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## ACTS & FACTS

VOLUME 45 NUMBER 3 **MARCH 2016** 

Published by

#### INSTITUTE FOR CREATION RESEARCH

P. O. Box 59029 Dallas, TX 75229 214.615.8300 www.icr.org

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had the privilege of speaking with NASA astronaut Col. Jeffrey Williams the day before he left for Russia to train for his upcoming launch to the International Space Station (ISS). He has a heart for ICR's mission to demonstrate how science confirms the biblical record of creation. His eagerness to honor God as the Creator of the universe was evident in our conversation.

"Just seeing the design details of the earth, and you see the purpose in those design details...that's a very vivid demonstration of the order that we can see in God's design, of His creation that we're a part of ("Sailing to the Stars," page 15). Col. Williams also discussed the work he will do at the ISS during his six-month stay at the orbiting laboratory.

He sees his work at NASA as a *calling*. "God calls us to our place in life." He advises young people who want to pursue a career as an astronaut to "see their lives from the perspective of calling....I encourage people to pursue what they view...as their calling in life. For NASA, you have to start applying." He applied six times over a 10-year period

before he was selected. "Continue pursuing your passion...doors will open. Don't get discouraged, don't give up, continue down the path that the open doors take you."

Col. Williams also said, "Encourage your readers to continue studying the Word of God and to continue studying the God of the Word....We need to be strengthened continually in our confidence of [the Word]. God's Word is truth, and God's Word starts in Genesis 1 and 2, which is the primary account of creation." As I listened to Col. Williams' words, I thought about my own children, grandchildren, their generation, and the messages they encounter daily.

ICR astrophysicist Dr. Jason Lisle addresses the need to provide creation truth to those who are growing up in today's culture. He says, "One of the greatest myths of our time is that evolution and other secular ideas are somehow 'scientific'....In our culture it is fashionable to believe that science is opposed to the Bible" (page 5). But he reminds us that through science "we can test certain types of truth claims" (page 6). "From the very first verse of the Bible, we learn that the universe did not originate by

chance at all; it is a creation from the mind of God."

Our children and grandchildren need to know that science confirms the Bible. ICR editor Christy Hardy describes the difficulty parents often face: "It can be challenging to describe the concept of God to a young child, but when he sees the world, at least his growing mind can recognize that Someone very powerful, very good, and very special made it" ("Divine Calling," page 18).

Christy points out that both children and parents will benefit from the ICR Museum of Science and Earth History that is currently in the planning stages. Dr. Lisle describes this as a "different kind of museum." We're convinced it will help parents teach their children that our very big God created our very amazing world. Whether you're observing creation from space, a planetarium, or a neighborhood sidewalk, the design details of our world point to an incredible, majestic Creator.

Jayme Durant

Jayme Durant
EXECUTIVE EDITOR

# Different Kind of Museum

JASON LISLE, PH.D.



hat would you expect to find in a science museum? Would you anticipate displays that praise God for His marvelous ingenuity? Would you envision scientific exhibits that illustrate specific biblical principles and refute naturalism? Would you expect to find the scientific method explained in terms of Christian theology? Many people would say, "Of course not!

Those are *religious* concepts. A science museum should be about science."

#### Science Is Not Secularism

One of the greatest myths of our time is that evolution and other secular ideas are somehow "scientific." To bolster this claim, most science museums are actually evolution museums that mix real science with evolutionary stories about the past. Many people have been fooled by such claims and have dismissed the Bible as a collection of fictional stories.

In our culture it is fashionable to believe that science is opposed to the Bible. Supposedly, through objective scientific analysis we now know that the origin of the universe was far different from what the Bible describes. Therefore, a Bible-believing Christian is considered to be antiscience. In public classrooms, textbooks,

and media we find biblical claims pitted against "scientific" claims: "The Bible says one thing, but science says something entirely different."

Many people might be shocked to learn that science owes its very existence to the Christian worldview. Science is not a specific position on origins or on the properties of the universe. Rather, science is a method by which we can test certain types of truth claims. By design, science enables us to discover patterns in nature through repeated observation and controlled experimentation. But why should we expect to find such patterns in a chance universe?

From the very first verse of the Bible, we learn that the universe did not originate by chance at all; it is a creation from the mind of God. The Scriptures teach that God controls and upholds the universe (Matthew 5:45; Hebrews 1:3) in a consistent way with patterns and cycles (Genesis 8:22; Jeremiah 31:35; Psalm 74:16-17). God made humanity in His image (Genesis 1:27), able to reason (Isaiah 1:18), and with sensory organs that reliably inform us of our surroundings (Proverbs 20:12). All of these are essential prerequisites to the scientific method. Yet there is no basis for any of these things apart from the Christian worldview.

If the universe were not designed or upheld by the mind of an omniscient, all-

Many people might be shocked to learn that science owes its very existence to the Christian worldview.

powerful Being, then why expect it to obey laws of nature? Why suppose that such laws would be consistent over time and space? Why would the universe obey simple mathematical relationships such as F=ma?¹ If the human brain were the chance product of mutations, why expect it to be able to reason rationally? If our sensory organs were merely the result of mindless evolution, why presume that they are reliable? Yet, science requires all these things to be true. If the secular view of the universe were true, then there would be no reason to trust in the methods of science.

In light of these considerations, it is remarkably ironic that secularists claim their view is the "scientific" one when such a view would make science impossible. Even so, the psychological force of such rhetoric is powerful. If you want people to accept your secular belief system as truth, simply relabel it "science." After all, science has allowed us to construct remarkable things, from computers and rockets to electric cars and smart phones. We rightly have some degree of confidence in the method of science. However, science is *not* secularism.

The campaign to convince people to believe in secularism by falsely equating it with science has been quite successful. Most science museums therefore contain a mix of truth and error. Genuine facts discov-

ered by scientific procedures and unproven secular stories—like particles-to-people evolution, deep time, and the Big Bang—are presented together with no differentiation. These museums teach either implicitly or often explicitly that the Bible simply does not mesh with the findings of modern science, particularly in the area of origins. But make no mistake: Not only is science compatible with the biblical worldview, it is compatible with nothing else.

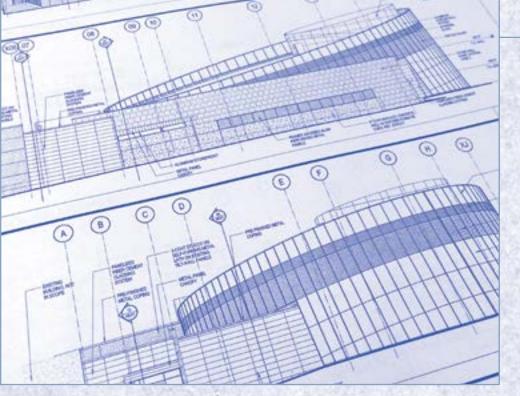
#### ICR Museum of Science and Earth History

Wouldn't it be nice to have a museum that shows how science confirms the Bible—one that demonstrates that the methods of science *require* the truth of Scripture? Just imagine displays that highlight the glory of God through what He has made and interactive exhibits that demonstrate how the evidence confirms biblical creation. At ICR, we are designing just such a museum. By God's grace, it is our plan that the ICR Museum of Science and Earth History will show visitors how geology, astronomy, physics, and biology all confirm the history recorded in the

book of Genesis.

But how do we present the truth of creation in a way that will engage the minds of young students? Interactive displays will captivate their imagination. One of our proposed exhibits will simulate a visit to any planet or moon in the solar system in ultra-realistic detail obtained from actual NASA data. From the breathtaking landscape of Pluto's ice mountains to the stunning beauty of Saturn's rings, students can virtually travel wherever they wish. They will see how the internal heat of Saturn's moon





Enceladus and the spiral structure of galaxies cannot last billions of years. Each journey will reveal something amazing about God's creation, putting another nail in secularism's coffin.

