR is deeply thankful for all who co-labor with us, and we truly “thank...God upon every remembrance of you” (Philippians 1:3). We are dependent on the Lord’s help through you, so please contact me at 800.337.0375 or stewardship@icr.org if you feel the Spirit’s leading. Happy Thanksgiving! ●

Mr. Morris is Director of Donor Relations.



The Issues of Death

“The last enemy that shall be destroyed is death.” — 1 Corinthians 15:26

“Death is the essential condition of life, not an evil.” — Charlotte Perkins Gilman

These quotations encapsulate the core debate between the naturalistic worldview and the creationist worldview. The evolutionary naturalist insists that death is a “good” and “essential” mechanism to produce the upward movement of “time’s arrow.” By contrast, the Bible defines death as an enemy and the result of God’s judgment on Adam for his rebellion. God’s good creation was cursed by death that was “passed upon all men” (Romans 5:12).

Charlotte Perkins Gilman (1860-1935) was an ardent American Darwinist, utopian feminist, and evolutionary humanist, whose prolific writings on sociology through her novels, short stories, poetry, non-fiction, and social reform lectures heavily impacted early 20th-century thinking. Sadly, her view of death as an “essential condition of life” has been embraced by many within the theological world.

Did God design eons of death into the creation?

Some have suggested that all living things were originally designed by God to die, that over the millions of years in which animal and pre-human life was developing, death played a perfectly natural role in the creation. Some have even taught that the death which God threatened Adam with was a “special” kind of death that applied only to humans.

Necessary death and long ages are exactly what atheistic science would advocate. How can the God who *is* life create death as part of His own signature? How ludicrous to think God would design death into His creation, and then agonize over the necessity of His own death in order to bring us salvation. Death by the design of God is absolutely foreign to the revealed nature of God (Romans 1:20).

In Genesis 3—the turning point in Scripture—all of the “good” was instantly withdrawn by God, who by His word activated the “groaning and travailing” of the earth and its inhabitants. The ground was cursed, yielding thorns and thistles, surrounding Adam with sorrowful labor for

the rest of his life until he himself would return to the earth from which he was fashioned.

But was God lying? Was He now blaming Adam for what He Himself had done? If the death pronounced by God is nothing more than a “symbol” of a greater message, then death can be relegated to a mystical musing that has no tangible meaning.

Is physical death irrelevant for salvation?

A most dangerous extension of the “death” equation is that physical death becomes essentially irrelevant in the punishment of sin. Gethsemane’s agonizing was for nothing, and the hundreds of warnings, curses, and consequences detailed in Scripture are now twisted into allegorical advice or suggestions.

However, physical death is specifically identified as absolutely necessary to accomplish the atonement for sins (Hebrews 9:22). If the “blood of Jesus Christ his Son cleanseth us from all sin” (1 John 1:7; Ephesians 1:7; Hebrews 9:14; 1 Peter 1:19), how is it possible to separate this formal and demanding requirement from physical death? Jesus participated in “flesh and blood” only because we are flesh and blood, and by this means He brought reconciliation through His death on the cross (Hebrews 2:14-18), thereby destroying the devil’s power of death.

If there were eons of pain, suffering, and death *before* the awful rebellion of Adam brought “death” into the world, then the suffering of our Lord Jesus becomes unnecessary. If the “wages of sin” is nothing more than some sort of spiritualized distance from the Creator, then the entire burden of sin becomes nothing more than a mental attitude. Heaven and hell are “what you make of it.”

Twisting the words of Scripture so that Christ’s physical death had no meaning is a terrible heresy. ●

