

GENESIS IMPACT: A CHRISTIAN TOUR THROUGH NATURAL HISTORY MUSEUMS

Daniel A. Biddle, Ph.D.



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www.genesisapologetics.com

A 501(c)(3) ministry equipping youth pastors, parents, and students with Biblical answers for evolutionary teaching in public schools.

The entire contents of this book (including videos) are available online: www.genesisapologetics.com/impact

Genesis Impact: A Christian Tour through Natural History Museums

by Daniel A. Biddle, Ph.D.

Printed in the United States of America

ISBN-13: 9798689962696

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Print Version September 2020

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Dedication

To my wife, Jenny, who supports me in this work. To my children Makaela, Alyssa, Matthew, and Amanda, and to your children and your children’s children for a hundred generations—this book is for all of you.

We would like to acknowledge Answers in Genesis (www.answersingenesis.org), the Institute for Creation Research (www.icr.org), and Creation Ministries International (www.creation.com). Much of the content herein has been drawn from (and is meant to be in alignment with) these Biblical Creation ministries.

“Guard what has been entrusted to you, avoiding worldly and empty chatter and the opposing arguments of what is falsely called ‘knowledge’—which some have professed and thus gone astray from the faith. Grace be with you.”

—1 Tim. 6:20–21

“This is the Lord’s doing; it is marvelous in our eyes.”

—Psalm 118:23

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About the Author

Dr. Daniel A. Biddle is president of Genesis Apologetics, Inc., a 501(c)(3) organization dedicated to equipping Christians with Biblical answers for evolutionary teaching in public schools. Daniel has trained thousands of students in Biblical Creation and evolution and is the author of several Creation books, videos, and other publications. Daniel's experience and qualifications include a Ph.D. and B.S. in the Behavioral Sciences from Alliant University and the University of San Francisco, respectively. Daniel maintains an executive role in two HR consulting firms where he has provided expert consulting and/or witness testimony in over 100 state/federal cases in the areas of research methodologies and analysis.

About the Ministry

Genesis Apologetics is a non-profit 501(c)(3) ministry that provides Christians with Biblically and scientifically accurate answers to the evolutionary theory that public schools propagate. Our doctrinal position on Biblical Creation aligns with Answers in Genesis and the Institute for Creation Research (ICR), which take Genesis at face value, including its testimony of a miraculous creation and Flood that occurred thousands, not millions, of years ago. Genesis Apologetics offers the following free online training resources:

- **Genesis Impact feature film and supporting videos:**
www.genesisimpact.com
- **Mobile App:** Search *Genesis Apologetics* in App stores.
- 5th – 10th Grade Students: *www.debunkevolution.com*
- 11th Grade – College: *www.sevenmyths.com*
- YouTube Channel (**Genesis Apologetics**).
- Website: *www.genesisapologetics.com*

Introduction

This book is designed to compliment the *Genesis Impact* movie (see: www.genesisimpact.com) and the 13 supporting videos that dive deeper into the topics covered by the movie. Why are these resources important? They are *crucial* because millions of people visit natural history museums around the U.S. every year which display ideas about how we view the world. Did humans come from a long line of random evolution as these museums suggest? If we did, what's our purpose in life? Where does our sense of morality come from? If the Bible is true—and we believe it is—a very different story shapes our lives, answering questions like where we came from, why we're here, who sets the morality that governs our lives, and what happens in the afterlife.

These museums present where they are presented with the idea of evolution over millions of years, but both of these ideas have failed to validate to either reality or **observational** science—the real kind of science that we use to put people on the moon and create new scientific advancements like technology and medicine. In fact, over the last 4,000 to 5,000 years of recorded history, no one has ever observed evolution produce a new kind of creature. Animals continue to reproduce after their own kinds, just as prescribed in the Bible, and experiments designed to prove molecules-to-man evolution have failed to even reproduce the first step of creating complex life from nothing—even when the conditions are rigged for the best possible outcome.¹

These museums are soaked with the idea of deep time—which is central to the theory of evolution—but numerous attempts to validate the theoretical ages of rocks against the known, observed ages of rocks have failed, producing discrepancies of millions of years. But do most Christians know about these obvious limitations that undermine evolution as promoted in these museums? Are Christians having their faith shaken by going through these museums because they present

such a stark contrast from the Biblical account of origins? The Flood? Dinosaurs? Most don't even know about the assumptions upon which these evolutionary ideas are based. Even fewer know the specific fatal flaws that completely dismantle these ideas.

Join us now on a tour while we carefully review the 12 primary evolutionary viewpoints presented in these museums: the Human-Chimp 98% Similarity Myth, key ape-to-human icons like *Ardipithecus ramidus*, “Lucy” the *Australopithecus*, *Homo habilis*, and Neanderthals, Darwin's finches, the fossil record and transitional forms, continental drift and Pangea, dinosaur extinction, whale evolution, deep time based on radiometric dating, and historical vs. observational science.

How to Be Effective in Creation Apologetics

Apologetics refers to defending the faith, not apologizing. The word comes from 1 Peter 3:15, “always be ready to give a defense [απολογία (apologia), or answer]...” We offer eight *key strategies* for creation apologetics. By the Holy Spirit's power, God can use these to turn people from confusion and open their eyes to the truth of the Gospel and the Creation account upon which it is based (see 2 Timothy 2:14–26 and 2 Timothy 3:17).

1. **Be grounded.** God's Word is true, period. Yes, there are things we don't fully understand in God's Word and things we don't understand about the natural world. However, we should not fall into “Scripture spinning” traps that try to fit man's changing ideas into the Bible. For example, some try to insert millions of years into the Genesis genealogies, or to stretch the creation days into vast periods. Many Scripture passages affirm this strategy of understanding and applying the Bible's plain meaning, just as written (e.g., 2 Peter 3:16, 1 Timothy 6:20, Colossians 2:8, and Jeremiah 23:36).

2. **Prepare.** Two key steps help us prepare. First, we *watch* our motivation. If love does not motivate us, then we are off track. Love is a decision to act on another's behalf regardless of how you feel. Love keeps our pride in check. Love often directs us to wait before someone is ready to hear certain ideas. Jesus didn't share everything with His disciples all at once. He loved them by revealing just what they needed to hear at just the right time. Remember, most people have been *soaked* in the lies of the world. It takes time to unlearn years of secular "training." Second, *study* the Bible. Second Timothy 2:15 advises, "Be diligent to present yourself approved to God, a worker who does not need to be ashamed, rightly dividing the word of truth" and 2 Timothy 4:2 states, "Preach the word! Be ready in season and out of season. Convince, rebuke, exhort, with all longsuffering and teaching."
3. **Be aware.** There are three things to be aware of when doing outreach to the unsaved community. First, their minds are hostile towards God (oftentimes both knowingly and unknowingly) and thus they are hindered from seeing the truth about Creation and Salvation: "But the natural man does not receive the things of the Spirit of God, for they are foolishness to him; nor can he know them, because they are spiritually discerned" (1 Corinthians 2:14). Second, while they internally know about God because God has revealed himself through Creation, their thoughts have turned futile and their hearts hardened because they block out the obvious truth that He exists (Romans 1:21–23). Third, they have become *willingly ignorant* of Creation and the Flood according to 2 Peter 3:3–6. This causes them to teach and reinforce long ages and uniformitarianism (the idea that present processes and rates are the key to understanding the past, without global catastrophes such as the Flood), showing a strong bias against miracles. Sadly, many Christians today also live without a full

understanding of just how true and accurate the Genesis Creation and Flood records are. This compromise takes its toll on confidence in Scripture and in God's greatness.

4. **Be filled and led by the Holy Spirit.** Scripture tells us that we should be continually filled with the Holy Spirit (John 15:1–11, Galatians 5:16–25). This simply means deciding to think and do what God wants us to think and do, based on what the Bible says we should think and can do in Christ. Scripture clarifies that we can *quench* or *grieve* the Holy Spirit (1 Thessalonians 5:19, Ephesians 4:30). Ephesians 4–5 lists several actions that can do this, such as “living like the pagans” (4:17–19), lying (4:25), being angry (4:26–27), stealing (4:28), cursing (4:29), being bitter (4:31), unforgiving (4:32), and being sexually immoral (5:3–5). If certain actions can grieve the Spirit, other actions can equip believers to be filled with the Holy Spirit. Prayer, Bible study, fellowship, and worship all help. But the decision to live God's way lies at the core of walking in the Spirit. Ephesians 2:10 states that we are “His workmanship, created in Christ Jesus for good works, which God prepared beforehand that we should walk in them.” To walk in these works, we need to pay attention to His living Word. We also need to be mindful of the Spirit's prompting towards certain activities. God's Word is full of examples that support “being led” by the Spirit (e.g., Acts 8:29, 13:2, 15:28, Romans 8:14, and Galatians 5:25).
5. **Show wisdom.** Our ministry has responded to thousands of inquiries and comments from people across a wide spectrum of views. It would be quite easy to categorize all these inquiries into two groups: (1) people who are not genuinely interested in finding an answer; and (2) those who genuinely seek answers and have humble hearts to listen. The first group just wants to throw up an objection to the Christian faith so they don't have to

consider it or they want to make Christians doubt. The second group is willing to consider Christian teaching. Spend more time with this second group. If they are open, *pour* into them. If not, move on quickly. The seeds fall on all kinds of soil, and good farmers invest their time wisely by watering hearts that yearn for Truth.

6. **Focus.** Our ministry surveyed a broad cross-section of nearly 300 young people, ages 14 to 24, asking an open-ended question: “Regardless of whether you believe in evolution, what is the best evidence that evolution is true?” Respondents gave varied answers, but we were able to sort them into ten categories. We found that just four categories make up 72% of the reasons for belief in evolution: (1) arguments pertaining to human evolution (25%); Darwin’s theory proper (mutations, natural selection, etc.) (21%); fossils and so-called transitions (15%); and the apparent consensus of scientists and science regarding the theory of evolution (11%).² When deconstructing the lie of evolution in presentations, we focus on these four areas. Be stingy about spending time on esoteric, splintered questions.
7. **Know when and how to retreat.** When you don’t know the answer to a question, say you don’t know! Even when we know nothing, we can always ask them to give a reason for the statements they make. Asking questions about their views encourages deeper thinking about the important issues. It might even reveal that their beliefs do not have good reasons behind them. Try to ask a question to get them thinking about what they believe and why. If they don’t interact on that level, then retreat with as much grace as possible. You always have time to go back and find answers to their questions!
8. **Spend more time studying the truth than learning about counterfeits.** Several great websites showcase solid biblical and scientific resources (see the **Helpful Resources** section in the back).

Humans and Chimps Share 98% of their DNA?

Suggested Videos:

www.genesisapologetics.com/chimpdna

Overview

The idea that human and chimp DNA overlap by 98 to 99 percent has been widely used to promote the idea that humans and chimps shared a common ancestor millions of years ago.³ But have you considered how they came up with this estimate?

For starters, let's look at the size of each genome. While estimates of the exact size of our genome has varied over the years, the last count has it at 3.097 billion base pairs. But the chimp genome is larger, at 3.231 billion. This means that chimps have at least 134 million more base pairs than we have. That makes their genome at least 4.3% larger than ours.⁴ So how is it possible that our DNA is 98% similar to theirs, when the chimp genome is actually 4.3% *larger* than ours? Right out of the gate you can see there's something wrong with the sweeping 98% estimate that's frequently used. They came up with this figure by *cherry picking* only the sections of our DNA that overlapped with theirs.⁵

Let's see how *MinuteEarth*, a secular training site that holds to an evolutionary perspective, describes it:

When researchers sat down to compare the chimp and human genomes, those single-letter differences were easy to tally. But the big mismatched sections weren't. For example, if a genetic paragraph—thousands of letters long—appears twice in a human scroll, but only once in its chimp counterpart, should the second copy

count as thousands of changes, or just one? And what about identical paragraphs that appear in both genomes, but in different places, or in reverse order, or broken up into pieces? Rather than monkey around with these difficult questions, the researchers simply excluded all the large mismatched sections—a whopping 1.3 billion letters of DNA—and performed a letter-by-letter comparison on the remaining 2.4 billion, which turned out to be 98.77% identical. So, yes, we share 99% of our DNA with chimps—if we ignore 18 percent of their genome and 25 percent of ours.⁶

Wow—ignoring 18% of the chimp genome and 25% of the human genome—that’s a lot to ignore! In fact, this represents hundreds of millions of DNA letters in each side of the comparison! Could the sections they left out be responsible for coding most of the obvious differences we see between humans and chimps? They continue:

And there’s another problem: just as a small tweak to a sentence can alter its meaning entirely or not at all, a few mutations in DNA sometimes produce big changes in a creature’s looks or behavior, whereas other times lots of mutations make very little difference. So just counting up the number of genetic changes doesn’t really tell us that much about how similar or different two creatures are.

It certainly makes sense that “just counting up the number of genetic changes doesn’t really tell us that much about how similar or different two creatures are.” Indeed, human DNA and gene-level comparisons are frequently made to other mammals, such as mice, cows, and even dogs with high

levels of overlap, and we are obviously quite different from these animals.

The high degree of similarity is because the human body has many molecular similarities to other living things. After all, they all use the same basic molecules. They share the same water, oxygen, and food sources. Their metabolism and therefore their genetic makeup resemble one another to occupy the same world. However, these similarities do not mean they evolved from a common ancestor any more than all buildings constructed using brick, iron, cement, glass, etc. means that they share origins.

DNA contains much of the information necessary for an organism to develop. If two organisms look similar, we would expect DNA similarity between them. The DNA of a cow and a whale should be more alike than the DNA of a cow and a bacterium. Likewise, humans and apes have many body similarities like bones, hair, and the ability to produce milk, so we would expect DNA sequences to match that. Of all known animals, the great apes are most like humans, so we would expect that their DNA would be most like human DNA.⁷

This is not always the case, though. Some comparisons between human genes and that of other animals in the literature are very interesting. Cats have 90% homologous genes with humans, dogs 82%, cows 80%,⁸ chimpanzees 79%, rats 69%, and mice 67%.⁹ Other comparisons include both fruit fly (*Drosophila*) and chickens with about 60%¹⁰ of genes corresponding to a similar human gene.¹¹ These estimates suffer from the same problems that human-chimp comparisons do, but they illustrate the patterns of similarity that one would expect from a single divine designer.

Based on new data in 2018, researchers have now shown that the maximum human and chimp DNA similarity is actually only 84%, but this figure didn't include the areas of human and chimp DNA that could not be matched up because they were so different, so the actual estimate is much lower.¹² This brings us from 98% to 84% maximum similarity between the comparable regions. Using the corrected 84% figure, plus the fact that their

genome is over 4% larger than ours, shows there are **far too many genetic changes to go from chimp to human in the last six million years at the rate their theory proposes.**

This is really the crux of the matter.¹³ Let's even assume for a minute that the DNA gap between chimps and humans is in fact only 1%. This would still represent over 30 million DNA letter differences between chimps and humans. Can random DNA mutations really produce 30 million meaningful changes to go from chimps to humans within the supposed 6 million-year timeframe? Secular scientists have **closed the door** on this possibility, even with conclusions drawn from evolution-based publications.

For example, population geneticist, Michael Lynch stated in the *Journal of Molecular Biology and Evolution*: "A central problem in the evolutionary theory concerns the mechanisms by which adaptations requiring multiple mutations emerge in natural populations."¹⁴ Lynch calculated that it would take over **200 million years** for just **two** specific mutations to become established in a pre-human population. That's over **33 times longer** than the supposed 6 million years to develop just two mutations! So, under the evolutionary model, if it takes 200 million years to produce just **two** mutations, how long would it take to produce 30 million (based on the 1% difference)? Or how about 300 to 400 million (based on the 16% difference figure)? Do you see how absurd this is?

Even though genetic researchers estimate there are about 100 new mutations per person, per generation¹⁵ most mutations have a near-neutral effect, and are furthermore slightly deleterious.¹⁶ Deleterious mutations randomly occur anywhere in the genome, so creating damage is easy. However, genetic changes that produce **improvements** are analogous to inserting just the right computer code into just the right place in a computer program for a specific benefit to emerge. It's next to impossible. Not only does a specific letter need to mutate, it needs to fall into the genetic ladder at a **specific location** to actually result in some type of benefit. When it comes to how frequently these types of mutations occur compared to the

evolutionary timescales, there's just not enough time for it to happen. If it takes 200 million years for just two to emerge, and at least 300 to 400 million are needed to move from ape-like-creatures to human, one quickly understand that evolution from apes to humans is **utterly impossible**.

Evolutionary geneticists from Cornell University have confirmed the scientific impossibility of this ape-to-human idea in a study published in the *Annals of Applied Probability* which revealed the average waiting time to form a slightly longer DNA sequence of **only eight** specific mutations is about 650 million years.¹⁷ This estimate gets 100 times longer after accounting for genetic drift, increasing the time to about 65 billion years, which is four times longer than the supposed 13.7 billion years ago that evolutionists believe the universe began. Now it's impossible again. There is simply no way to go from ape-like-ancestors to humans.

The fact is, the human and chimp genomes code for two completely different creatures. While both are mammals based on scientific criteria, God made man in His image and gave him a soul that is eternal. Human and chimp genomes code for two completely different things: Chimps, which are soul-less tree-dwelling animals; and humans, which are eternal souls wrapped in bodies that have vastly different capabilities than **all** animals because we were created in God's image and charged to be caretakers over Creation—including chimps! Being made in the image of God and charged with taking care over God's Creation would mean that humans would have several distinctions from chimps. Let's take a look at just some of them.

First, humans are the only living thing on the planet that has a **conscience** and a **sense of morality**. Our conscience lets us know when we've failed or when we might fail to abide by either governmental laws or God's laws. Primates know nothing of laws. They live only by instincts and very limited group "norms."

Next, humans can **speak**. For example, the English language contains over 1 million words, and we can speak all of them, plus we can even learn or invent totally different

languages. Apes cannot speak any of them. They do not even have a speech “program” installed in their brains. The parts of the human brain responsible for handling speech, called the Brodmann areas 44 and 45, are over six times larger in humans compared to chimps.¹⁸

Speaking of **brains**, ours are 400% larger than chimps. We’re also much smarter—having an average IQ of 100, when chimps can’t even take the test. Our brain cells’ DNA carries very unique methylation patterns that enable us to think the way we do.¹⁹ DNA methylation is a biochemical process that helps determine which genes will be more or less active. It occurs during development from an embryo through adulthood. As Institute for Creation Research Science Writer Brian Thomas points out, “If humans and chimps are close relatives, then they should have similar DNA methylation patterns in the areas of chromosomes that they have in common such as similar gene sequences. However, research teams have identified major differences.”²⁰

The human neocortex is disproportionately large compared to the rest of the brain,²¹ with a 60-to-1 ratio of gray matter to the size of the medulla in our brainstems compared to just 30-to-1 in chimps.²² Overall, humans have almost twice as many spindle cells than chimps, enabling us to pull out memories from past experiences and use them to plot our next actions. These functions activate when moral dilemmas present decisions we need to make that will directly affect other lives.

The insula part of our brains has 46 times the number of spindle cells compared to chimps—about 83 thousand for humans compared to only about 18 hundred for chimps. This makes sense because this part of our brains takes information from our skin, internal organs, and cardio system and converts it into subjective feelings such as empathy toward others who show signs of anguish or pain. We are expressive, sensitive, empathetic, and intuitive beings—but not animals.

Our **DNA** differences direct the construction of uniquely human physical attributes. For example, humans have opposable thumbs that give our hands a nearly infinite variety

of motions. We are typically 38% taller than chimps, 80% heavier, and live twice as long. Humans have white sclera that surrounds the colored iris of the eyes for rich and nuanced non-verbal communication, which the vast majority of apes do not have (some apes have a small amount, but none are equal to humans).

We **walk** upright, while chimps—with their curved fingers, long arms, and unique locking wrist systems—are designed for living in trees and walking on all fours. Their knees also point outward for climbing in trees, whereas our knees point forward so we can walk or run all day if needed.

Humans cannot **interbreed** with chimps. We can't even swap any of our internal organs with chimps. Humans build space shuttles, write songs, worship, pray, and sing. Chimps don't do any of these things. God specially designed us, formed the first of us from dust into the image of God, and gave each of us an everlasting soul. We were charged to be caretakers over the entire animal kingdom; that's why we put chimps in the zoo, and not the other way around.

Yes, we share vast DNA sequences with chimps, but we would expect this on the basis of Creation. We also share plenty of DNA with mammals other than chimps. After all, God made other mammals and man to metabolize the same food sources, grow the same basic materials like bones, teeth, muscles, skin and hair, and produce placentas and milk for the next generation. The fact that we have sections of DNA that are similar to these creatures' only shows that our designer used similar DNA instructions for making similar features and functions. It does not mean that one creature **led** to the other, or that they are related by common ancestors.

Who in their right mind would say that one software program, car, or airplane led to another all by itself? Bible-believing geneticist Dr. Jeffrey Tomkins said, "The programmer doesn't start from scratch each time he develops a new program. Instead, he uses the same general commands that he used for other projects. It shows the creator's efficiency and ingenuity." We see the same pattern of both similarity and differences in

organisms' genomes. Biblical creationists say the similarities in DNA arose because the same Creator adapted the same basic code for separate created kinds. If a gene in different creatures encodes a similar protein for a similar biochemical pathway, it is not due to evolution, but because of a single programmer. This similarity is a hallmark of all human-engineered systems, so why would we not expect to see it in God's Creation?

Consider a 3-D printer, capable of creating objects of any shape based on the programming code input by the designer. Making even minor changes to the code results in an object that looks very different. It's the same with the DNA programming our creator used for building humans and chimps. Sections of our DNA building instructions are similar, but this is because the same designer used similar coding for building the physical bodies of humans and chimps that have many similarities, but also many distinctions.

Clearly, overhyped stories of chimp-human similarities overlook some basic observations. They ignore huge sections of DNA. They exclude the possibility of intentional programming to explain similar DNA sequences, and they overlook unbridgeable physical, mental, and moral differences that all fit the Bible's account of divine Creation.

Confronting Human-Chimp Propaganda

To close this section, let's discuss a hypothetical exchange. How can you use the information in this section in conversation? First, the person makes the claim that "human and chimp DNA are genetically 98–99% identical or similar." You can ask, "Do you know roughly how many bases are in the human and chimp genomes?" If they do, great. If not, then offer the fact that the human count is about 3.097 billion base pairs and the chimp count is 3.231 billion. This equates to about 134 million more base pairs than we have, making their genome at least 4.3% larger than ours. So how is it possible to say their genome is 98–99% the same as ours, when their total genome is actually 4.3% larger than ours? Next, you might want to point

out that they excluded 25% of the human genetic material and 18% of the chimps when they came up with the 98% similarity figure.²³ If chimps and humans are significantly more than 1–2% different, as the data show they are, then there is not enough time in the supposed evolutionary timeline for that many changes to occur. It's a gap evolution can't bridge.

Ardipithecus ramidus (“Ardi”)

Suggested Videos:

www.genesisapologetics.com/ardi

Natural history museums everywhere display a line-up of ape-to-human icons that supposedly show how humans evolved from ape-like creatures millions of years ago. *Ardipithecus ramidus*, or “Ardi” is one of these famous icons, supposedly holding the “4 to 5 million years ago” time slot. Ardi is proudly displayed on the front cover of *Science* journal and school textbooks as if paleo experts are certain she holds a place in the evasive ape-to-human progression.

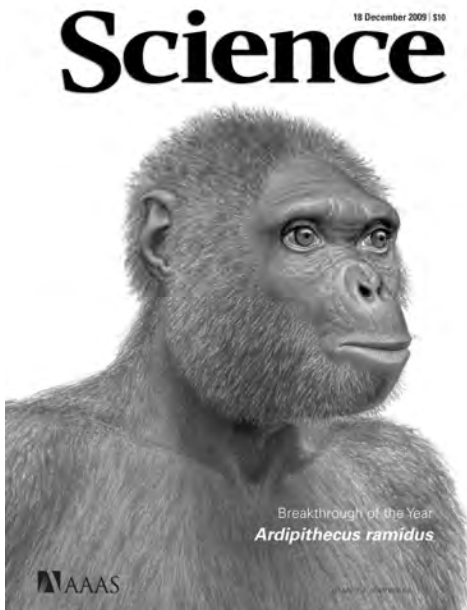


Figure 1. *Ardipithecus ramidus* (“Ardi”) on the cover of *Science*.²⁴



Figure 2. *Ardipithecus ramidus* (“Ardi”)²⁵

Did they find this complete skeleton as shown on the cover of the *Science* journal? Actually, no. This skeleton was reconstructed from over 110 bone pieces they found scattered over a 30-foot area, and it took them over a decade to put it together.²⁶ This picture is only a digital reconstruction of what they found. What they actually found were bone pieces they said were in “terrible condition” and “literally crumbled” when touched. Their lead scientist said Ardi was like “road kill.”²⁷

Let’s look at Ardi from head to toe. Her skull was found in 34 pulverized, scattered pieces that were compacted down to about one-and-a-half inches thick.²⁸ The skull of this tiny ape can fit into the palm of your hand like a softball and her brain was about the same size as bonobo or a female chimp.²⁹

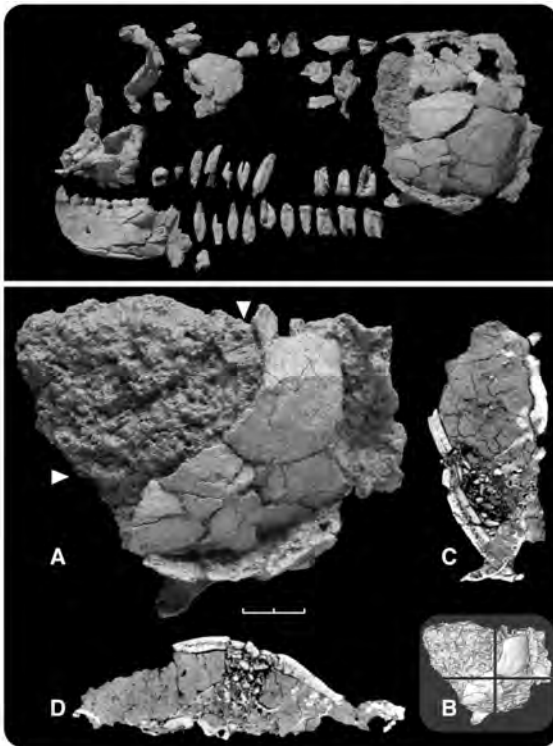


Figure 3. Ardi’s Skull³⁰

The researchers described the skull in their *Science* (2009) paper as “highly fragmented and distorted...many [recovered elements] were partially disintegrated by the silty clay sediment, and major structures were fragmentary and variably distorted.” Due to its fragile condition the skull could not be pieced together physically and so its reconstruction was approximated digitally.

Evolutionists have actually claimed that Ardi walked upright like humans, partially basing this idea on a few pieces of the base of her skull. But note that they are actually missing most of her foramen magnum, the hole where the spinal cord passes to the skull.³¹

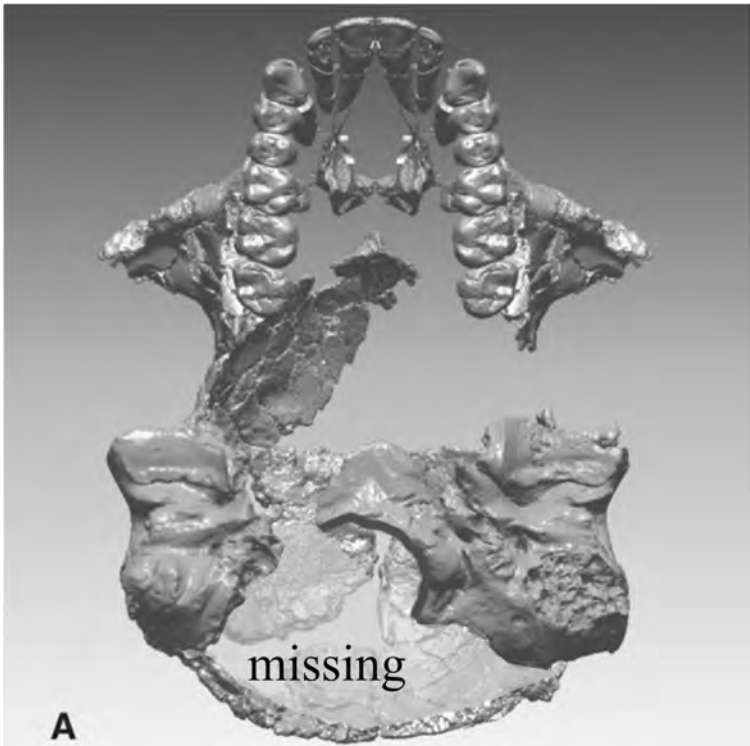


Figure 4. Ardi's Skull and Foramen Magnum (text and shapes added).³²

They also don't even have the last couple neck vertebrae that would have joined to the skull, relying on even more guesswork.³³ Evolutionists also claim Ardi walked upright because of a supposed "human-like curve" in her lower spine, called lumbar lordosis (see Figure 5). But how much of her lower spine did they find? Well—actually, none—so they estimated the curve of her spine based on her pelvis (see Figure 6).

Dr. Owen Lovejoy believes that her spine was probably long and curved like a human's rather than short and stiff like a chimp's, suggesting that she was an upright-walker.³⁴ We have four curves in our spines to facilitate upright walking, but chimps have only a slight bend over their whole spine, making them better for walking on all fours.

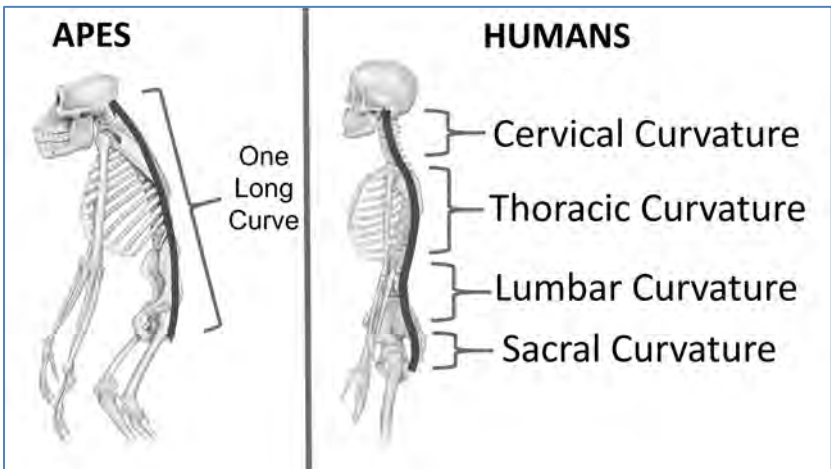


Figure 5. Ape vs. Human Spine Curvature.³⁵

Dr. Lovejoy based his belief about Ardi's curved spine on Ardi's reconstructed pelvis and his guess that Ardi had six lumbar vertebrae,³⁶ even when most apes have only three or four, and humans have five. But think about this—they don't even have *any* of Ardi's lumbar vertebrae. But this didn't stop them from adding some imaginary ones, giving her a couple

extra beyond what typical apes have, inserting an entirely imaginary spine—complete with a four-part curve like humans—and passing it up to the reconstructed base of her skull using imaginary neck vertebrae.

Even evolutionary scientists have great concerns about these speculations. In their paper published in *Nature*, Drs. Wood and Harrison stated: “The claim that Ardi was a facultative terrestrial biped [living in trees and also walking upright on the ground] is *vitiated* because it is based on *highly speculative inferences* about the presence of lumbar lordosis and on relatively few features of the pelvis and foot.”³⁷

So, if they’re also basing the belief that she walked upright on her pelvis, what was her pelvis like? Well, for starters, it was too badly broken and fragile to take out of the matrix it was in, so Dr. Lovejoy made a reconstruction based on his knowledge of primate anatomy and a Micro CT scanner. After 14 different possible configurations, they settled on the one shown in most reports.³⁸ Secular paleo-experts Drs. Wood and Harrison also expressed a great deal of concern about this—pointing out in a science journal that a whole lot of speculation went into the final pelvis reconstruction.³⁹ Dr. Jungers even said that choosing the “correct” pelvis reconstruction was like seeing images in an Rorschach inkblot test and was not convinced of its accuracy.⁴⁰

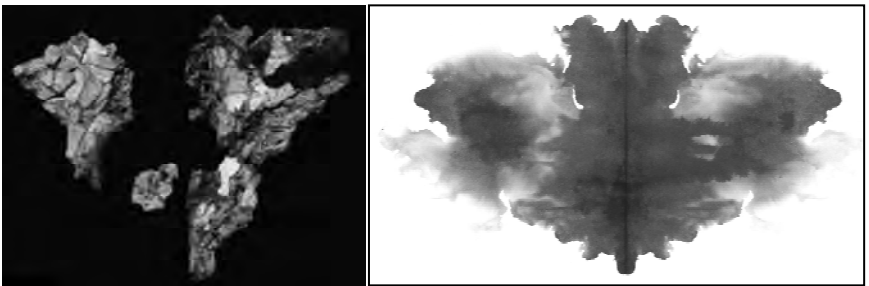


Figure 6. Ardi’s Pelvis vs. Rorschach Inkblot Test.⁴¹

Even Ardi’s hands and feet looked ape-like, with really curved, long fingers and short thumbs, which are very similar to

tree-dwelling apes of today that use them for getting around in trees. Her feet even had a grasping toe hanging off to the side (called a hallux), just like apes have today so they can use their feet like hands for grabbing branches while moving in trees (see Figure 7). Dr. White said that her toe "... really doesn't differ from apes, and that's the surprising thing. It is fully apelike." Wouldn't that be awkward—trying to walk on level ground with a big toe sticking out to the side?

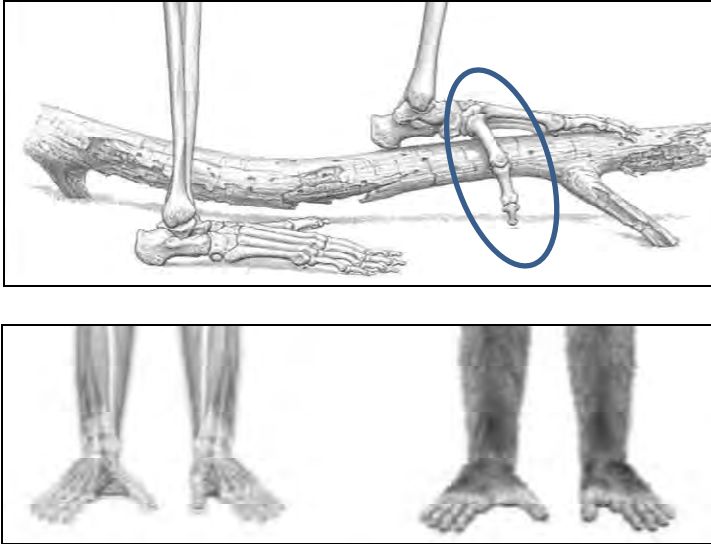


Figure 7. Ardi's Hallux⁴²

It sure doesn't add up that she's some early human ancestor: Ardi had a brain the size of a chimp, in a tiny head like a chimp's, with an imagined base of the skull and imagined, curved spine, but because of a bump on her pelvis, she was supposedly walking around like a human, with her giant toe sticking out to the side? And her hands were also ape-like. It looks like there's a lot of speculation going on here, and in some cases even exaggeration! It doesn't look like she'd be a good walker, but she'd probably get around in the trees just fine! When you put her next to a Bonobo, it sure seems like she fits into the ape family quite well (see Figure 8).