Imagine an interactive display where a student can explore the inner workings of a living cell and actively experience the astonishing complexity of the molecule-sized machines within it. He or she will see how each of these machines performs a function necessary for the survival of the cell. There will be no doubt that such an intricate creation is the handiwork of a truly awesome mindnot the product of chance. These molecular machines could not have come about in a gradual evolutionary fashion because they depend upon one another. It is one thing to read about this but how much more compelling to experience it firsthand! No rational person could walk away from such an exhibit thinking that evolution is true.

Every exhibit will be designed to teach some aspect of the biblical worldview in a way that is captivating. Visitors can play with a genetic recombination machine in which they see how sections of DNA from two parents combine to produce a child with unique DNA. Students can play this game again and again to see how many different

traits (hair color, eye color, skin tone, and so on) can come from just two people. To students, this is just fun. Yet all the while, they are learning that genetics confirms what Genesis teaches—that all people descended from Adam and Eve. Yes, there is great variety in the traits that human beings possess. But the student quickly realizes that people can only beget people. Human beings lack the genetic instructions to produce anything else.

What about dinosaurs? The ICR Museum of Science and Earth History will have those as well. And visitors will see how dinosaurs confirm biblical history. They will learn that soft tissue has been found in dinosaur bones, indicating that dinosaurs lived in the recent past—not millions of years ago. They will see ancient depictions of dinosaurs produced by historical figures who apparently saw the living animals.

What about an ice age? How does it fit into biblical history? Visitors will learn how the global Flood of Genesis 6–8 triggered a post-Flood ice age. However, they will not just read about this on a sign. The Ice Age theater will virtually carry guests into the past and show them how the environment may have actually appeared during the Ice Age. Guests will see a depiction of the Tower

of Babel, the confusion of languages, and the formation of ethnic people groups that followed. They will hear legends of the global Flood from many different cultures, confirming the real historicity of this event.

A state-of-the-art 3-D digital planetarium will transport guests into the cosmos, where they will explore the worlds of the solar system and far beyond. They will experience the bending of light by a black hole or see the various ways in which distant starlight could reach Earth within the biblical timescale. The digital nature of the planetarium will also allow for programs that are not astronomy-related. Guests may be treated to a virtual 3-D trip down the Grand Canyon to see how the global Flood deposited the surrounding rock layers. Or they might explore the inner workings of an atom. The possibilities are endless.

Most importantly, visitors of the ICR Museum of Science and Earth History will see how all of creation confirms that our Creator is also our Savior. The Lord Jesus Christ who made heaven and Earth, the very God we rebelled against in our sin, has taken our place on the cross and paid our penalty. He is willing to forgive and save all who will trust in Him. The museum will be masterfully designed and stunningly beautiful. And we pray that it will attract non-Christians who will see for the first time how science confirms Scripture. With the realization that the Bible is trustworthy, someone cannot ignore the gospel message. We pray that many will come to know Christ as their Lord and Savior.

The world needs a science museum that refutes the evolutionary myth and teaches the truth about science, all to the glory of the Lord. Will you partner with us to help make this museum a reality?

#### Reference

1. This is the mathematical equation for Newton's second law of motion, which expresses the relationship between force,

mass, and acceleration. For example, the more mass an object has, the more force is required to move it.

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



# ICR Research Update

ICR's research holds promise in answering some of the most pressing creation questions of our time. Below are brief descriptions of our scientists' current projects.

#### Genetics: Human Genome and Chimp Genome Projects

Evolutionists have used selective data to claim that the chimpanzee and human genomes are 98 to 99% similar, which they believe supports human evolution. Based on evolutionary assumptions, secular scientists have assembled chimpanzee DNA sequences using the human genome as a framework. Thus, it's not surprising the chimp genome appears much more human-like than it actually is.

ICR researchers are analyzing *all* the available data rather than comparing only preferred portions of the two genomes. A number of studies have been completed, and their results demonstrate that overall similarities between the genomes are much fewer than claimed and do not support evolution.

#### **Geology: Column Project**

ICR geologists are constructing a 3-D computer database of sedimentary rock layers from almost a thousand geological sites from around the world. They're looking at the actual rocks using oil-well data and outcrops at each location. Mapping and correlating this information will help them better understand the stages of the Genesis Flood.

#### **Fossils: Dinosaur Proteins Project**

Secular scientists have discovered about a dozen different proteins still intact inside dinosaur and other fossil bones. Some fossils even contain preserved cells, blood vessels, and skin. This surprises evolutionists because they believe these fossils are millions of years old, and these biomaterials decay far too quickly for that. ICR is carefully studying the nature and extent of short-lived fossil tissue. For example, each discovery of partly intact collagen in fossils indicates an age that is orders of magnitude younger than the claimed evolutionary age.

ICR researchers have also found measurable amounts of radiocarbon in dinosaur and other fossil bones, wood, and shells thought to be older than 100,000 years, the maximum "shelf life" of carbon-14. This research has the potential to help determine true fossil ages.

## Astronomy: Distant Starlight and Intergalactic Structures Projects

Surveys of galaxy positions in the universe reveal structures that appear to be contrary to the predictions of secular models. Are these structures real or merely an artifact of the way the data have been collected? ICR scientists have developed a new technique to remove selection effects in galactic surveys, allowing accurate assessment of patterns of galaxy positions in the universe.

In addition, there is not yet a consensus creationist answer to the question of how distant starlight is visible within the creation timescale. The physics discovered by Einstein allows for several possible answers. ICR researchers continue to explore these models, checking their respective predictions against observations.

#### **Anatomy: Organism Interface Project**

The Organism Interface Project applies engineering principles to reveal bio-

logical details that explain how organisms successfully relate to their environment and to other organisms. It seeks to answer questions such as "If God originally created the world without disease, why do we have disease-fighting capabilities?"<sup>1</sup>

## Climate: Refuting Milankovitch and Pre-Flood Climate Projects

Past ICR climate research involved studies of pre- and post-Flood climates and refutations of claims that the deep ice cores of Greenland and Antarctica prove an old earth. Current research seeks to refute secular ice age theories, in particular the Milankovitch (or astronomical) theory of climate change. That theory plays an extremely important role in secular dating schemes since it is used to date deep seafloor sediment cores and ice cores and even to calibrate the standards for one particular radiometric dating technique.

## Physics: Radiometric Dating, Accelerated Decay, and Isotope Projects

ICR's current physics research projects focus on exposing the errors in secular dating methods, analyzing the conditions under which decay can be accelerated and analyzing samples for the intermediate half-life elements to refute deep time.

By God's grace, ICR's ongoing research efforts will add to the abundance of evidence supporting the Genesis account of creation.

#### Reference

 See Guliuzza, R. J. and F. Sherwin. 2015. Does Our Immune System Indicate Disease Before the Fall? Acts & Facts. 44 (1): 17.

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





any Christians are reluctant to accept the Bible's clear teaching of a recent creation because they believe secular dating methods prove that the earth is extremely old. The apparent agreement between seemingly independent dating methods is seen as a powerful argument for millions of years. But closer inspection reveals that these methods are not truly independent, and the agreement between them is the result of circular reasoning.

# Dating Rocks and Fossils: Circular Reasoning

Because secular scientists believe Earth's sedimentary rocks were deposited over millions of years, they assume a given rock layer represents a "snapshot" of the history of life at a certain time in the "pre-historic" past. Since they also think some organisms lived only during certain periods of Earth history, they conclude that these fossils can be used to date different rock layers. For instance, suppose one particular organism has so far been found only in rocks thought to be between 200 and 180 million years old. If such an "index fossil" is found in a differ-

ent rock of unknown age, secular scientists tend to assume that particular rock to *also* be between 200 and 180 million years old. In other words, the fossils found in rocks are used to date other rocks.