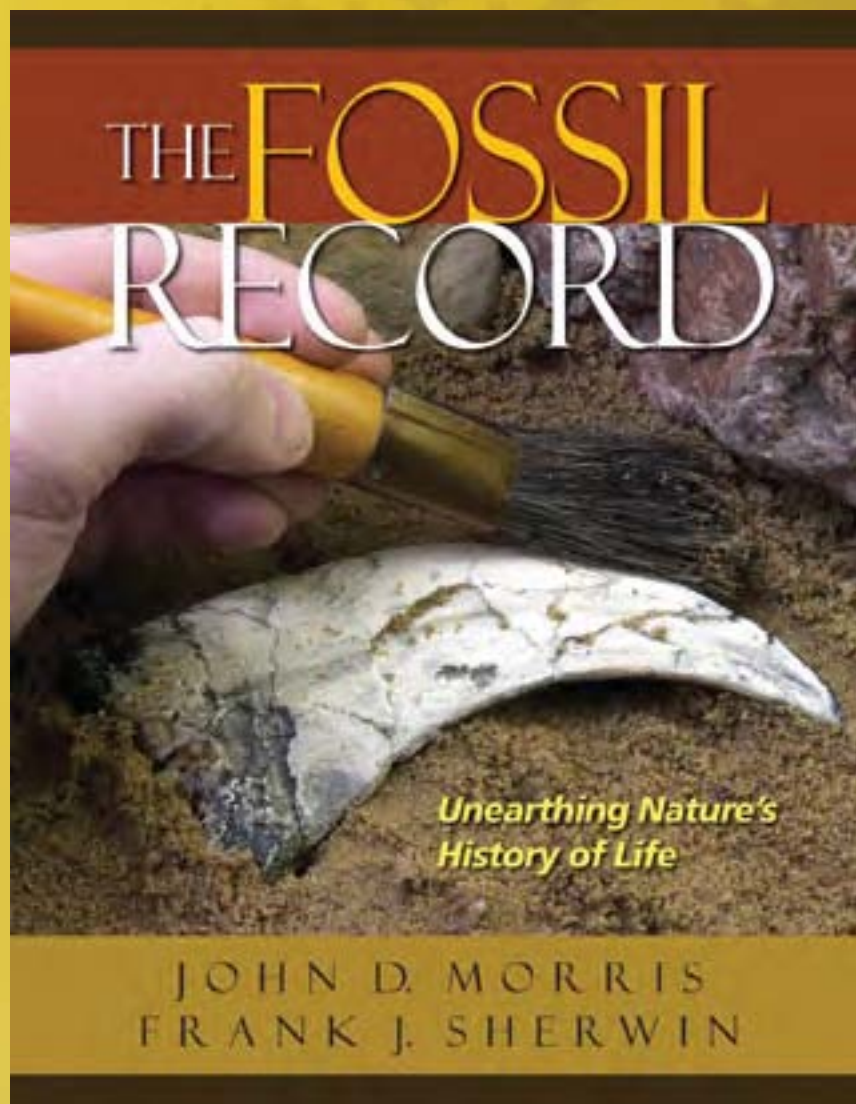
Dr. Morris is Chief Executive Officer of the Institute for Creation Research.

COMING THIS CHRISTMAS

The Fossil Record: Unearthing Nature's History of Life

**John D. Morris, Ph.D.,
and Frank Sherwin, M.A.**

Evolutionists rely on the fossil record for support of their theory, but what does that record really reveal? ICR geologist Dr. John Morris and zoologist Frank Sherwin unearth the evidence of earth's history and conclude that the fossil record is incompatible with evolution, but remarkably consistent with the biblical account of creation and the great Flood of Noah's day. Look for this exciting new book at Christmas time.

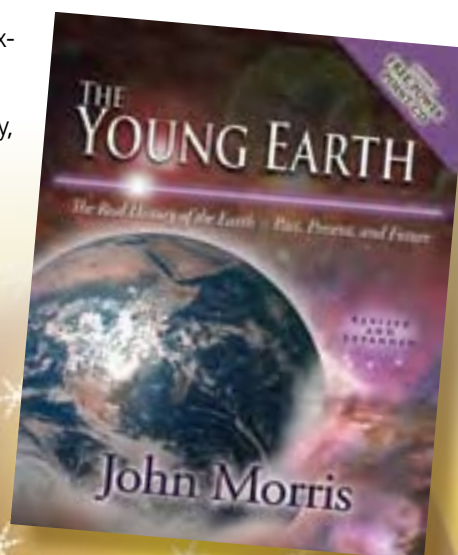


See also Dr. John Morris' classic work *The Young Earth*, which examines the scientific, as well as theological, significance of the age of our home. Designed for both group and individual study, this definitive work includes a CD with PowerPoint presentations that illustrate key concepts such as salt levels in the oceans, the age of the atmosphere, the accumulation of ocean sediments, and much more.

Only
\$17.95

(plus shipping and handling)

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



Renewing Minds, Defending Truth, Transforming Culture

INSTITUTE
for CREATION
RESEARCH

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



SCIENTIFIC RESEARCH • EDUCATIONAL PROGRAMS • BIBLE-BASED PUBLICATIONS

“ICR exists not just to bring *scientists* to Christ,
but to win *science* back for Christ.”

DR. HENRY M. MORRIS

For nearly 40 years, the Institute for Creation Research has equipped believers with evidence of the Bible’s accuracy and authority through scientific research, educational programs, and media presentations, all conducted within a thoroughly biblical framework. Those of you who serve our country can now also defend the authority of Scripture—with one easy pen stroke. ICR invites you to join us in winning science back for God.

BIBLICAL • ACCURATE • CERTAIN

Combined Federal Campaign
CFC# 23095

We can be found in the “National/International” section
of your local campaign brochure.

To learn more, visit www.icr.org/cfc



INSTITUTE
for CREATION
RESEARCH

Demand the Evidence. Get it @ICR.