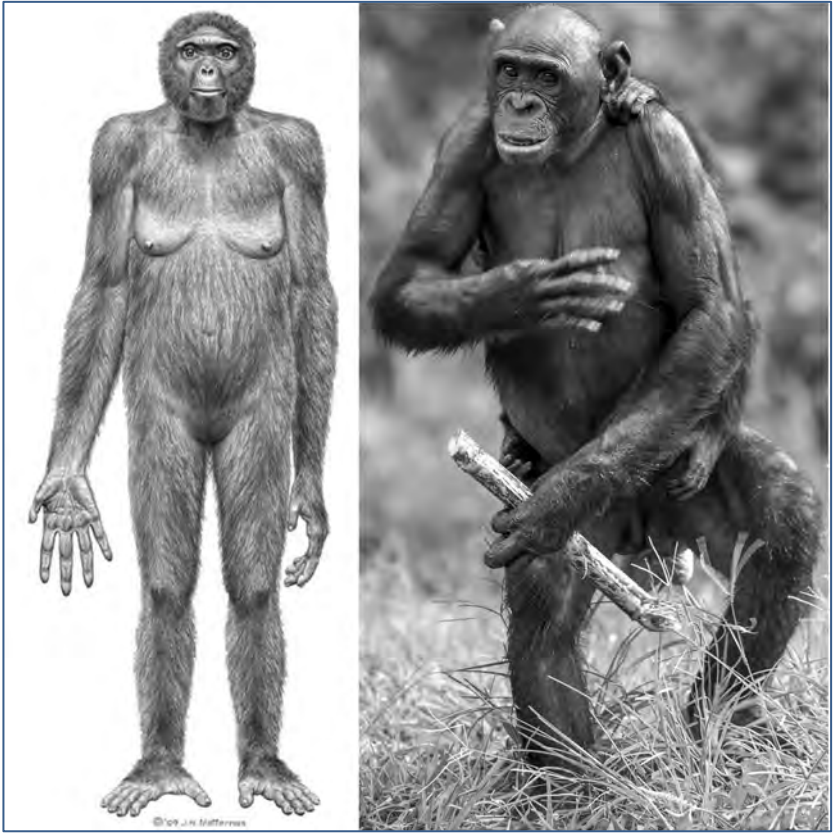


Figure 8. Ardi vs. Bonobo.⁴³

“Lucy” the *Australopithecus afarensis*

Suggested Videos:

www.genesisapologetics.com/lucy

Natural history museums everywhere display line-ups of ape-to-human icons that supposedly show how humans evolved from ape-like creatures millions of years ago. After the icon named “Ardi,” which evolutionists place in the “4 to 5 million years ago” time slot, the next ape-to-human icon is *Australopithecus afarensis*, with the leading specimen named “Lucy.”

To create the Lucy icon we see in museums, scientists took hundreds of bone pieces found scattered over a nine-foot area and glued them together to make 47 skeletal parts. Even though they sifted through 20 tons of sediment covering a 160-square foot area they only found about 20% of her bones if you count hand and feet bones, and they didn’t find any of those, except a tiny finger bone (see Figure 9).⁴⁴



Figure 9. Lucy Discovery Site. Over 20 tons of sediment covering a 160-square foot area was screened, which still only resulted in finding about 20% of her bones.

This doesn't stop Lucy from being displayed in school textbooks with complete, human-looking feet (see Figure 10).



Figure 10. Lucy in Public School Textbooks.⁴⁵

To further exaggerate Lucy's human-like appearance, some Lucy models don't even have body hair! (see Figure 11).



Figure 11. Hairless Lucy Walking with her “Family,” including Incorrect (Human) Feet and Hands.⁴⁶

There's no way to tell if all these bones are from the same creature, and they recently learned that at least one of Lucy's bones actually belonged to an extinct type of baboon. While this vertebra didn't even belong to Lucy or her kind, it's still included in Lucy displays all over the world.

In 2015, press releases started coming out and showing that, even after 40 years of study involving hundreds of scientists, one of Lucy's bones (a vertebra) didn't even belong to her (see Figure 12).⁴⁷ In fact, it didn't even belong to Lucy's species, but was from a *Theropithecus*, a type of extinct baboon. Does that make you wonder if we're really dealing with bones from a single individual with Lucy? Especially when Lucy was

put together from hundreds of bone fragments that were found scattered along a hillside?⁴⁸

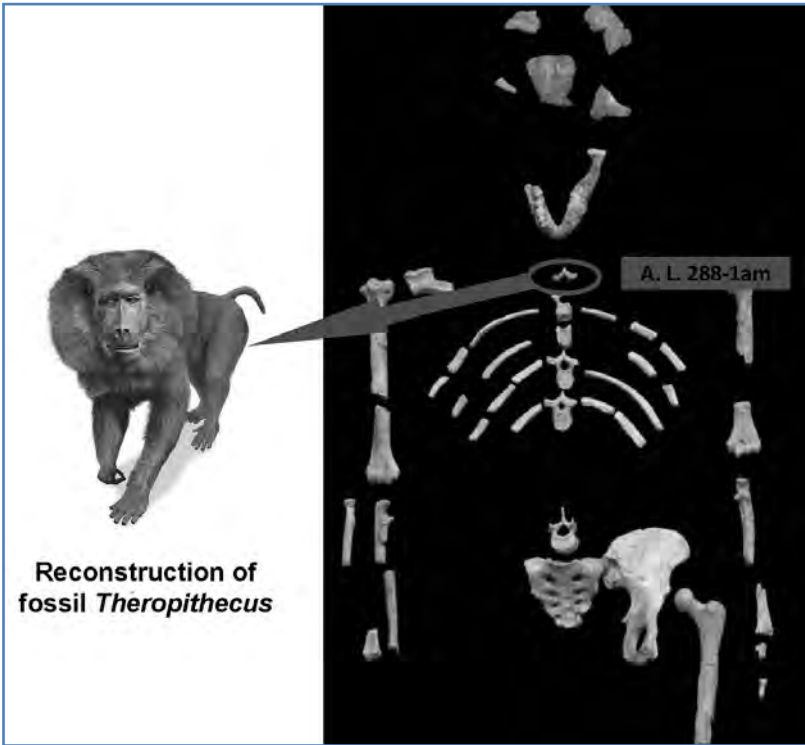


Figure 12. Lucy’s “Extra” Vertebra.⁴⁹

They believe Lucy was an adult female that weighed 55 to 65 pounds and stood 3-1/2 feet tall—right about the same size as today’s chimps or bonobos.⁵⁰ After gluing Lucy’s hundreds of bone pieces into 47 parts and creating models of what they think Lucy looked like, evolutionists came up with some surprisingly human-like creatures, with most models even including complete hands and feet (even though they didn’t find Lucy’s hands or feet).



Figure 13. Lucy at Public Exhibits. Lucy at the St. Louis Zoo (Left) and at the Denver Museum of Nature and Science (Right).⁵¹

Most Lucy models even include white sclera on the eyes, which no apes have, except for some that have a small rim of eye whites. This sure exaggerates Lucy's human-like appearance in museum displays and books. Lucy's complete head and skull are shown in museums and school textbooks across America, but all they found of her skull were just the few brown pieces shown in Figure 14. All the rest is imagination.

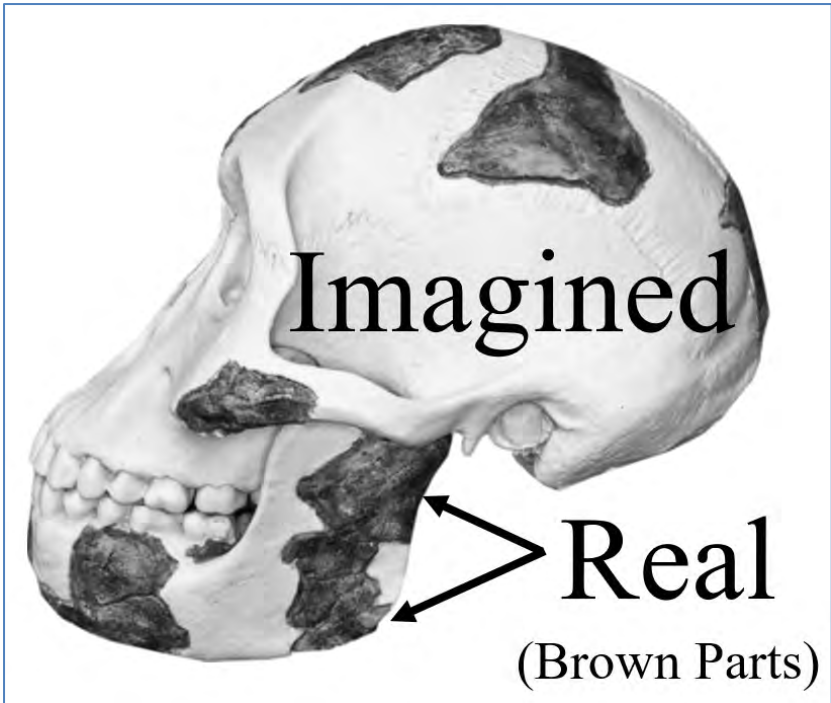


Figure 14. Lucy's Skull Reconstruction. Notice that the brown parts are what they found; the white parts used to fill in most of the skull are imagined.⁵²

As leading paleo expert Dr. Leakey noted: "Lucy's skull was so incomplete that most of it was imagination made of plaster of Paris, thus making it impossible to draw any firm conclusion about what species she belonged to."⁵³

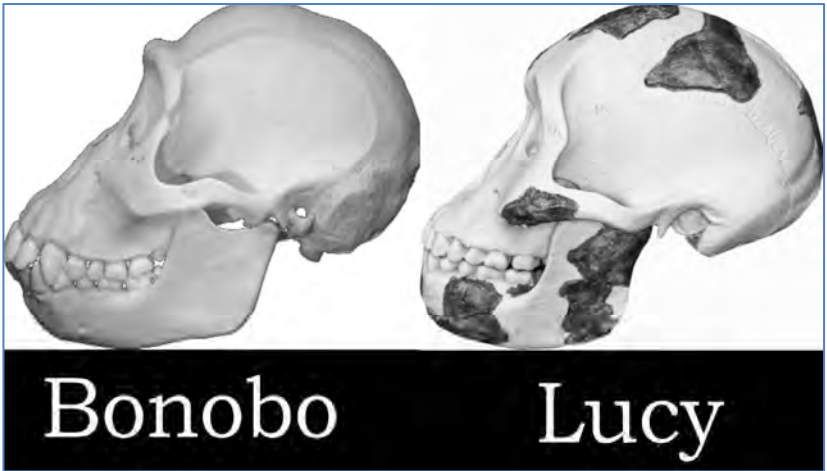


Figure 15. Lucy's Skull Profile Compared to a Living Bonobo.⁵⁴

Notice Lucy's skull is sloped and ape-like. It's also the size and shape that closely resembles a modern bonobo (a cousin to the chimp). Lucy's brain was just one third the size of a human's, making it the same size as the average chimp's.⁵⁵ Paleo expert Dr. Zuckerman said that "The Australopithecine skull is in fact so overwhelmingly ape-like, as opposed to human that the contrary position could be equated to an assertion that black is white."⁵⁶

The foramen magnum is the hole in the bottom of the skull where the top of the spinal cord enters. The angle at which the spinal cord entered the foramen magnum of Lucy's species is nearly identical to a chimp's—indicating that Lucy's species walked hunched-over on all fours.⁵⁷

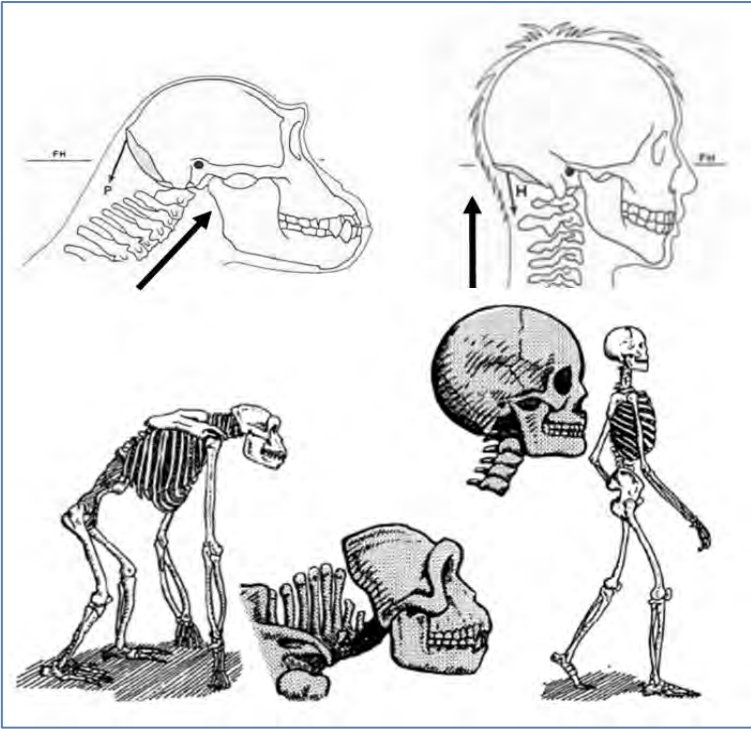


Figure 16. Foramen Magnum Angle and Walking Angle Comparison (Chimps to Humans).⁵⁸

One study conducted by evolutionary scientists showed that the angle of the foramen magnum of Lucy’s species was “well below the range for our sample of modern humans but overlaps the low end of the range for position between modern apes and humans, but closer to the former (chimpanzees, specifically).”⁵⁹

Evolutionists claim that Lucy supposedly walked upright like humans. But how could this be true when her spine entered the base of her skull at an angle just like chimps today, putting her into a hunched over position? And her face was just as sloped as chimps today—so even if she tried walking upright and looked down, she’d be looking at her nose! Chimps can walk upright, but only for short distances. Our spines enter into the middle of the base of our skulls at a relatively straight angle

so we can walk upright with ease, turning our heads as we walk. But in both chimps and Lucy's kind, the spine enters more toward the rear of the skull and comes in slanted, forcing her to walk hunched over so she could see where she's going.

Skull scans of Lucy's kind have found another big problem with the idea that they walked upright. They found that their inner ears resemble those of African apes today⁶⁰ and were "more like chimps than modern humans," leaving even evolutionary scientists to admit her kind was best suited for "facultative bipedalism,"⁶¹ or walking occasionally on two feet like chimps do today.⁶²

Humans have three semicircular canals embedded deep within our ears that are integrated with our brains, heads, and eyes to keep us balanced as we move. Apes' semicircular canals orient to their up-tilted heads. To investigate how these semicircular canals are involved in the movement of various creatures, scientists have studied them in depth using advanced scanning techniques and making measurements of their different structures. Australopithecines, as well as other living and non-living apes, all have semicircular canals that fit ape-oriented heads that fit bodies designed for walking on all fours, whereas humans semicircular canals match upright, two-legged locomotion.

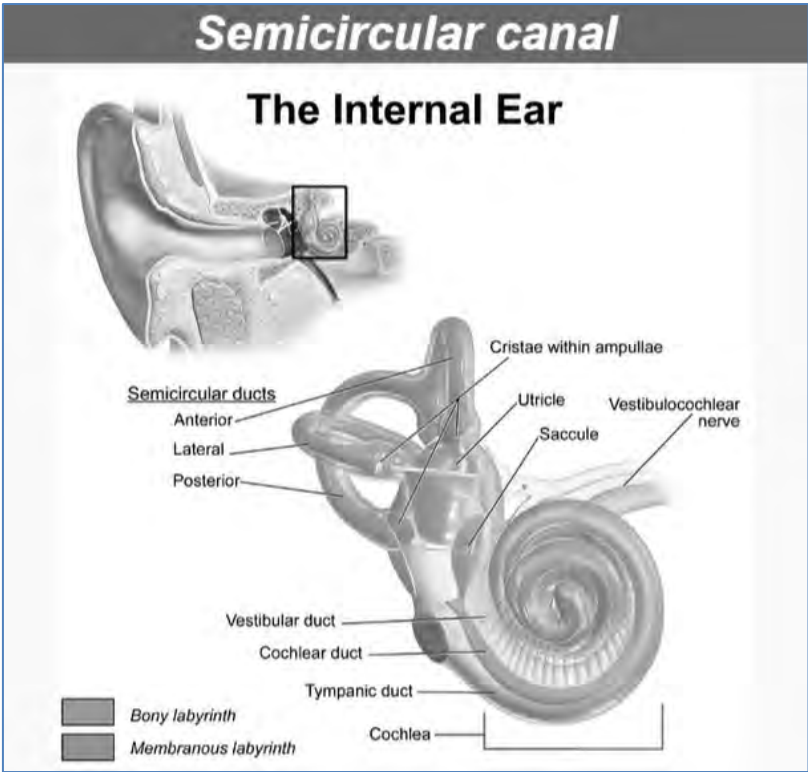


Figure 17. Semicircular Canal⁶³

In particular, they learned that the semicircular canals of australopithecines were best suited for “facultative bipedalism,”⁶⁴ which means walking occasionally on two feet, just like many apes walk today. While this study focused on *Australopithecus africanus*—and Lucy’s species has been labeled *Australopithecus afarensis*—they are anatomically similar.⁶⁵

What about Lucy’s species specifically? Dr. Bernard Wood conducted a study that revealed that the semicircular canals of Lucy’s species “were more like those of chimpanzees than of modern humans. The fluid-filled semicircular canals are crucial in maintaining balance, and so all three lines of evidence suggest that the locomotion of *Australopithecus afarensis* was

unlikely to have been restricted to walking on two feet”⁶⁶ (emphasis added).

Another report in the leading secular science journal *Scientific American*⁶⁷ reviewed the research conducted on a baby *Australopithecus afarensis*, stating: “Using computed tomographic imaging, the team was able to glimpse her semicircular canal system, which is important for maintaining balance. The researchers determined that the infant’s semicircular canals resemble those of African apes and another australopithecine, *A. africanus*. This, they suggest, could indicate that *A. afarensis* was not as fast and agile on two legs as we modern humans are.”

One fascinating aspect of semicircular canals is that, while they all work together, each of them provides a separate sense of directional balance: “The superior canal [or anterior canal] detects head rotations on the anterior-posterior (side-to-side movement, like tilting the head toward the shoulders) axis. The posterior canal detects rotations on the sagittal plane (forward and backward movement, like doing sit-ups). The horizontal canal senses movement on a vertical basis, as the head rotates up-and-down on the neck.”⁶⁸

It just so happens that the two same canals that are most involved for helping us walk upright are the two canals that are *statistically significantly different*⁶⁹ between humans and chimps. Lucy’s species clearly identifies with chimps. Dr. Spoor noted that two of the three semicircular canals in particular coordinate “upright bipedal behavior” because they are involved in “movements in the vertical plane” (i.e., upright walking).⁷⁰ Drs. Day and Fitzpatrick agree with this, stating: “The anterior and posterior canals of the human vestibular organs are enlarged in size relative to the horizontal canal whereas the three canals are more equal in size in other species. The significance of this is that the anterior and posterior canals are orientated to sense rotation in the vertical planes, *the movements that are important for controlling upright balance*”⁷¹ (emphasis added).

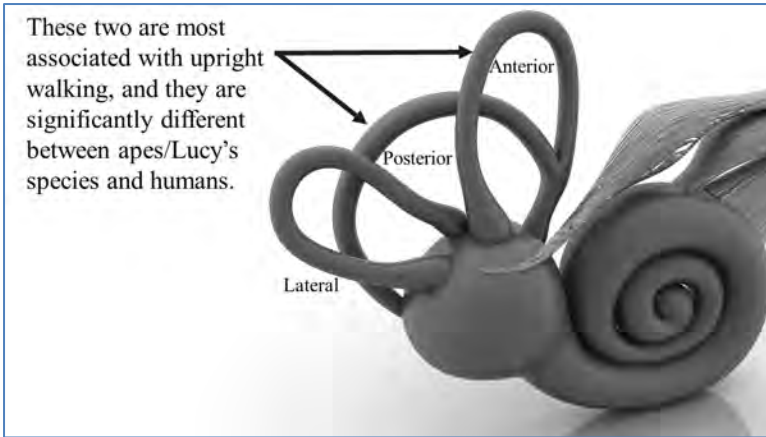


Figure 18. Semicircular Canals

What difference does this make? Well, think about it this way: If you had your semicircular canals surgically replaced with a chimp's, at the very least, you'd be really disoriented! Your head would feel level only when you were looking to the sky. You wouldn't be able to run with as much ease as you have now, since the same two semicircular canals that are significantly different between apes and humans help stabilize your head when running.⁷²

Next, we'll take a look at the fingers of Lucy's species. Comparison of various apes, humans, and Lucy's species' finger curvatures reveal some major differences. Even evolutionary scientists have admitted that the curved fingers of Lucy's species were best suited for swinging in trees.⁷³ One study statistically compared various finger measurements from several different types of apes against humans, and grouped the fingers of Lucy's species in the same category as chimps and bonobos, and far away from human's straight fingers (see Figures 19 and 20).

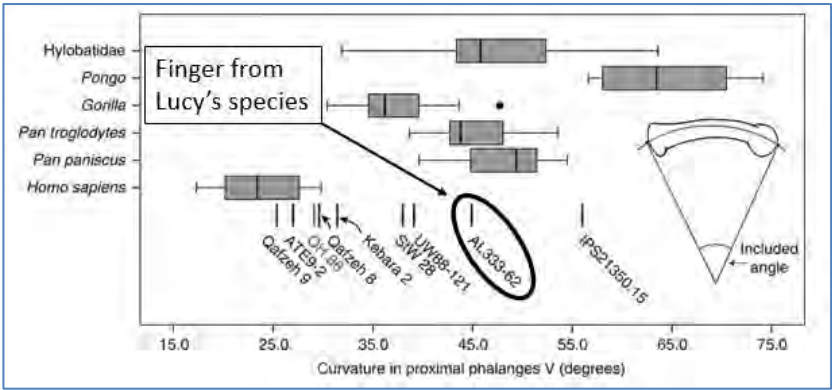


Figure 19. Finger Curvature Study Revealing Lucy's Species is Categorized with Chimps and Gorillas.⁷⁴

Figure 20 shows a finger from one of Lucy's species, showing significant curvature compared to human fingers, which are not curved.



Figure 20. Finger from Lucy's Species Compared to Human Finger.⁷⁵

Other examples of *australopithecine* apes had curved fingers and ape-like limb proportions that point toward her kind as living in trees, so the same was probably true of Lucy.⁷⁶

Apes have long hands
with curved fingers for living
in trees and locking wrists
for knuckle walking



Figure 21. Human and Chimp Hands.

Lucy had a *locking* wrist system for walking on all fours. This locking system included ledges and notches that are classic features for knuckle-walking apes and are not found in humans.⁷⁷ This has been widely reported in both scientific journals as well as the general media. For example, even the *San Diego Union Tribune* reported, “A chance discovery made by looking at a cast of the bones of ‘Lucy,’ the most famous fossil of *Australopithecus afarensis*, shows her wrist was stiff, like a chimpanzee’s, Brian Richmond and David Strait of George Washington University in Washington, D.C., reported. This suggests that her ancestors walked on their knuckles.”⁷⁸ The study conducted by these scientists concluded: “Measurements of the shape of wristbones (distal radius) showed that Lucy’s type were knuckle walkers, similar to gorillas.”⁷⁹

When interviewed about their study (published in *Nature*) they stated: “It suddenly occurred to me that paleoanthropologists had never looked at the wrists of Lucy or other important early human ancestors discovered since the early papers were published....” so while they were visiting the Smithsonian, they went to the cast collection, inspected Lucy’s radius [forearm bone], and found that she had the “classic

knuckle-walking feature.” This became obvious when they “saw a ridge of bone on the lower forearm that prevented Lucy’s wrist, like that of a chimpanzee or gorilla, from rocking backward, but allowed it to lock in an upright position for easy knuckle-walking.”⁸⁰ Figure 22 highlights this “locking wrist” feature they found on Lucy’s bones.

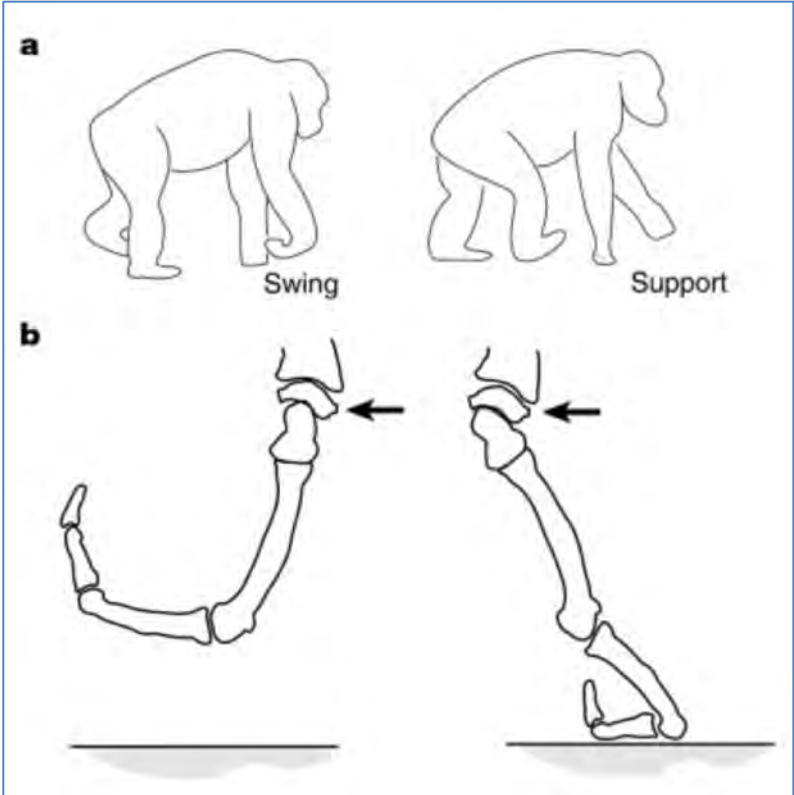


Figure 22. Lucy’s Locking Wrist.⁸¹

The study conducted by Richmond and Strait revealed that Lucy had the same concave arm bone that joined with her convex wrist, creating a locking system that allowed for both swinging and stable knuckle-walking (as shown in Figure 23).

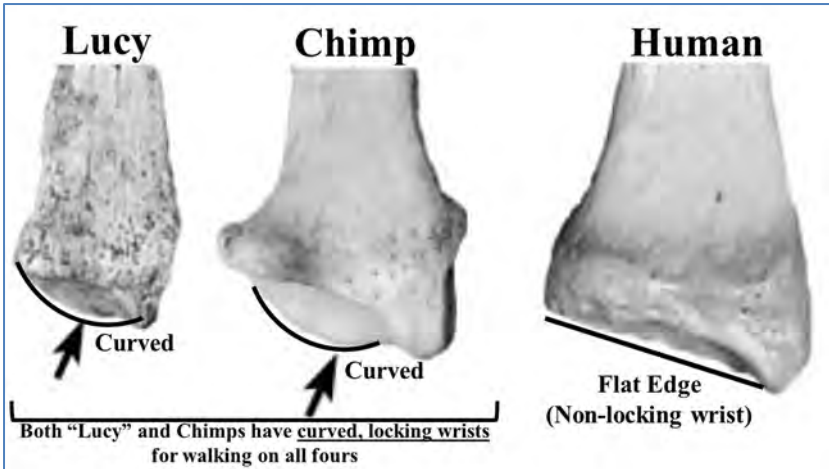


Figure 23. Lucy's Locking Wrist.⁸²

Figure 23 shows a close-up view from the study. The arm bone on the far left is from Lucy; the one in the middle is from a chimp; and the one on the far right is human. Notice how Lucy's bone matches the chimp's—they both have the convex shape that allows the wrist to lock into place for knuckle walking. Humans do not have any angle for this whatsoever because we're not designed for walking on our hands!

Next, on to Lucy's feet. One of the most profound stretches made by evolutionists involve Lucy's missing feet and the Laetoli footprints that were found 1,000 miles away from where Lucy was excavated. Remember, they didn't even find Lucy's feet—and all the foot bones they believe are from Lucy's kind can fit into a small lunch box. But this doesn't stop natural history museums from showing Lucy walking around with perfectly human feet and claiming that Lucy's kind made the footprints, even though they widely admit the footprints look *exactly* like a human's. Just how was Lucy—or her friends or cousins—supposed to make these footprints when the footprints look *completely human*, with some of them over 10 inches long?⁸³ That's a size 9.5 shoe and a person that was likely 5 feet 9 inches tall. Remember—Lucy was only three and a half feet tall. Even if these footprints were made by a massive

male of Lucy's kind that was five-nine with huge 10-inch feet, that's 65% taller than Lucy. How much sense does that make—especially when males and females of Lucy's closest look-alike today—bonobos—are about the same height?⁸⁴ That's putting some big, human-looking feet on this little creature! It sounds more like the human footprints were made by humans, and the dating timeline is off—*way off*.

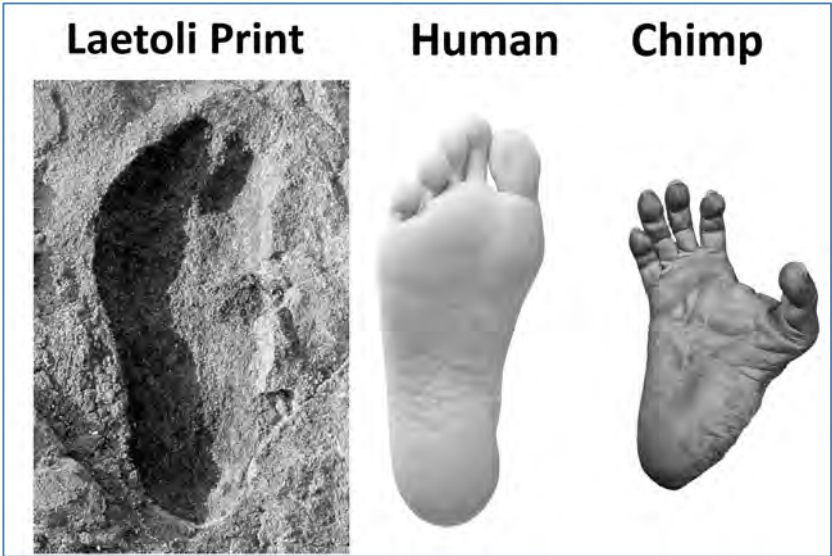


Figure 24. Laetoli Prints and Human / Chimp Feet.⁸⁵

They also found 13 fossils in that region which they classified in the genus *Homo* because they looked human-like.⁸⁶ So... if the footprints look unmistakably human and human-looking bones were found closer to the footprints than Lucy's kind, wouldn't it make more sense that the footprints were actually made by humans?

In fact, anatomically modern human footprints were just found in western Crete that "dated" to 5.7 million years old.⁸⁷ The article states: "At approximately 5.7 million years old, they are more than a million years older than *Ardipithecus ramidus* with its ape-like feet. This conflicts with the hypothesis that

Ardipithecus is a direct ancestor of later hominins.” These human footprints pre-date *both* Ardi *and* Lucy. It sure seems like the ape-to-man story doesn’t line up with deep time, with these footprints dating to a time before upright walking was supposed to happen. It’s more likely that these ape-like creatures died in ice age flooding just thousands of years ago.

So—to recap: Lucy is based on hundreds of bone pieces glued together to make a fragmented skeleton with about 20% of her bones. She was pulled out of 20 tons of sifted dirt over a 160-foot area. She was the size and weight of a chimp or bonobo, had a brain the size of a chimp, and inner ears for balancing like a chimp—not walking like humans. And somehow—after she’s paraded around in museums and school textbooks for 20 years—they find out that she has a vertebra of an extinct baboon and locking wrists like other apes. Today scientists are still arguing about basic things—like even her gender, publishing articles like “Lucy or Lucifer?”⁸⁸ and “Lucy or Brucey?”⁸⁹

Just a few years ago CNN reported on a study that showed Lucy most likely died by falling 40 feet out of a tree, traveling at 35 miles per hour when she hit the ground!⁹⁰ So what’s this little ape—that was supposedly walking upright—doing 40 feet up in a tree? That’s ironic. Yet when millions of students every year see Lucy in museums and textbooks, she is shown with complete, human-like hands and feet, human-like eyes, and walking upright with human-like gazes and poses. Sometimes they even remove Lucy’s body hair, trying to make her appear even more humanlike (see Figure 11). There’s a whole line-up of secular paleo experts who have similar concerns about Lucy. Dr. Oxnard in the *The Order of Man* wrote “Australopithecines ... are now irrevocably removed from a place in the evolution of human bipedalism ... All this should make us wonder about the usual presentation of human evolution in introductory textbooks.”⁹¹ Dr. Herbert says that his fellow paleoanthropologists “compare the pygmy chimps to ‘Lucy,’ one of the oldest hominid fossils known, and finds the

similarities striking. They are almost identical in body size, in stature and in brain size.”⁹²

So... just what was Lucy? Lucy and other australopithecines are extinct apes—just like many other ape species that have gone extinct. She walked on all fours, ate the foods that apes eat, and lived among other animals that are like those that live around apes today, including 87 other animal species, such as elephants, antelope, rhino, hippos, and numerous other African animals.

Homo habilis

Suggested Videos:

www.genesisapologetics.com/homohabilis

Natural history museums everywhere line-up ape-to-human icons that supposedly show humans evolving from ape-like creatures over millions of years. After the icon named “Lucy,” which evolutionists place in the “3 to 4 million years ago” time slot, the next ape-to-human icon is *Homo habilis*. This creature fits into evolution’s timeline about 1.4 to 2.4 million years ago, taking the slot right before *Homo erectus* supposedly appears on the scene.⁹³

Before looking at this icon, let’s consider something very interesting about this stage in evolution’s timeline. According to the current theory of human evolution, the time slot between 2 and 3 million years ago has **almost no fossil evidence** to support it. A *National Geographic* article puts it this way: “Fossils attributed to *Homo* in the period two to three million years ago are exceedingly rare.” Quoting Dr. Kimbel, director of the Institute of Human Origins at Arizona State University, the article states: “You could put them all into a small shoe box and still have room for a good pair of shoes.”⁹⁴



Figure 25. All the fossils that supposedly show the ape-to-human evolution in the 2–3 million-year timeslot can fit into a shoebox, with room left for the shoes.

It's hard to imagine evolution pressing ahead for one million years with only a shoebox of bones to show for it. That's a long time to go without any supposed "transitions" between apes to humans, don't you think?

Charles Darwin even said "... as by evolution theory, innumerable transitional forms must have existed, why do we not find them embedded in countless numbers in the crust of the Earth?" He also said, "Why is not every geological formation and every stratum full of such intermediate links? Geology assuredly does not reveal any such finely graduated organic chain; and this is the most obvious and serious objection which can be urged against the theory." Darwin expected there would be more evidence for his theory in the future, but after more than 150 years of digging since his time, the fossil record of supposed human evolution is still very, very scant. In fact, according to Dr. Tattersall, the Curator of the Anthropology Department at the American Museum of Natural History, the entire ape-to-human fossil record could "fit into the back of a

pickup truck if you didn't mind how much you jumbled everything up.”

Inventing a new icon, *Homo habilis*, hasn't helped with this scarcity problem at all. In fact, did you know that they've never even discovered a *Homo habilis* skeleton? This species was invented to categorize bone pieces—which total less than 100 small specimens⁹⁵—into an ape-to-human transitional form they believe was becoming more handy with stone tools,⁹⁶ hence the name “handy man.” While they've never found anything even close to a complete *Homo habilis* creature, that hasn't stopped them from displaying complete human-looking versions of it in museums and textbooks everywhere (see Figure 26 for examples).



Figure 26. *Homo habilis* Renderings.⁹⁷

In fact, the best set of bones they have for this icon, which they refer to as the official “type specimen”⁹⁸ consists of just a jawbone with 13 teeth, a molar, a couple of skull fragments, and 21 finger, hand, and wrist bones.⁹⁹



Figure 27. *Homo habilis* “Type Set” (OH 7).¹⁰⁰

These bone pieces were collected from a widely excavated area that was mixed with bones from cow, pig, horse, tortoise, catfish, and bird bones. After further study, however, this “defining specimen” turned out to be a mixture of bones from different animals, with 6 of the 21 finger bones belonging to a different creature, one of the finger bones mistaken for a vertebral fragment, and two others belonging to a monkey.

While the limited fossils belonging to this new *Homo habilis* icon were found with stone tools, evolutionists cannot be certain whether the stone tools were used **by** *Homo habilis*, or used **on** *Homo habilis* by humans. They were in fact found **broken apart** and **scattered** over a 1,300 square foot area *just like all the other butchered animal bones in the region*. It sure seems like humans were eating these creatures along with a lot of other types of animals. Think about the stone tools they found for a moment. The tools they discovered included choppers, polyhedrons, discoids, and many small tools like scrapers.¹⁰¹

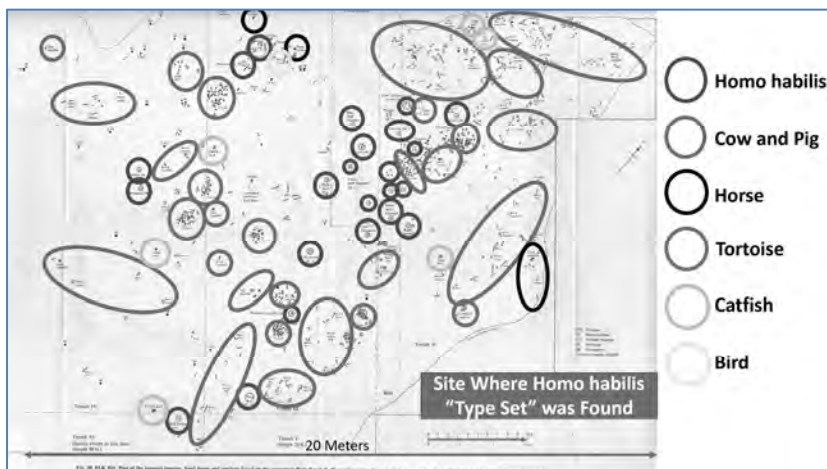


Figure 28. The “best type set” of *Homo habilis* bones were found spread out over a 1,300 square foot area mixed with other butchered animals remains scattered over this entire area.¹⁰²

The problem for evolutionists is that most of these tools were made from rocks that were quarried *miles away* from where they were used to butcher the dozens of animals found at the site, where thousands of animal bones were found pulled apart and unattached. Whoever used these tools knew what they were doing because they were all hand-sized and most were made from a certain type of rock called quartzite, which can be flaked to a razor-like edge. Your average person today would

have a really hard time making these tools! After identifying the right kind of rock, the rock has to be shaped using percussion and pressure tools, such as pointed hammerstones and cylindrical hammers (sometimes long bones). Plus, they would need to know how to make different types of tools for the various steps of removing food sources from animals, like meat and bone marrow.