But how does one determine an age for the initial set of rocks? One might assume those ages are obtained either directly or indirectly from radioactive dating techniques. In theory, yes, but secular scientists have been known to reject such ages if they contradict the evolutionary story the scientists think the fossils are telling—even if the dates from multiple methods agree with one another.<sup>1</sup>

So in the final analysis, the fossils (i.e., the assumed evolutionary story) are used to date the rocks, and the rocks are used to date the fossils (Figure 1). This kind of circular

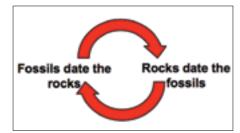


Figure 1. Secular scientists engage in circular reasoning when they use fossils to date rocks and rocks to date fossils.

reasoning is also present in the dating of ice cores and seafloor sediments.

#### **Deep Ice and Sediment Cores**

To study past climates, scientists drill and extract cylindrical rods of ice, known as ice cores, from the Greenland and Antarctic ice sheets. These cores can be thousands of meters long, and secular scientists routinely assign ages of hundreds of thousands of years to the deepest ice within these cores. However, creation scientists can plausibly account for the excessive ages assigned to these cores, as past articles have demonstrated.<sup>2-4</sup>

Likewise, scientists also extract long cores from the ocean floor. These cores are composed of sediments that have settled on the ocean floor over time. Because deep-ocean sediments are so thick, secular scientists assume they were deposited over millions of years. This might seem reasonable since sediments accumulate very slowly today. But there is good reason to suspect that the bulk of these ocean sediments were deposited in the last half of and very shortly after the global Flood of Noah's day.<sup>5</sup> Because of their belief that "the present is the key to the past," however, secular scientists

ignore these clues and assume that seafloor sediments have always been deposited very slowly.

#### The Milankovitch Ice Age Hypothesis

Secular scientists use the Milankovitch (or astronomical) ice age hypothesis to assign ages to seafloor sediments. Supposedly, ice ages are triggered by decreases in the amount of summer sunlight falling on the high northern latitudes. These decreases in sunlight are thought to be caused by slow, gradual changes in the tilt of Earth's axis and the shape of its orbit around the sun (see the inset in Figure 2). They think this reduction in sunlight causes the highlatitude ice sheets to increase in size, resulting in an ice age. Later, when the highlatitude summer sunlight increases, the ice sheets supposedly retreat, resulting in a warmer "interglacial" period. Because secular scientists believe the solar system is billions of years old, they feel free to extrapolate these motions back millions of years into the supposed past. They then run the numbers and calculate the approximate times the ice ages supposedly occurred.

#### **Chemical Clues in the Sediments**

Many of these researchers believe chemical clues within both the seafloor sediments and ice cores tell a story of past climate change. In particular, they make measurements of a heavy variety, or isotope, of the oxygen atom, as well as measurements of a lighter oxygen isotope. They then calculate a quantity called the oxygen isotope ratio, denoted by the symbol  $\delta^{18}$ O. This quantity has been tied to presumed past climate values. If one plots these values on a graph, many "wiggles" are apparent at different depths within a sediment core (Figure 3). Within the seafloor sediments, very high  $\delta^{18}$ O values are thought to indicate the times at which Earth had the greatest amount of ice. Sediments containing these values are thus thought to have been deposited at times of maximum ice coverage. Likewise, sediments containing very low  $\delta^{18}$ O values are thought to have been deposited when Earth's global ice cover was at a minimum.

Secular scientists use the Milankovitch

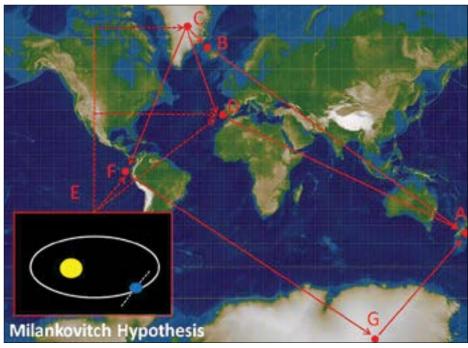


Figure 2. Ages for a seafloor sediment core off the coast of New Zealand (point A) were obtained by "tuning" chemical wiggles in that core to chemical wiggles in other sediment and ice cores, as well as to the expectations of the Milankovitch ice age hypothesis.

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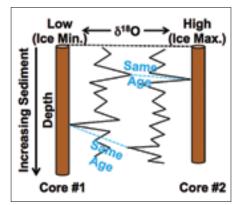


Figure 3. Secular scientists often assume that similar chemical wiggles within different seafloor sediment cores indicate the same age even if the cores are separated by thousands of miles.

hypothesis to calculate the times of past ice ages. They then either assign these calculated ages directly to a sediment core or indirectly by matching chemical wiggles in one sediment core with those in another core (Figure 3). Similar wiggles in one core are often assumed to indicate the same age as those within another core, even if the cores are located thousands of miles apart.

#### Example: New Zealand Sediment Core MD97-2120

This process of tying wiggles in one core to those in other cores can be demonstrated by considering a 36-meter-long core designated as MD97-2120 that was retrieved off the eastern coast of New Zealand.<sup>6</sup> This core's location is indicated by the A in Figure 2. The core was divided into four sections, and a summary of the methods used to date the sections is posted online.<sup>7</sup> Below is a description of the way scientists dated these four core sections.<sup>8</sup>

#### **Dating of the Top Two Core Sections**

Secular scientists used the carbon-14, or radiocarbon, dating method to assign ages to the first section of the New Zealand core since the method is thought to be capable of dating carbon-containing specimens believed to be tens of thousands of years old. However, most people don't realize these radiocarbon ages must first be calibrated. Even

secular scientists often do not trust a raw radiocarbon age to give the true calendar age of a specimen. In this case, the scientists used a "marine calibration data set" to convert these radiocarbon ages into calendar ages. But this calibration data set was tied to tree rings, corals dated by another radioisotope dating method, and banding patterns called *varves* found within marine sediments.<sup>9</sup> Moreover, this process involved many additional assumptions.

Likewise, radiocarbon dating was used to obtain ages for the second section of the core. But the radiocarbon calibration used for the first core section did not go beyond 24,000 years. Since secular scientists believe this part of the core is older than 24,000 years, they needed some other way to calibrate these radiocarbon dates. So they used another method. But this calibration was obtained from chemical wiggles in a sediment core near Iceland (point B in Figure 2). And *those* chemical wiggles were in turn tied to chemical wiggles within the GISP2 ice core of central Greenland (point C).

#### **Dating of the Third Section**

To obtain dates for the third section, researchers tuned chemical wiggles in the New Zealand core to wiggles in a sediment core extracted off the coast of Portugal (point D).<sup>11</sup> But preliminary ages for the top of this Portuguese core came from another nearby sediment core, and more refined ages came from Greenland's GRIP ice core, located near the GISP2 core (point C). But the ages for the deepest part of the GRIP ice core were tied to an ice core age model that assumed millions of years and that had been tweaked to agree with Milankovitch expectations (point E).

Likewise, the Milankovitch hypothesis was used to obtain the ages for the bottom section of this Portuguese core.

#### **Dating of the Fourth Section**

In order to date the fourth core section, chemical wiggles within the New Zealand core thought to indicate past sea-



surface temperatures were tuned to chemical wiggles in the Vostok ice core from Antarctica (point G).<sup>12</sup> But the ages for the Vostok chemical wiggles came from an age scale constructed from two deep sediment cores off the coast of western South America (point F). And that age scale in turn was tied to the Milankovitch hypothesis (E) and layer counts within the upper section of the GISP2 ice core (C).

#### Clever Reasoning...or Self-Deception?

So, the general agreement between the ages assigned to different ice and sediment cores is not really surprising since the dating methods are linked to one another. Even so, the different methods still sometimes conflict.<sup>13</sup>

If the Milankovitch hypothesis were actually true, then one might argue that there is nothing wrong with tying chemical wiggles from one core to another. But there are good reasons to doubt this hypothesis. It is not apparent that subtle decreases in sunlight are sufficient in and of themselves to cause ice ages, and secular scientists do not have a clear explanation of how these subtle changes could be amplified to produce significant climate change. Furthermore, the hypothesis suffers from multiple other problems. And if the Milankovitch hypothesis isn't true, then "wiggle matching" is really just a giant exercise in circular reasoning.

Wiggle matching is also problematic because seafloor sediment chemical wiggles are often obtained from the shells of free-floating organisms called planktonic foraminifera (forams). When these creatures die, their shells become part of the sediments accumulating on the ocean floor. The oxygen isotope values from these shells depend upon both the temperature and chemistry of the surrounding water at

the time the shell was formed. Of course, there is no way to know these quantities, and secular scientists must make assumptions about the past in order to fill in the details. Likewise, ocean temperatures can vary dramatically due to differences in depth—remember, these particular forams float freely in the oceans—and local temperature changes may be totally unrelated to changes in worldwide climate. Therefore, it is very risky to tie chemical wiggles from one core to another core thousands of miles away, especially if the wiggles were obtained from the shells of planktonic forams.

Therefore, no Bible-believing Christian should be intimidated by the long ages assigned to the deep seafloor sediment and ice cores or by the apparent agreement between those assigned ages. Secular scientists simply assume evolution and an old earth and use those assumptions to ensure results that agree with their worldview. Despite constant claims to the contrary, deep core dating does not disprove the Bible's history of a recent creation.

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ational Geographic has a Little Kids First Big Book of... series on different topics. In its Little Kids First Big Book of Animals, pictures show giraffes, camels, bears, and whales.1 Young readers can see they all look different. Animals that live on land, like bears, have legs. But no one has seen a whale with legs. However, upon closer look, bears and whales do have some of the same traits. They both give birth to live young and nurse their offspring. Some whales also have hair in particular places on their body. These similar traits mean that both bears and whales are mammals. Some land mammals swim in the water a lot. What would happen if one type started to live more in the water than on land? Would its front legs slowly change to flippers like a whale has? Would its back legs gradually disappear? Is it possible that over a long time one kind of land animal could even become a whale?

#### The Evolutionary Origin of Whales

Some evolutionists used to imagine

that whales could evolve from an animal like a bear. Charles Darwin considered how black bears can swim for a long time. Once he wrote about such bears:

...swimming for hours with widely open mouth, thus catching, like a whale, insects in the water. Even in so extreme a case as this, if the supply of insects were constant, and if better adapted competitors did not already exist in the country, I can see no difficulty in a race of bears being rendered, by natural selection, more and more aquatic in their structure and habits, with larger and larger mouths, till a creature was produced as monstrous as a whale.<sup>2</sup>

This scenario flows from a very fertile imagination. But, as documented in an earlier article, imaginary extrapolation is a key element of evolutionary theory.<sup>3</sup>

Darwin's thought about a bear-like animal evolving into whales is now seen more as an illustration than a reality. For many years, evolutionists held that whales evolved from an extinct carnivorous mammal group called *mesonychids*. Their interpretation of fossils supported their conclusion. Ernst Mayr said in 2001, "A beautiful

series of intermediate stages also exists between the mesonychid ungulates and their descendants, the whales."<sup>4</sup>

But now most evolutionists reject the mesonychids as ancestors for whales. Instead, important new fossils discovered in Pakistan are interpreted as filling that role. DNA sequences have also been compared between whales and living animals that have features similar to those of the new fossils. Evolutionists now have "a firm understanding" that whales evolved from an animal more related to giraffes and camels.5 Unfortunately, "substantial discrepancies remain" between interpretations of fossil data and results from DNA studies, according to Johns Hopkins University professor Kenneth Rose.<sup>6</sup> Rose and others explain that similarities between whales and mesonychids happened independently in both groups due to "convergent evolution." Convergence is not an observation flowing from objectively discernable causes. It is actually a declaration based on mental pictures of diverse organisms evolving similar traits as they are shaped over time by similar environmental pressures—which themselves are not real,



quantifiable pressures but exist only as figures of speech.

There are still substantial discrepancies between DNA and fossil evidence for whale evolution. But evolutionists remain convinced "the transition from a primitively quadrupedal terrestrial ancestor to a convergently 'fish-like' modern mammal species" actually happened in a process that "involved changes in numerous character systems." Definitely not understating the point, they add that "almost all anatomical systems of living cetaceans are highly modified for an aquatic lifestyle, with dramatic changes seen in...limbs."

# Whale Hip Bones as Evidence for Whale Evolution

Speaking of limbs, evolutionists believe they see greatly reduced pelvis or hip bones in some whales. They teach this observation as hard evidence for whale evolution. Just like the human appendix,<sup>8</sup> these "hip" bones are interpreted as a vestigial structure. Jerry Coyne from the University of Chicago sums up the evolutionary position nicely:

Whales are treasure troves of vestigial organs. Many living species have a vestigial pelvis and leg bones, testifying... to their descent from four-legged ancestors. If you look at a complete whale skeleton in a museum, you'll often see the tiny hindlimb and pelvic bones hanging from the rest of the skeleton, suspended by wires. That's because in living whales they're not connected to the rest of the bones, but are simply imbedded in tissue. They once were part of the skeleton, but became disconnected and tiny when they were no longer needed.<sup>9</sup>

For decades, evolutionists did not search for any other uses for these bones. Why? Because a vestigial pelvis was what they expected to find.

#### Declarations About Whale Hip Bones Were Wrong

Fortunately, two researchers were not fully content with the customary explanation. In light of their research, the standard evolutionary story about whale hip bones, as relayed by Coyne, appears to be another major evolutionary blunder.

Matthew Dean of the University of Southern California and Jim Dines of the Natural History Museum of Los Angeles County examined "hip" bones in whale and dolphin skeletons. Their painstaking research of more than 10,000 unsorted bones turned "a long-accepted evolutionary assumption on its head." According to the report, "common wisdom has long held that those bones are simply vestigial, slowly withering away like tailbones on humans."

But their results "[fly] directly in the face of that assumption, finding that not only do those pelvic bones serve a purpose—but their size and possibly shape are influenced by the forces of sexual selection." This new analysis of whale hips was published in the scientific journal *Evolution*.

Dines and Dean are evolutionists. They still believe that whales evolved from a four-legged land mammal. Thus, they believe that they really are studying vestigial hip bones. But, as reported, "everyone's always assumed that if you gave whales and dolphins a few more million years of evolution, the pelvic bones would disappear. But it appears that's not the case,' said Matthew Dean." 10

These bones serve an important purpose. In fact, "the muscles that control a cetacean's penis—which has a high degree of mobility—attach directly to its pelvic bones. As such, it made sense to Dean and Dines that the pelvic bones could affect the level of control over the penis that an individual cetacean has, perhaps offering an evolutionary advantage." <sup>10</sup>

Dean and Dines are not likely to say that their research highlighted another evolutionary blunder over beliefs about vestigial organs. But Dean did admit that "our research really changes the way we think about the evolution of whale pelvic bones in particular, but more generally about structures we call 'vestigial.' As a parallel, we are now learning that our appendix is actually quite important in several immune processes, not a functionally useless structure."<sup>10</sup>

#### Salvaging the Darwinian Whale Hip Story

Scientists may struggle to admit a blunder. They seem prone to try to save it. These "hip" bones are not attached to the backbone of living whales, dolphins, or any of the fossils. Claims beyond the realm of human detection are mystical. The assertion that these bones are hip bones or a pelvis is a mystical claim. Thus, Coyne's defense that whale "hip" bones are truly vestigial rem-



Scientists may struggle to admit a blunder. They seem prone to try to save it. These "hip" bones are not attached to the backbone of living whales, dolphins, or any of the fossils...The assertion that these bones are hip bones or a pelvis is a mystical claim.

nants invokes mysticism.

Salvage efforts may force even more mystical appeals. Coyne acknowledges that whales use the bones during reproduction. But as to the conclusion that the bones are not vestigial, he adds, "This argument is wrong: no evolutionist denies that the remnants of ancestral traits can retain some functionality or be co-opted for other uses."12 For evolutionists, reproductive functions are simply "co-opted" from a locomotive function. Co-option is not an observation, it is a declaration. When does a researcher observe co-option happening? If one takes a moment to think about it, what part on a human doesn't have more than one function? Co-option is summoned to fit ill-fitting findings into evolutionary theory.