But the clues don't end with stone tools. The evidence that humans were actually the inhabitants of this site is also confirmed by a 12-foot circular foundation¹⁰³ made of lava stones for a hut shelter they found in the same archeological bed where *Homo habilis* bones were found.

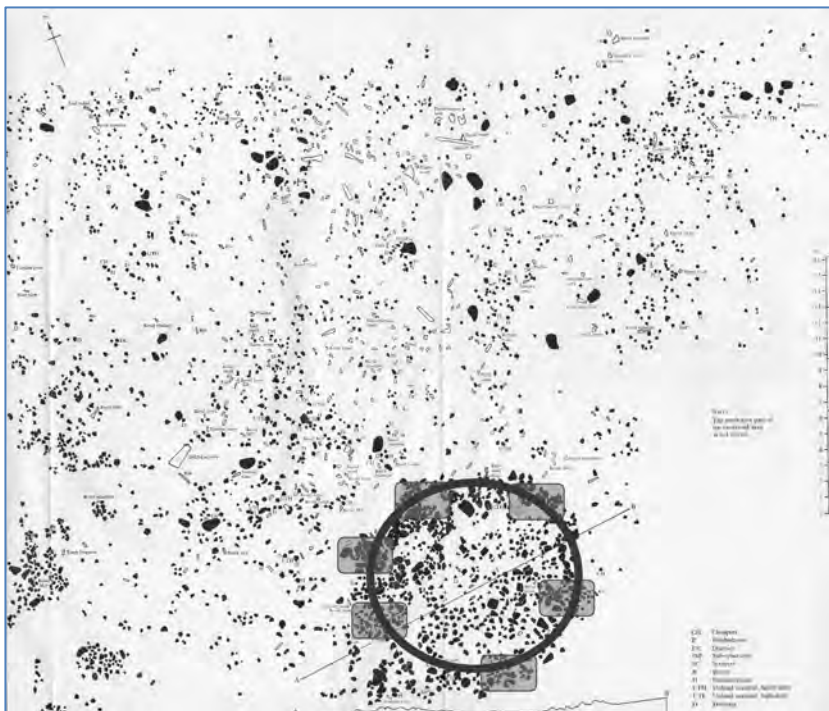


Figure 29. A 12-foot Circular Stone Hut Foundation Made of Lava Rocks. This structure had six heaps of stones spaced 2 to 2-1/2 feet apart for inserting support poles for hut. The objects outside the hut are discarded animal bones and stone tools.¹⁰⁴

Mary Leakey even described this circular stone foundation as having a “striking similarity” to the dome-shaped hut shelters still made today by nomadic people in the same area and included this photo in her book covering *Homo habilis*.



Figure 30. A rough shelter of branches and grass with stones supporting the bases of the branches, made by the Okombambi people of South West Africa, for comparison with the Stone Circle at the DK site.¹⁰⁵

The case for human evolution even worsens when considering that they actually found the stone circle in a layer beneath¹⁰⁶ *Homo habilis* bones! Now that’s not faring well for the theory of evolution because whoever was there working with tools and building huts was on the scene **before** *Homo*

habilis even showed up in the fossil record! This is exactly the opposite of what we would expect if evolution were true.

The 348 animal bones they found scattered around the hut included species from the crocodile, cow, hippo, elephant, horse, tortoise, giraffe, and pig families. And do you know how many they found inside the stone hut circle? Only 11 small fragments, which were mostly toes and teeth. Seems like the leftover pork chops were being thrown outside the living area!

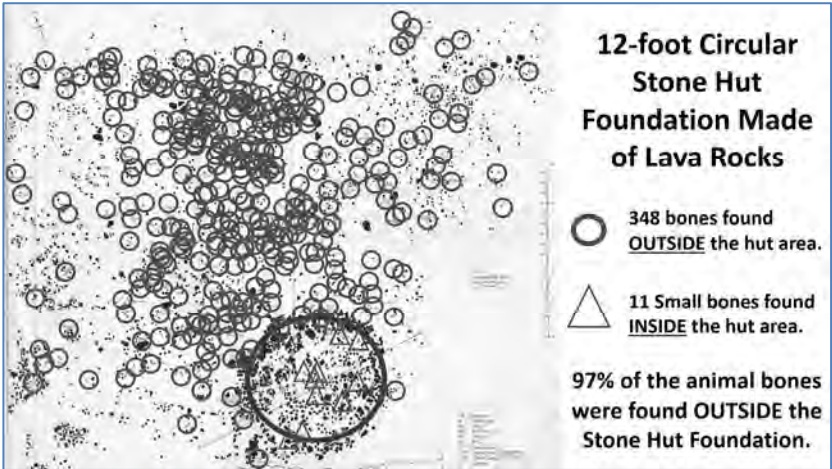


Figure 31. Bone discards (348) were found outside the hut, yet only 11 were found inside (mostly toes and teeth).¹⁰⁷

The other clue that this site was being inhabited by humans is that 48 of the 50 pieces of debitage—which are the leftover pieces of rock that get removed when stone tools are made—were found **outside** the stone hut foundation. Sounds like a human living area, doesn't it?

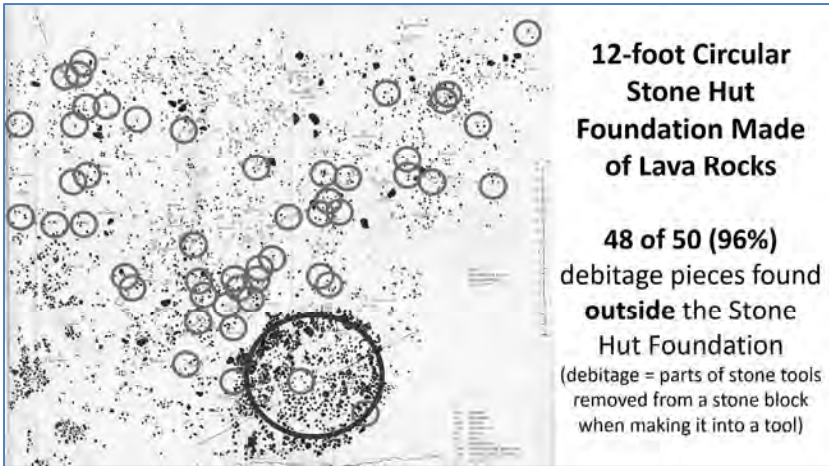


Figure 32. The vast majority (96%) of debitage (the leftover pieces of rock when stone tools are made) were found outside the stone hut foundation.¹⁰⁸

According to Mary Leakey, the lead paleo-expert over the site, said that the main evidence that the stone hut foundation was an “artificial” structure—meaning *man*-made (a term Mary Leakey actually used in her book)—was the six mounds of heaped rocks around the circle that were evidently used for support poles. She also remarked about the disproportionate number of bones and tools they found outside the hut and not inside, along with a two-foot buffer zone around the circle that was mostly clear of tools and bones.¹⁰⁹

The other amazing insight offered by the Leakeys—the very scientists who discovered *Homo habilis*—is that they found fossil evidence leading them to believe that *Australopithecus*, *Homo habilis*, and *Homo erectus* all lived at the same time!¹¹⁰ How is one species supposed to evolve into another over millions of years if the fossil evidence points to them living at the same time? Their position has perplexed many other evolutionary scientists, but they reported what they found: all three species discovered living at the same time.

Now all this data about *Homo habilis* isn’t holding up the theory of evolution very well. First, we have the issue of the

really, really limited data—with fewer than 100 bone pieces ever found.

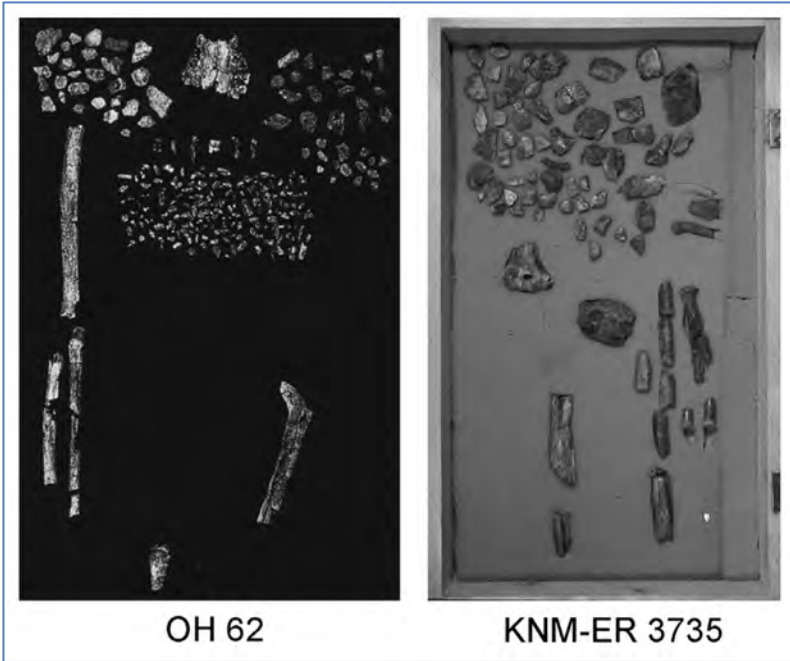


Figure 33. Two of the “best” *Homo habilis* fossil collections. OH 62 and KNM-ER 3735.¹¹¹

Then we have the obvious signs of human nomadic tribes living in the area who were setting up camp, living in huts, making specialized hand tools using special rocks found miles away, and butchering and eating animals—including apes—just like people have been doing for thousands of years.

Neanderthal Man

Suggested Videos:

www.genesisapologetics.com/neanderthals

The final icon in the parade of ape-to-human progression displayed in natural history museums is typically Neanderthals, holding the “40,000 to 400,000 years ago” time slot.¹¹² Just decades ago, Neanderthals were regarded in museums and textbooks as gorilla-like cavemen. This is because their fossils were viewed through an evolutionary lens, being framed as some type of “last step” between ape-like creatures and humans.

William King, the scientist who gave “Neanderthal Man” its name believed their “thoughts and desires never soared beyond those of a brute” and emphasized how their heavy brow ridges resembled those of chimps and gorillas.¹¹³ Another leading evolutionist, Ernst Haeckel, even proposed naming the species “*Homo stupidus*.” Textbook and newspaper articles displayed them for decades as half-ape, half-human beasts, complete with clubs and primitive expressions.

Now, just decades later, evolutionists have re-positioned this icon into the human family. In the span of just 100 years, Neanderthals have gone from brutish, club-wielding beasts to being portrayed as suit-wearing humans who would fit well into society today. From a biblical perspective, there is no such perspective change: they were just humans with distinct body-type characteristics just like people groups vary today.¹¹⁴ The evidence fits this perspective perfectly. They are found buried with people we would classify as “modern humans,” and jewelry, purses, artwork, and weaponry have been found in their graves.

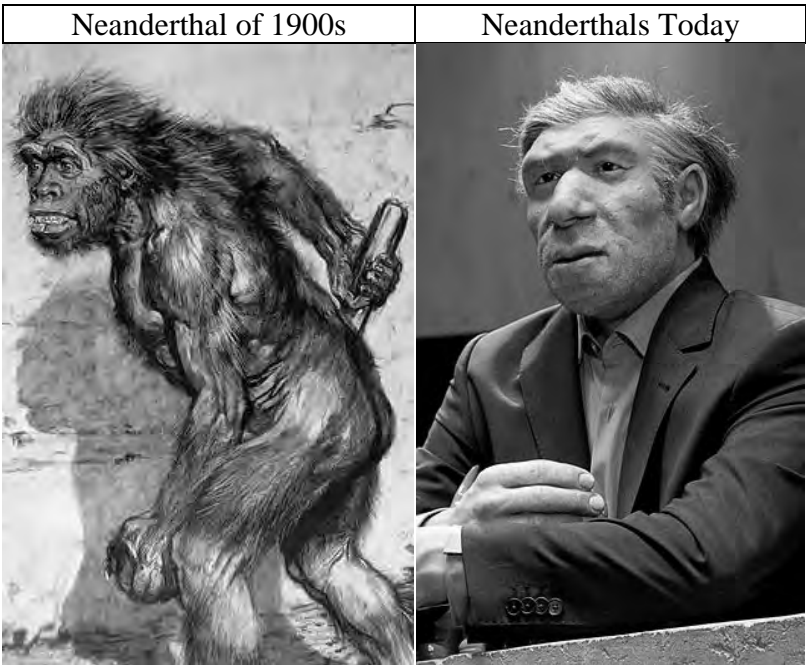


Figure 34. Changing perspectives of Neanderthals in just the last couple generations.¹¹⁵

A recent discovery even found that Neanderthals combed beaches and went diving to find certain shells to be used as tools.¹¹⁶

The New York Times

Neanderthals Could Swim. They Even Dived.

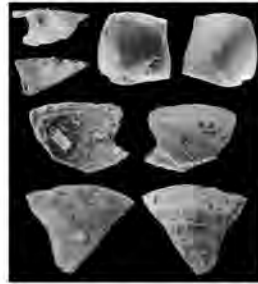


By Nicholas St. Fleur

Jan. 15, 2020

Shell tools found in a Neanderthal cave may have been retrieved from water as deep as 13 feet.

“Neanderthals collected seashells by the seashore. They also may have swum underwater to retrieve live clams to later shape into sharp tools and scrapers, according to new study.”



Fragments of tools used by Neanderthals recovered from the sea. Credit: Villal et al. 2020

Figure 35. Neanderthals Diving for Specific Shells.¹¹⁷

Scientists are still trying to replicate how they made an advanced type of glue for their weapons.¹¹⁸ This synthesized pitch was made using a process known by chemists today as “dry distillation,” and requires careful heat regulation and airtight pottery containers. Neanderthals were also great at making cordage and tying knots, controlling fire, preserving meat, tailoring clothes, and making shelters. They were not brutish, gorilla-like cavemen holding clubs as represented for decades. They were humans just like we are.

Though the evolutionary timeline has Neanderthals going extinct 30 to 40 thousand years ago, the latest DNA evidence shows that they never actually went extinct, but just assimilated into other human populations.¹¹⁹ We agree with the Director of the leading Neanderthal museum: “The irony is that the scientific community is going to have to come round to the acceptance that the Denisovans and the Neandertals also belonged to the species which we all call *Homo sapiens*.”¹²⁰

Human Family Tree and “March of Progress” Icon

Suggested Videos:

www.genesisapologetics.com/marchofprogress

Natural history museums and school textbooks display human evolution “trees” or “march of progress” infographics that supposedly show humans evolving from ape-like creatures over millions of years.

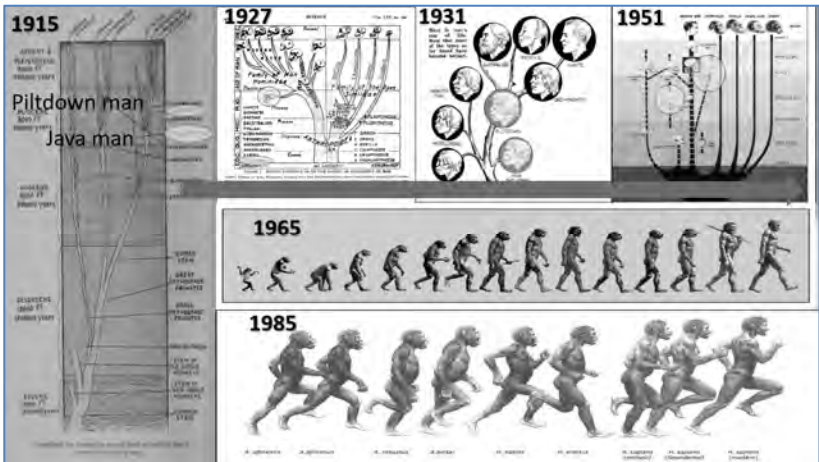


Figure 36. March of Progress Graphics Over the Centuries. (Note circled icons show Piltdown Man and Java Man carried through the decades).

When looking at these graphics over the last 100 years, it becomes really obvious how inconsistent these line-ups have been over the generations. Consider Piltdown Man, or *Eoanthropus dawsoni* which was based on a skull found in 1912. This was thought of as the official “missing link” between ape and man¹²¹ and portrayed in classrooms, textbooks,

and museums as one of the leading proofs of human evolution. It was even on the front cover of leading evolution textbooks for decades. However, it was exposed in 1953 as a forgery, after carrying the role of “missing link” for 41 years.

Java Man, or *Pithecanthropus erectus*, also played its role in the lineup, even though it was based on just a single tooth and a skullcap and thighbone found about a year apart and 50 feet from each other in east Java. Numerous museum exhibits and statues were made of this creature around the world.



Figure 37. Reconstruction of Java Man.¹²² The white parts of the skull and the facial reconstruction was based only on the skullcap, which is the dark part on the top.

Java Man toppled in the 1930s and 40s when other experts studied the bones and re-classified them as *Homo erectus*, a label given to fossils that are simply human but vary in shape and size as humans still do today.

It seems like people who want to believe in evolution are quick to jump on the smallest amount of “evidence” that supports their theory and run with it, publishing volumes about

such scant evidence. This is still true today with paleo-experts being incredibly motivated and well-funded to discover new fossils that paints the alleged ape-to-human connection.

For example, paleo-expert Dr. Lee Berger stated at his recent Google talk: “In the late 1990s, I was privileged enough to win the first National Geographic Prize for Research and Exploration. When I went to receive that medal in Washington, I was hauled up into those magnificent offices up on the top floor of National Geographic, sat across from Gilbert Grosvenor, the then CEO, and Bill Allen, the powerful editor of the magazine. And they said something that I hope all of you hear some time in your life. They said to me, “you can have anything you want, any amount of money you want, to do anything you want.”¹²³

Today you won't find a single human evolution tree or line-up that leading paleo-experts will agree on. But we can look at a few that have been published in leading sources. The one shown in Figure 38 was prepared by Professor Klein at Stanford and was published on the 200th anniversary of Darwin's birth to show how much we've learned about human evolution since Darwin's time.

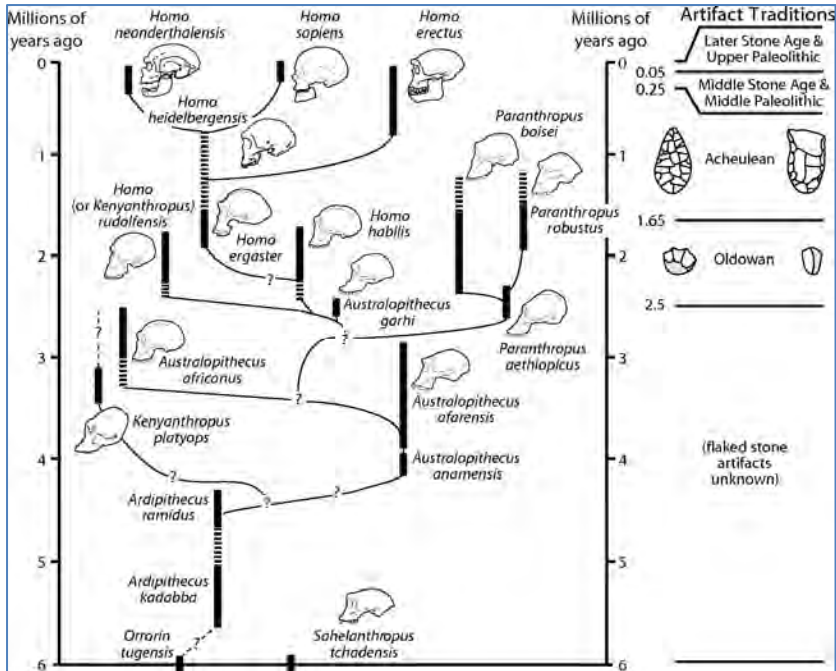


Figure 38. Human Evolution Tree.¹²⁴

Notice the eight question marks on the chart. These represent the “inferred relationships”—or guesses—between the different fossil icons. It’s the same with the dashed lines and thin solid lines—they show the theoretical evolutionary connections between the fossil icons. These question marks, dashed lines, and thin solid lines are all based on *guess work*. If you take a close look at this chart, you’ll find there’s no fossil evidence connecting Ardi to *A. Afarensis*; none connecting *A. Afarensis* to *H. habilis*; none connecting *H. habilis* to *H. ergaster* or *H. erectus*, and no fossil evidence whatsoever connecting them to *Homo sapiens* through some “intermediate” form. The solid lines drawn from the early *Australopithecine* apes to the first humans is all speculation and inference.



Figure. 39 Latest Ideas about Human Evolution. Evolutionary ideas regarding human origins are surprisingly complicated.¹²⁵

Figure 39 shows the latest tree from *Scientific American*. Its branches have more than a dozen breaks that connect the fossil icons. The bars represent actual fossil data. The breaks represent the inferences or guesses. It sure looks more like a broken apart bush than a clear tree of evolution leading from apes to humans.

The idea of human evolution is one of the most fluid, ever-changing theories on the face of the planet. It seems like there’s a new story for each generation. Articles and studies keep coming out with headlines like, “We still have not found the missing link between us and apes”¹²⁶ and “The Human-Ape Missing Link is Still Missing”¹²⁷ and new fossils keep “redrawing the human evolution tree” and “pushing back” supposed human evolution hundreds of thousands of years.¹²⁸

Harvard scientist Dr. Pilbeam¹²⁹ made a good point when he said, “If you brought in a smart scientist from another discipline and showed him the meagre evidence we’ve got for

human evolution he'd surely say, 'forget it: there isn't enough to go on.'"¹³⁰ It makes much more sense that humans were put here by God in complete, functioning form. We did not *evolve* into the image of God, we were *made* in the image of God, drawn from the dust, and given the dominion charge to be stewards over the Earth.

If we evolved, then how can things like the human conscience be explained? And what about all the “all or nothing” systems we have, like our complex five-part hearing system that has mechanical, hydraulic, chemical, and electrical systems that all work together in perfect unison?

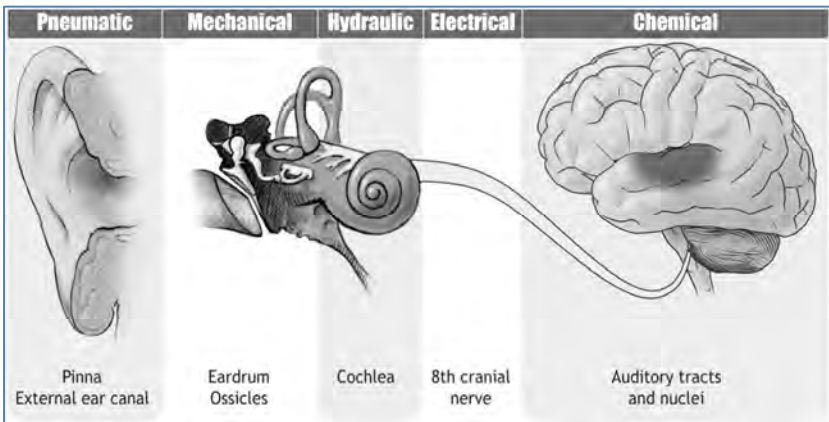


Figure 40. Five-part Human Hearing System.

And what about the complexities of the eye? And which evolved first, the blood, veins, or a pumping heart? All three are needed *at the same time* for the system to work. And what about blood coagulation? There are five really complicated, automatic systems that our bodies put into motion the second we are cut that automatically stop bleeding. Without that entire, stepwise system in place—right from the start—every person would have bled to death after their first cut, leaving no way for evolution to proceed. All these things had to be in place at the same time for everything to work! Truly, we are fearfully and wonderfully made.

Darwin's Finches

Suggested Videos:

www.genesisapologetics.com/darwinsfinches

Natural history museums everywhere feature the work and ideas of Charles Darwin, whom many would call the father of evolutionary theory. So—what's Darwin's best shot? I mean, what is the number one “proof” of evolution that he's offered the world? Well, if you look in museums and textbooks, that's quite obvious—it's Darwin's finches.

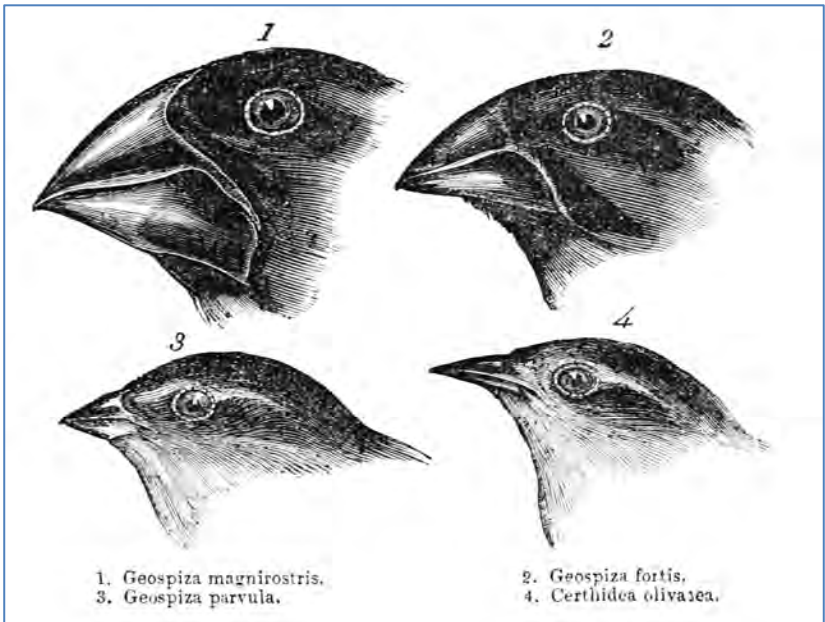


Figure 41. Darwin's Finches.¹³¹

Just how do these finches support the idea of evolution? Well, when Darwin visited the Galápagos Islands in the 1830s,

he observed that the sizes and shapes of the finch beaks tended to vary island by island. He believed that this was evidence of “evolution” by nature selecting the birds with favorable adaptations—like their beak types—to survive and reproduce because they were better suited for gathering the different types of food sources available on the various islands.

But think about this for a minute—what Darwin actually observed was that the finch beak sizes and shapes differed based on where the finches lived. So—were these birds just adapting to their environment and food sources within their own, God-prescribed genetic programming, or were they “evolving”?

Darwin believed that adding millions of years to such minor changes in creatures could eventually lead to the evolution of new “kinds” of creatures. And this belief is just that—a belief based on faith and speculation. In fact, in four to five thousand years of recorded history, no one has ever seen this happen—one kind turning into another kind. All we see is exactly what’s prescribed in Genesis: animals produce after their own “kinds.”

Sure, we see plenty of variety, like over 300 different dog breeds that are all inter-fertile within the dog “kind,” and the same with over 300 breeds of horses. We see this variety because God pre-programmed the mechanisms in our genes to turn on and off certain instructions based on our environment and diet—that’s all. It’s not evolution leading from one kind to another—it’s adaptation *within* kinds—a big difference.

In fact, the Biblical case gets even stronger when it’s lined up with modern, observational science. Recent studies have shown that Darwin’s finches never actually did support his evolutionary ideas.

The most recent breakthrough was published in 2017 in the journal titled *Evolutionary Biology*. This study tracked over 1,000 finches that lived in either rural or urban environments to find out how and why their beak sizes and shapes can differ based on where they lived. The studies revealed that significant differences in beak depth and width between urban and rural

populations of finches were caused by “epigenetic mechanisms,” such as DNA methylation. Methyl “tags” change the way a gene is expressed without any changes to its DNA sequence. This highly regulated mechanism enables rapid adaptation of finch beaks and other traits to fit their new environments, even within a couple of generations.¹³²

So, rather than Darwin’s evolutionary ideas of “natural selection”¹³³ explaining the changes in finches, the changes are actually evidence for an intelligent “Master Engineer” who designed creatures with built-in adaptive mechanisms that turn on and off certain features as they continuously experience environmental changes, enabling them to “fill the Earth” as their Creator commanded. Creatures are not passive modeling clay molded by their environment as Darwin taught. We now know that they are active, problem-solving entities that can tackle a myriad of challenges and fill a remarkable range of environments, which showcases the engineering genius of their Creator. So, it’s actually the continuous, environmental tracking systems that are *already built into the bird* that’s making the changes and adaptations, not the environment causing the bird to “evolve” in some way. It looks like the Master Designer knew what he was doing when He created animals *after their kinds* and gave them the commission to multiply and fill the Earth.

The Fossil Record & “Transitional Forms”

Suggested Videos:

www.genesisapologetics.com/fossils

Natural history museums have some of the most amazing fossil collections in the world. These fossils are typically used to frame the idea of life slowly progressing over millions of years, rather than a worldwide catastrophe being the best explanation for the majority of the fossil record.

Are the fossils really stacked in a way that proves life evolved on Earth over millions of unseen years? Or, does the fossil record provide evidence that the world was covered by a massive Flood in Noah’s time just thousands of years ago? Actually, the fossil record does not show increasingly complex life emerging over the millennia. What it shows is a record of death in the order that the creatures were buried during the worldwide flood.

Think about it for a minute—Genesis 7 verse 11 says that the fountains of the great deep were broken up and the windows of heaven were opened, creating floods and tidal waves that were unimaginable. The Bible says the flood waters increased upon the Earth for 150 days until all the high hills under heaven were covered with over 20 feet of water. This process successively buried all creatures outside the Ark based on where they lived as the Flood waters prevailed, how smart they were, their means and speed of mobility, and their body density. This is precisely why the fossil record generally shows the shallow-water marine creatures buried in the lower layers. Then, as the ocean waters rose higher and higher the suffocated fish were buried, followed by amphibians, reptiles, mammals, and then birds.

President of Answers in Genesis, Ken Ham, has become well-known for making this statement: “If there really was a Global Flood, what would the evidence be? Billions of dead things, buried in rock layers, laid down by water all over the Earth.” This is exactly what we see.

For example, the Paleobiology Database is a free, searchable database that is designed to “provide global, collection-based occurrence and taxonomic data for organisms of all geological ages.”¹³⁴ This database includes 183,739 fossil *collections* totaling 1,323,009 *occurrences* (with each “occurrence” ranging from a few fossils to numerous). From a Biblical Creation standpoint, the Genesis Flood deposited the vast majority of these fossils, and the chapters that follow explain the mechanics behind how it happened. Each of the circle dots in Figure 42 shows the extent of the known fossil record.

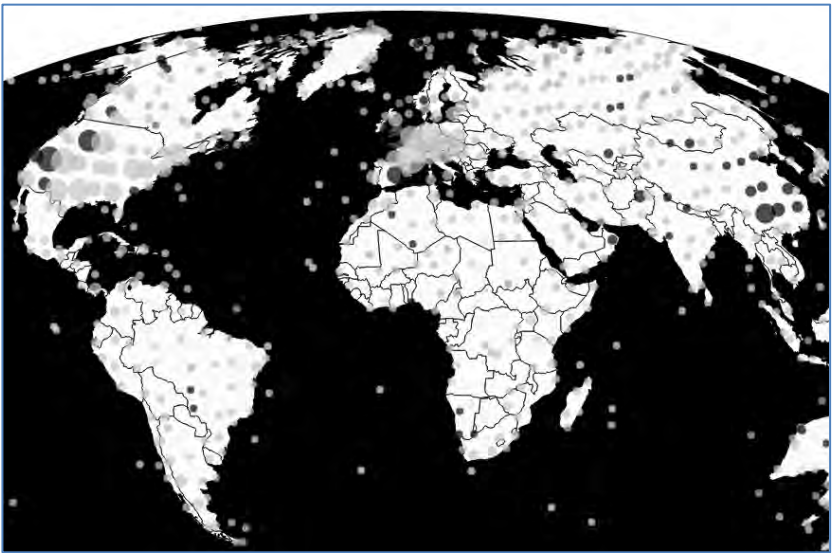


Figure 42. Paleobiology Database¹³⁵

If the untestable assumptions that hold up the ideas of radiometric dating are not true (and we believe they are not¹³⁶),

then Figure 42 displays a massive, watery graveyard, most of which was filled during the year-long Genesis Flood.

Even Charles Darwin said, "... as by evolution theory, innumerable transitional forms must have existed, why do we not find them embedded in countless numbers in the crust of the Earth?" and "Why is not every geological formation and every stratum full of such intermediate links? Geology assuredly does not reveal any such finely graduated organic chain; and this is the most obvious and serious objection which can be urged against the theory?" Darwin expected that these challenges would be resolved after more research was conducted. But today, 150 years and millions of fossils later, the proof **still** doesn't exist.

When the famous Dr. Colin Patterson of the British Museum of Natural History was asked why evolutionary transitions were not included in his book titled, "Evolution" Patterson said: "I fully agree with your comments on the lack of direct illustration of evolutionary transitions in my book. If I knew of any, fossil or living, I would certainly have included them... You say that I should at least show a photo of the fossil from which each type organism was derived.' I will lay it on the line—there is not one such fossil for which one could make a watertight argument." Wow—after working with thousands of fossils for over 16 years in one of the largest natural history museums in the world, he makes a statement like this!

With this "big picture" overview provided, next we'll look into the dinosaur fossil record specifically, as well as a few of the leading supposed "transitional" fossils that are often displayed in museums to promote evolution.

Overview of the Dinosaur Fossil Record

The number of dinosaur "mass graves" around the world is astounding. These fossil graveyards contain a mixture of many different kinds of fossils that were *transported by large volumes of water* (see Figure 43). Modern, small-scale debris flows offer examples of what likely entrained, in some cases,

millions of animals. Like a giant water wing, a debris flow carries its load largely undisturbed inside, as it rides upon a watery cushion either underwater or over land. As soon as the flow slows to a certain speed, turbulence overwhelms the load and it drops in place.

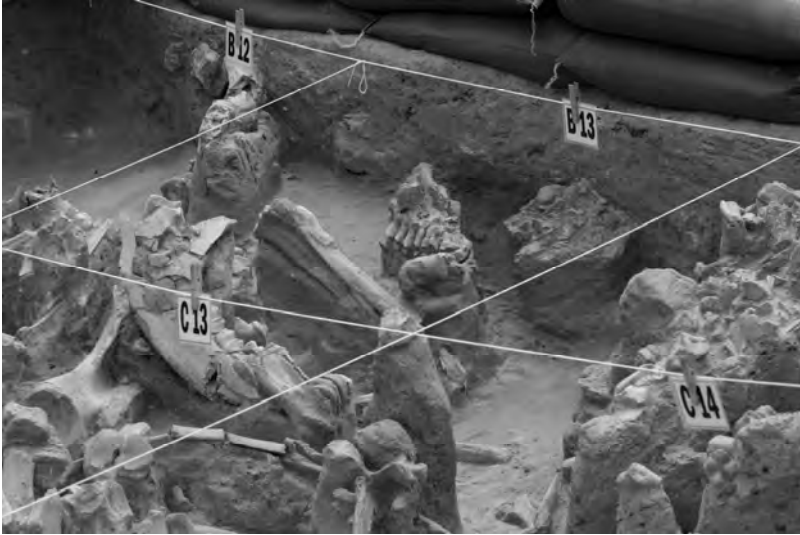


Figure 43. Dinosaur Fossil Graveyard Example.

Bone fossils typically occur as broken fragments. They were violently carried along with enormous amounts of mud and shifting sediments. By studying some of these fossil graveyards, we can gather clues that will demonstrate that the Flood was in fact catastrophic and worldwide, as stated in Genesis 7:20–23:

The waters rose and covered the mountains to a depth of more than fifteen cubits [at least 22 feet]. *Every living thing* that moved on land perished—birds, livestock, wild animals, *all the creatures* that swarm over the Earth, and *all mankind*. *Everything* on dry land that had the breath of life in its nostrils died. *Every living*

thing on the face of the earth was wiped out; people and animals and the creatures that move along the ground and the birds were wiped from the Earth. *Only Noah was left*, and those with him in the ark. (emphasis added)

If this passage in Genesis is true, we would expect to find *billions of dead things buried in rock layers laid down by water all over the Earth*.¹³⁷ This is exactly what we find *all over the world*, and dinosaurs fossils are an incredibly good example of this.

A profound example of a dinosaur graveyard is Dinosaur National Monument in Utah, which is only a part of the 700,000-square mile Morrison Formation, a geologic unit that has spawned excavations of more than a hundred dinosaur quarries.¹³⁸



Figure 44. Aerial extent of the Morrison Formation.¹³⁹

What type of catastrophe could possibly bury hundreds of massive bone beds in this 700,000-square mile area? This region could quite possibly represent an enormous, ancient debris flow that only a worldwide watery catastrophe could explain.

When it comes to looking at the burial conditions of dinosaurs that were wiped out in the Flood, only about 3,000 of the dinosaur fossils are found in “articulated”¹⁴⁰ condition (with most of the bones still in place). Because fossils representing over 100,000 dinosaurs have been found, this represents only about 3% of the dinosaur fossil record.¹⁴¹ So these animals did not die peacefully. Whatever wiped them out was *sudden* and *violent*.

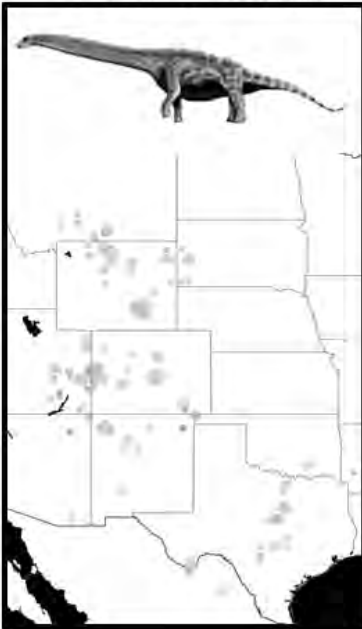
Another characteristic about dinosaur bonebeds is the evidence that they were quickly buried in **mud**. The very fact that we have so many preserved dinosaur fossils shows that they were buried quickly because fossilization requires rapid burial in **muddy ground**. The fossil record is full of dinosaurs that suddenly died in watery graves around the world, with many of them found in the famous “death pose” with their necks arched back, as if drowning in mud and carried along by a mudflow.¹⁴²



Figure 45. Dinosaurs in the Common “Death Pose,” Indicating Rapid Burial and Suffocation (Royal Tyrrell Museum, Author).

Yet another clue that the dinosaurs were wiped out catastrophically is the fact that so many are found buried simultaneously, fleeing in groups. For example, Figure 46 plots both the sauropod and triceratops dinosaur fossils that have been found in the Midwestern United States. Isn't it interesting that these totally different dinosaur types were simultaneously wiped out and buried in the *same areas*? Something stopped these two very large dinosaur types dead in their tracks and buried them in mud, preserving their fossils for us to find today.

Sauropod Fossils in the Midwest



Triceratops Fossils in the Midwest



Figure 46. Sauropod and *Triceratops* Graveyards.¹⁴³

Sauropods and *Triceratops* are some of the largest dinosaurs to ever live. What type of event would it take to bury these massive creatures in mud so quickly that they would be disarticulated and preserved for us to find today—locked in mud that hardened into rock before getting scavenged? Slow,

gradually rising creeks or rivers? A sudden worldwide Flood fits the evidence much better.

Let's drill down and take a look at one of the largest mass dinosaur graves in the world found at Dinosaur Provincial Park in Canada. In just this one area, over 32,000 fossil specimens have been found, representing 35 species, 34 genera, and 12 families of dinosaurs. Astonishingly, dinosaur fossils intermingle with fish, turtles, marsupial and other mammals, and amphibians. Also, only 300 complete animals have been found! The large majority were scrambled, pulverized, and blended together, as if the world became an enormous washing machine.

There are 14 mega bone beds at this location that collectively contain thousands of buried *Centrosaurus found in the same stratigraphic column* (a term used in geology to describe the vertical sequence of rocks in a particular area). The authors who completed the most extensive study of the area described the sediment in which these dinosaurs are buried as “mudstone rich in organic matter deposited on the tract of land separating two ancient rivers.”¹⁴⁴ They also concluded that each of the 14 bone beds was actually part of a single, massive “mega-bone bed” that occupied 2.3 square kilometers—almost a square mile! Stop and think about this for a minute. How did thousands of dinosaurs—of the same species—get herded up and simultaneously buried in mud?

These authors even concluded that the massive bone beds were formed when a herd of *Centrosaurus drowned during a flood*. These bone beds are also found with aquatic vertebrates such as fish, turtles, and crocodiles, showing that water was definitely involved in their transport and burial. In addition, almost no teeth marks indicated little scavenging after these animals died, probably because most of them died at the same time.¹⁴⁵

While visiting this location, one outdoor display caught my daughter's eye. It was a large hadrosaur, a “duck-bill” dinosaur, that they left in the ground, exactly as it was found, covered with mud and twisted around like it went through a

blender before it was buried. A young boy pushed a button to play the audio explanation provided by the museum that described the evolutionary idea about how the animal died. They explained that a large tropical storm caused the rivers to rise and the dinosaurs to drown—one after the other—as each blindly followed the other to their death (thousands of them).¹⁴⁶

This is when my daughter had her epiphany: “You’ve got to be kidding me!” she exclaimed. “Look at all these dead dinosaurs—they’re everywhere! And they’re buried in countless tons of sediment—how’s a local rainstorm going to do that? Noah’s Flood is a much better explanation!” She’s onto something. If rainstorms explain this, then why don’t they deposit and fossilize even smaller creatures today? This 2.3 square kilometer dinosaur graveyard was massive—how much mudflow did the Flood have to bring onto land to bury over 10,000 *Centrosaurus*?¹⁴⁷

Other dinosaur mass gravesites exist around the world. An online article on *Discovery.com* describes a dinosaur graveyard in China as the largest in the world, writing, “Researchers say they can’t understand why so many animals gathered in what is today the city of Zhucheng to die.” Thousands of dinosaur bones stack on top of each other in “incredible density,” then they “suddenly vanished from the face of the Earth.”¹⁴⁸ Most of the bones are found within a single 980-foot-long ravine in the Chinese countryside, about 415 miles southeast of Beijing. Clearly, processes were going on in the past that were so violent they are hardly imaginable.

A dinosaur mass grave in Montana unveils yet more evidence for rapid burial during Noah’s Flood. In his article titled, “The Extinction of the Dinosaurs,” Creation researcher and Michael Oard describes some of the numerous dinosaur graveyards that are found all over the world.¹⁴⁹ He believes this is solid evidence of Noah’s worldwide Flood. Oard reported that one of the largest bone beds in the world is located in north-central Montana:

Based on outcrops, an extrapolated estimate was made for 10,000 duckbill dinosaurs entombed in a thin layer measuring 2 km east-west and 0.5 km north-south. The bones are disarticulated and disassociated, and are orientated east-west. However, a few bones were standing upright, indicating some type of debris flow. Moreover, there are no young juveniles or babies in this bone-bed, and the bones are all from one species of dinosaur.

Oard concluded that a cataclysmic event is the best explanation for the arrangement of the bones. Two leading secular scientists, Horner and Gorman, also described the bone bed: “How could any mud slide, no matter how catastrophic, have the force to take a two- or three-ton animal that had just died and smash it around so much that its femur—still embedded in the flesh of its thigh—split lengthwise?”¹⁵⁰

Figure 47 shows the text from books or articles about the particular fossil graveyard shown. Isn't it incredible that everyone admits that some type of watery catastrophe was responsible for piling up the dinosaurs into these mass graves?

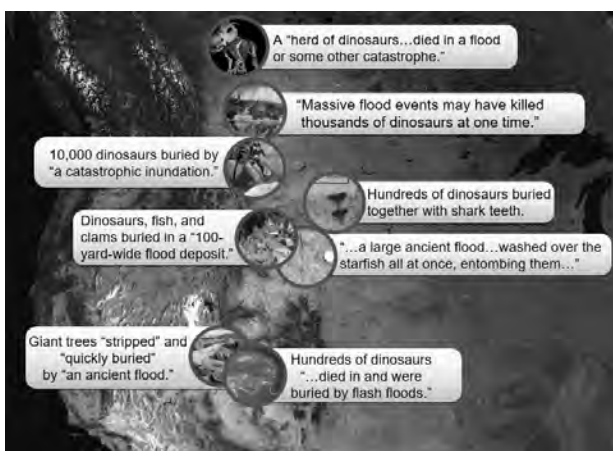


Figure 47. Dinosaur Graveyards in Midwestern U.S. with “Flood Catastrophe” Explanations from Secular Sources.¹⁵¹

Dinosaur Soft Tissue

Some would argue that the case for Biblical Creation would grow stronger if a living dinosaur was found in an unexplored swamp in the Congo. In actuality, however, what scientists have found over the last 20 years regarding soft tissue is even more convincing than discovering a living dinosaur.

You see, if someone found a living dinosaur somewhere, it would be easy for evolutionists to explain away—holding that evolution was on “idle” for eons. They’ve already done this many times when so-called “living fossils” are found, such as the coelacanth that someone hauled up in a fishing net off Madagascar in 1938. Before they found it alive, coelacanths were considered a key “missing link” between fish and amphibians, dating back to the time of the dinosaurs and beyond.¹⁵²

So the reason that the discovery of dinosaur biomolecules, cells, and tissues is *even better* than finding a living dinosaur is that the laws of chemistry hold evolutionists accountable for claiming either that thermodynamics—the process by which tissues break down—were idle for eons or, even more far out, that the bio-organic materials are *not even there*. Knowing these bio-organic materials were present when they were living, and still having them now, provides undeniable evidence for Noah’s Flood staring the world in the face.

This is why the recent discovery of 14 short-lived dinosaur biomaterials that remain in dinosaur bones and other body parts like skin and horns is so important. Decay experiments have placed outer limits on how long they should last before completely decaying. For each of these materials, their “expiration date” is well before 65 million years, which is when dinosaurs supposedly went extinct. So, rather than being 65 million years old, these materials are just thousands of years old. The science of protein decay fits the Bible’s timeline of dinosaurs recently buried in Noah’s Flood.

Secular scientists have published each of these dinosaur-era fresh biomaterials in peer-reviewed, evolution-based science journals. One of most frequently used “rescuing devices” that’s given by evolutionists to try to explain some of these findings is “bacterial contamination.” However, microbes do not produce *any* of the biomaterials covered below, ruling out recent contamination.

Many dinosaur bones are even found **un-fossilized** in places like Madagascar, Alaska, and Montana (see the section below titled, “Fresh Dinosaur Biomaterial #7: Unmineralized Bone”). Even the founder of the largest dinosaur museum in the world admitted that “...usually most of the original bone is still present in a dinosaur fossil.”¹⁵³ Sadly, most students who attend public schools today develop the opinion that dinosaur bones are just rock impressions of bones. Nothing could be further from the truth!

Fresh Dinosaur Biomaterial #1: Blood Vessels

Blood vessels transport blood throughout the body. They include the tiny capillaries, through which water and chemicals pass between blood and the tissue. Bones include capillaries and larger vessels. Small, pancake-shaped cells loaded with long-lasting collagen protein comprise blood vessels.

The blood vessels shown in Figure 48 were discovered when Dr. Mary Schweitzer’s team was attempting to move a gigantic *Tyrannosaurus rex* fossil by helicopter that turned out to be too heavy. They were forced to break apart the leg bone. When looking at the inside of the leg bone at the lab, they discovered that the inside of the bone was partially hollow (not mineralized), revealing the soft tissue shown in Figure 48 that was extracted after treatments to remove the minerals.¹⁵⁴

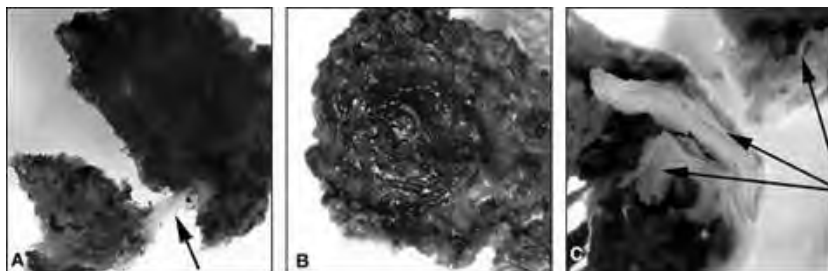


Figure 48. Tissue Fragments from a *T. rex* Femur.¹⁵⁵

The tissues that are shown on the left of Figure 48 show that it is flexible and resilient. When stretched, it returned to its original shape. The middle photo shows the bone after it was air dried. The photo at right shows regions of bone showing fibrous tissue, not normally seen in fossil bone.

Since this publication in 2005, blood vessels from several other dinosaurs and other extinct reptiles have been described and published in numerous leading scientific journals, including the *Annals of Anatomy, Science* (the leading journal of the American Association for the Advancement of Science), *Public Library of Sciences ONE*, and the *Proceedings from the Royal Society B*, which focuses on the biological sciences.¹⁵⁶

Fresh Dinosaur Biomaterial #2: Red Blood Cells

Red blood cells carry oxygen and collect carbon dioxide using hemoglobin protein—also found in dinosaur and other fossils. Dr. Mary Schweitzer was one of the first to discover and publish the discovery of red blood cells, which she shares in her own words: “The lab filled with murmurs of amazement, for I had focused on something inside the vessels that none of us had ever noticed before: tiny round objects, translucent red with a dark center. Then a colleague took one look at them and shouted, ‘You’ve got red blood cells. You’ve got red blood cells!’”¹⁵⁷

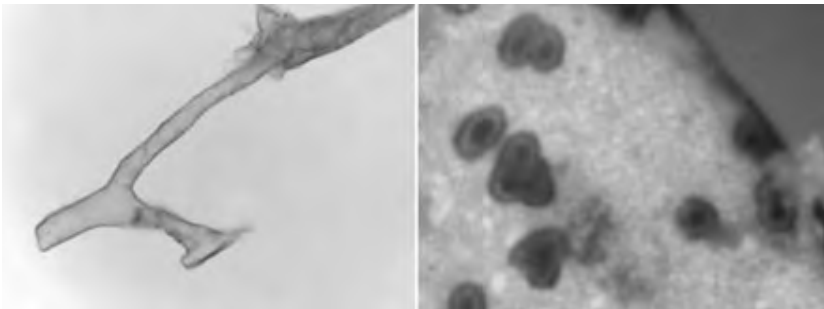


Figure 49. Blood Vessels and Red Blood Cells from a *T. rex* Bone.¹⁵⁸

These two photos in Figure 49 are from a 2005 discovery from Dr. Schweitzer that clearly show blood vessels from a *T. rex* bone (left) and red blood cells (right). How could these cells last for 65 million years? At least five peer-reviewed scientific journals have published accounts of red blood cells in dinosaur and other fossil bones.¹⁵⁹

Regarding this discovery, Dr. Schweitzer remarked, “If you take a blood sample, and you stick it on a shelf, you have nothing recognizable in about a week. So why would there be anything left in dinosaurs?”¹⁶⁰ That’s certainly a good question, and one that has an easier answer if dinosaur fossils are only thousands of years old!

After this discovery, Dr. Schweitzer ran into challenges when trying to publish her work in the scientific literature. Dr. Schweitzer remarks, “I had one reviewer tell me that he didn’t care what the data said, he knew that what I was finding wasn’t possible.” Dr. Schweitzer wrote him back and asked, “Well, what type of data would convince you.” The reviewer replied, “None.”

Fresh Dinosaur Biomaterial #3: Hemoglobin

Hemoglobin protein contains iron and transports oxygen in red blood cells of most vertebrates. Some invertebrates, including certain insects and some worms, also use hemoglobin. In vertebrates, this amazing protein picks up oxygen from lungs

or gills and carries it to the rest of the body's cells. There, oxygen fuels aerobic respiration by which cells produce energy.

Scientific studies have reported “striking evidence for the presence of hemoglobin derived peptides in the [*T. rex*] bone extract”¹⁶¹ and several other dinosaur “era” bones.¹⁶²

Fresh Dinosaur Biomaterial #4: Bone Cells (Osteocytes)

Secular scientists have described dinosaur proteins like hemoglobin, even though no experimental evidence supports the possibility that they can last for even a million years. But dinosaur bones hold more than just individual proteins. They sometimes retain whole cells and tissue remnants. An osteocyte is a bone cell that can live as long as the organism itself. Osteocytes constantly rebuild bones and regulate bone mass. Figure 50 shows highly magnified blood vessels, blood products, and osteocytes that were found on the inside of a brow horn of a *Triceratops*.

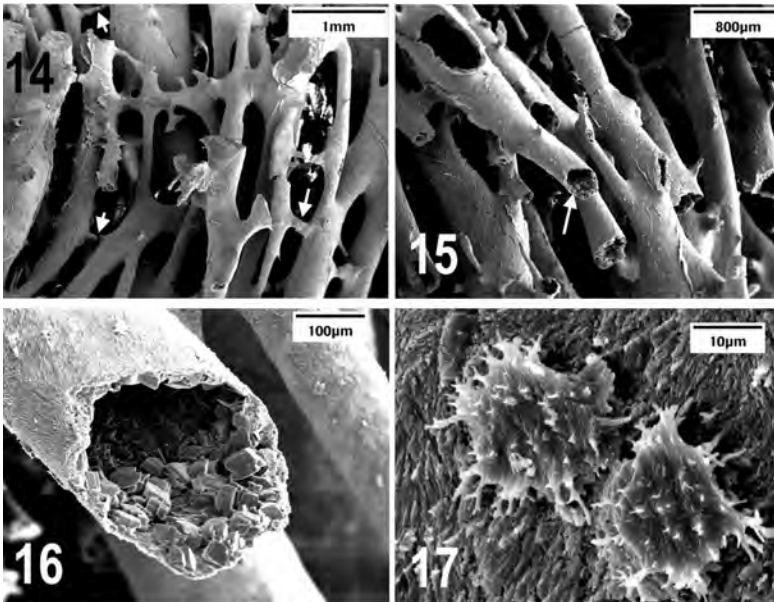


Figure 50. Soft Bone Material from a Brow Horn of a *Triceratops horridus* from Montana.¹⁶³

Figure 50 shows blood vessels linked together (white arrows in frame 14). Frame 15 shows possible blood products lining inner wall of hardened vessel (white arrow). Frame 16 is enlarged from frame 15 and shows crystallized nature of possible blood products lining inner wall of hardened vessel. Frame 17 shows two large oblate osteocytes lying on fibrillar bone matrix.

At least four scientific studies have established osteocytes in dinosaur bones. One study even found nucleic acid signatures consistent with ancient DNA right where the nucleus would have been in dinosaur osteocytes.¹⁶⁴

Fresh Dinosaur Biomaterial #5: Ovalbumin (Proteins)

Another protein found in fossils that microbes don't make is called ovalbumin. It makes up 60–65% of the total protein in egg whites. Ovalbumin has been found in exceptionally preserved sauropod eggs discovered in Patagonia, Argentina, a dig site that included skeletal remains and soft tissues of embryonic titanosaurid dinosaurs. These findings were reported in a peer-reviewed scientific journal.¹⁶⁵

Fresh Dinosaur Biomaterial #6: Chitin

Chitin is a biochemical found in squid beaks and pens, arthropod exoskeletons, and certain fungi. If chitin was meant to last for millions of years, then it might have filled Earth's surface as dead insects, krill, and fungi left their remains over eons. Chitin is tough, but no known experiment supplies any reason to so much as suspect that it could last a million years, let alone hundreds of millions. Yet, at least two scientific studies report finding it in fossils.¹⁶⁶ Our Creator equipped many microbes with unique enzymes that digest chitin, so what could have kept those microbes away from all that chitin for millions of years?

Fresh Dinosaur Biomaterial #7: Unmineralized Bone

Fresh-looking, un-mineralized dinosaur bones pop up in dig sites around the world. In Alaska, for example, a petroleum geologist working for Shell Oil Company discovered well-preserved bones in Alaska along the Colville River. The bones looked so fresh that he assumed these were recently deposited, perhaps belonging to a mammoth or bison. Twenty years later scientists recognized them as *Edmontosaurus* bones—a duck-billed dinosaur.¹⁶⁷



Figure 51. Unfossilized *Hadrosaur* Bone from the Liscomb Bone Bed.¹⁶⁸

Mineralized bones can look darker than bone and typically feel quite heavy. Un-mineralized bones retain their original structure, often including the tiny pore spaces in spongy bone, as shown in Figure 51. One study includes an interesting section that states:

Finally, a two-part mechanism, involving first cross-linking of molecular components and subsequent mineralization, is proposed to explain the surprising presence of still-soft elements in fossil bone. These results suggest that present models of fossilization processes may be incomplete and that *soft tissue elements may be more commonly preserved, even in older specimens, than previously thought.*¹⁶⁹

Additionally, in many cases, osteocytes with defined nuclei are preserved, and may represent an important source for informative molecular data (emphasis added).

Numerous other studies published in scientific journals have described these un-mineralized dinosaur bone findings.¹⁷⁰

Sometimes evolutionists are surprised by the fact that many dinosaur bones contain “fresh,” original bone. It seems that decades of conditioning that “dinosaur bones become solid rocks” and ideas of “millions of years” have framed assumptions that are frequently being broken today.

However, researchers out in the field—actually digging up bones—oftentimes have a different viewpoint. Take Dr. Mary Schweitzer’s testimony for example, where she notes that many “fresh” dinosaur bones still have the stench of death:

This shifting perspective clicked with Schweitzer’s intuitions that dinosaur remains were more than chunks of stone. Once, when she was working with a *T. rex* skeleton harvested from Hell Creek, she noticed that the fossil exuded a distinctly organic odor. “It smelled just like one of the cadavers we had in the lab who had been treated with chemotherapy before he died,” she says. Given the conventional wisdom that such fossils were made up entirely of minerals, Schweitzer was anxious when

mentioning this to Horner [a leading paleontologist]. “But he said, ‘Oh, yeah, all Hell Creek bones smell,’” she says. To most old-line paleontologists, the smell of death didn’t even register. To Schweitzer, it meant that traces of life might still cling to those bones.¹⁷¹

Experienced dinosaur fossil collectors have developed similar opinions. Take experienced dinosaur hunter and wholesaler, Alan Stout, for example. Alan Stout is a long-time fossil collector and has collected and sold millions of dollars’ worth of dinosaur specimens to collectors, researchers, and museums worldwide.¹⁷² After collecting in Montana’s Hell Creek formation (and surrounding areas) for over a decade, Alan states that many of the dinosaur bones he finds in the Cretaceous layers are only 40% mineralized, with as much as 60% of the bone being original material. He even notes that some of the fossils “look just like they were buried yesterday after scraping off just the outside layer of mineralization.”¹⁷³

Fresh Dinosaur Biomaterial #8: Collagen

Collagen is the main structural protein found in animal connective tissue. When boiled, collagen turns into gelatin, showing its sensitivity to temperature. In 2007, scientists discovered collagen amino acid sequences from a *T. rex* fossil that supposedly dated at 68 million years. Met with controversy, some suggested these proteins came from lab workers who accidentally contaminated the samples being studied. Or perhaps traces of ostrich bone proteins lingered in the equipment used in the study. Some even said, well perhaps “a bird died on top of the *T. rex* excavation site.”¹⁷⁴ However, three separate labs verified collagen in dinosaurs in 2009¹⁷⁵ and again in January 2017.¹⁷⁶ The 2017 study even confirmed the collagen at the *molecular level*, and stated, “We are confident that the results we obtained are not contamination and that this collagen is original to the specimen.”¹⁷⁷

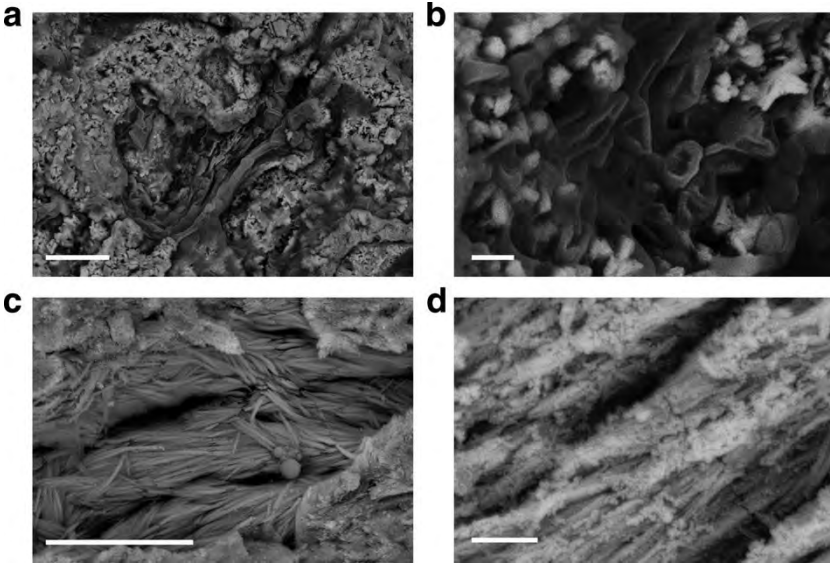


Figure 52. Fibers and Cellular Structures in Dinosaur Specimens.¹⁷⁸

Experiments have projected that the absolute theoretical maximum life of collagen ranges from 300,000 to 900,000 years under the best possible conditions.¹⁷⁹ This shows that collagen proteins should not last one million years, but could (in the absence of microbes) last for thousands of years. This confronts millions-of-years age assignments for dinosaur remains, but is consistent with the biblical time frame of thousands of years.

However, the rescuing devices being offered by evolutionists are not far behind. For example, in a recent article published in *Science*, Dr. Schweitzer tried to explain how the collagen sequences supposedly survived tens of millions of years: "... as red blood cells decay after an animal dies, iron liberated from their hemoglobin may react with nearby proteins, linking them together. This crosslinking, she says, causes proteins to precipitate out of solution, drying them out in a way that helps preserve them." Critical of this idea, however, Dr. Matthew Collins, a paleoproteomics expert at the University of York in the United Kingdom, stated that he doesn't think that

the process described by Dr. Schweitzer could “arrest protein degradation for tens of millions of years, so he, for one, remains skeptical of Schweitzer’s claim: ‘Proteins decay in an orderly fashion. We can slow it down, but not by a lot.’”¹⁸⁰

Fresh Dinosaur Biomaterial #9: DNA (Limited)

One measured decay rate of DNA, extracted from recently deposited fossil bird bones, showed a half-life of 521 years. DNA decays quickly. It should have spontaneously decayed into smaller chemicals after several tens of thousands of years—and it could only last that long if kept cool. A few brave secular scientists have reported DNA structures from dinosaur bones, although they did not directly address the question of its age.¹⁸¹

Fresh Dinosaur Biomaterial #10: Skin Pigments

In 2008, a group of paleontologists found exceptionally well-preserved *Psittacosaurus* remains in China and published images of dinosaur collagen fiber bundles. Other scientists published stunning skin color images from a separate *Psittacosaurus*, also from China, and found evidence of original, unaltered pigments including carotenoids and melanins. Nobody has performed an experiment that so much as suggests these pigments could last a million years. Still other studies have reported scale skin and hemoglobin decay products—still colored red, as were some of Dr. Mary Schweitzer’s *T. rex* and hadrosaurine samples—in a Kansas mosasaur.¹⁸²

The latest findings continue to confirm the recent demise of most of the dinosaurs by a massive Flood. Consider this 3,000-pound nodosaur fossil just found in Canada shown in Figure 53. Evolutionists date this fossil at 110 million years old. But how did everything stay intact for so long? Skin pigment, guts, scales, full boney armor, keratin—even its last meal was found in its stomach! Paleobiologist Jakob Vinther said, “The

dinosaur is so well preserved that it ‘might have been walking around a couple of weeks ago, I’ve never seen anything like this.’¹⁸³ Rather than being scavenged after death, this dinosaur was rapidly entombed by Noah’s Flood just thousands of years ago.

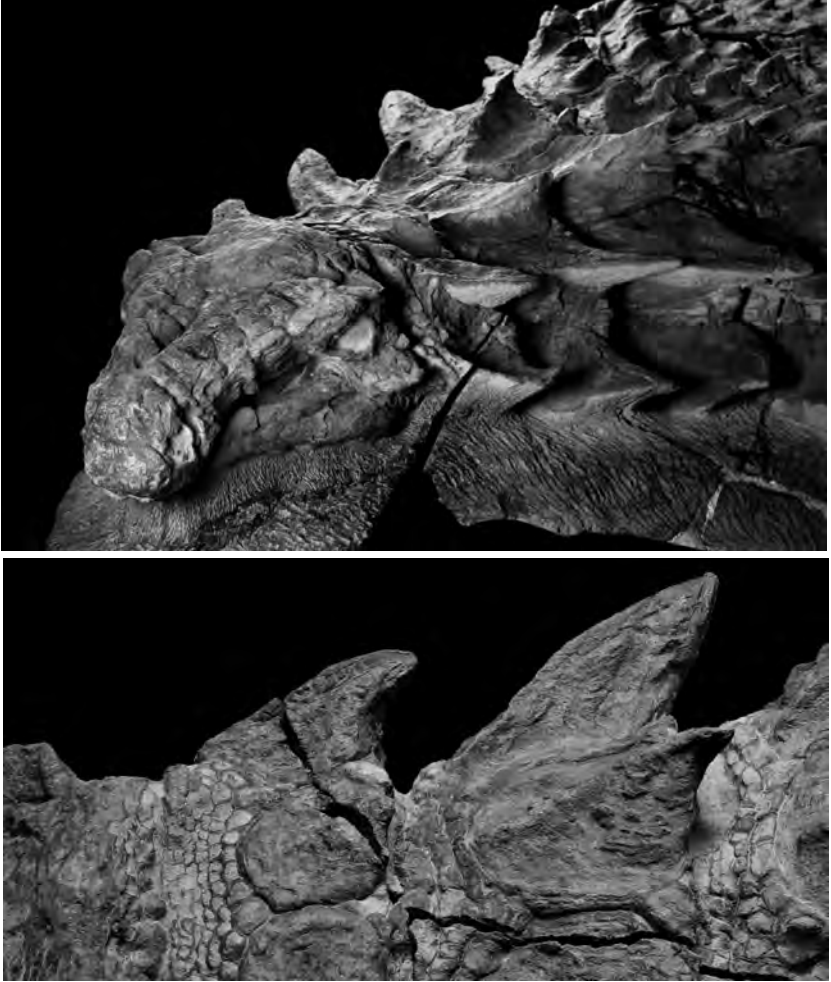


Figure 53. Nodosaur Fossil with Fossilized Skin.¹⁸⁴

Fresh Dinosaur Biomaterial #11: PHEX (Proteins)

PHEX is a protein involved in bone mineralization in mammals. In 2013, Dr. Mary Schweitzer published detailed findings of the soft, transparent microstructures her team found in dinosaur bones. Because this discovery was so controversial, her team used advanced mass spectrometry techniques to confirm the findings. Other methods demonstrated that proteins such as actin, tubulin, and PHEX found in osteocytes from two different dinosaurs were not from some form of contamination but came from the creatures' remains.¹⁸⁵

Fresh Dinosaur Biomaterial #12: Histone H4 (Proteins)

Bacteria do not make histone H4, but animals do. DNA wraps around it like a spool. Dr. Mary Schweitzer and her team found this protein inside a hadrosaur femur found in the Hell Creek Formation in Montana, which bears an assigned age of 67 million years. It might last for thousands of years if kept sterile, but no evidence so much as hints that it could last for a million years.¹⁸⁶

Fresh Dinosaur Biomaterial #13: Keratin (Structural Protein)

Keratin forms the main structural constituent of hair, feathers, hooves, claws, and horns. Some modern lizard skins contain tiny disks of keratin embedded in their scales. Researchers identified keratin protein in fossilized lizard skin scales from the Green River Formation that supposedly date to 50 million years ago. They explained its presence with a story about clay minerals attaching to the keratin to hold it in place for all that time. However, water would have to deposit the clay, and water helps rapidly degrade keratin. The most scientifically responsible explanation should be the simplest one—that this fossil is thousands, not millions, of years old.¹⁸⁷ Other fossils with original keratin include *Archaeopteryx*¹⁸⁸ bird feather residue and stegosaur spikes.¹⁸⁹

Fresh Dinosaur Biomaterial #14: Elastin

Elastin is a highly elastic protein found in connective tissue, skin, and bones. It helps body parts resume their shape after stretching or contracting, like when skin gets poked or pinched. Bacteria don't need it or make it, and elastin should not last a million years, even in the best preservation environment. Scientists reported finding this protein in a hadrosaur femur found in the Hell Creek Formation in Montana.¹⁹⁰

Biomaterial Summary

Because these findings are game changers, they are not without challenge by those who hold strongly to evolutionary ideas. Some of the rescuing devices that have been offered to attempt to explain these findings include iron in the blood acting as a preservative, the material being mistaken from a bird carcass mixed with the fossil, laboratory contamination, and even microbial biofilm (from bacteria in the bones). These explanations show an eagerness to attempt to dismiss the findings while clinging to the belief in millions of years. Rather than questioning the supposed long ages needed to prop up the evolutionary view, they seek other explanations to explain the presence of these materials, desperately denying the obvious.

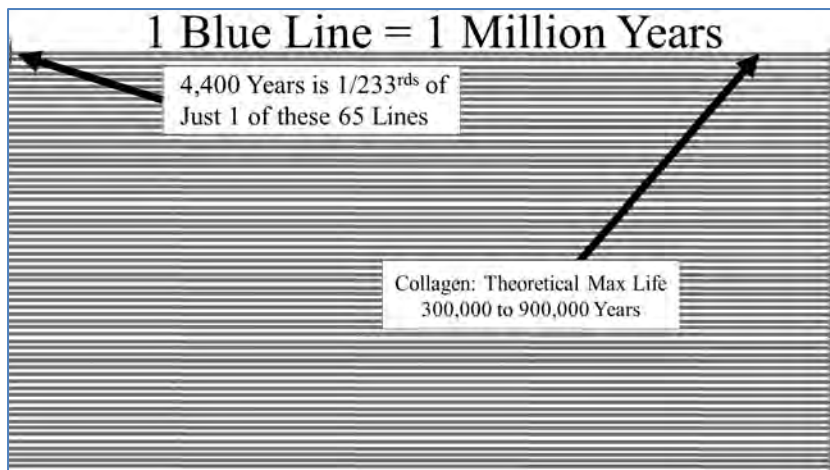


Figure 54. Dinosaur Biomaterials Time Comparison.

Figure 54 shows a simulated timeline to attempt to put these findings into perspective. Each of these 65 lines represents 1 million years. Showing 4,400 years on this chart is difficult, but is represented by a tiny dot in the upper left, which is 1/233rds of just one of these lines, or less than one-half of 1 percent of one of these lines. While this assumption can never be tested, some studies have measured an absolute theoretical maximum life of between 300,000 and 900,000 years.¹⁹¹ If these dinosaur bones are really 65 million years old (and older), this collagen lasted for *72 to 217 times longer than these measured and extrapolated maximum collagen shelf lives*. Does believing these materials could last that long require strong faith?

Is it really possible that all 14 of these biomaterials lasted for 65 million years? Or, were they recent deposits that were quickly sealed in Noah's Flood only thousands of years ago? You can decide, but one thing stands for certain: Given the positions that scientists have held for decades on bio-organic decay rates, all 14 of the materials discussed above clearly and easily—without any academic caveats—**fit the Genesis timeline just fine**. But they don't fit the 65 million-year timeline without severe **academic torture**.

In the words of paleontologist Dr. Mary Schweitzer: “What really bothers people is: Why the heck is this stuff there...A lot of people aren’t willing to accept the data until we come up with a mechanism for preservation... We’re not there yet. All I can say is: Here’s what we see, here’s what we’ve done, and here’s our results.”¹⁹² Evidence abounds showing the extreme resistance of secular institutions accepting the implications of dinosaur soft tissue. An article in *Discover* magazine¹⁹³ documented that Dr. Schweitzer “was having a hard time” trying to get her soft tissue dinosaur evidence published in scientific journals. Dr. Schweitzer stated, “I had one reviewer tell me that he didn’t care what the data said, he knew that what I was finding wasn’t possible.” When Dr. Schweitzer wrote back asking, “Well, what data would convince you?” the reviewer stated, “None.” Professor Mark Armitage was actually fired from his position at a university after publishing the soft tissue results he found in *Triceratops* horn.¹⁹⁴

The fact that many dinosaur fossils are not “just rocks,” but are actually still bones, should alone move most reasonable minds out of the “millions of years” framework. But the fact that evolutionists have somehow excluded the realities of biological decay from dinosaur bones is also actually quite telling from both scientific and theological perspectives (2 Peter 3 and Romans 1). Rather than accepting the obvious conclusion that the bones are only thousands of years old—not millions—many continue to work fiercely to find ways to stretch the dinosaur fossil record out millions of years beyond what the obvious evidence points to. Rather than shortening the timeline to fit the obvious conclusion suggested by the presence of the 14 bio-organic materials, many work feverishly to find ways to stretch the decay rates out to over 100 times longer than the present science shows they can last (as in the case with collagen, discussed above).