Evolutionists also try to work some fossil evidence into their land mammal-towater mammal evolutionary scenario. Included are fossils discovered in Southwest Asia of four-legged creatures with a true pelvis. They have essentially no resemblance to whales. However, the evolutionary community embraced research that asserted they were a primitive type of whale. Whales and dolphins are categorized as cetaceans. These fossil creatures were given names like Ambulocetus and Pakicetus, which place them in the same category. But how does one know that these are truly fossils of the evolutionary ancestor of whales? Obtaining convincing proof of that is difficult. Changing the definition of what constitutes a whale is easier.

An article titled "What Is a Whale?" in *Science* dealt with the issue of deciding whether *Ambulocetus* was in the whale's lineage. It reasonably noted, "Another problem arises considering that discoveries of osten-

sible whales occur fairly regularly...with new combinations of characters making it difficult to decide whether they are whales following a strictly character-based definition." In other words, shouldn't a creature have most of the distinctive characteristics of whales in order to be called a whale? The problem facing evolutionists was how to include *Ambulocetus* into the whale category in spite of its clear lack of whale-like features. Thus, they determined that "a more reasonable solution is to use a phylogenetic definition [for whales], that is, one based on common ancestry.... *Ambulocetus* is a whale by virtue of its inclusion in that lineage." 13

But the point of the research was to see if *Ambulocetus* was enough like whales to rationally be included in whales' lineage. Changing to a new "phylogenetic" definition is shrewd. It enables evolutionists to simply declare *Ambulocetus* to be a whale by virtue of their prior declaration that it is an ancestor to whales.

# Abdominal Bones Well-Designed for a Key Function

ICR's Brian Thomas provided an excellent synopsis on the whale bone research. He described the problems with seeing these bones as evolutionary adaptations. He offered a better explanation of bones designed for a specific purpose. The bones in the lower abdomen in some whales do not connect to other bones but are embedded in several muscles. Bone provides a firm anchor for other structures that are manipulated by these muscles. It seems that these bones may be vital for extraordinarily large bodies to mate in a fluid environment. Similarly, many animals and also humans

have a bone called the *hyoid* in their neck region. It also is affixed only by muscles above and below it. The hyoid provides a firm anchor for these muscles to help manipulate the tongue, larynx, and pharynx. Both the hyoid and whale abdominal bones are a good design solution for the movement of accessory structures.

In light of recent research, why shouldn't these bones be renamed in the scientific literature? Could simply using the given names "whale hip bones" or "whale pelvis" mislead people? Evolutionary literature makes subtle changes to the normal usage of words like whale, gene, selection, and evolution. Readers should be alert for this ploy. In this case, changing the definition of a whale allowed fossils with a true pelvis to fit into evolutionists' story of whale evolution. There are other consequences. National Geographic may need to change animal names in their Little Kids First Big Book of Animals. With continual word manipulation by evolutionists, little kids themselves may soon struggle to do something they normally excel at-identifying giraffes, camels, bears, and whales.

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# Sailing to the Stars

The word *astronaut* comes from the Greek word for "sailor" combined with the Greek word for "star," so that an astronaut is someone who sails to the stars.<sup>1</sup>

2016 marks the 16th year of continuous human presence at the International Space Station (ISS). NASA astronaut Col. Jeffrey Williams is scheduled to launch on March 18, 2016, from Star City, Kazakhstan, with two Russian cosmonauts on a Soyuz spacecraft for his third long-flight expedition to the ISS.

"People think you launch a rocket and go straight up and kind of hang on in space, but you don't," Col. Williams says. "Physics dominates. If we went straight up and stopped, the gravity would just pull us back down to Earth and we would not be able to stay in space. So, most of the rocket ride is parallel to the Earth's surface. We get out of the earth's atmosphere, turn a corner relatively soon in the ascent, and go parallel to the earth. We need to get the speed up to 17,500 mph in order to stay in orbit."

Col. Williams prepared for this mission during the past two and a half years, traveling from Houston to Russia, Germany, and Japan to train. The five weeks immediately prior to the launch have been focused on the Soyuz operation, launching, and rendezvousing with the space station, which, he says, "is critical to the success of the entire time."

During Col. Williams' previous missions, he worked with crews to assemble the station. He is looking forward to his stay at the now-complete ISS. On this expedition, his time will be spent maintaining and running the ISS and performing a variety of science research. During his six-month stay on this orbiting laboratory, he and the team will conduct hundreds of experiments related to plants, animals, cells, DNA, physics, and other areas.

He describes what he sees from space



Astronauts Jeff Williams (right), and David Saint-Jacques with crew instructor Megan Murphey.

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as part of God's design. "The thing that's most apparent to me when I'm up there is the detail of the design of the part of creation we call Earth. And you see where Earth is in the solar system, you see how vibrant Earth is...the systems that it takes to support life...life activities...changes of seasons. You get a view of the atmosphere and the water cycle that you typically don't have. We can understand it from the ground, but it brings a new perspective when you see it off the planet."

Col. Williams' faith in the Creator of the universe is apparent as he discusses his view above the earth. "Just seeing the design details of the earth...the purpose in those design details...and, oh, by the way, we can only do this because of the order in God's design. Physics is a demonstration of order, mathematics is a demonstration of order, and the fact that we can launch a rocket at a precise moment, at a predictable moment required, and nine minutes later we're in orbit going 17,500 miles an hour....[It takes] 90 minutes to go around the earth and then hours later [we] rendezvous with another orbiting spacecraft at 0.1 meters per second—that's a very vivid demonstration of the order that we can see in God's design, of His creation, the creation that we're a part of."

Col. Williams also says he is eager to share this experience with his grandchildren because they're now old enough to retain the memories for a lifetime. He understands the importance of teaching upcoming generations the truth about science, the design details of creation, and the wonders of our heavenly Creator.

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# **Chinese Femur Refutes Human Evolution**



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extbooks around the world contain the well-known illustration of walking apes transitioning into a modern human. I recently heard a college student, raised in a Christian home, say these pictures convinced her of evolution. She probably represents countless others swayed by this simplistic icon. But those willing to question the concept that man descended from apes can welcome the recent study of a discovery from China. It adds to the list of important finds that refute human evolution and its illustrations.

Researchers from Australia and China analyzed a portion of a human femur (thigh bone) found in Red Deer Cave in Yunnan Province, China, during a 1989 excavation.<sup>1</sup> The researchers noted the bone looks

like *Homo habilis* and *Homo erectus* femurs found in Africa.<sup>2</sup> Those presumed early versions of an evolving mankind supposedly went extinct over 1.5 million years ago, but evolutionary methods dated the Chinese cave finds to only about 14,000 years ago!

What does this mean?

In terms of the ape-to-man icon that creation researcher Marvin Lubenow called "the fake parade," it means that drawings of the club-wielding "early" men should be redrawn to show them walking *beside* modern-looking men, not behind them. In terms of biblical history, this find supports what creation-based scientists have been saying for many years about fossils of extinct human varieties: They, along with all modern humans, descended from Noah's sons.<sup>4</sup>



Other amazing discoveries confirm this conclusion. For example, a cache of wildly different-looking human fossils pulled from a Georgian cave and reported in 2013 also had human varieties designated *H. erectus* and *H. habilis* deposited during the same time frame.<sup>5</sup>

And consider what Lubenow said about human fossils from a famous cave in Spain.

Further, thanks to the extreme variation seen in the Sima de los Huesos [cave] fossil collection, the distinctions made by evolutionists between *Homo erectus*, early *Homo sapiens*, Neandertal, and anatomically modern *Homo sapiens* now fade into insignificance. It is a remarkable affirmation of...Acts 17:26, "From one man he made every nation of men, that they should inhabit the whole earth."

The fake parade shows early apes becoming stooped caveman creatures, and finally modern man. Any of these three cave finds dismantles at least part of the fake parade by jumbling its "early man" time sequence. Other fossil sites show a time overlap between modern looking humans and extinct apes.<sup>3</sup> If one believed apes evolved from ancient man, one could just as easily draw another fake parade of humans on the left stepping down to apes on the right without violating the fossil record.

The supposedly archaic human femur found in the cave deposit from China and finds from other caves around the world all clash with the story of human evolution and confirm that humans have always been humans.

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recent claim of a newly discovered "feathered" dinosaur has pushed the controversy over birds and dinosaurs back into the limelight. Were dinosaurs really feathered, and did they evolve into birds?

One of the biggest stumbling blocks to the idea that dinosaurs evolved into birds is the lack of actual fossil support. Fossils of true birds with real feathers are found in rocks buried prior to the claimed bird-like dinosaurs. Likewise, alleged bird ancestors such as Velociraptor and Deinonychus are found in Upper Cretaceous system rocks, supposedly deposited 37 million years after the lower layers containing the true bird Archaeopteryx.3,4 This flips the evolutionary timeline upside down. But these facts are downplayed by the advocates for dinosaur-

to-bird evolution. They insist that some yet-to-be-discovered ancestor lived prior to *Archaeopteryx* and will prove to be the common link between both groups despite the lack of fossil evidence.<sup>5</sup>

Secular paleontologists have identified hairlike structures protruding from the body of some dinosaur fossils. They claim these are "proto-feathers"—precursors to true feathers. Alan Feduccia and his colleagues found no evidence in any of the published discoveries from China that these hairlike structures are feathers or even proto-feathers.6 They determined that the presumed proto-feathers were the remains of thin collagen fibers left over from partly decomposed skin. Their research included analysis of decomposing collagen skin fibers in modern reptiles, sharks, and dolphins, and comparisons of these fibers with those of several dinosaurs.6

Some claimed "feathered dinosaurs" later turned out to be true birds after more careful examination. In 2002, Stephen Czerkas and his wife, Sylvia, self-published

# Dinosaurs Designed Without Feathers



The claimed dromaeosaurid *Zhenyuanlong suni*. Jinzhou Paleontological Museum, Liaoning Province, China.

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a book called *Feathered Dinosaurs and the Origin of Flight* in which they described *Scansoriopteryx* as a theropod dinosaur. But in 2014, Mr. Czerkas and Alan Feduccia re-examined the *Scansoriopteryx* fossil and concluded it had an "absence of fundamental dinosaurian characteristics." They imaged the specimen with advanced 3-D microscopy and high-resolution photography. Both techniques revealed features in the wrist bones, feathers, and hind limbs that clearly demonstrated it was a bird and not a dinosaur.

Archaeopteryx and Scansoriopteryx were likely gliding birds like modern road-runners—not dinosaurs.

One of the newest fossils in this controversy, *Zhenyuanlong suni*, was described as a dromaeosaurid theropod dinosaur like *Velociraptor*. It had large wings made of true pennaceous (non-downy) feathers on its short arms and similar feathers on the tail, just like birds. And yet Junchang Lü and Stephen Brusatte claimed it was a dromaeosaurid dinosaur and not a bird. When reading

their article in *Scientific Reports*, it's difficult to see how they came to this conclusion. They repeatedly use phrases that point out dissimilarities between *Z. suni* and dinosaurs, such as "differing from *Tianyuraptor* and most other dromaeosaurids," and "the latter is a highly unusual feature among theropods...not seen in any other dromaeosaurids," and "differs from the proportions of most other dromaeosaurids."

The presence of fully developed wing and tail feathers and the dimensional differences described between *Z. suni* and other dromaeosaur dinosaurs make one wonder why it was ever called a dinosaur. Will future studies show this is just another bird, like *Scansoriopteryx* and *Archaeopteryx*?

While a "feathered" dinosaur would fit the evolutionary worldview, this theory is not supported by data-driven science. Like *Scansoriopteryx*, the true feathers and unusual body dimensions of *Z. suni* do not add up to a dinosaur but rather a bird. Again and again, fossils support that birds were birds and dinosaurs were dinosaurs from the moment of creation, just as Genesis says.

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y four-year-old son and I enjoy taking walks in our neighborhood. From stroller to handholding, toddling to running, we have passed the same houses and streets many times. We often engage in a familiar conversation while walking past a particular neighbor's well-landscaped yard.

"Look at those beautiful flowers, Lincoln! Who made those?"

"God," he answers with a shy grin.

My husband and I want Lincoln to start connecting the beauty and design in nature to the existence of an incredible Designer. It can be challenging to describe the concept of God to a young child, but when he sees the world, at least his growing mind can recognize that Someone very powerful, very good, and very special made it.

In today's culture, the battle for a child's mind and worldview can be daunting. Childhood today doesn't look much like it did for me when I was growing up. And that was just back in the '80s. Now more than ever, we are surrounded by media, educators, and government institutions that continually push the idea that science has somehow disproven the existence of God. Adherence to religious beliefs—especially those claiming a divine Creator—are often seen as an indication of ignorance or a lack of good education.

Recently I read an article from the Pew Research Center outlining changes in educational requirements for the teaching of evolution in schools. While some states have tried to play the middle in the evolution vs. creation debate, others promote a curriculum so steeped in evolution that it's no longer allowed to even be questioned within the classroom. Evolution is often taught to American children as well-established fact, with no room for critical thinking. Perhaps this is because an objective mind would no-

tice that even the most basic evidence for evolution is lacking.

I know that it's only a matter of time before everything we share with Lincoln about God, his significance in the world, and why we are here on this earth will be challenged from all sides.

This is one of the many reasons
I am so excited about the plans for
the ICR Museum of Science and
Earth History! It will allow parents
to supplement the teaching tools of
everyday objects in nature with interactive exhibits of science and bibli-

cal history—from the Garden of Eden and the Flood to DNA and the incredible engineering of the human body, from the complexity of the cell to the awesome works of God in the universe. This museum and planetarium will provide a perfect place to invite friends to see the truth for themselves, Christians and skeptics alike.

I long to be a part of the mission to counter evolution's message of a meaning-less life. Don't you? We cannot expect the secularized culture around us to present the evidence for biblical creation to our kids, families, neighbors, and friends. As Christians, presenting God's truth is our divine calling—a divine responsibility.

I love my walks with Lincoln through our neighborhood, but I'm really looking forward to the first time we step foot in the new museum and his young eyes light up. Instead of the majestic flowers in a front yard, I can't wait to point to a skeleton of a mighty *T. rex*!

But no matter what wonder of creation we focus on, when I ask Lincoln "Who made that?" he'll know exactly what to say.

And if he can grow up seeing the evidence, he'll have every reason to believe he has the right answer.



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



We often think of an argument as an angry disagreement, but in logic "argument" refers

simply to presenting statements or reasons to support a conclusion. Some say arguments have little place in gospel ministry. They insist that we merely need to present the gospel,<sup>1</sup> and then we should rejoice over those who accept it and depart from those who reject it. But gracious arguments have a place in advancing the Kingdom of God.<sup>2</sup> Every dedicated Christian should practice skillful argumentation for two reasons.

The first reason is that those who contend that arguments have no place in ministry essentially refute themselves. Whoever says that arguments do not represent Christ's gospel are actually using an argument to persuade others how to represent Christ's gospel. We use arguments all the time—that's largely how our brains work as we solve problems and communicate ideas. The gospel itself argues that men must receive God by grace, since no man or woman can ever be good enough to earn His acceptance.<sup>3</sup>

Examples from the Bible supply the second reason. Jesus often argued. One time He relied on the present tense of a verb in Exodus 3:6 to argue in favor of resurrection. He told unbelieving religious men, "But concerning the resurrection of the dead, have you not read what was spoken to you by God, saying, 'I am the God of Abraham, the God of Isaac, and the God of Jacob'? God is not the God of the dead, but of the living."<sup>4</sup>

Paul also used many arguments. In Ephesus, "he went into the synagogue and spoke boldly for three months, reasoning and persuading concerning the things of the kingdom of God." It appears he did not simply pop in, present the gospel, and then just leave. He stayed to discuss and persuade. Not long after, Paul was "reasoning daily in the school of Tyrannus. And this continued for two years." Did Paul's approach work?