Does the Fossil Record Show Transitional Forms?

Dr. Carl Werner and his wife Debbie invested over 14 years of their lives investigating “the best museums and dig sites around the globe [and] photographing thousands of original fossils and the actual fossil layers where they were found.”¹⁹⁵ After visiting hundreds of museums and interviewing hundreds of paleontologists, scientists, and museum curators, Dr. Werner concluded: “Now, 150 years after Darwin wrote his book, this problem still persists. Overall, the fossil record is rich—200 million fossils in museums—but the predicted evolutionary ancestors are missing, seemingly contradicting evolution.”¹⁹⁶ He continues with a series of examples:

- Museums have collected the fossil remains of 100,000 individual dinosaurs, but have not found a single direct ancestor for any dinosaur species.
- Approximately 200,000 fossil birds have been found, but ancestors of the oldest birds have yet to be discovered.
- The remains of 100,000 fossilized turtles have been collected by museums, yet the direct ancestors of turtles are missing.
- Nearly 1,000 flying reptiles (pterosaurs) have been collected, but no ancestors showing ground reptiles evolving into flying reptiles have been found.
- Over 1,000 fossil bats have been collected by museums, but no ancestors have been found showing a ground mammal slowly evolving into a flying mammal.
- Approximately 500,000 fossil fish have been collected, and 100,000,000 invertebrates have been collected, but ancestors for the theoretical first fish—a series of fossils showing an invertebrate changing into a fish—are unknown.
- Over 1,000 fossil sea lions have been collected, but not a single ancestor of sea lions has been found.

- Nearly 5,000 fossilized seals have been collected, but not a single ancestor has been found.

Dinosaur Fossil Transitions and Ancestors

While doing his research, Dr. Werner noted, “If evolution was not true, and if animals did not change over time, I should be able to find modern-appearing plants and modern-appearing animals in the dinosaur rock layers. And this is in fact what I found.” Dr. Werner has documented 432 mammal species in the dinosaur fossil layers. After visiting 60 museums around the world, he did not find a single complete mammal skeleton from the dinosaur layers displayed at **any** of these museums. Some mammals are even found in the stomachs of dinosaurs! These mammals are missing because they don’t fit the evolutionary story represented by most museums, where the “mammal” era follows after the “dinosaur” era. The fact is that hundreds of mammal species are found buried with dinosaurs.

Mixed in among dinosaurs Dr. Werner found “all of today’s reptile groups” as well as **birds**. How does this work if dinosaurs supposedly evolved into birds as evolutionists claim? Something’s not lining up with evolution theory! In fact, at least 120 bird species¹⁹⁷ have been found buried alongside the dinosaurs, including numerous “modern” looking birds like loons, parrots, flamingos, cormorants, sandpipers, owls, penguins, avocets, ducks, and numerous waterfowl.¹⁹⁸ Dinosaur footprints have also been found right alongside bird footprints.¹⁹⁹ The fact is that birds have existed alongside land creatures since the creation week.

Leading dinosaur expert Dr. Weishample wrote this about dinosaur ancestors: “From my reading of the fossil record of dinosaurs, no direct ancestors have been discovered for **any** dinosaur species. Alas, my list of dinosaurian ancestors is an empty one.”²⁰⁰ This sure seems to match the Bible’s account—God put them here, fully formed.

Consider pterosaurs—massive flying reptiles with wingspans sometimes over 40 feet that could possibly only fly

in the pre-Flood world.²⁰¹ Dr. Viohl, Curator of the Famous Jura Museum in Germany said, “We know only little about the evolution of pterosaurs. The ancestors are not known... When the pterosaurs first appear in the geologic record, they were completely perfect. They were perfect pterosaurs.”²⁰² After finding so many specimens in complete form, shouldn't *some* predecessors have been found by now?

Figure 55 shows the widespread distribution of pterosaur fossils around the world. Isn't it interesting that they are found everywhere? But that's not the only thing—they're found in every fossil layer from what evolutionists refer to as the Mesozoic Era (from the Late Triassic to Late Cretaceous, spanning from 228 to 66 million years ago in the evolutionary timeline). Is it possible that they are found in these different major rock units because—as flyers—they had the best chance of surviving the longest during the Flood to escape to safer areas as the Flood unfolded?

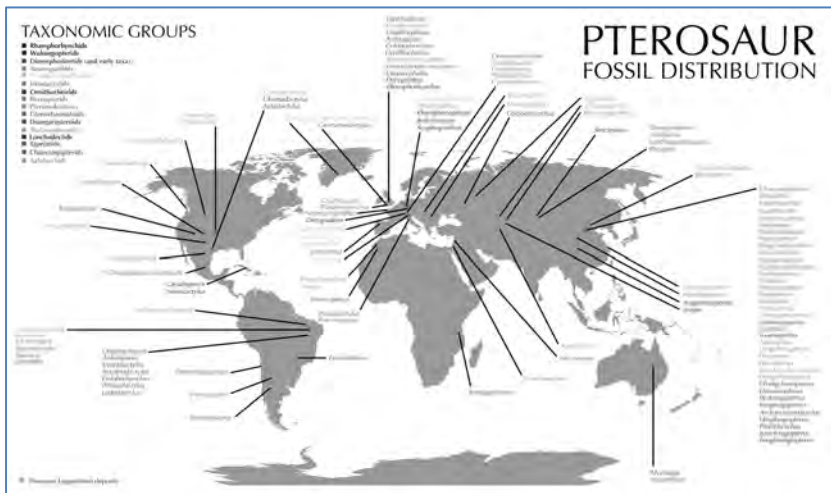


Figure 55. Pterosaur Fossil Distribution Map.²⁰³

If museums have over 1,000 fossilized pterosaurs, why haven't they found any fossils that have been classified as “pre-pterosaurs”? Why are pterosaurs always found in complete

form? Where are the transitional fossils that should exist if evolution theory is true?

Perhaps this explains why the evolutionary ideas about dinosaur ancestors keep changing—especially when they’ve now found dinosaurs even buried alongside their supposed ancestors.²⁰⁴ After Dr. Werner interviewed dozens of leading dinosaur experts from museums across the globe about dinosaur ancestors and transitions, he summarized his findings on this chart from the Chicago Field Museum.

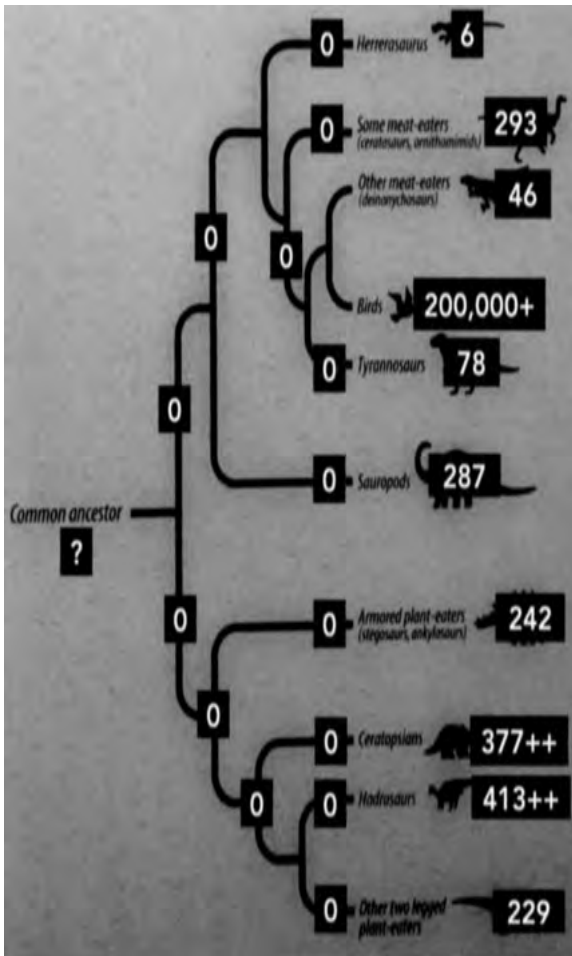


Figure 56. Dinosaur “Transitions”²⁰⁵

Note the counts of the different dinosaur varieties found—for example, the 78 *T. rex* specimens. Think about it—if over 100,000 dinosaurs have been collected by museums and dinosaurs evolved from one type into another as theorized on the chart, shouldn't there be counts on the nodes of these supposed branches between dinosaur kinds? Instead, this chart just demonstrates what we would expect if creation is true: the counts of the individual types of creatures found, with zero transitions.

It's also amazing when you look at the creatures on this chart that are supposedly evolving from the same branch, yet they are so obviously different—like *Ankylosaurus* and *Triceratops*. They've never found a single creature that looks anything like an earlier version of either of these dinosaurs, or one that looks like some hybrid of the two of them.

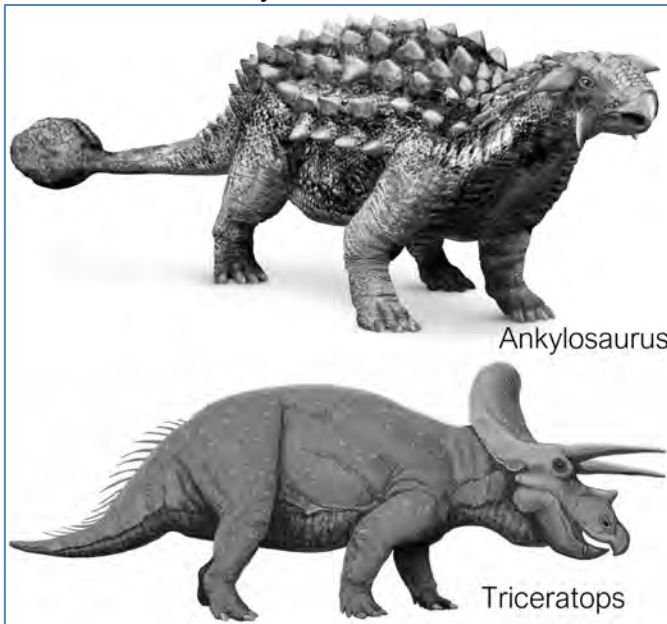


Figure 57. *Ankylosaurus* and *Triceratops* in the same evolutionary branch? If they both come from a supposed common ancestor, where are all the millions of transitional design changes it would take to go from one to the other?

With hundreds of these creatures found in their existing form—and always found in these forms—it becomes clear that the evolution of dinosaurs is a far, far reach. If they both come from a supposed common ancestor, where are all the millions of transitional design changes it would take to go from one of these creatures to the other? Yet not a single such creature has ever been found.

The chart in Figure 58 was reproduced from *The Encyclopedia of Dinosaurs* published in association with the British Museum of Natural History.²⁰⁶ In small print at the bottom it says: “Tinted areas indicate solid fossil evidence.” We’ve highlighted these in yellow (lighter shade on the tops of most bars if you’re viewing this in black and white). The rest of the chart—shown in grey—shows the **theoretical** ideas about dinosaur ancestors and transitions in the dinosaur evolutionary tree. When the theoretical grey lines are removed (the imagined ancestors and transitions) all that remains are dinosaur “kinds” that were created in the beginning. Then, when the long ages are removed, you can see that these dinosaur kinds suddenly appeared together—by creation—on the sixth day of Creation Week. So much for dinosaur ancestors and transitions!

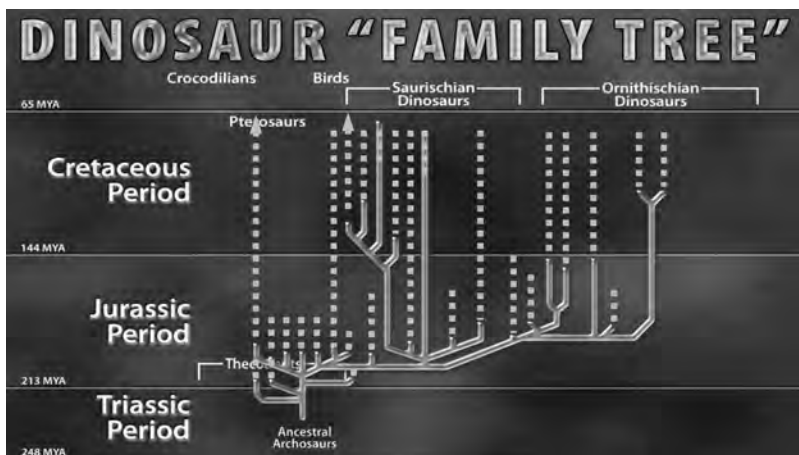


Figure 58. Dinosaur “Ancestors” and “Transitions.”²⁰⁷

Common Transitional Forms Promoted in Museums

Archaeopteryx

Archaeopteryx used to be widely promoted by evolutionists as the prime example of an intermediate form or “missing link” candidate between reptiles and birds. However, even this “trophy” does not qualify as a *transitional* fossil since its socketed teeth, long bony tail, and wing-claws are all *fully-formed* structures of its alleged fossil representatives, showing no signs of *partial* evolutionary development.



Figure 59. *Archaeopteryx*²⁰⁸

Archaeopteryx was originally discovered in 1861 and has since been widely used to promote evolutionary ideas. Alan Feduccia, a paleontologist who led studies in the origins of birds stated: “Paleontologists have tried to turn *Archaeopteryx* into an Earth-bound, feathered dinosaur. But it’s not. It is a bird, a perching bird. And no amount of ‘paleobabble’ is going to change that.”²⁰⁹

Since making that statement, there has been a constant battle in the evolutionary camp about whether *Archaeopteryx* should even be considered an ancestor to birds, and many are making the case that it should be thrown out of the evolutionary lineup. Over the past several years, *Archaeopteryx*’s “perch” in the evolutionary tree has shifted up and down, going from being a bird to a dinosaur and then back to a bird. *Archaeopteryx* was even further disqualified as an evolutionary ancestor for birds when scientists found what appears to be a crow-sized bird and extinct four-winged birds in rock layers designated to be below (i.e., supposedly earlier in Earth’s history) those containing *Archaeopteryx*.²¹⁰

Tiktaalik

Tiktaalik is also a widely used “transitional” fossil in textbooks—supposedly representing a missing link between fish and four-legged creatures that first walked on land.

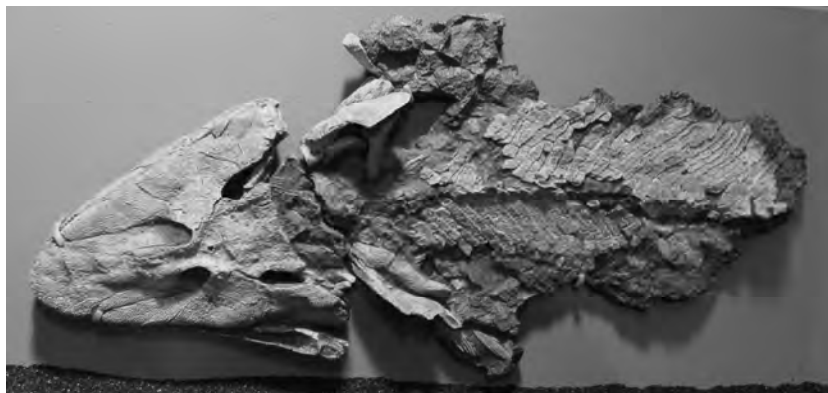


Figure 60. *Tiktaalik*²¹¹

Tiktaalik is typically shown in textbooks as a 375-million-year-old fossil that was “on its way” to progressing into a land-dwelling creature. Sometimes the Coelacanth is also shown in this same line-up, supposedly living about the same timeframe.²¹²

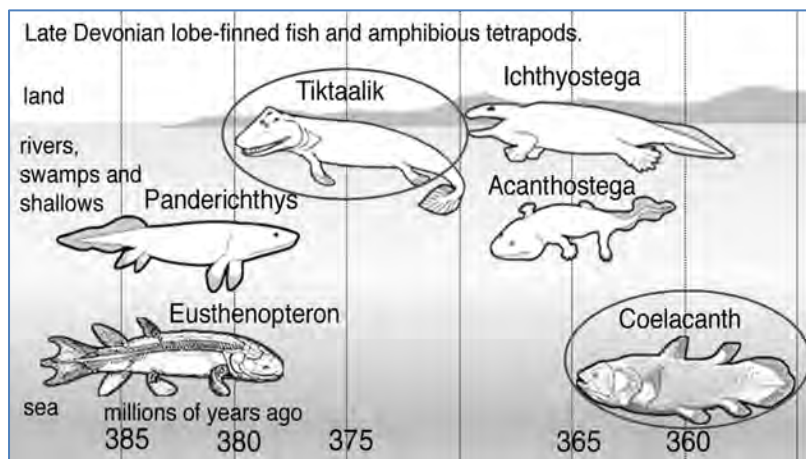


Figure 61. *Tiktaalik* and the Coelacanth: Supposed Evolutionary Transitions from Fish to Amphibians.²¹³

Now, however, both of these fish have been ejected out of the evolutionary line-up. Until recently, evolutionists thought that *Tiktaalik*'s strong front fins did most of the work to pull

this “transitional fish” up onto land, leaving the hind legs to evolve later. However, after more investigation of *Tiktaalik*’s pelvis and pelvic fins, the discoverers of *Tiktaalik* have developed updated illustrations showing how it used its strong pelvic structure for *paddling*. Now they believe that *Tiktaalik*’s hind-parts had so much power that it had “pelvic-propelled locomotion”²¹⁴ (see Figure 62).



Figure 62. Updated illustration of *Tiktaalik* in its natural environment.²¹⁵

Even more amazing is the fact that scientists (in 2010) announced in the journal *Nature* that they had found footprints of a four-legged land creature in Poland that are supposedly ten million years older than *Tiktaalik*.²¹⁶ So, if *Tiktaalik* was supposedly the ancestor of land creatures, how could land creature fossils sit 10 million years “earlier” in the rock layers than their ancestor?

The story behind coelacanths is even more amazing. These creatures were thought to live between about 400 million and 66 million years ago, but were found *living* in 1938!²¹⁷



Figure 63. Coelacanths were thought to go extinct over 66 million years ago, but you can swim with one today!²¹⁸

Coelacanths were used in textbooks for decades to promote evolutionary teaching because their fins *looked like* they were in the primitive first stages of becoming arms and legs. So coelacanths were thought to be a transitional step to land creatures.

But all of this changed on December 23, 1938, when Marjorie Courtenay Latimer, a curator in a museum in South Africa went down to the docks to wish the crew of the fishing ship named *Nerine* a merry Christmas. After delivering her greetings, she noticed “a blue fin protruding beneath a pile of rays and sharks on the deck. Pushing the overlaying fish aside revealed, as she would later write, ‘the most beautiful fish I had ever seen, five feet long, and a pale mauve blue with iridescent silver markings.’”²¹⁹ At first, she had no idea what the fish was, but after careful examination, it turned out to be a real, living coelacanth.

This discovery was such a shock among scientific circles that it was named the “zoological discovery of the century.” In 1998, another coelacanth population was found in northern Sulawesi, Indonesia, where the locals call it “*rajalaut*”—which means “king of the sea.” How did this creature not evolve for over 300 million years? The fact is, it didn’t. It’s probably very close to the original design blueprint God used to create it!

Summary

If this chapter was not enough, one more key consideration should clearly convince. What if, after countless millions of hours spent by researchers mining the crust of the Earth for fossil evidence, the fossil record is essentially *complete*? That is, it stands to reason that the millions of fossils we have collected over the last 150 years *exhaustively* record all basic life forms that ever lived, with only a few additional “big surprises” to be found. Given this, can we say that the question of transitional forms has been *asked and answered*?

One way to find out is to “calculate the percentage of those animals living today that have also been found as fossils. In other words, if the fossil record is comprised of a high percentage of animals that are living today, then the fossil record could be viewed as being fairly complete; that is, most animals that have lived on the Earth have been fossilized and discovered.”²²⁰ Carl Werner provides a chart demonstrating the results of such an investigation:²²¹

- Of the 43 living land animal *orders*, such as carnivores, rodents, bats, and apes, nearly all, or 97.7%, have been found as fossils. This means that at least one example from each animal order has been collected as a fossil.
- Of the 178 living land animal *families*, such as dogs, bears, hyenas, and cats, 87.8% have been found in fossils.

Evolutionists have had their chance—over 150 years and millions of fossils—to prove themselves, and they have come up wanting. The theory has been weighed, tested, measured, and falsified. Aren’t 200 million opportunities and one and one-half centuries enough time to answer the issue that *confounded* Darwin himself?

Why, if species have descended from other species by fine gradations, do we not everywhere

see innumerable transitional forms? Why is not all nature in confusion, instead of the species being, as we see them, well defined?...But, as by this theory innumerable transitional forms must have existed, why do we not find them embedded in countless numbers in the crust of the Earth?...But in the intermediate region, having intermediate conditions of life, why do we not now find closely-linking intermediate varieties? This difficulty for a long time quite confounded me.²²²

Pangea: Continental Drift or Continental “Sprint” During Noah’s Flood?

Suggested Videos:

www.genesisapologetics.com/pangea

Natural history museums have displays and animations that try to make the case that the continents were once joined in a formation called Pangea and then slowly moved apart to their current locations over tens of millions of years. Well, it’s actually quite obvious that the continents were in fact together at one time—evolutionists and most creationists agree on this point. But did they really spread apart slowly over millions of years, or did it happen rapidly—even within just one year—during the Flood of Noah’s time? This chapter explains how.

The conventional idea presented in museums is that Pangea began breaking apart about 175 million years ago and the continents have been moving apart slowly to their current locations.²²³ Today we can use GPS measurements to confirm the direction and speed of their movement, which is in fact just inches per year. But has it always been this way, with the continents moving apart slowly? Actually, it hasn’t, and we’ll explain why this is the case, both biblically and scientifically.

The Bible records that the Flood commenced by the “fountains of the great deep” *breaking open*. The Hebrew term used for this is *bâqa‘* (pronounced “baw-kah”) which means to “cleave, rend, or break and rip open; to make a breach.” This “cleaving and breaking/ripping open” couldn’t describe what we see on the planet today any better.

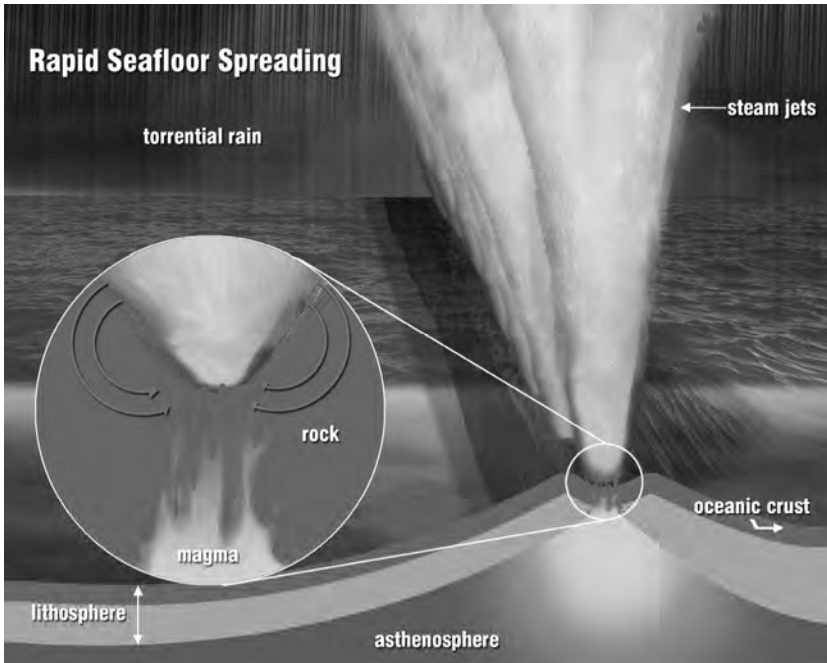


Figure 64. Fountains of the Great Deep Breaking Open (the Beginning of Noah’s Flood).²²⁴

In 1994 six PhD scientists published a research paper titled, “Catastrophic Plate Tectonics: A Global Flood Model of Earth History,”²²⁵ that substantiated this biblical aspect of the Flood. Their research revealed that fast-moving, subducting oceanic plates were responsible for the continents breaking apart and spreading to their current locations, in contrast to the evolutionary ideas of slow continental drift and equally slow seafloor spreading. Ongoing research in this area has shown that the model helps explain volcanoes, mountain ranges, the shapes and positions of continents, and the generation of global tsunamis that explain some rock layers.

Genesis Apologetics worked with many of these leading Flood geologists to produce YouTube videos that visualize how CPT played such a large role in Noah’s Flood.²²⁶ Readers interested in a more technical explanation behind the catastrophic nature of the Flood are encouraged to view Dr.

Steve Austin's presentation titled, "Continental Sprint: A Global Flood Model for Earth History."²²⁷

Much of the fundamental research on the topic of CPT has been undertaken by Dr. John Baumgardner over the past 40 years. As a professional scientist, Dr. Baumgardner is known for developing TERRA, a finite element code designed to study flow of rock within the Earth's mantle. In 1997, *US News and World Report* described him as "the world's pre-eminent expert in the design of computer models for geophysical convection."²²⁸ Baumgardner has applied TERRA to demonstrate that the Earth's mantle is indeed vulnerable to runaway instability and that this instability is capable of resurfacing the planet in the time span of just a few months. We'll review many of Baumgardner's findings below.

Brief Summary of Plate Tectonics Concepts

Scientists of both creation and evolutionary persuasions agree that new ocean crust forms at ocean rift zones where two tectonic plates are moving apart. The plates in the rift migrate apart, magma rises to fill the gap, is cooled by ocean water, and solidifies to make a strip of new ocean crust. The two plates are each like a conveyor belt that moves away from the rift zone along one edge and usually toward a subduction zone along the other edge. At the subduction zone, the moving plate plunges into the mantle beneath and thus disappears from the surface (see Figure 65).

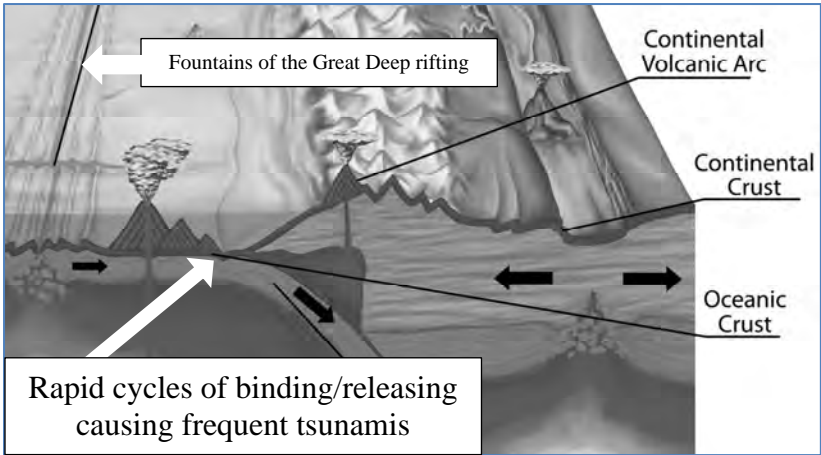


Figure 65. Subduction Overview.

The main difference between the creationist and secular understanding is that, in the creationist understanding, during the Flood, plate speeds were about five miles-per-hour instead of just a few inches per year, as they are measured to be today. The much higher speed is why the process during the Flood is referred to as *Catastrophic Plate Tectonics (CPT)*.²²⁹

What evidence is there for plate tectonics?

The evidence supporting the concept of plate tectonics is overwhelming. Let’s quickly tour some of the key evidences, starting first with the “big picture,” then investigating some of the physical evidences in more detail.

Evidence 1: The continents fit together like puzzle pieces

One of the clearest evidences is that the continents fit together like puzzle pieces. While many school textbooks credit Alfred Wegener, a meteorologist, with the “discovery” that the continents “drifted” from an original super-continent (Pangea or similar configuration) to their current location, it was actually a creation scientist who brought this to light much earlier. His name was Antonio Snider-Pellegrini (1802–1885), a French

geographer and scientist, who theorized about the possibility of continental drift. In 1858, Snider-Pellegrini published his book, *La Création et ses mystères dévoilés* (“The Creation and its Mysteries Unveiled”) which included the image in Figure 66.

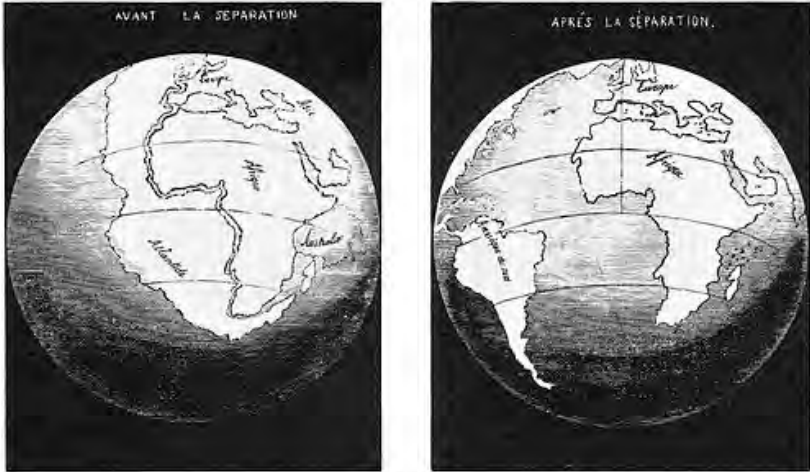


Figure 66. Snider-Pellegrini made these two maps in 1858, showing his interpretation of how the American and African continents once fit together before becoming separated.

Snider-Pellegrini based his theory on the Genesis Flood, the obvious shape and fitting of the continents, and the fact that plant fossils found in both Europe and the United States were identical.²³⁰

Modern mapping technologies and the help of bathymetric maps that reveal the shapes and contours of the continental shelf and the ocean floor allow us to clearly see that the continents were once connected and later torn apart. Figure 67 shows what Earth looks like with all the ocean water removed. Without the oceans, the deep shelves on each side of the continents become visible and we can see how the continents fit together like puzzle pieces to shape an Earth that used to be mostly a single land mass.

Interestingly, this perfectly fits the Genesis account: “Then God said, ‘Let the waters under the heavens be gathered

together into one place, and let the dry land appear'; and it was so. And God called the dry land Earth, and the gathering together of the waters He called Seas. And God saw that it was good" (Genesis 1:9–10). This is especially obvious when looking at the matching jagged edges of lower South America and Africa (see Figure 67).

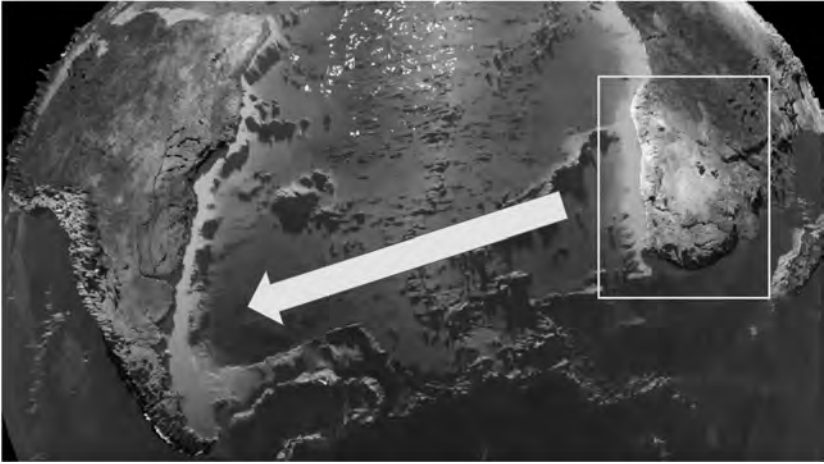


Figure 67. Lower South America Matching Africa.²³¹

We can also see how a notch of submerged land off the grand banks of Newfoundland fits nearly perfectly into a slot north of Spain (see Figure 68).

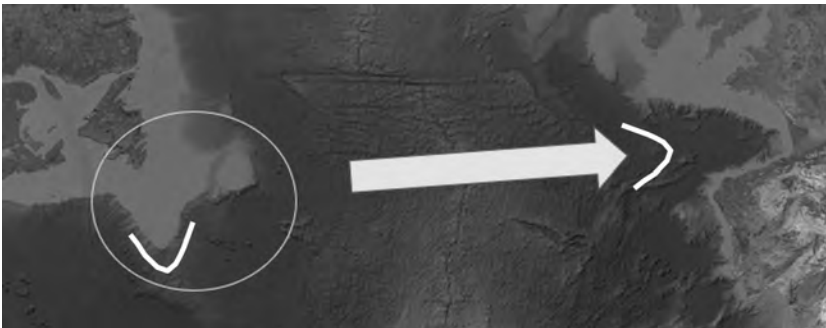


Figure 68. Submerged land off the Grand Banks of Newfoundland fitting into a Slot North of Spain (Google Earth).

From a Biblical standpoint, the continents fit together so well because of the catastrophic linear rifting that occurred when the fountains of the great deep were “cleaved” and pulled apart only a few thousand years ago.

Evidence 2: The Oceanic Ridge System

The oceanic ridge system covers more than 40,000 miles and circles the Earth 1.6 times over.

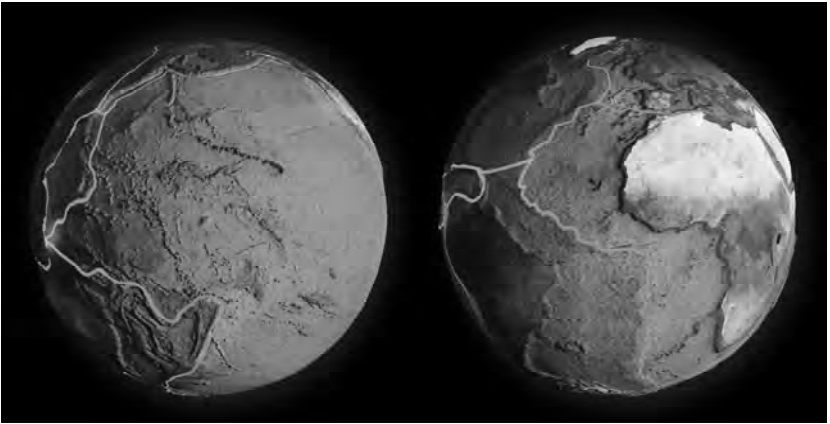


Figure 69. Oceanic Ridge System.

The Mid-Atlantic Ridge (MAR) represents one of the largest rifts left behind by the global seafloor spreading process. It looks like a giant baseball seam running around the face of the Earth.



Figure 70. Mid-Atlantic Ridge (MAR).²³²

The MAR is part of the longest mountain range in the world and includes perpendicular faults along its entire length, known as transform faults, showing the formation of new seafloor involved a pulling apart of the ocean basin. The sharpness of the faults and the abrupt edges indicate that little time has expired since their formation. The raised and sloped features on each side of the rift also testify to the hot and

buoyant rock that still lies beneath it. From a Biblical standpoint, the formation of the Atlantic basin occurred quickly during the Flood and then slowed down greatly to about an inch per year, as GPS measurements today indicate.

Evidence 3: Ring of Fire

The Ring of Fire is a 25,000-mile horseshoe-shaped string of oceanic trenches in the Pacific Ocean basin where about 90% of the world's earthquakes and a large fraction of the world's volcanoes occur.²³³ It is also where most of the plate subduction is taking place today. From a Biblical perspective, this long belt of volcanoes and earthquakes marks the location where vast amounts of ocean plate was rapidly subducted into the Earth's interior during the Flood. Today, by comparison, the speed of subduction is extremely slow, and the resulting earthquakes and tsunamis are dramatically less frequent.

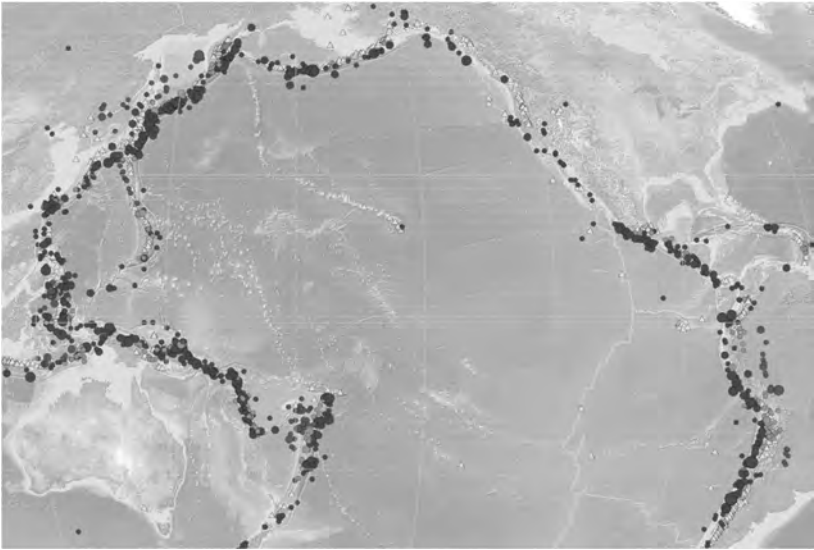


Figure 71. USGS 1900-2013 Earthquakes in the Ring of Fire.²³⁴

How is CPT different from the secular understanding of plate tectonics?