He talked the talk, but he also walked the walk and "worked unusual miracles." Eventually, "the word of the Lord grew mightily and prevailed." A leading idol maker even complained, "Not only at Ephesus, but throughout almost all Asia, this Paul has persuaded and turned away many people. Arguments clearly played a major role in advancing the Kingdom of God in ancient Asia Minor.

No Christian can argue an unbeliever into God's Kingdom. Sinners must repent of sin and unbelief, and God must give new life. But these personal miracles do not render reasoning useless. God often uses our arguments to help remove objections to the Good News. For example, does someone object to Jesus being the last Adam<sup>10</sup> because

she thinks science disproved the first Adam?

Ministries like ICR exist to equip believers with science that confirms Adam was real.<sup>11</sup> By removing the objection that Adam—and thus Jesus' payment for his sin—was mythical,<sup>12</sup> God uses a Christian's arguments to shine His gospel more brightly on dark hearts.

Believers should follow Paul's profound example, who "explained and solemnly testified of the kingdom of God, persuading them concerning Jesus from both the Law of Moses and the Prophets." Arguments can be effective tools as long as we explain and persuade "with all lowliness and gentleness" and speak the truth in love.

#### References

- The gospel teaches that everyone needs to repent of sins and trust Jesus in order to restore a right relationship with God. See Romans 10:9-10.
- 2. Biblically, the Kingdom of God has a near and a far aspect. Those who trust Christ join God's Kingdom now—during "the darkness of this age" (Ephesians 6:12). Someday, when the Father's "will be done on earth as it is in heaven" (Matthew 6:10), God will establish His Kingdom, including the King and His adoring subjects, on a new earth forever (Revelation 21:1-3). The word "argue" need not indicate anger. Christians should argue with respect and civility.
- 3. Ephesians 2:8-9.
- 4. Matthew 22:31-32.
- . Acts 19:8.
- Acts 19:9-10.
   Acts 19:11.
- 3. Acts 19:20.
- 9. Acts 19:26.
- 10. 1 Corinthians 15:45.
- 11. Thomas, B. 2015. Was Adam a Real Person? *Acts & Facts.* 44 (12): 20.
- 12. Romans 5:12, 15.
- 13. Acts 28:23.
- 14. Ephesians 4:2.
- 15. Ephesians 4:15.

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# High-Altitude Solution Is for the Birds

f dogs were meant to fly, they would have bodies designed for it. Flying at altitudes so high that the lack of oxygen is a serious problem requires bodies specifically equipped for breathing thin air. This need is illustrated by an amazing German Shepherd named Antis that flew in combat missions during World War II at altitudes of up to 16,000 feet. How did this dog survive flying in oxygen-starved altitudes?



Antis was rescued as a starving puppy by Czechoslovakian pilot Václav "Robert" Bozděch. After serving briefly in the French Air Force, Robert flew as part of England's Royal Air Force's 311 (Czechoslovak) Squadron.

British Air Ministry regulations prohibited dogs flying on combat missions, of course, but Antis hated to be grounded if that meant being separated from Robert. In June 1941, Antis took matters into his own paws. He disappeared when Robert readied for a bombing mission over Bremen, a German port city, and hid inside the Vickers Wellington bomber on which Robert served as turret gunner.

Wellington bombers flew as high as 16,000 feet, so air crews wore oxygen masks to compensate for the oxygen-thin air at that altitude. But no one equipped Antis for such conditions! Robert concerned himself with the crew's mission, bombing Bremen's oil refinery, until his attention was distracted by someone nudging his elbow.

Antis must have somehow crept aboard the aircraft and stowed away, being careful to remain hidden until [Robert's airplane] was almost over her target. Recovering from the shock, Robert tried to take in all that he was seeing. His dog's flanks were heaving, his lungs desperate for breath, which was very likely why he'd alerted Robert to his presence. They were climbing to 16,000 feet and Antis was having increasing trouble breathing in the thin, oxygen-starved atmosphere.<sup>1</sup>

Antis needed to inhale concentrated oxygen immediately or die, but so did Robert until the plane descended to a lower elevation.

Taking a massive gasp himself, Robert unstrapped the oxygen mask from his face, bent, and pressed it firmly over his dog's muzzle. He watched anxiously as the dog took a few deep breaths of life-giving oxygen, before eventually his breathing seemed to settle down to something normal.<sup>1</sup>

Meanwhile, Robert busied himself

with his duties as turret gunner, wearing the spare radio headset since his oxygen mask strappings contained his usual headset.

The mask contained [Robert's] main radio pickup, and he could only imagine that he and his dog were going to have to share oxygen for the remainder of the flight. A few moments later he heard a squelch of static in his earpiece, signifying that someone was coming up on the air [intercom]. "Robert, have you gone to sleep down there?" Capka, their pilot, queried. "No. Why?" Robert replied. "Sounds like you're snoring your head off. What's going on if you're not snoozing?" I

It was Antis' canine breathing being broadcast through the airplane's intercom from the microphone attached to the oxygen mask. Meanwhile, the flight became more hazardous.

They began their bombing run at 15,000 feet, an altitude where the dog needed the oxygen. Robert had no option but to continue operating without it, for he couldn't keep switching the mask with his dog. He needed his hands free to operate the guns. At first he seemed to cope just fine, but then his heart started to race and beads of sweat were breaking out on his forehead.<sup>1</sup>

Antiaircraft fire exploded nearby, bombs dropped from Robert's plane, and Messerschmitt fighters tried to shoot the Wellington out of the night sky. But Robert, his crewmates, and Antis successfully returned to their home base. Of course, Antis' stowaway antics were then no secret.

Wing Commander Josef Ocelka, 311 Squadron's commanding officer, liked Antis—but his sharing an oxygen mask during future bombing raids was unacceptable. The solution? A doggie oxygen mask, specially tailored for him.

[Antis' oxygen mask] consisted of a standard pilot's mask, cut and modified

to suit a German shepherd's long and slender snout, as opposed to the flatter, boxier face of a human. The mask attached to his head with a special set of straps that ran around the back of his thick and powerful neck, with extra fastenings latching on to his collar. Antis didn't particularly like the thing, but he proved happy enough to wear it so long as Robert was wearing his.<sup>1</sup>

Antis continued to have many deathdefying adventures during the war as Robert's loyal companion. But at high elevations Antis no longer needed to share an oxygen mask with his master.

Obviously, like humans, Antis wasn't born with the capacity to survive in oxygen-thin air without the help of an oxygen mask—and it required purposeful design and intentional engineering to equip this dog for such high-altitude conditions. We can and should marvel at the creative genius and technical problem-solving that achieved a solution to Antis' need for high-altitude oxygen.

What about high-flying birds that have no such oxygen mask? How can they survive elevations of 15,000 feet and sometimes higher without a supplemental source of oxygen? Many bird migrations occur at extremely high elevations: 21,000 feet for the mallard duck, 27,000 feet for swans, even 36,000 feet for vultures!<sup>2</sup>

The highest-lying permanent settlements, in the Andes and in Tibet, are situated at just above 5000 m. [16,400 feet]. Not even people belonging to these mountain communities would be able to survive more than a few hours in the oxygen-deficient air above 8000 m. [26,200 feet]. The oxygen content of the air is about 21%, independent of altitude, in the troposphere; the oxygen pressure consequently decreases in parallel with the decreasing air pressure at increasing altitude. At 6000 m. [20,000 feet] the oxygen pressure is only half what it is at sea-surface level; at 8000 m. [26,200 feet] it is a third of that and at 10,000 m. [32,800 feet] only a quarter. The ability of birds to stay alive at high altitudes is explained

by the [comprehensive] fact that they have a more efficient respiratory system than mammals.<sup>2</sup>

How are birds able to breathe in such oxygen-starved conditions? What they have—thanks to their Creator—is much more efficient than Antis' custom-made oxygen mask!