CPT is basically the expression at the Earth's surface of a recent, massive, and rapid overturn of rock inside the region inside the Earth known as the mantle, which is the 1,800-mile thick layer of rock between the Earth's core and its crust. Regions of cooler rock in the upper part of the mantle have a natural tendency to sink downward toward the bottom, and regions of warmer rock at the bottom have a natural tendency to rise upward toward the surface. When conditions are right, this natural tendency for rising and sinking can "run away," such that both rising and sinking become faster and faster—up to a billion times faster. The force responsible for driving this behavior is simply gravity. From a Biblical perspective, the runaway episode responsible for CPT occurred during the Flood described in Genesis 6–8.

The possibility that runaway behavior might occur in the mantle was discovered decades ago in laboratory studies²³⁵ that explored how mantle minerals deform at mantle temperature and stress conditions. These basic experiments revealed that mantle minerals weaken by factors of more than a billion for stress levels that can readily arise inside the Earth. Computer experiments²³⁶ later confirmed that episodes of runaway overturn in the mantle are inevitable under the right conditions because of this inherent weakening behavior demonstrated in these laboratory experiments.

What might be the consequences at the Earth's surface of a runaway overturn event in the mantle? One notable consequence is that the tectonic plates at the Earth's surface get caught up in the rapid flow of rock within the mantle beneath. In particular, the ocean plates diving into the mantle at the deep-ocean trenches during the overturn did so at a spectacularly accelerated pace compared to today's rates. Likewise, in zones known today as spreading ridges (such as the Mid-Atlantic Ridge) where tectonic plates are moving apart from one

another, the speed of separation during the overturn was dramatically higher.

Just how much faster would the plate motions during such an overturn event be compared with what is occurring today? This can be estimated based on the time frame provided in the Bible's account of the Flood and on the amount of plate motion associated with the part of the rock record that contains fossils of the plants and animals buried in the Flood. From these numbers one obtains a plate speed on the order of five miles-per-hour. A typical plate speed today, as measured by GPS, is on the order of a couple inches per year. The ratio of these two speeds is about one billion to one.

What are other noteworthy consequences of such rapid plate motions? One is that water on the ocean bottom in the zones where plates were moving apart so rapidly was in direct contact with the molten rock which was rising from below to fill the gap between the plates. This molten rock at about 1300° C converted the ocean water to steam at extremely high pressure. This steam organized to form in a linear chain of intense supersonic jets along the entire midocean ridge system. As these jets pierced the layer of ocean water above where they were formed, they entrained massive amounts of liquid seawater, which was lofted high above the Earth. This liquid water then fell back to the surface as rain. Hence, a direct consequence of rapid plate motions was persisting rain over much if not most of the Earth.

A second prominent consequence of rapid plate motion was a rising sea level that flooded the land surface with ocean water. The rising sea level resulted from a decrease in the volume of the ocean basins. Behind that decrease was the loss of original cold ocean plate as it plunged into the mantle at an ocean trench and its replacement with new and much warmer ocean plate produced by seafloor spreading at a mid-ocean ridge. The new plate was on average 500–1000° C warmer than the cold plate it replaced. Because warm rock of a given mass has more volume than cold rock of the same mass, the ocean floor above new ocean floor was 0.6–1.2 miles higher than was

the old ocean floor. As more and more new ocean floor was generated at mid-ocean ridges, while more and more of the original ocean floor was removed by recycling into the mantle, the global sea level relative to the land surface rose by thousands of feet. Hence, a notable result of rapid plate motion was a rising sea level and a dramatic flooding of the continents by ocean water.

A third major consequence of the rapid plate motion is the generation of a huge number of giant tsunamis. In today's world, at an ocean trench where an oceanic plate is steadily slipping into the mantle, the adjacent overriding plate generally is locked against it and is bent downward as the other plate slides into the mantle (see Figure 72). As this motion proceeds, the overriding plate is deformed more and more in a spring-like manner until a stress limit is exceeded. At this point the two plates unlock, significant slip between the plates occurs, and the overriding plate returns to its original shape. Such an unlocking and slip event usually produces an earthquake. If the slip event is large enough it also can launch a tsunami. During the Flood, when plate speeds were a billion times faster than today, it is almost certain that this same locking and unlocking phenomenon also prevailed. The higher plate speeds and the huge amount of seafloor recycled into the mantle would have generated vast numbers of huge tsunamis. Conservative estimates are in the range of 50,000–100,000 or more tsunamis, with wave heights in the range of hundreds of feet or higher.

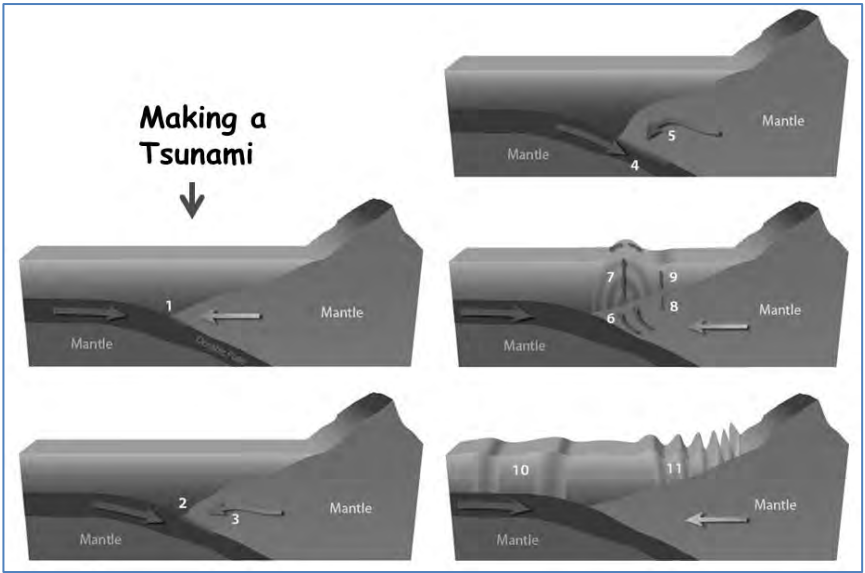


Figure 72. Making a Tsunami.²³⁷

Numerical experiments undertaken by Dr. Baumgardner to model the erosion and sediment deposition aspects of this sort of tsunami activity show that it is readily capable of producing the observed continent sediment record. This work is described in a recent paper titled, “Understanding how the Flood sediment record was formed: The role of large tsunamis.”²³⁸ Figure 73 shows a plot from this simulation that includes the plate motions.²³⁹ Hence, a third major result of rapid plate motion is the formation of the observed layer-cake pattern of fossil-bearing sediments across the continents.

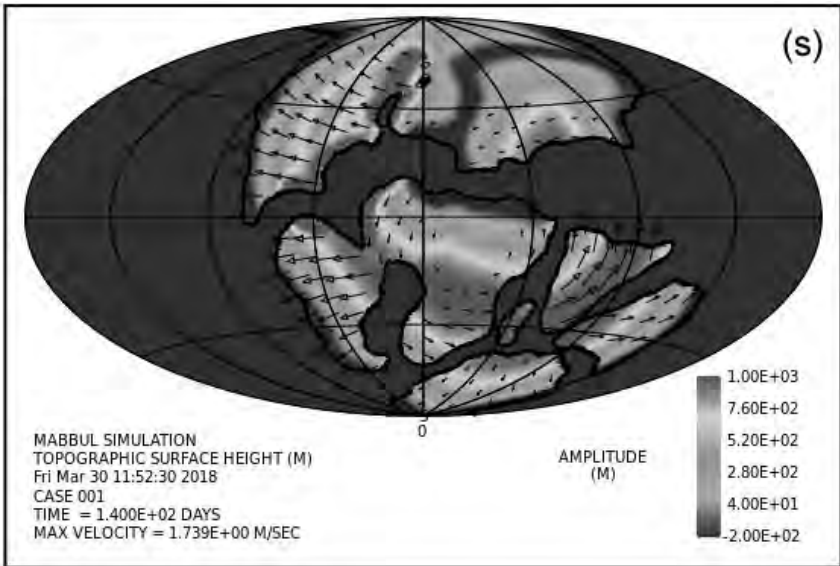


Figure 73. Plot from Dr. John Baumgardner's CPT Tsunami Simulation.²⁴⁰

Dr. Baumgardner's simulation allows us in a limited way to rewind time to gain some insight into what happened during the year-long Genesis Flood. Below we'll review some of the major physical evidences that support CPT.

Physical evidences that support the reality of CPT

Evidence 1: Catastrophic Subduction

The oceanic plates that rapidly subducted under the continents during the Flood are still visible! Seismic images of the mantle reveal a ring of unexpectedly cold rock at the bottom of the mantle, beneath the subduction zones that surround the Pacific Ocean. This structure is obtained using a technique known as seismic tomography that folds together data from 10,000 or more seismograms at once (see Figure 74).

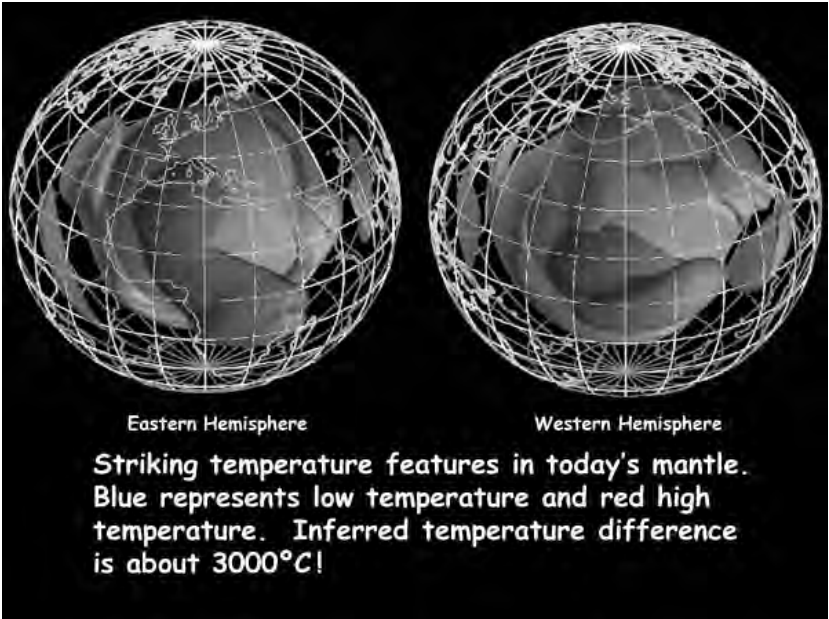


Figure 74. Cold Plates (Blue) that Subducted under the Continents During the Flood.²⁴¹

Evidence 2: The Fossil Record

The action of CPT caused the oceanic plates to subduct rapidly under the land masses and generate cycles of tsunamis that brought staggering quantities of sediment onto land that wiped out every living creature in their paths, burying them in the mud layers we still see today. These types of tsunamis still occur, although much less frequently and on a smaller scale. The moving sea floor subducts, snags under the land masses, and then releases, creating mud-filled tsunamis that carry debris and sea life onto land, sorting them in layers.

Giant, high-frequency tsunamis that were occurring during the Flood explain why today we see dinosaur graveyards around the world, including 13 states in the middle of America, containing dead dinosaurs mixed with marine life (see Figure 75). What type of flood could do this? Just how much water would it take to bury millions of land creatures under hundreds

of feet of mud and sand in the Morrison Formation (a 13-state, 700,000 square mile area)?

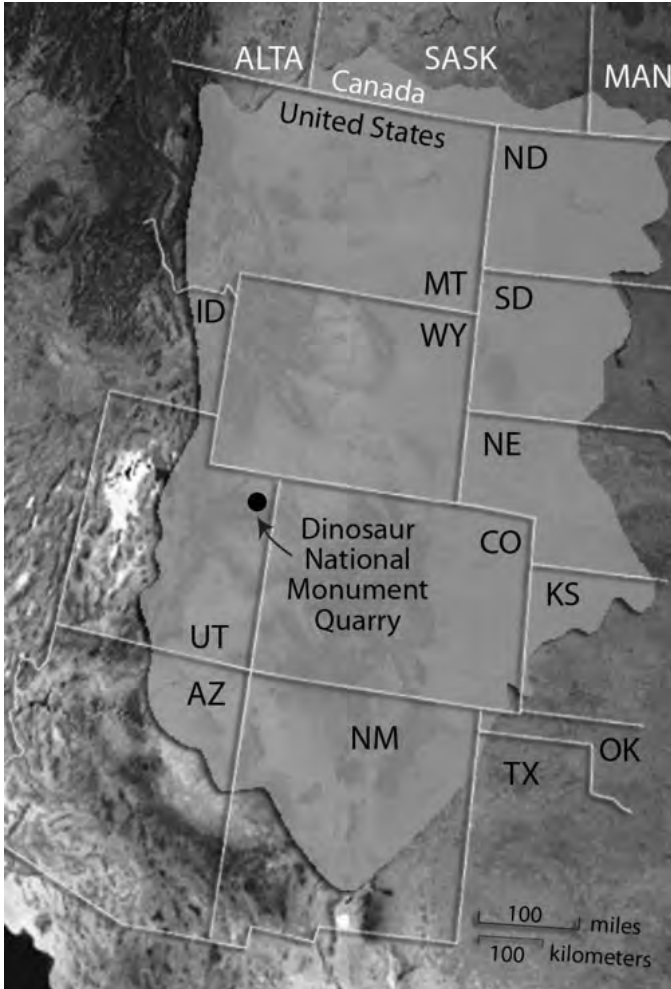


Figure 75. Morrison Formation.²⁴²

Just how did so many land creatures get buried together with marine life, with 97% of the dinosaurs found disarticulated,²⁴³ and many of the remaining 3% that are found intact discovered in mud and sand layers with their necks arched back, suffocating as they died?²⁴⁴

A global inundation that covered most of North America is no secret to secular geologists, but they call it something different: the “widespread Late Cretaceous transgression”²⁴⁵ (essentially technical jargon for “worldwide flood”). Studies have revealed that “a sea level rise of 310 meters is required to flood the Cretaceous layers based on their current elevation.” The challenge for secular geologists, however, is that the maximum thickness of the fossil layers produced by a 310-meter sea level rise is only about 700 meters, but in North America, nearly 50 percent of the Cretaceous layers contain strata *thicker* than 700 meters.

Sediment transport via highly turbulent tsunami-driven flow described in Baumgardner’s published work logically seems to be required to account for these thick layers. These layers also suggest that the continents had to *down warp* locally during this global inundation, as Baumgardner’s modeling likewise suggests. This is what CPT predicts and what the Flood would have done. There’s just no way that rising sea levels alone can explain the fossil record in North America—mechanisms much more powerful and catastrophic *had to be involved*.

Evidence 3: Fossil Correlation²⁴⁶

By comparing fossils of small organisms found on the ocean floor with fossils of the same organisms on different continents, it has been possible to determine when the ocean crust formed in terms of the fossil sequence found in the continental sediments. What has been discovered, both from a creationist as well as from a secular understanding, is that much of the continental fossil record was already in place before any of the present-day ocean crust had come into existence. For example, all the trilobite fossils had already been deposited, plus all the older coal deposits (Pennsylvanian System coals) had already been formed before any of the present-day ocean crust had formed.

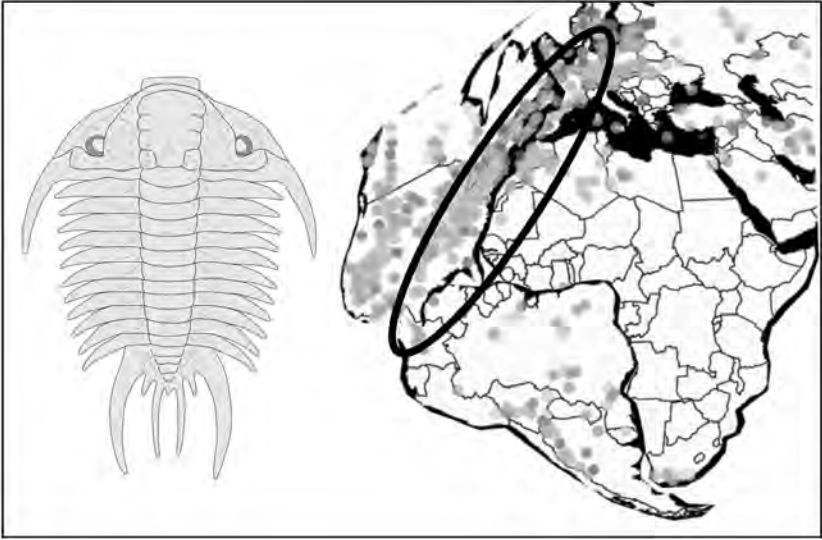


Figure 76. Reassembling the continents shows a trilobite habitat torn apart by the Flood.²⁴⁷

The fossil record (e.g., certain trilobite species) that now straddles both sides of the MAR testify to the rapid nature of this catastrophe, with millions of the same kinds of animals that were once living together now found buried in mud and lime layers on either side of the rift.

In the creationist understanding, the presence of fossils is a trustworthy indicator of the action of the Flood, meaning that a large part of the Flood cataclysm had already unfolded and had generated fossil-bearing sediments on the continental surface *before* any of the present-day ocean floor had appeared. It further implies that all of today's ocean floor formed *since the onset of the Flood*, during roughly the latter half of the cataclysm. It also means that all the pre-Flood ocean floor, plus any ocean floor formed during the earlier portion of the Flood, must have been recycled into the Earth's interior during the cataclysm. These considerations indicate in a compelling way that rapid plate tectonics must have been a major aspect of the year-long Flood catastrophe.

Evidence 4: Buckled/Folded Sedimentary Layers

The Genesis Flood laid down tens of millions of cubic miles of sediment like sand and mud all over the globe. It soon hardened into rock. These layers contain most of the fossil record. Some of these massive layers are bent and even folded, proving they were laid down rapidly and then bent before hardening into rock. Otherwise they would have crumbled instead of bending plastically. These folded and bent geological features are found all over the world and most occurred during the latter stages of the Flood when 80% of the world's mountains rapidly formed.



Figure 77. Example of Massive Geologic Folding.²⁴⁸

Evidence 5: River Fans

If the evolutionary view about the continents were true (that they moved apart slowly over millions of years), the large rivers on the continents that empty into the Atlantic Ocean would have left a connected trail of mud stretching from one side of the Atlantic to the other. But what the evidence actually shows is that most of the seafloor spreading that formed the Atlantic was *over* before continental runoff and major transport of sediment into the Atlantic basin *began*. Major rivers like the Congo, Mississippi, and Amazon run off the continents and have mud fans with only thousands of years' worth of mud deposits—not millions.

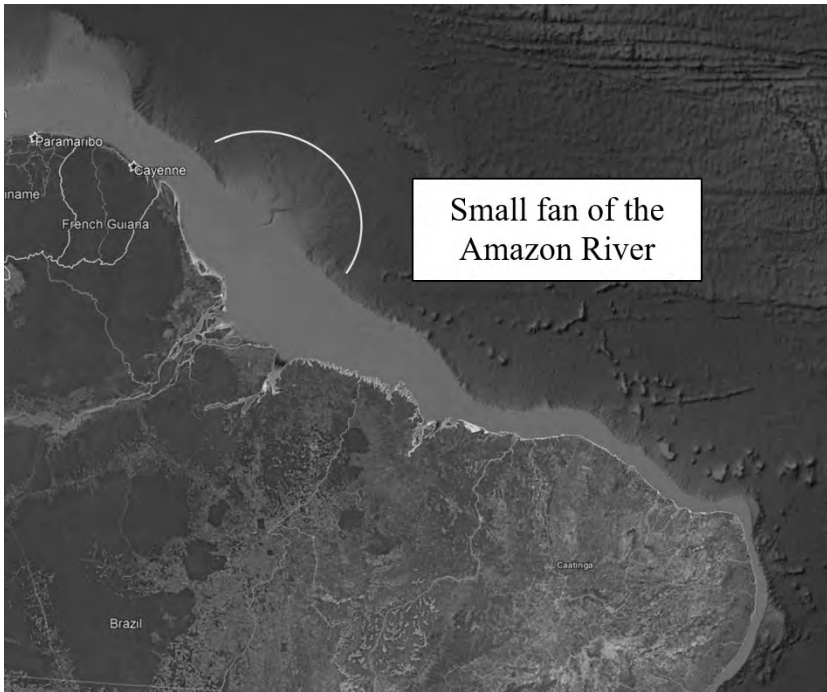


Figure 78. Amazon River Fan (Google Earth)

There are flat sand bottoms on each side of the continents showing they were split apart rapidly—they don't

have millions of years' worth of runoff with considerable mud extending into the ocean. The continental shelves exhibit little erosion and still match nearly perfectly when put back together. Millions of years of erosion would have destroyed much of the sharp continental shelves. These rivers began shaping and eroding only thousands of years ago, not millions.

Evidence 6: Sloss Megasequences

Dr. Tim Clarey has conducted extensive research on the Genesis Flood using over 2,000 stratigraphic columns (bore holes) from across North and South America, Africa, and Europe.²⁴⁹ These data confirm the existence of six megasequences (called "Sloss-type megasequences"), large-scale sequences of sedimentary deposits that reveal six different stages of global depositions that occurred during the Flood.

The three earliest megasequences (Sauk, Tippecanoe, and Kaskaskia) contained mostly marine fossils, indicating that only shallow marine areas were swamped and buried by CPT-caused tsunamis. The 4th megasequence (Absaroka) shows a dramatic rise in ocean level and overall global coverage and volume. This sequence also includes the first major plant (coal) and terrestrial animal fossils. The 5th megasequence (Zuni) was mostly responsible for the demise of the dinosaurs and appears to be the highest water point of the Flood (its zenith) because it shows the highest levels of sediment coverage and volume compared to earlier megasequences. The final megasequence (Tejas) contains fossils from the highest upland areas of the pre-Flood world. Together, these megasequences explain why over 75% of Earth is covered by an average of about one mile of sedimentary deposits.

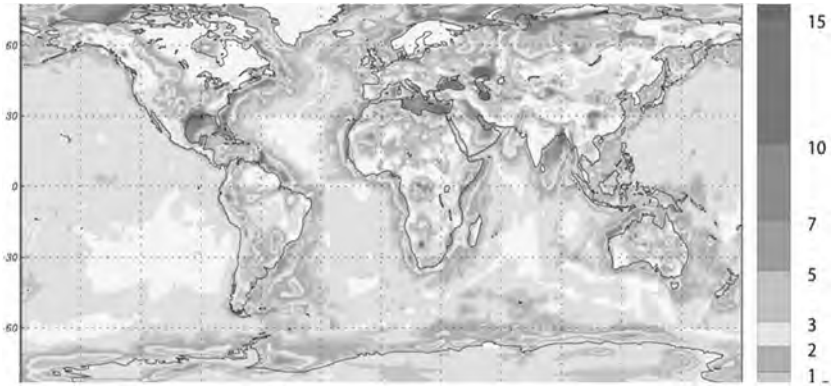


Figure 79. World Sediment Map (showing 75% of Earth's surface is covered by an average of about one mile of sedimentary deposits).

Evidence 7: Massive Coal Deposits

One of the highest and most severe stages of the Flood occurred during the 4th Sloss megasequence, the Absaroka. Land creatures and plants start showing up in the fossil record laid down by this megasequence. This is also the time when the world's ocean floor began to be created anew. In other words, the oldest ocean crust today only goes back to the time of the deposition of the Absaroka megasequence.

Notice the top bars in the first seven labeled rows in Figure 80. This shows the global animal fossil occurrences from the Paleobiology Database.²⁵⁰ The lower, blue bars in each row represent aquatic animals and the top, red bars represent land animals. The megasequences are shown on the left. Note that few land animals appear until the end of the Kaskaskia, then land animals begin increasingly showing up in the fossil record as the Flood progressed.

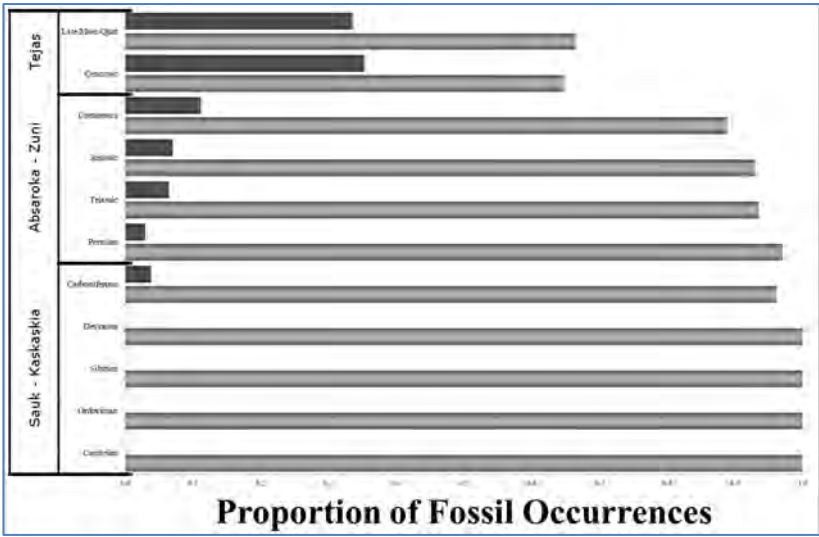


Figure 80. Sloss Megasequences and Fossil Deposits.²⁵¹

Entire ecosystems were buried during this megasequence in enormous deposits that later turned into coal, such as the extensive Appalachian coal beds. Even more coal was formed in the later Zuni and Tejas Megasequences as the waters of the Flood rose yet higher. The U.S. has over seven trillion tons of coal reserves. Where did it all come from? While we know that coal is formed by dead plant material being sandwiched between sediment layers, we only have enough vegetation on the Earth's surface today to produce just a fraction of the existing coal reserves.²⁵² This shows that the pre-Flood world was mostly covered by lush vegetation. The rising Flood waters and tsunamis that were necessary to sweep over the land and bury vast amounts of vegetation that turned into coal are best explained by a catastrophe of worldwide proportions.

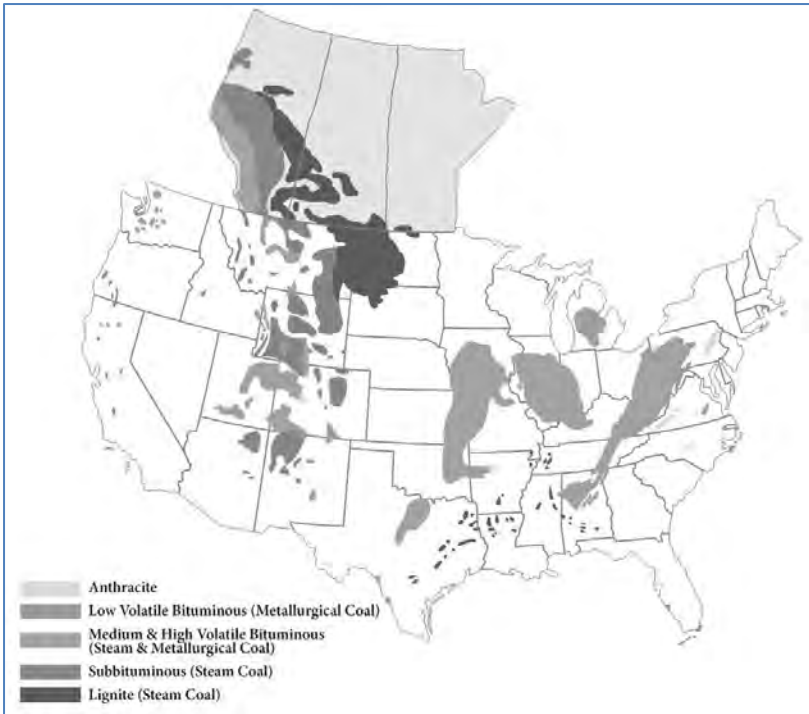


Figure 81. United States Coal Beds.²⁵³

In the later run-off stages of the Flood (called the Tejas sequence), plants swept off the pre-Flood lands formed massive coal beds such as in the Powder River Basin of Wyoming and Montana. The Powder River Basin layers are the largest coal deposits in North America, currently supplying over 40% of the coal in the U.S. Some of these stacked coal beds are up to 200 feet thick and cover areas that are 60 miles long by 60 miles wide. The sheer volume of plant material required to form such a massive layer of coal testifies to catastrophic circumstances.

Dinosaur Extinction: Noah's Flood or an Asteroid?

Suggested Videos:

www.genesisapologetics.com/dinosaurextinction

Natural history museums spend millions on displays that promote the idea that an asteroid impact hitting the edge of the Yucatán peninsula of Mexico 66 million years ago was responsible for the final dinosaur extinction. While evolutionists have published over 90 different theories about this dinosaur extinction event, the asteroid theory takes the leading place in museums today.²⁵⁴

But have you considered whether this single event could explain the simultaneous extinction of all dinosaurs around the world,²⁵⁵ including a massive dinosaur kill zone in North America that spans three countries and fourteen states, stretching over 1,800 miles long and 1,000 miles wide?

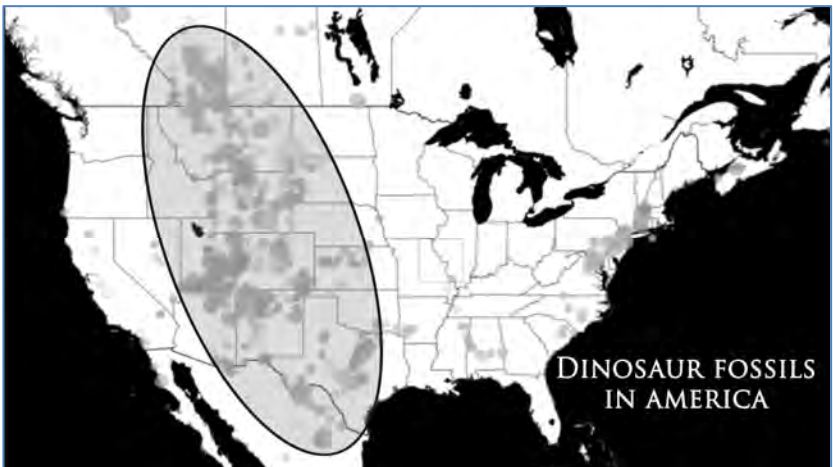


Figure 82. Dinosaur Fossils in America.²⁵⁶

Over a million square miles across the American West are filled with every kind of dinosaur, and they're all mixed with other land animals, including birds, and all sorts of marine life like clams, rays, and sharks. In addition, many of these layers filled with dinosaurs are stacked one on top of the other. Could a single asteroid that hit over 1,500 miles away from the heart of this disaster zone really be responsible for all this?²⁵⁷ This chapter explains why Catastrophic Plate Tectonics during Noah's Flood provides a better explanation.

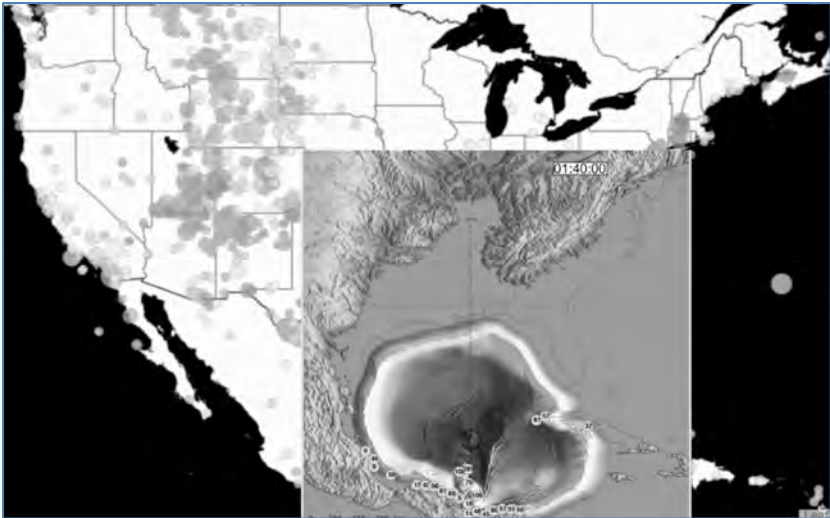


Figure 83. The Chicxulub Asteroid Crater Responsible for Dinosaur Extinction?²⁵⁸

An asteroid hitting the Yucatán peninsula would certainly have regional consequences that could easily spread over part of present-day Central America. But the billions of fossils in the middle of North America were buried in multiple mud, sand, and volcanic ash layers from successive, watery events, and some of these layers are hundreds of feet thick and stretch over multiple states in the U.S. How could a single asteroid, falling well over a thousand miles away from the center of this area, bury dinosaurs across 14 U.S. states under hundreds of feet of mud, sand, and volcanic ash?

For example, consider the Lance Formation. This geological unit spreads across several states and is packed with fossils of many sorts of land, air, and marine creatures, including small and large dinosaurs, pterosaurs, fish, mammals, crocodiles, lizards, snakes, turtles, birds, frogs, and salamanders. It's quite obvious that entire ecosystems were buried here during Noah's Flood.

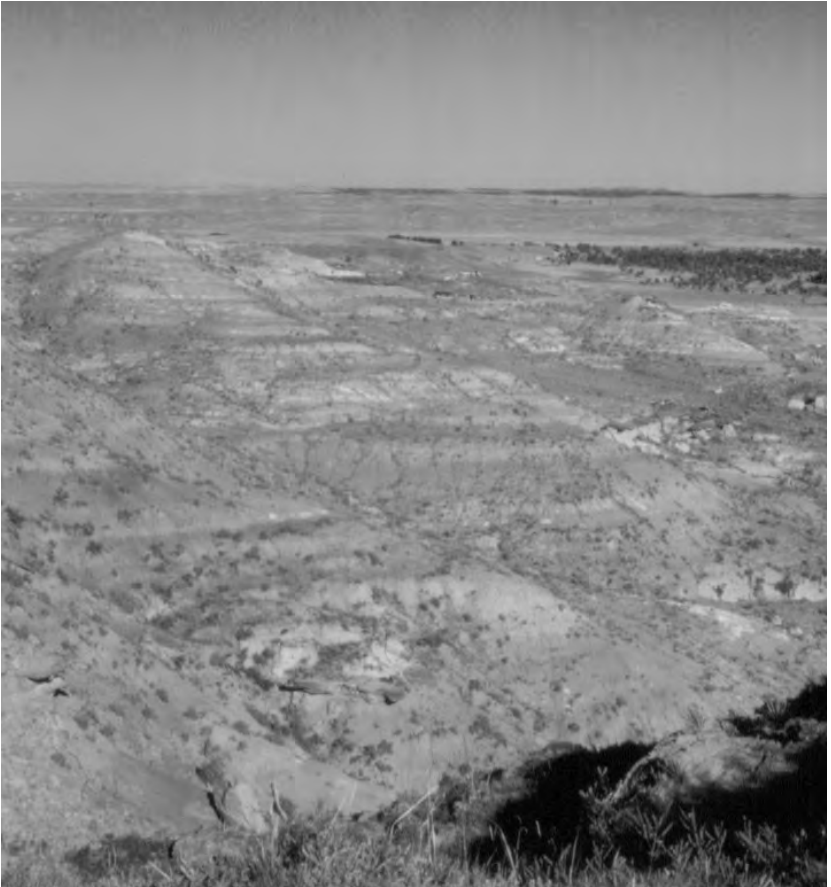


Figure 84. Lance Formation²⁵⁹



Figure 85. Lance Formation Dinosaur Fossils.²⁶⁰

Doesn't it make perfect sense that these widespread mud, sand, and ash layers which are filled with dinosaur bones were deposited by a worldwide flood? It's fascinating to see how many secular paleontologists admit that dinosaurs died in watery catastrophes. In fact, the leading textbook on bonebeds which catalogues most of the largest bonebeds in the world, admits that most of them were laid down by watery catastrophes.²⁶¹

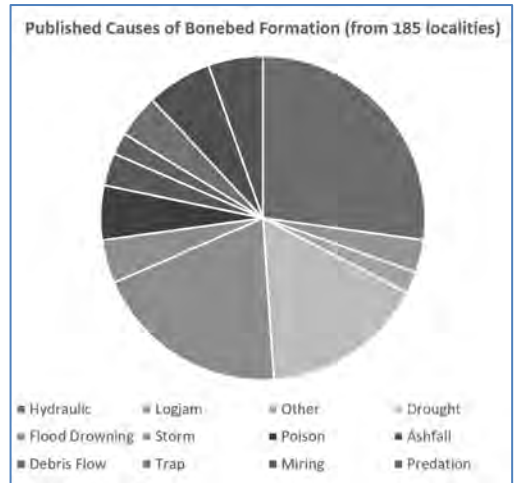


Figure 86. Bonebeds Database Reveals the Majority of Bonebeds were due to Watery Catastrophes.