A bird's lungs function according to the through-flow principle: the inspired [inhaled] air collects in the bird's posterior air-sacs and flows through the lungs to the anterior air-sacs before it passes back out. In the lungs the blood is oxygenated by fine air capillaries, where air and blood flow in opposite directions. Owing to this counterflow, the oxygenated blood that leaves the bird lung acquires a higher oxygen concentration than that corresponding to the oxygen pressure in the expired [exhaled] air.<sup>2</sup>

In addition to flow-through lungs, birds have hearts that are proportionately larger to their bodies than those of mammals—from 0.8 to 1.5% of total body mass, compared to mammals, which average around 0.6%. The birds' larger hearts enable speedy blood transport and intensive oxygen renewal.<sup>2</sup>

Three cheers for the East Wretham fitters who tailor-made a canine oxygen mask for Antis' high-altitude breathing. And credit is due to Vickers-Armstrongs (Aircraft) Ltd., the manufacturer of the Wellington bomber that Robert and Antis flew in.

But how much more we should cheer and commend God for how He designed and constructed high-flying birds<sup>3</sup> with incredible respiratory physiologies far superior to any manmade system or equipment!

#### Reference

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- Alerstam, T. 1993. Bird Migration.
   D. A. Christie, trans. New York: Cambridge University Press, 276-277.
- 3. Job 39:26.

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# Care, Guard, and Share

or over 45 years the Lord has faithfully provided for ICR's needs. His remarkable supply was particularly evident during the Great Recession of 2007–2009. Even though many were struggling financially, countless supporters continued to pray and sustain ICR's ministry through their gifts. But after several years of recovery, recent signs of volatility are causing many economic experts to wonder if we may be headed for another slowdown.

As ICR focuses on building a world-class science museum and planetarium, some supporters may be hesitant to give to this influential project out of fear of an economic downturn. But in light of the Bible's promises, it's wrong to worry! God "knows the things you have need of before you ask Him" (Matthew 6:8) and promises to "supply all your need according to His riches in glory by Christ Jesus"

And my God shall supply all your need according to His riches in glory by Christ Jesus.

—PHILIPPIANS 4:19—

(Philippians 4:19). The Christian's calling is to use whatever resources we have at our disposal to "do good to all, especially to those who are of the household of faith" (Galatians 6:10).

Nevertheless, ICR is not blind to practical solutions that benefit both our ministry and those who wish to support our work. As financial markets decline, investors often turn to sources of guaranteed income like Certificates of Deposit (CDs). But with rates averaging below 1%, CDs are simply not an attractive option. A much better

alternative for senior supporters age 65 or older can be found in ICR's Charitable Gift Annuity program.

Charitable Gift Annuities provide the highest *guaranteed* returns in the market today (between 4.5% and 9%, depending on your age). For as little as \$10,000, you can invest in an ICR gift annuity that provides guaranteed income for life, a present tax deduction, and a tax-free portion on future payments—benefits no other secure investments can match. If you would like to support ICR's work but still need ongoing income, this option may be right for you. Not all states qualify, so contact us for a customized proposal, or use the Planned Giving link at **ICR.org/donate** to create your own.

Apart from direct financial giving, perhaps the single most important thing a Christian can do to support God's work is to have a valid written will. Surprisingly, over half of all people who pass away each year do not have one. Without a valid will, state laws of "descent and distribution" take over and decide who will administer your estate and who will serve as the guardian of your minor children. This process often depletes an estate with unnecessary expenses. And such state-written wills do not allow bequests of any kind—to your friends, your church, or to ministries like ICR that honor the Lord Jesus Christ. In obedience to the Lord and His biblical model—caring for our families (1 Timothy 5:8), providing for the church (1 Corinthians 16:2), supporting Christian ministries (1 Timothy 6:17-18), and sharing in general charity (2 Corinthians 9:8-9)—please make a will if you don't already have one.

ICR's Planned Giving website mentioned above contains interactive modules to help you craft a will. ICR also provides samples of well-written wills and helpful brochures on will preparation. Most wills can be prepared inexpensively by a knowledgeable attorney, and we can recommend one in your area. And if you wish to support ICR, it's easy to include a simple bequest that guarantees a portion of your remaining assets are shared with our ministry. It will be put to good use in our work to honor our Creator, the Lord Jesus Christ.

Care for your family. Guard your God-given resources. Share bountifully with the Kingdom. ICR can help—please visit ICR.org/give, or contact me today at 800.337.0375 or stewardship@icr.org.



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

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#### LETTERS TO THE EDITOR

I just wanted to write and thank ICR for being there. I have learned a lot and have saved every magazine issued for future reference as I have children in public school. I want to be prepared to defend creation and our faith in general. I got such an opportunity last night as I was driving home and my daughter asked me about global warming.... She asked if we all died from global warming and the polar bears and penguins did too, would there be animals in heaven? As far as the animals in heaven I talked about it a little but focused on the global warming. She said she saw a video a while back in school about it. We got home and before bed sat down and looked on your website searching for the topic. What great information—I learned as much as she did! ... We need to be "prepared in season and out of season" and you have helped us be prepared!

— S. W.

Thank you for Dr. Guliuzza's thought-provoking articles exposing eugenics in the November 2015 ["The Eugenics Disaster"] and January 2016 ["Survival of the Fittest, Eugenics, and Abortion"] *Acts & Facts*. Beyond the eugenics-abortion link, might there also be a link to violence, teen suicides, and even group killings? Guns and mental illness are routinely blamed, but I suspect it has more to do with the culture being promulgated. When our schools indoctrinate our young people to believe that humans developed by chance and have evolved into a virus that is killing Mother Earth, is it not reasonable to expect such behaviors? Thank you, ICR, for standing in the gap, challenging evil lies, and defending God's truth.

--- M. M.

I get your *Days of Praise* every day by email. Every single one of them is excellent. They rightly divide the Word of God, not holding back the truth of God about sin, the world, the devil, and the believer. They equip the saint correctly with the truth of the Word of God. I appreciate the fact that you are not always trying to prove creation in your devotions. You do a great job of that already, and I appreciate that you are giving the whole counsel of God to the believer through these devotions.

— J. H.

I was looking for educational materials online for my children and stumbled across your exceptional website [ICR.org]. I was thrilled to read about what you are doing over there in the United States. We could use some of your good teachings over here in England. Satan certainly has his fiendish claws stuck into my country! The nonsense they teach in our schools sickens me deep into my eternal soul!

- S. from England



#### Twitter:

ICR is a tremendous resource for the church, pastors, home schoolers, & those interested in the truth of biblical creation.

— M. B.

Wow! Did not know that ICR had videos out on Vimeo [vimeo.com]. Let the studying, with a newfound resource, begin!

— D. B.

I love your magazine *Acts &Facts*. It has helped me greatly in my faith and preaching.

— B. S.



#### Facebook:

I love this site, Institute for Creation Research [ICR.org]...it has been a great help in understanding creation and helping others to also see things in the proper light and context.

— H. S.

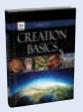
#### (Referring to an Unlocking the Mysteries of Genesis conference)

I was completely awestruck by Randy Guliuzza's session [Human Design: The Making of a Baby]. I only wish I was taught the wonders of our conception the way he taught. I walked away in tears knowing so many are being led astray not knowing how truly fearfully and wonderfully made they are! I brought two of my eighth-graders with families in tow, not knowing this would be a topic. Both of them and my oldest son groaned at the first mention of the subject, but like me were in wonder by the end. How I wish I could convey even a hint of what he talked about to my other boys. Something that is so beautiful has been so corrupted in today's society with the absence of an acknowledgment of our ever-so-powerful and intelligent Creator!

— C. G.

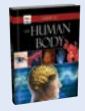
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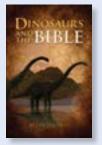


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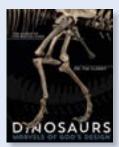
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