When looking at the largest of these dinosaur bonebeds in Canada, secular scientists widely admit they were formed by dramatic high-speed water events.²⁶²

Let's not forget the most obvious clue about dinosaur extinction: They're all buried in sedimentary rock! There may be ash from volcanoes mixed in, but most dinosaur fossils have to be chiseled out of mud and sand layers that have hardened into stone. Many of these rock units laid down in layer-cake manner commonly span thousands of square miles. What's unique about the dinosaurs is that they are found *in* the very mud and sand that killed them—often twisted about and disarticulated.

How could an asteroid impact all the way down in Mexico deposit these extensive mud and sand layers that are hundreds of feet thick and stretch laterally for thousands of miles? An asteroid would certainly create a crater on the Earth's surface, with mud and sand layers thinning out from the crater, but the actual dinosaur bone layers in the American West remain about the same thickness for hundreds of miles. Noah's Flood could do that, but an asteroid would not. The Bible says

that surging Flood waters took months to cover the entire globe. Sure enough, dinosaurs are found in sequentially-laid mud and sand layers all over the Earth. Deposition of these layers must have occurred quickly one after the other because the upper surface of each layer is flat without erosion, indicating hardly any time passing before the next layer was laid on top of it by the next huge flood surge.

The other challenge for the asteroid theory is that the Cretaceous fossils that cover multiple states in the middle of North America are at elevations hundreds of feet **higher** than the current ocean level could have placed them. Even secular scientists explain that the only way to get these extensive fossils to their current elevation is through the massive flooding followed by buckling of the continent.²⁶³ Earth's rapidly subducting crustal plates during Noah's Flood would have compressed and buckled the sedimentary layers deposited on the plates by cycles of numerous tsunamis flooding across the land, killing and burying dinosaurs mixed with marine life, as high as the elevations where we find them today.



Figure 87. Example of Geological Folding. The layers had to be bent and folded while still pliable.

A profound challenge for the asteroid theory of dinosaur extinction is that a single asteroid does not produce such multiple, continent-wide fossil-packed layers. Most dinosaur fossils are contained in **layers** of mud that were laid down in **successive** fashion—one after the other—as if by repeating very large amplitude tsunamis. These layers are often hundreds of feet thick and laterally continuous for thousands of miles. The well-developed Catastrophic Plate Tectonics theory accounts for these features in terms of rapidly subducting plates that repeatedly lock and then unlock and slip. Each slip event unleashes a large amplitude tsunami.

These rapidly subducting plates resulted in enormous volcanism that spewed megatons of ash that entombed countless dinosaurs in multiple states. The evidence for this is obvious. For example, the Independence Dike Swarm is a system of linear fissures that erupted during the Flood (see Figure 88).



Figure 88. Independence Dyke Volcanic System²⁶⁴

This system extends over 370 miles in southern California and belted out 4,000 cubic miles of ash that covered multiple states, leaving behind enormous ash deposits like the Brushy Basin Member which is 110 meters thick in eastern Utah and found in 35 other locations around the region.²⁶⁵ These ash beds are mixed with sandstone brought in from massive, mud-filled tsunamis generated by catastrophic rifting. The countless dinosaurs buried in this mixture is exactly what we would expect to find with a worldwide Flood that involved

rapid oceanic rifting because both oceanic and volcanic upheaval was happening at the same time.

The case for the Biblical Flood grows even stronger when looking at how the strength of the volcanic systems and extent of the ash deposits declined after the Flood. Truly something big happened in the past that rapidly buried the dinosaurs in mud, sandstone, and ash, and it certainly wasn't an asteroid that fell over 1,500 miles away from the heart of this disaster zone. The rapidly subducting ocean plates created the Independence Dike Swarm during the Flood, depositing 4,000 cubic miles of ash. This was followed by a couple of major Yellowstone eruptions after the Flood that deposited 600 then 240 cubic miles of ash. This was later followed by the Long Valley Eruption that produced 150 cubic miles of ash, then the Crater Lake Eruption with only 17 cubic miles of ash, and finally the Mount Saint Helens Eruption which deposited only one-quarter cubic mile of ash. The volcanic eruptions appear to be growing less intense over time, which is consistent with large catastrophes during the flood followed by a slowing of tectonic plate movements, and thus fewer and less intense volcanic eruptions over time (see Figures 89 and 90).

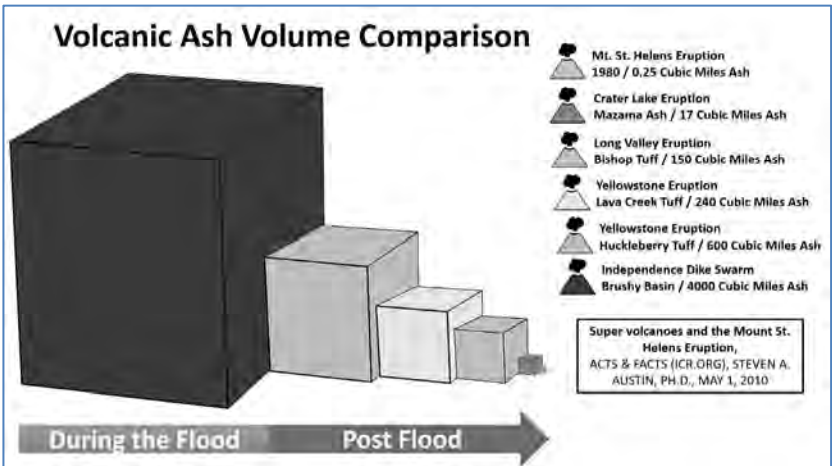


Figure 89. Volcanic Ash Volume Pre/Post Flood.²⁶⁶

Figure 90 shows the vast coverage of each of these volcanic systems, with the largest ones erupting during the Flood then gradually reducing intensity after the Flood.

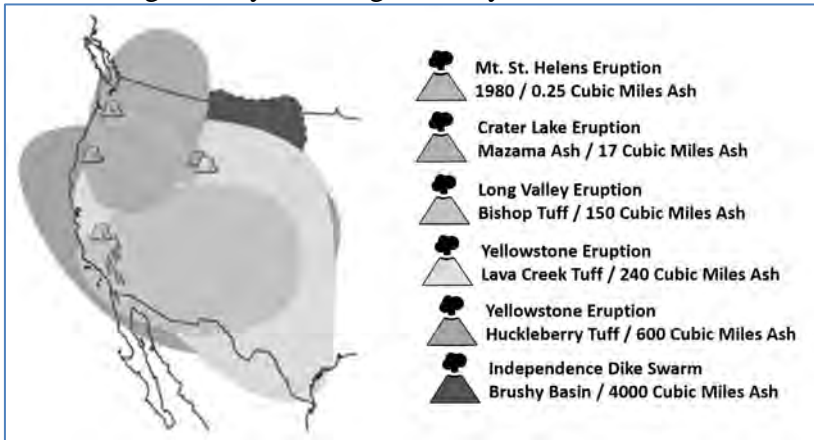


Figure 90. Volcanic System Coverage During/After the Flood.

Let's consider something else about the asteroid-dinosaur extinction theory: While museums portray the asteroid theory using expensive exhibits, did you know that the scientific community is far from settled on this idea? Over the last 30 years, hundreds of geologists have disagreed with the asteroid theory, believing instead that an extreme episode of volcanism explains the final dinosaur extinction.²⁶⁷

These scientists assert that it was the massive volcanic eruptions of basalt in India—called the Deccan Traps—that were primarily responsible for the dinosaur demise. These eruptions extruded over 288,000 cubic miles of lava, which is over **one million times** more voluminous than the Mount Saint Helens eruption in 1980.²⁶⁸ We're talking about enough lava to cover the state of California one mile deep.

Flood basalts like the Deccan Traps are found on several continents, usually with fossil-bearing sedimentary layers beneath them, and further fossil-bearing sedimentary layers above them, indicating they also are the result of spectacular, catastrophic processes during the Genesis Flood.²⁶⁹ Princeton Professor Dr. Gerta Keller has been at the forefront of this

disagreement with the asteroid theory that started over 30 years ago. She has explained her findings at numerous GSA conferences and articles.²⁷⁰

Creationists have no problem with both the Chicxulub impact and the Deccan lava eruptions happening around the same time during the Flood. In fact, the impact in Mexico and numerous others could have started or accelerated the Deccan eruptions and others during the Flood by triggering the breakup of the “fountains of the great deep” mentioned in Genesis. Even some secular geologists have suggested that the impact in Mexico may well have triggered or accelerated the Deccan eruptions.²⁷¹ The evidence for large numbers of asteroid impacts during the Flood is compelling. In fact, a survey found that 71 of 110 asteroid impacts are found in fossil-bearing sedimentary rock layers—layers that were laid down by the Flood. Most of the remaining 39 likely occurred after the Flood.²⁷²

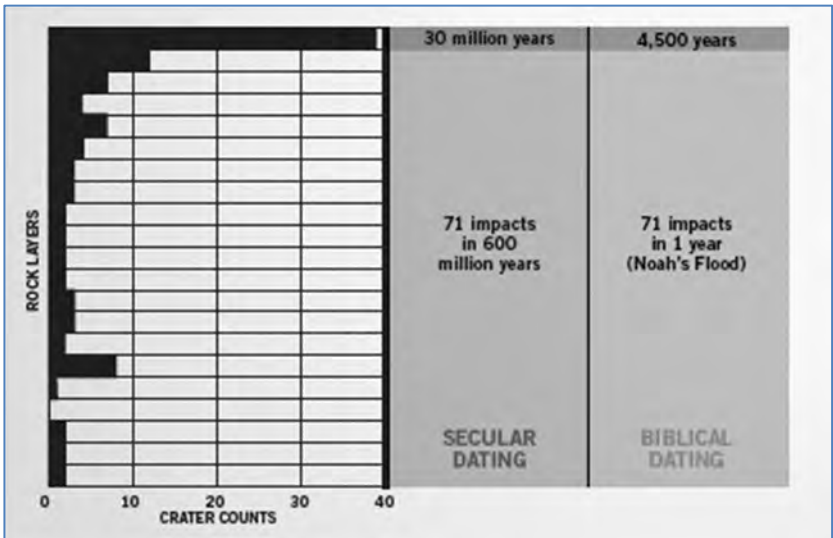


Figure 91. A History of Craters: Two Interpretations. Geologists have found over a hundred impact craters (horizontal black bars) on Earth. On this table, 39 of the 110 impacts were deposited in the uppermost rock layers, and the rest were spread over the many lower layers.²⁷³

Indeed, the impact of a large asteroid may well have initiated the catastrophic movement of the tectonic plates at the onset of the Flood. Once plate subduction was initiated, molten rock rose from below to fill rifts in the zones where plates were pulling apart. Disturbances in the Earth's interior from the rapidly subducting plates subsequently led to volcanic eruptions around the world. The dinosaur fossil record attests to this overall picture, with millions of creatures buried in muddy layers by subduction-driven tsunamis.

“K–Pg” Boundary

Geologists have found that in many regions the boundary between the Cretaceous and Paleogene layers, called the “K–Pg” boundary, is marked by high levels of the rare metal iridium. While it is true that nearly all dinosaur fossils are absent above this K-Pg boundary, the areas with high iridium levels are not restricted to the thin zone that defines this boundary.

In fact, in the same regions where the K-Pg boundary was discovered, recent studies have identified a four-meter-thick layer rich in iridium—not the thin line shown in most textbooks. These studies reveal that there was not a single iridium “spike,” but rather a horizon of peak values within a sequence of iridium-enriched clays that were most likely deposited by volcanic activity as well as an asteroid or series of asteroids.²⁷⁴

Numerous scientists have taken the stance that these wide bands simply do not support the idea of a single impact extinction event.²⁷⁵ In fact, Dr. Keller and other scientists²⁷⁶ invested over 30 years looking for evidence to support the Chicxulub impact in the Yucatan peninsula as the cause for the K-Pg extinction event and found very little evidence for such a conclusion. Although they found occurrences of iridium anomalies in Italy, Denmark, Tunisia, and India in the context of the K-Pg boundary, these were **never** associated with Chicxulub impact ejecta. Other scientists have also been

puzzled to find out there is virtually no iridium in the Chicxulub ejecta material itself—not in the layer at the base of the event deposit nor in the ejecta layer above.²⁷⁷ This was not what evolutionists were expecting—how could the very asteroid impact site that was supposedly responsible for depositing all the iridium associated with the K-Pg boundary extinction, not itself have iridium?

From a Biblical history viewpoint, this makes perfect sense because volcanic eruptions also release iridium and the resulting ash and dust clouds tend to spread worldwide. This certainly appears to have been the case for the eruptions that produced the Deccan Traps.²⁷⁸ Indeed, airborne particles above Hawaiian basaltic eruptions have been found to be highly enriched in iridium, at levels much higher than at the K-Pg boundary.²⁷⁹

Certainly, asteroids that have impacted the Earth in the past must have contributed to iridium levels, especially in regions where the sedimentation rate was relatively slow and iridium fallout from the atmosphere could concentrate. This would have been true during the Flood. However, since volcanism was so voluminous and widespread during the Flood, this latter explanation seems to fit the data much better than does the asteroid hypothesis,²⁸⁰ including intervals that evolutionists identify as great extinction events within their worldview.²⁸¹

Next let's consider the timing of the asteroid impact and the dinosaur extinction. Natural history museums portray the asteroid as wiping out at least two-thirds of all species of life in just days, weeks, and months after the event. However, evolutionary dating now places the impact 100,000 to 300,000 years **below** the K-Pg boundary,²⁸² that is, the point marking the time of dinosaur extinction. This is because researchers now assert that the 13 to 30 feet of sandstone west of the impact layer was deposited hundreds of thousands of years **before** the dinosaur extinction.²⁸³ This obviously pushes the Chicxulub impact back in time well before the extinction.²⁸⁴

The Biblical timeline, however, does not have any such dating challenges. Biblical genealogies constrain the Flood to just thousands of years ago and implies that at least one of the assumptions behind radiometric dating is invalid. The 14 different types of bio-organic materials including blood vessels, collagen and bone cells still found in dinosaur bones also lends powerful support to the Biblical timeline. Consistent with the Biblical timeframe, both asteroids and volcanism were concurrent with tsunami waves and crustal deformation induced by Catastrophic Plate Tectonics, which buried the dinosaurs and many other animals in sediments very rapidly.

Noah's Flood and the Tanis Fossil Bed

Let's look at a recent fossil bed that supports these conclusions. In 2019 the discovery of the "Tanis" fossil bed in North Dakota was announced—a discovery that many paleontologists are calling the "find of the century."²⁸⁵ This two-acre fossil bed is a snapshot of what North America looked like at the peak of the Genesis Flood. This site is full of fossils, many in upright rather than flat positions, including trees, plants, and saltwater mosasaurs mixed with thousands of complete freshwater paddlefish and sturgeons. The pristine condition of the fossils suggest that they were covered almost immediately after death.

But the most amazing thing about this site is that the creatures here were buried with millions of microtektites—tiny blobs of glass that form when molten rock is blasted into the air by an asteroid impact and then fall back to Earth as smoking hot projectiles about the size of BBs. These were found jammed into the gills of about half of the fossilized fish, in amber, and buried into small mud dents around the site. Some believe these microtektites at this site are connected to the Chicxulub asteroid falling about 1,900 miles away.

They also found broken remains from almost all known dinosaur categories in the area,²⁸⁶ including eggs and hatchlings, and a *Triceratops* hip complete with tissue

impressions, indicating a rapid death and burial. Even the evolutionary scientists admit this bonebed was caused by a flood, specifically two massive tsunamis they believe were initiated by the Chicxulub impact 1,900 miles south.²⁸⁷ Biblical Creationists, however, find evidence that leads to much broader flooding, mostly coming from rapidly subducting plates along the west coast of the continent.

Their research paper well established that this site was the result of at least two successive tsunamis, evidenced by the combination of land and marine creatures mixed together, the 3-D condition of the fossils, and the various age groups within each species, indicating a complete snapshot in time. The fossil fish also had clear signs of “tetany,” a condition indicating sudden death due to poisoning, asphyxiation, or choking.

They’re also clear that at least two major tsunamis occurred one right after the other, as proven by rapid sedimentation and a 180-degree change in flow direction, indicating inundation and backflow phases. They also found no evidence of roots or burrows nor of branches with attached leaves at the boundary between the tsunami layers.²⁸⁸

Noah’s Flood and the Hanson Ranch Fossils

Another fossil site that supports the global Flood as the explanation behind the dinosaur extinction is the Hanson Ranch Bonebed in the Lance Formation of eastern Wyoming. This 80-acre dinosaur graveyard contains over a million bones, many of which are concentrated in a thin 1–2 meter layer of mudstone. One 500 square meter excavation area has yielded over 8,000 bones, most of which belong to hadrosaurs.

Scientists believe that they were killed by a catastrophic event and their bones were later redeposited just weeks or months later because the bones are in a graded bed with big bones at the bottom and little bones at the top, a condition that requires sorting during a catastrophic emplacement. After these dinosaurs were killed by the initial event, their bodies floated, rotted, broke apart, and then just weeks or months later massive

amounts of water and mud picked up the collection of dead creatures and hydrologically sorted the bones, depositing them where they are today.²⁸⁹

Here is the amazing thing—it's not just Hanson Ranch that has tons of hadrosaur bones buried like this. Similar hadrosaur bonebeds are all over America. In fact, when comparing the representation of the various types of bones found at this site to five other hadrosaur bonebeds in Alaska, Montana, South Dakota, and Wyoming, scientists made an incredible finding: The types of bones found at these other locations were statistically significantly matched to the types of bones found at Hanson Ranch.²⁹⁰ This means that similar devastation and burial factors were in play at all six of these bonebeds, evidenced by all sites having high percentages of large limb and rib bones and low percentages of smaller bones like vertebrae and chevrons.

Scientists believe these unique burial conditions were caused by an initial death event, followed by temporary emplacement where decay and disarticulation occurred, then hydraulic winnowing removed the connected sections like vertebral columns and smaller bones before the remaining bones were swept away by underwater debris flow that later resulted in the final deposit.

Such a multi-phase, watery catastrophe doesn't line up with a single asteroid event, does it? What happened here and at the other correlated sites was clearly the result of a worldwide flood. Tsunamis from catastrophic rifting served the initial blow, killing these creatures and fracturing about 30% of their bones with "greenstick" fractures that only occur with fresh bones. This was followed by weeks or months of decomposition and disarticulation, and then their remains were later consolidated in the muddy layers they're buried in.

This also seems to be the case with another one of the largest hadrosaur bonebeds located in north-central Montana. An estimated 10,000 hadrosaurs are buried in this location in a thin layer spanning over one mile. These bones are disarticulated, orientated east to west, and some of the bones are

found standing upright, indicating a debris flow. Moreover, there are no young juveniles or babies in this bonebed, indicating these creatures were running from something, leaving all the young behind.

When evaluating the possibility of a mud slide creating this bonebed, paleo experts Horner and Gorman stated: “How could any mud slide, no matter how catastrophic, have the force to take a two- or three-ton animal that had just died and smash it around so much that its femur—still embedded in the flesh of its thigh—split lengthwise?”²⁹¹ This certainly matches what they found at the Harris Ranch bonebeds, with over 30% of the bones having greenstick or spiral fractures.

Summary

All this evidence fits perfectly into what we would expect with a global Flood. The Chicxulub asteroid and others were pelting the Earth simultaneous with earthquake-generated tsunamis and volcanism from rapid plate motion, rifting, and subduction. Freshwater and saltwater creatures were buried together along with land animals and plants. Clear evidence shows that repeating tsunamis were responsible for transporting huge volumes of mud from the ocean and then retreating, leaving deposition. When widening out the view to the surrounding area, we see that this site in North Dakota is just a local snapshot of the larger-scale processes that generated the dinosaur fossil deposits of the Lance Formation in Wyoming, which is at the same level in the rock record as the Tanis site in North Dakota.

There’s something else that doesn’t quite line up with the asteroid extinction theory. If the asteroid was responsible for the ultimate dinosaur wipe-out, how did all the delicate creatures like mammals, frogs, birds, insects, fish, plants, and amphibians survive the same catastrophe? The dinosaurs and many marine reptiles were all mysteriously wiped out and fossilized while many other smaller and more environmentally sensitive animals lived on? How could such an impact be

powerful enough to wipe out all the tough, thick-skinned dinosaurs, but leave behind the fragile thin-skinned frogs and amphibians? The same goes for sensitive clams. And why do the frog and clam fossils found near dinosaur fossils look the same as frogs and clams alive today?²⁹² If harmful chemicals and acids can soak right through the porous skin of frogs and amphibians, and silt chokes clam gills, how did they survive and the sturdy dinosaurs perish? Evolutionists also believe that small rodent-like mammals that later evolved into humans also somehow survived the asteroid by crawling into holes just a few feet underground.

Evolutionists also present the rescuing device for the incomplete dinosaur extinction with the idea that, “Dinosaurs didn’t really die out, they just evolved into birds.” This dino-to-bird theory resurfaced in the 1960s²⁹³ as a rescuing device for evolution, but the facts show that at least 120 species²⁹⁴ of birds were living at the same time as dinosaurs, including numerous “modern” looking birds like loons, parrots, flamingos, cormorants, sandpipers, owls, penguins, avocets, ducks, and numerous waterfowl.²⁹⁵ Dinosaur footprints have even been found right alongside bird footprints.²⁹⁶ The fact is that birds have existed alongside land creatures since the Creation week.

The evidence for a worldwide Flood burying the dinosaurs outside the Ark is everywhere. This happened just thousands of years ago during Noah’s Flood when the fountains of the great deep were broken apart and the year-long process of the worldwide Flood unfolded.

Massive oceanic rifting on a worldwide scale created new seafloor as old seafloor was pulled under the continents, creating cycles of tsunamis that occur when the seafloor plate binds to the overriding plate and then releases, just like how many tsunamis are generated today. As more and more seafloor was created at the ocean rifts, the new crust rose, pushing the bottom of the seafloor upwards. This caused the floodwaters to progressively rise higher and higher across the land. This explains the multiple layers in which these creatures are found

as they were buried by the rising flood waters and repetitive tsunamis.

Dinosaurs were buried violently during this process, with over 90% of them now found disarticulated, or torn apart. Many of them are even found choking on mud as they died with their necks arched backwards. Widespread volcanism that occurred during this process also shows this happened quickly—over a single year and not millions of years. With few if any volcanoes in the Morrison Formation itself where the bulk of the fossilized dinosaurs are found, geologists believe that the huge volume of volcanic ash in the Morrison Formation is from mega-volcanoes on the West Coast, lofted and carried far to the east by wind, or else transported eastward by tsunamis, or both. The Morrison formation's Brushy Basin Member alone spans five states and includes over 4,000 cubic miles of volcanic material. That's enough to cover the state of New Jersey in ash one half of a mile deep!

There are many plain indicators in the rocks and fossils that this happened rapidly, not over millions of years. How else can we explain the massive dinosaur graveyard where 10,000 adult *Maiasaura* were found buried in mud without a single young dinosaur mixed in with the entire herd? Every single dinosaur in the area was at least nine feet long. It sounds like the adult dinosaurs were stampeding away from the imminent danger of raging floodwaters; their young could not keep up and became engulfed in some lower part of the remaining land of the peninsula.

These evidences surely point to the rapid and widespread catastrophe of the flood... But do you know what is even more convincing? Soft tissues found in dinosaur bones. Over just the last few decades scientists have been discovering astonishing occurrences of soft tissues in dinosaur bones. We're talking about over 50 peer-reviewed, secular science journals that have now reported 14 bio-organic materials found in dinosaur bones. They're finding blood cells, blood vessels, connective tissue and even collagen, which has a maximum shelf life of just tens of thousands of years, with some stretching

it out to a maximum of 900,000 years. Either way—with a maximum shelf life of less than one million years, what’s collagen doing in dinosaur bones that are supposedly over 66 million years old? Many dinosaur bones are even found unfossilized in places like Madagascar, Alaska, and Montana. Even the founder of the largest dinosaur museum in the world admitted that “...usually most of the *original bone* is still present in a dinosaur fossil.” This type of bio-organic material has been found in the bones of several different dinosaur species. They sure don’t seem like 65-million year old “rocks,” do they? When you step back and look at all this evidence, doesn’t it look like the catastrophic worldwide flood described in the Bible that happened just thousands of years ago makes better sense of the evidence?

Whale Evolution

Suggested Videos:

www.genesisapologetics.com/whales

Natural history museums promote the idea that whales evolved from any number of possible mammal ancestors. Charles Darwin began the list of possible whale ancestors in the 1800s when he proposed that whales evolved from bears because they could be observed “swimming for hours with a widely open mouth, thus catching, like a whale, insects in the water.” He believed that natural selection eventually led to bears to becoming “more and more aquatic in their structure and habits, with larger and larger mouths, till a creature was produced as monstrous as a whale.”²⁹⁷

Darwin’s bear-to-whale idea was replaced in 1883 when Dr. Flower pitched the idea that hoofed mammals turned into whales. In 1966, Dr. Van Valen narrowed this down to an extinct order of hoofed mammals called Mesonychids, which he considered the most likely ancestor for whales.

Fast forwarding to the last couple of decades, leading evolutionists have developed all kinds of varying ideas about where whales come from, with the California Academy of Sciences claiming they came from creatures that look like **hyenas**, the Tokyo Institute of Science saying they came from a **hippo**-like creature, the University of Michigan claiming whales came from something that looked like a **cat**, the Carnegie Museum saying something like a wolf, a **deer** at the Melbourne Museum, and something like a **lion** at the American Museum of Natural History. Does it sound like some guess work is at play here? In fact, over the years, evolutionists have proposed four different mammal orders as the possible starting place for whales (see Table 1).

Table 1. Will the Real Whale Ancestor Please Stand Up?²⁹⁸

Land Mammal	Promoter	Year	Mammal Order
Bear	Charles Darwin	1865	Carnivora
Carnivorous Ungulates	William Flowers	1883	Unknown
Hyena-like Pachyaena	California Academy of Sciences	1998	Condylartha
Hippo-like creature	Tokyo Institute of Science	1999	Artiodactyla
Cat/Wolf-like <i>Sinonyx</i>	University of Michigan	2001	Condylartha
Wolf-like <i>Pakicetus</i>	Carnegie Museum	2011	“Cetacean”
Deer-like <i>Indohyus</i>	Melbourne Museum	2013	Artiodactyla
Lion-like <i>Andrewsarchus</i>	American Museum of Natural History	2013	Condylartha

Today most museums present just the broad category of cloven-hooved mammals called Artiodactyls as the beginning of the whale line. This exempts them from having to choose a specific animal because this order includes cattle, deer, camels, pigs, goats, giraffes, antelopes, and sheep.²⁹⁹

But how reasonable is this theory? I mean, let's think about this for a minute: this theory claims that some unknown land mammal evolved into the dozens of whale varieties we see today—all the way from small Maui dolphins to 100-foot long blue whales weighing over 360,000 pounds.³⁰⁰

Blue whales have a tongue the size and weight of an African elephant and a heart the size of a small car that pumps over 2,000 gallons of blood.³⁰¹ They can swim 30 miles per hour and dive to depths of 1,500 feet while holding their breath, and they do this with an uncanny efficiency that baffles scientists today. Does it really make sense that such an ocean-fit creature evolved from a land-dwelling mammal? To go from a land mammal to a giant blue whale, some serious changes would need to take place. Here is an abbreviated list: growing from 5–6 feet long to over 100 feet, weighing less than 150 pounds to over 360,000 pounds, diving less than eight feet under water to over 1,500 feet and special collapsing lungs to be able to do this, changing from teeth to baleen filters, going from a tubular tail to a wide fluke for propulsion by means of a ball vertebra³⁰² so it can move up and down instead of side to side, along with a new package of muscles and new chevron bones to connect them to, going from front legs for running to flippers for steering and losing the back legs altogether, moving the nasal passages from the tip of the snout to the top of the head, going from intaking fresh water to salt water and changed kidneys to handle it, insulation from fur to blubber, external to internal ears capable of hearing other whales 500 miles away,³⁰³ moving reproductive organs from outside to inside the body and adding special, radiator-like cooling systems so they can even work, modified mammae for nursing young underwater, hydrodynamic skin, developing blowhole muscles, modifying the eye for underwater vision, reorganizing skull bones and

muscles, and decoupling the esophagus and trachea. And this is just a starter list.

When it comes to the number of changes to go from a land mammal to a whale, biologist Richard Sternberg remarked, “Just think of all the parameters that would have to be modified and then multiply that by a thousand fold or more than that—that’s the scale of the problem that you’re dealing with in the context of Darwinian evolution.”³⁰⁴ One of these complex changes would be moving the reproductive organs to inside the body and somehow cooling them when they’re right next to the swimming muscles that generate heat. Dr. Sternberg remarks that this system:

Has a remarkable solution to that problem—it’s a miraculous web of arteries and veins, but can you explain it by some smooth gradualist textbook scenario, little change little change fixation? No—it doesn’t fit the Darwinian model in my opinion. You’re looking at just a suite of characteristics that had to have been integrated from the get-go. I mean it’s a non-gradualistic type of change. So the cooling system makes sense because you have internalized reproductive glands. The internalized reproductive glands, however, are a no-go unless you’ve got the cooling system. You can’t explain the emergence of one without the other.³⁰⁵

Looking at the bigger picture, Dr. Sternberg applied mutational genetic models from Cornell University and determined that it would take over 100 million years to randomly generate just a single pair of “cooperative mutations” that could lead to only some of the changes necessary to move from a land mammal to a whale. So, if it would take over 100 million years to produce just two coordinated mutations but thousands more are required to turn a land mammal into a whale, there’s certainly no way it can happen in the nine million

years that evolutionists believe it took for land mammals to turn into whales.

The Whale Fossil Record

But what about the fossil record? Does it reflect a clear progression that moves from land mammals to whales? Famous evolutionist Richard Dawkins has a short video on YouTube that overviews the typical evolutionary whale story:

People often say, “Where are the intermediate fossils? Show us your intermediate fossils.” There are plenty of intermediate fossils, and one of the best examples is whales... Here’s a series of fossils back in time: *Dorudon* about 36 million years ago, *Rodhocetus* about 47 1/2 million years, *Pakicetus* about 48 1/2 million years. And you can see they form a lovely series of intermediates. As you go from old to young, *Pakicetus*, *Rodhocetus*, you’re gradually losing the hind legs to *Dorudon*, which has almost lost the hind legs completely. Modern whales have completely lost the hind legs. There are some vestigial bones, some remnant bones buried deep inside the body. A lovely series of intermediates getting progressively more and more specialized in living in the sea. If you look at *Pakicetus*, which is an old fossil whale, you see that the nostril is just about where you’d expect the nostril to be, near the tip of the snout. If we move on a million years to *Rodhocetus*, you see that the nostril has moved backwards, backwards on the skull, backwards along the snout. Now if you look at a modern whale—that’s a dolphin, a modern dolphin—you see that the nostril is right up near the top of the head. That’s the blowhole. The nostril has moved right backwards. Now, a

really surprising thing is which animal is the most closely related to modern whales among modern animals, and the answer, astonishingly, is the hippopotamus, which is classified in the even-toed ungulates, the cloven-hoofed animals. So what we now believe is that there was an ancestor, which was a cloven-hoofed animal, before 55 million years ago. A little bit before that, the ancestor gave rise to other cloven-hoofed animals. And the later than that, there was a split between the lineage leading to whales and the lineage leading to modern hippopotamuses. It's molecular evidence as well as fossil evidence that shows that hippos are the most closely related modern animals.³⁰⁶

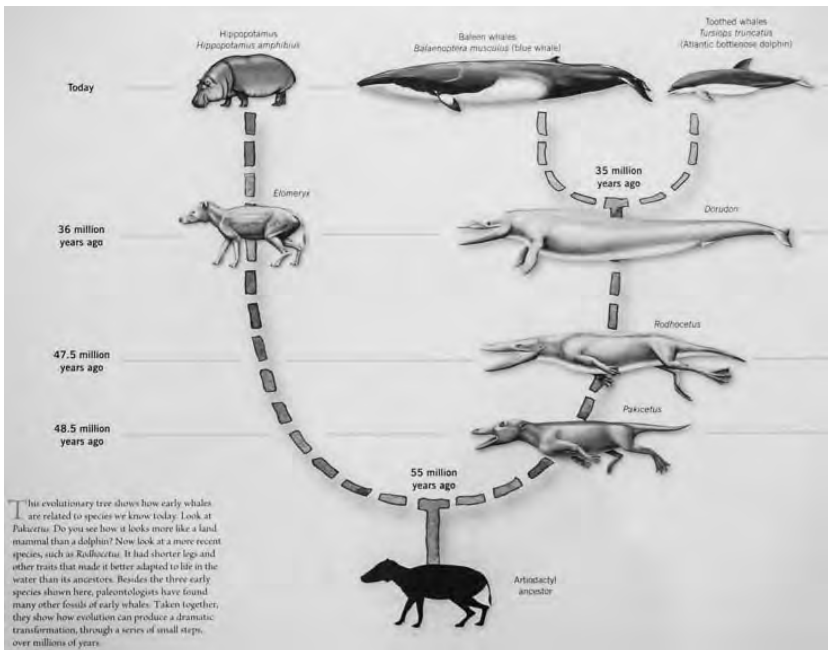


Figure 92. Whales: Evolution from Land to Sea. Caption reads, “Today’s whales evolved from four-legged land mammals that lived about 55 million years ago.”³⁰⁷

When it comes to Dawkin's first icon, **Artiodactyl**, remember that this is just a wide category of "even-toed" animals, including goats, sheep, camels, pigs, cows, and deer. Other than just saying so, there's no evidence connecting this entire group of animals to whales. By suggesting that whales evolved from some "ancient artiodactyl," evolutionists admit that they do not have a real fossil connecting whales to other mammals. Instead they reach for an imaginary, not-yet-found "ancestor" and the precise animal that fills this slot depends on which museum you visit.

The next in the line-up is *Pakicetus*. Dr. Gingerich discovered this creature and named it the "whale of Pakistan," claiming it was "the oldest and most primitive whale yet discovered." This bold statement was based on a few parts of the skull that were found, but they had no fossil evidence below the head. Yet this did not stop them from illustrating this creature with flipper hands and feet and a swishy fin for a tail on the front cover of *Science* (see Figure 93).³⁰⁸

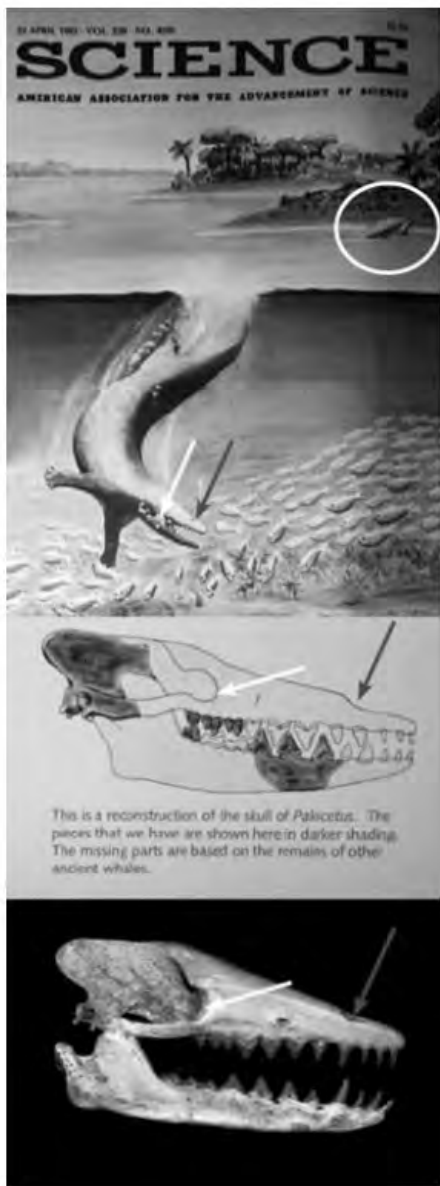


Figure 93. Swimming *Pakicetus*³⁰⁹

The Smithsonian even boldly displayed it with a blowhole way up the snout and paddlelike feet and hands—all

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while no fossils of flippers, arm, leg, or lower snout bones had been found!

All this changed by 2001 after four more partial skulls and 150 additional *Pakicetus* bones had been discovered—all of which proved that this creature was 100 percent land animal.³¹⁰



Figure 94. Actual *Pakicetus* Fossil.³¹¹

Based on these new findings, researchers even said that pakicetids were good runners, moving with “only their digits touching the ground.”³¹² These new findings led to the conclusion that *Pakicetus* was “no more amphibious than a tapir,”³¹³ a browsing mammal living today in South America which is similar to pigs but with longer snouts. *Pakicetus* models had to be changed to add running legs, hoofed feet and not paddles, a longer neck, eyes on top of its head, and nasal passages were moved from the middle of the snout to the front.



Figure 95. Later Models of *Pakicetus*.³¹⁴

Surprisingly, some museums still display the original while-like *Pakicetus*, not the 2001 land animal version based on the additional fossil discoveries.



Figure 96. New York Natural History Museum showing the false reconstruction of *Pakicetus* in 2012, complete with “blowhole” (arrow on left) and low position of the eye (arrow on right), even though the skull published in 2001 clearly showed that the nostrils were in the tip of the nose and the eyes were on the top of the head, not at all like a toothed whale.³¹⁵

Next we have *Rodhocetus*, which is based on a fossil found in Pakistan in 1992, and is now represented by three fossil finds.³¹⁶ Many museums and textbooks show *Rodhocetus* with flippers for feet, a long tail, and a fluke like whales have.³¹⁷

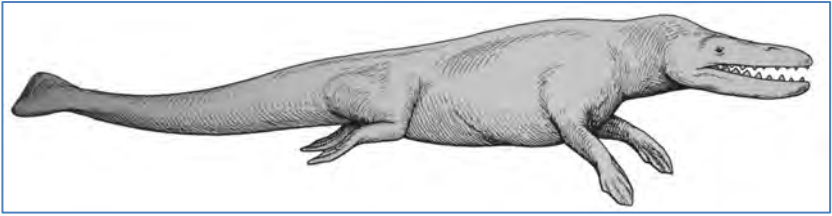


Figure 97. *Rodhocetus* from 2001 Whale Evolution Display from the University of Michigan, Ann Arbor. Flippers and Fluke were added based on speculation.

Even though they only found a few vertebrae that followed the pelvis, Dr. Gingerich, the paleontologist most responsible for the reconstruction and presentation of *Rodhocetus*, added flipper feet and a prominent, long tail complete with a whale fluke to the *Rodhocetus* display at the Natural History Museum at the University of Michigan (see Figure 97). When interviewed about these three whale-like features, Gingerich made some amazing admissions. When questioned how he knew there was a whale fluke on *Rodhocetus* since that part of the fossil was missing, Dr. Gingerich answered: “Well I told you we don’t have the tail in *Rodhocetus* so we don’t know for sure whether it had a ball vertebra indicating a fluke or not so I speculated it might have had a fluke.” Gingerich also acknowledged that the flippers were drawn on the diagram without these fossil bones. At the time of the interview, however, he did not believe this animal had flippers, even though the museum diagrams had flippers on *Rodhocetus*. He admitted that since the discovery they had found the forelimbs (the hands and the front arms) of *Rodhocetus* and that he believed that it didn’t have the kind of arms that could be spread out like flippers. He also admitted that if such a creature does not have flippers he didn’t believe it could have a fluke tail that really powered swimming. He then admitted that he now doubts that *Rodhocetus* would have had a fluke tail.³¹⁸ So—no long tail, no fluke, and no flipper feet. This creature sure doesn’t seem like much of a whale, or even close to becoming one.

Finally, we have *Dorudon*. These animals are simply extinct whales. They had nostril openings (blowholes) on top of their skulls, measured about 50 feet long, and lived in the water full-time.

Next let's look at the idea that some whales have vestigial legs or hips that are supposedly "evolutionary left overs" from when whales walked on land. Museums frequently highlight these structures in whale skeletons, claiming this evolutionary story along with them. Typical book figure and museum captions say something like, "the whale retains pelvic and leg bones as useless vestiges" (see Figure 98).³¹⁹

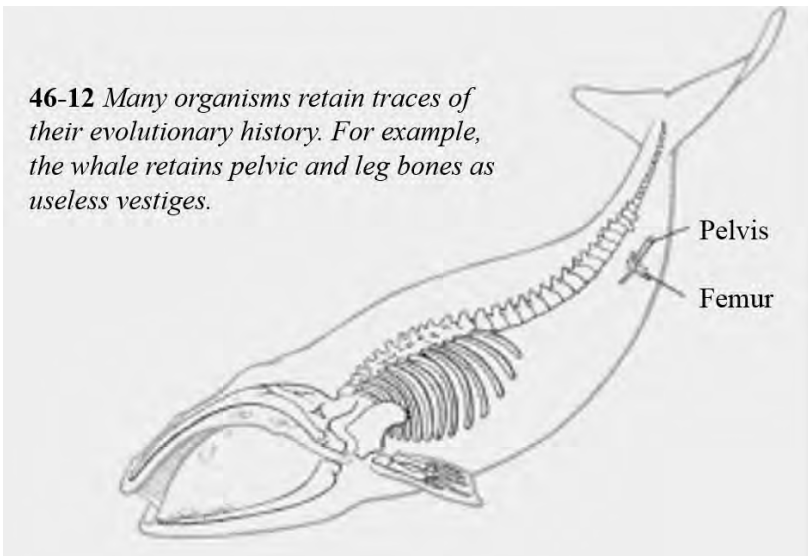


Figure 98. Whale Vestigial Structures.³²⁰

One high school biology book states, "Vestigial Structures are inherited from ancestors but have lost much or all of their original function due to different selection pressures acting on the descendant."³²¹ So, for the "pelvic bones" in whales and dolphins, this implies that its ancestor used to walk on land, but once they evolved to live in water, they have useless, leftover hip bones. Ironically, a 2014 article in the journal titled *Evolution* admits that these so-called leftover

pelvic/hip bones are actually “claspers” that are very important in the mating process!³²² It appears that God placed these bones in whale bodies for reproduction. From now on, even calling them “hip” bones reveals ignorance of their function. So much for one of evolution’s top examples.

What we can know for certain regarding the supposed story of whale evolution is that its theories have often changed—bears, mesonychids, *Pakicetus*, and several different mammal orders rotated through as the possible ancestors. The Biblical viewpoint, however, remains unchanged: Whales were created as whales just thousands of years ago on the Fifth Day of Creation week. The different whale kinds express variation but stay within their created kinds. Some of them did not survive the Flood or long into the post-Flood world, but many are still alive today, filling the Earth with God’s glory.

Deep Time and Radiometric Dating

Suggested Videos:

www.genesisapologetics.com/dating

Natural history museums are steeped in deep time. Everywhere you look—sometimes on each wall of a museum—the idea of millions of years and evolution combine to explain the origin of all life on Earth. Random chance propels it through the magic machines of natural selection and mutations over millions of years, turning slimy organisms into worms, then tadpole-like creatures that branch into fish that eventually crawl onto land and turn into shrew-like mammals, then apes, and finally humans.

This special combo of deep time plus evolution conveniently leaves out the need for a creator—especially the God of the Bible. This way, people aren't obligated to live by a certain moral code or lawgiver to whom they must give an account. It also removes the idea of an afterlife, like heaven or hell. Interestingly, the Bible predicted this would happen, with mankind denying a recent, supernatural Creation of a world that was later judged by a Global Flood (see 2 Peter 3:3–7):

Knowing this first of all, that scoffers will come in the last days with scoffing, following their own sinful desires. They will say, 'Where is the promise of his coming? For ever since the fathers fell asleep, all things are continuing as they were from the beginning of creation.' For they deliberately overlook this fact, that the heavens existed long ago, and the Earth was formed out of water and through water by the word of God, and that by means of these the world that then

existed was deluged with water and perished.
But by the same word the heavens and Earth that
now exist are stored up for fire, being kept until
the day of judgment and destruction of the
ungodly.

It's curious how the very two most monumental events of Biblical history just happen to be the exact two things that museums deny so strongly today: a recent, supernatural Creation and a global Flood that is obviously responsible for most of the billions of fossils buried in Earth's layers.

Romans 1 forecasted how people would replace the recognition and worship of the supernatural Creator with worship of created *things* like "four-footed animals and creeping things"... as if *they* were our creators (by way of being our ancestors). And this is exactly what's happening at museums, with tall idols blatantly giving such testament (see Figure 99).

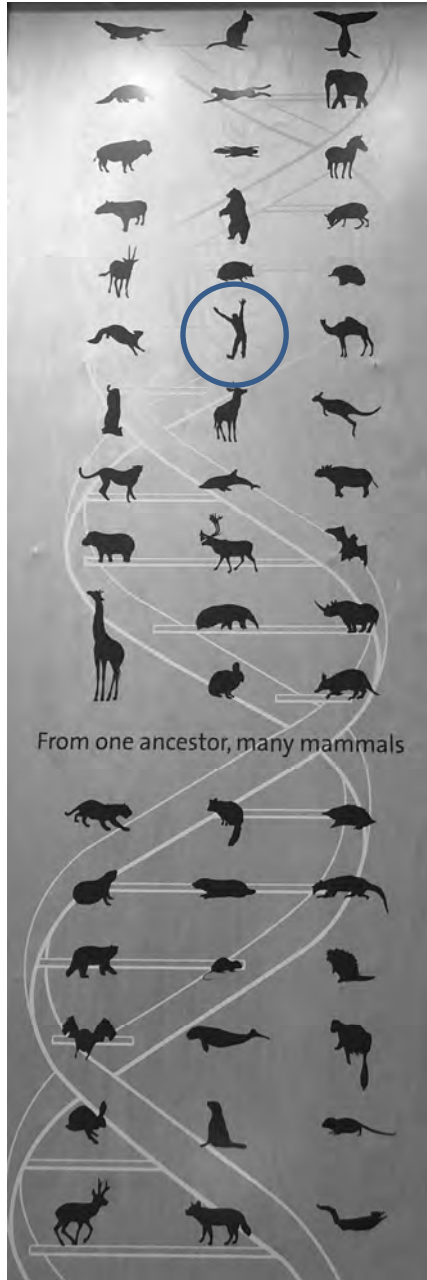


Figure 99. The Mammal-to-Man Mockery (forecasted by Romans 1 and 2 Peter 3).³²³

You see, this is completely opposite to the Bible. This belief in deep time plus evolution circumvents the need for a Divine Creator who spoke creation into existence with forethought and intention, and leaves mankind on their own, doing and saying whatever they want in this life, and not responsible for the next. It is the ticket that releases them—at least, so they think—from God and His rules.

The Bible, on the other hand, provides a stark contrast to these ideas. We have clear genealogies in Genesis, which are even repeated in the New Testament, that go all the way back to Adam—the first man who was breathed into existence by God. He was made from the dust of the Earth *in* the image of God, not evolved from some ape-like creature. Adam named everything, and Adam and Eve were given charge to be stewards over the Earth.

Less than 2,000 years later,³²⁴ Earth was flooded because of our human rebellion, and all land-based life on Earth was wiped out, except those on the Ark. This happens to be about the same time even secular historians admit that human writing disappears from the face of the Earth. A strange “coincidence,” no doubt! It’s fascinating that when observational science, rather than historical science which requires vast inference, is used to investigate things like the creation of humans that the data actually lines up with the recent Biblical account.

Mitochondrial DNA mutations, for example, point to the recent, spontaneous creation of the first woman about 6,500 years ago—and this is even drawn from multiple secular studies!³²⁵ This coincides with the recent Creation based on the Genesis account. They’ve also identified a massive DNA variety expansion that coincides with the Bible’s Tower of Babel dispersion.³²⁶ Even without these evidences, the information and packaging of DNA alone should convince one of a divine Creator.

With this, let’s take a look at the mechanics of radiometric dating and its assumptions. The typical idea of deep time presented in museums begins with a 4.5 billion year-old

Earth, early life forms evolving about 3.7 billion years ago, dinosaurs living between about 220 and 65 million years ago, and the human line starting to branch off several million years ago. Where do they get these ages? It's based mostly on radiometric dating, which calculates how quickly unstable atoms—such as uranium—change into stable atoms, such as lead; a decay process they believe starts when igneous rocks are formed.

So, what's wrong with these methods? Well, for starters, we can't go back in time to watch these rocks form or check the decay rates of these atoms over time. We can only observe what the decay rate is *today* based on laboratory studies. We don't know what the decay rate might have been in the past, or might have been under different Earth conditions. The decay rate has to be *assumed*, along with the starting amount of the parent element, like uranium, and the starting amount of the daughter element, like lead. We also have to assume that the dating system is closed, without contaminations impacting the outcomes. But since we can't go back in time to test these assumptions, we have to assume them to be true when radiometric dating is used. And if these major assumptions are not correct, then the ages we get from the results are also not correct.

But there is a way to test the assumptions of radiometric dating: we can take rocks that were formed from a volcanic eruption—rocks that people actually watched form that are pegged to a certain time in recorded history—and then date *those* rocks. If the assumptions hold up, the radiometric “age” of those rocks should be the same as the “known” age of the rock—the age we can know for sure because people *actually watched* the rock form. If the radiometric age of the rock is the same as the *known age* of the rock based on when people watched it form, it would validate the assumptions in the analyses, giving credibility to the results.

But did you know that these types of studies have *already been done*, and radiometric dating missed the known ages of rocks by *millions and millions of years*? Several studies

have been done on rocks around the world to try to validate radiometric dating, and it fails all the time! Here is a short list:

Table 2: Young Volcanic Rocks with Really Old Radiometric Ages.³²⁷

Lava Flow, Rock Type, and Location	Year Formed	Radiometric Age
Kilauea Iki basalt, Hawaii	AD 1959	8,500,000 years
Volcanic bomb, Mt. Stromboli, Italy	AD 1963	2,400,000 years
Mt. Etna basalt, Sicily	AD 1964	700,000 years
Medicine Lake Highlands obsidian, Glass Mountains, California	<500 years	12,600,000 years
Hualalai basalt, Hawaii	AD 1800–1801	22,800,000 years
Mt. St. Helens dacite lava dome, Washington	AD 1986	340,000 years

The oldest real age of these recent volcanic rocks is less than 500 years. People witnessed and described the molten lava solidify into most of these rocks just decades ago. Many of these were only about 10 years old. And yet radiometric dating gives ages from 340,000 to more than 22,800,000 years.

Notice that in each of the studies shown in Table 2, the radiometric age of the rocks far exceeds the actual, known ages of the rock by millions and millions of years. The last row in Table 2 reveals an example that even happened in the recent past when Mount Saint Helens erupted in the 1980s and produced all kinds of volcanic material, including a rock called “dacite,” that was sent in for radiometric dating. The results? This 10-year-old rock showed “ages” from 340,000 to 2,800,000 years—all for a rock that we *know* was only about 10 years old.³²⁸

While radiometric dating can be useful for estimating the **relative** ages of rocks or ash layers, like which layers were

laid down first, the **absolute** ages will always be elusive, and will typically exceed the known ages by millions of years. They can also never be verified because we cannot go back in time. The Bible is clear that God spoke Creation into existence—with all the planets spiraling through the universe in perfect order to sustain life on Earth. The oxygen levels, magnetic fields, days, nights, seasons, and temperatures are all perfectly calibrated to sustain life on Earth—and it all had to be here at the same time for everything to work.

The Nature of Science: Historical Science vs. Observational Science

Suggested Videos:

www.genesisapologetics.com/science

Natural history museums create the impression that scientists from every field unanimously support the idea that evolution over millions of years explains all life on Earth. But think about some of the topics we've covered in this book. We've seen that even the core idea of evolution—natural selection and adaptation—doesn't stand up to investigation. Modern research has shown that the leading example for this—Darwin's finches—doesn't even support this idea because changes are limited to within each "kind" of animal and they can happen quickly—even within one generation—as animals adapt to their environment, but only within their pre-engineered genetic code.

We've seen that mainstream myths—like humans and chimps sharing 98–99% of their DNA—turn out to be exaggerations that are not even close to what they claim, actually consisting of cherry-picked DNA strings that ignore 18% of the chimp genome and 25% of ours.

We've seen how human evolution icons like Ardi, Lucy, and *Homo habilis* don't hold up to scrutiny—even within evolution circles. We've also revealed how the Neanderthals, who used to be regarded as the brutish gorilla-like ape-to-man connection, were just humans—living and surviving in their environments in genius ways.

Looking at dinosaur extinction has also been telling. While natural history museums widely promote the asteroid theory, we've seen how numerous scientists abroad depart from this explanation behind the dinosaur demise. We've also seen

how the Genesis Flood better explains the geological layers that these dinosaurs are buried in—layers that spread across multiple states with untold millions of land and marine creatures all mixed together. The action of Catastrophic Plate Tectonics during the Biblical Flood provides a much better explanation about what happened to the dinosaurs by way of Pangea separating and the related catastrophic processes.

We've looked at how evolutionary scientists have rotated through four different mammal orders trying to find the creature that could be the first ancestor in the land mammal to whale story, but none seem to fit. Even over the last couple decades, the ideas of whale evolution have widely varied. The stories, inferences, and exaggerations made by those promoting whale evolution have fallen short, time and time again, with the actual fossil evidence not supporting the paddle feet, long tails, and blowholes they were supposed to have. We've also seen how the so-called "vestigial" hips and legs turned out to be just claspers that are required for mating.

We've seen how radiometric dating may work well for "relative" dating, but cannot establish "absolute" dates. In many cases, when scientists try to validate the radiometric dating methods with rocks of known age, the results miss by millions of years.

Those who side with Creation and those who believe evolution both rely on faith when it comes to the distant past. Human history runs out just thousands of years ago, and beyond that faith is the tool we use to understand the past. Ultimately, this is because we cannot apply real, observational science to the distant past. Creationists and evolutionists both have the same data, but this gets interpreted through different worldviews. To the Creationist, the God of the Bible has revealed to us in the Bible that He recently spoke the world into existence, including all animals after their own kinds. The world was later catastrophically destroyed by a worldwide Flood that left markers—obvious markers—on every continent. To the evolutionist, the mechanisms of random chance, mutations, and

selection over billions of years brought everything we see to life. By faith they believe that everything comes from nothing.

So, while it takes faith to believe either account, don't think that one is scientific and the other is not. You see, "science"—true science—requires observation, testing, and repetition. This "real" form of science is how we put people on the moon, develop new medicines, and make technological advancements. Evolution, on the other hand, relies on "historical science," which requires making inferences and guesses about the distant past, a time that we cannot go back to observe, test, or repeat. Having an eyewitness account as a starting point allows us to compare our ideas against what actually happened, and that is only possible in a Biblical worldview.

The real "scientific method" that establishes and underlies the tools that we use today for bringing about *knowledge* that is trustworthy, dependable, and verifiable employs the seven steps outlined in Figure 100. *Observational* science is much different than *historical* science. We cannot run *observable* experiments on the past. Experiments conducted today give clues about what was once possible or likely, but that's about all they can give. Often, vast inferences are made on *unobservable, untestable, non-replicable*, and therefore *unprovable* assumptions. True observational science typically involves six steps, and three of these are observation, repetition, and testing.

None of these can be done for evolution or for any event that occurred in the *unrepeatable* past. We can't go back to test something that occurred 1 million supposed years ago. For example, in all recorded history (the last 4,000 to 5,000 years), no one has ever documented a case of *true vertical evolution*, for example where an almost-bird evolved a beak, or an almost-fish evolved fins. Yes, we see *change* and *adaptability* but always within the God-prescribed limits of the original animal "kinds."

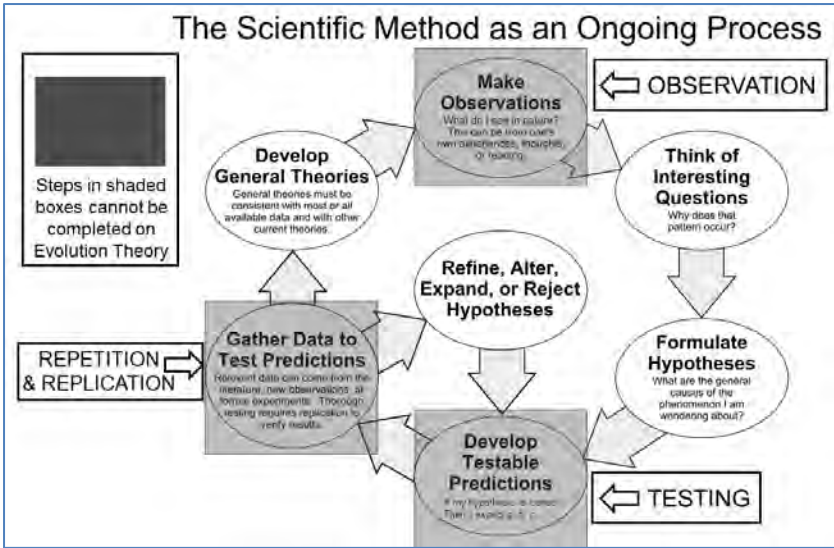


Figure 100. The Scientific Method as an Ongoing Process.³²⁹

When a fossil is recovered, the only thing we can know for certain is that the creature died. We can also sometimes infer how it died and learn more about it from where it's buried, the material it's buried in, and the other creatures that are found around it. But these all require making assumptions about the past—a past that we cannot observe, repeat, or test—which are three of the essential requirements for “real” observational science. But with the Bible as God’s eyewitness account of Creation and the Flood, we can compare what we see in the world today with those events. Evolutionists have no such account to confirm their explanations of the past.

Creationists see DNA as God’s programming code for creating all forms of life today, with each kind of animal reproducing after their own kinds—varying, of course—but staying within their God-prescribed boundaries as “kinds.” Genetic coding and reproduction are seen as so incredibly miraculous that they require a designer. We also hold that this designer is the God of the Bible who has made Creation obvious to every person, but many will choose to deny it. What we see around us in Creation supports a Creator. We have a

specially tuned universe with planets in orbit, magnetic forces in play, and an atmosphere that is perfectly engineered for life. Romans 1 is clear that God has made his Creation known to us:

For since the creation of the world His invisible attributes are clearly seen, being understood by the things that are made, even His eternal power and Godhead, so that they are without excuse, because, although they knew God, they did not glorify Him as God, nor were thankful, but became futile in their thoughts, and their foolish hearts were darkened. Professing to be wise, they became fools, and changed the glory of the incorruptible God into an image made like corruptible man—and birds and four-footed animals and creeping things.

Helpful Resources

Genesis Apologetics

Mobile App:

Search for the free “Genesis Apologetics” App in the iTunes or Google Play stores.

Free Books and Videos:

5th-10th Grade Students: www.debunkevolution.com

11th grade-College: www.sevenmyths.com

YouTube Channel:

Channel Name: Genesis Apologetics

Dinosaurs:

<http://genesispologetics.com/dinosaurs>

Theistic Evolution

<http://genesispologetics.com/theistic>

“Lucy” (leading human evolution icon):

<http://genesispologetics.com/lucy>

Answers in Genesis

www.answersingenesis.org

Institute for Creation Research

www.ICR.org

Creation Ministries International

www.creation.com

Evolution: The Grand Experiment

www.thegrandexperiment.com

Creation Website Search Tool

www.searchcreation.org

Prayer of Salvation

You're not here by accident—God *loves* you and He *knows* who you are like no one else. His Word says:

Lord, You have searched me and known me.
You know my sitting down and my rising up;
you understand my thought afar off. You
comprehend my path and my lying down, and
are acquainted with all my ways. For there is not
a word on my tongue, but behold, O Lord, You
know it altogether. You have hedged me behind
and before, and laid Your hand upon me. Such
knowledge is too wonderful for me; It is high, I
cannot attain it. (Psalm 139:1–6)

God loves you with an everlasting love, and with a love that can cover all of your transgressions—all that you have ever done wrong. But you have to repent of those sins and trust the Lord Jesus Christ for forgiveness. Your past is in the past. He wants to give you a new future and new hope.

But starting this new journey requires a step—a step of faith. God has already reached out to you as far as He can. By giving His Son to die for your sins on the Cross, He's done everything He can to reach out to you. The next step is yours to take, and this step requires faith to receive His Son, Jesus, into your heart. It also requires repentance (turning away) from sin—a surrendered heart that is willing to reject a sinful lifestyle. Many believers have a much easier time leaving sinful lifestyles after they fully trust Jesus and nobody else and nothing else. Along with forgiveness, the Holy Spirit enters your life when you receive Jesus, and He will lead you into a different lifestyle and way—a way that will lead to blessing, joy, patient endurance under trials, and eternal life with Him.

If you are ready to receive Him, then consider four key Biblical truths.

1. Acknowledge that your sin separates you from God. Most simply, sin is our failure to measure up to God's holiness and His righteous standards. We sin by things we do, choices we make, attitudes we show, and thoughts we entertain. We also sin when we fail to do right things or even think right thoughts. The Bible also says that all people are sinners: "there is none righteous, not even one." No matter how good we try to be, none of us does right things all the time. The Bible is clear, "For all have sinned and come short of the glory of God" (Romans 3:23). Admit it. Agree with God on this one.
2. Our sins demand punishment—the punishment of death and separation from God. However, because of His great love, God sent His only Son Jesus to die for our sins: "God demonstrates His own love for us in this: While we were still sinners, Christ died for us" (Romans 5:8). For you to come to God, you have to get rid of your sin problem. But, in our own strength, not one of us can do this! You can't make yourself right with God by being a better person. Only God can rescue us from our sins. He is willing to do this, not because of anything you can offer Him, but **just because He loves you!** "He saved us, not because of righteous things we had done, but because of His mercy" (Titus 3:5).
3. It's only God's grace that allows you to come to Him—not your efforts to "clean up your life" or work your way to Heaven. You can't earn it. It's a free gift: "For it is by grace you have been saved, through faith—and this not from yourselves, it is the gift of God—not by works, so that no one can boast" (Ephesians 2:8–9). Will you accept this gift?
4. For you to come to God, the penalty for your sin must be paid. God's gift to you is His son, Jesus, who paid the debt for you when He died on the Cross. "For the wages of sin is death, but the gift of God is eternal life in Jesus

Christ our Lord” (Romans 6:23). God brought Jesus back from the dead. He provided the way for you to have a personal relationship with Him through Jesus. Trust Him. Pursue Him.

When we realize how deeply our sin grieves the heart of God and how desperately we need a Savior, we are ready to receive God’s offer of salvation. To admit we are sinners means turning away from our sin and selfishness and turning to follow Jesus. The Bible word for this is “repentance”—to change our thinking to acknowledge how grievous sin is, so our thinking is in line with God’s.

All that’s left for you to do is to accept the gift that Jesus is holding out for you right now: “If you confess with your mouth, ‘Jesus is Lord,’ and believe in your heart that God raised him from the dead, you will be saved. For it is with your heart that you believe and are justified, and it is with your mouth that you confess and are saved” (Romans 10:9–10). God says that if you believe in His son, Jesus, you can live forever with Him in glory: “For God so loved the world that He gave his one and only Son, that whoever believes in him shall not perish, but have eternal life” (John 3:16).

Are you ready to accept the gift of eternal life that Jesus is offering you right now? Let’s review what this commitment involves:

- I acknowledge I am a sinner in need of a Savior. I repent or turn away from my sin.
- I believe in my heart that God raised Jesus from the dead. I trust that Jesus paid the full penalty for my sins.
- I confess Jesus as my Lord and my God. I surrender control of my life to Jesus.
- I trust Jesus as my Savior forever. I accept that God has done for me what I could never do for myself when He forgives my sins.

If it is your sincere desire to receive Jesus into your heart as your personal Lord and Savior, then talk to God from your heart. Here's a suggested prayer:

Lord Jesus, I know that I am a sinner and I do not deserve eternal life. But, I believe You died and rose from the grave to make me a new creation and to prepare me to dwell in your presence forever. Jesus, come into my life, take control of my life, forgive my sins and save me. I am now placing my trust in You alone for my salvation and I accept your free gift of eternal life.

If you've prayed this prayer, it's important that you take these three next steps: First, go tell another Christian! Second, get plugged into a local church. Third, begin reading your Bible every day (we suggest starting with the book of John). Welcome to God's forever family!

Endnotes

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- ²³⁶ Baumgardner, J. R. (2003) “Catastrophic plate tectonics: the physics behind the Genesis Flood,” in *Proceedings of the Fifth International Conference on Creationism*, R. L. Ivey, Jr., Editor, Creation Science Fellowship, Pittsburgh, PA, 113–126.
- ²³⁷ Baumgardner, 2018.
- ²³⁸ Baumgardner, J. R. (2018). Understanding how the Flood sediment record was formed: The role of large tsunamis. In *Proceedings of the Eighth International Conference on Creationism*, ed. J.H. Whitmore, 287–305. Pittsburgh, Pennsylvania: Creation Science Fellowship.
- ²³⁹ *Ibid.*
- ²⁴⁰ *Ibid.*
- ²⁴¹ Baumgardner, J. R. (2018). “The Importance of the Genesis Flood to a Correct Understanding of the Earth’s Past” (PowerPoint Presentation).
- ²⁴² Image credit: Morris, John D. *The Global Flood: Unlocking Earth’s Geologic History*. Dallas, TX: Institute for Creation Research. 2012.
- ²⁴³ Werner, Carl. “Evolution the Grand Experiment,” The Grand Experiment: www.thegrandexperiment.com/index.html (January 1, 2014).
- ²⁴⁴ There is disagreement in the paleontology field as to whether the “dinosaur death pose” is due to choking while dying from drowning, or due to strong water currents arching the neck back after death. See: Reisdorf, Achim G. & Wuttke, Michael. “Re-evaluating Moodie’s Opisthotonic-Posture Hypothesis in Fossil Vertebrates Part I: Reptiles—the taphonomy of the bipedal dinosaurs *Compsognathus longipes* and *Juravenator starki* from the Solnhofen Archipelago (Jurassic, Germany),” *Palaeobiodiversity and Palaeoenvironments* 92 (2012): 119–168. Their findings stated, “From what has been presented above, it can be concluded that the formation of the ‘opisthotonic posture’ in subaquatically deposited carcasses of long-necked and long-tailed reptiles is the result of a postmortem process...this posture must be seen as a normal phenomenon that occurs during subaquatic gradual embedding of these sorts of carcasses.”
- ²⁴⁵ Liu, L., Spasojevi, S. & Gurnis, M. (2008), Reconstructing Farallon Plate Subduction Beneath North America back to the Late Cretaceous, *Science*,

322, 934–938; Spasojevi, S., Liu, L. & Gurnis, M. “Adjoint Convection Models of North America Incorporating Tomographic, Plate motion and Stratigraphic Constraints.” *Geochem., Geophys., Geosys* 10 (2009) Q05W02; Bond, Gerard. “Evidence for continental subsidence in North America during the Late Cretaceous global submergence.” *Geology* 4 (9) (September 1, 1976): 557–560; Cross, Timothy A. & Pilger, Rex H. Jr. “Tectonic controls of late Cretaceous sedimentation, western interior, USA.” *Nature*, Volume 274, 653–657 (1978).

²⁴⁶ Thanks to Dr. John Baumgardner for contributing this section (personal communication, May 21, 2018).

²⁴⁷ Data from the Paleobiology Database: <https://paleobiodb.org/navigator/>. Accessed January 26, 2017.

²⁴⁸ Image credit: Vail, Tom. “Bent Rocks.” Posted December 8, 2015. *Canyon Ministries*. www.canyonministries.org/bent-rock-layers/. Accessed September 22, 2020.

²⁴⁹ Clarey, T.L. & Werner, D.J. “Use of sedimentary megasequences to re-create pre-Flood geography.” In *Proceedings of the Eighth International Conference on Creationism*, ed. J.H. Whitmore, (2018): pp. 351–372. Pittsburgh, Pennsylvania: Creation Science Fellowship. Note: the literature on this topic reports 1,500 bore holes, but this has since increased to 2,000.

²⁵⁰ Courtesy of Dr. Nathaniel Jeanson.

²⁵¹ Image credit: Clarey, T. & D. J. Werner (2018).

²⁵² Snelling, Andrew A., “How Did We Get All This Coal?” Posted April 1, 2013. *Answers in Genesis*. <https://answersingenesis.org/biology/plants/how-did-we-get-all-this-coal/>. Accessed September 22, 2020.

²⁵³ Map courtesy of Lignite Energy Counsel.

²⁵⁴ Clarey, Timothy. “Do the Data Support a Large Meteorite Impact at Chicxulub?” *Answers Research Journal* 10 (2017): 71–88. There have been well over 90 secular, published ideas attempting to explain this extinction, from dinosaur medical problems, overspecialization, competition with mammals, plant changes, climate changes, sea level changes to increased volcanism, the most popular remains an extraterrestrial impact (Charig, A.J. “Disaster Theories of Dinosaur Extinction.” *Modern Geology* 18 (1993): 299–318. See also Archibald, J. D. “Dinosaur Extinction: Past and Present Perceptions.” In Brett-Surman, M. K., Holtz, T. R., Farlow, J.O., and Walter, B, eds. *The Complete Dinosaur*, Second Edition. Bloomington: Indiana Press, 2012: 1027–1038.

²⁵⁵ Evolutionists hold that this extinction event pertained only to the dinosaurs living at the end of the “Cretaceous era.”

²⁵⁶ Paleobiology Database: <https://paleobiodb.org/navigator/>. Accessed January 26, 2017.

²⁵⁷ Kornei, Katherine. “Huge Global Tsunami Followed Dinosaur-Killing Asteroid Impact.” Posted December 20, 2018. *EOS.org*.

<https://eos.org/articles/huge-global-tsunami-followed-dinosaur-killing-asteroid-impact>. Accessed September 22, 2020.

²⁵⁸ Map from Paleobiology Database: <https://paleobiodb.org/navigator/>. Accessed January 26, 2017; Chicxulub crater superimposed from: Ingomar200 (YouTube Channel): “Chicxulub Tsunami.” Posted October 13, 2012. *YouTube*. <https://youtu.be/Dcp0JhwNgmE>. Accessed September 22, 2020.

²⁵⁹ Image credit: Wikipedia.

²⁶⁰ Map from Paleobiology Database: <https://paleobiodb.org/navigator/>. Accessed January 26, 2017.

²⁶¹ Rogers, Raymond R., Eberth, David A., Fiorillo, Anthony R. *Bonebeds: Genesis, Analysis, and Paleobiological Significance*. University of Chicago Press (January 30, 2008).

²⁶² Eberth, D.A., Brinkman, D.B., and Barkas, V.A., “Centrosaurine Megabonebed from the Upper Cretaceous of Southern Alberta: Implications for Behaviour and Death Events” in *New Perspectives on Horned Dinosaurs: The Ceratopsian Symposium at the Royal Tyrrell Museum* (September 2007): 495. Image credit: Dinosaur Provincial Park Museum.

²⁶³ Bond, Gerard. “Evidence for continental subsidence in North America during the Late Cretaceous global submergence.” *Geology* 4 (9) (September 1, 1976): 557–560.

²⁶⁴ Hopson, R.F., Hillhouse, J.W., and Howard, K.A. “Dike orientations in the Late Jurassic Independence dike swarm and implications for vertical-axis tectonic rotations in eastern California,” in Wright, J.E., and Shervais, J.W., eds., *Ophiolites, Arcs, and Batholiths: A Tribute to Cliff Hopson: Geological Society of America Special Paper 438* 2008: 481–498.

²⁶⁵ Christiansen, Eric H., Kowallis, Bart J., Dorais, Michael J., Mills, Chloe N., Pickard, Megan, Parks, Eric. “The record of volcanism in the Brushy Basin Member of the Morrison Formation: Implications for the Late Jurassic of western North America.” *The Geological Society of America, Special Paper* 513 (2015).

²⁶⁶ Austin, Steven. “Supervolcanoes and the Mount St. Helens Eruption.” *Acts & Facts (Features)*. Posted May 1, 2010. *Institute for Creation Research*. www.icr.org/article/supervolcanoes-mount-st-helens-eruption. Accessed September 22, 2020.

²⁶⁷ For an introduction to this controversy in the secular geology community, see: Keller, Gerta. “The Impact Controversary.” *Princeton University*. <https://massexinction.princeton.edu/chicxulub/2-impact-controversary>. Accessed September 22, 2020: “Unfortunately, that did not happen either during the 1994 field trip attended by about seventy scientists, or in the years since. Instead, interpretations of the K-Pg age of the Chicxulub impact, Chicxulub as the single cause for the K-Pg mass extinction, and the tsunami scenario to explain any discrepancies became the lore in the scientific community and popular wisdom.”

²⁶⁸ Keller, Gerta. “The Impact Controversary.” Princeton University. <https://massexinction.princeton.edu/deccan-volcanism/01-deccan-volcanism-adventure-science>. Accessed September 22, 2020. See also: Achenbach, Joel. “Did a massive volcanic eruption in India kill off the dinosaurs?” Posted December 11, 2014. *Washington Post*. www.washingtonpost.com/news/speaking-of-science/wp/2014/12/11/did-a-massive-volcanic-eruption-in-india-kill-off-the-dinosaurs/. Accessed September 23, 2020.

²⁶⁹ Austin, S.A. et al., “Catastrophic Plate Tectonics: A Global Flood Model of Earth History,” in *Proceedings of the Third International Conference on Creationism*, R.E. Walsh, ed. Pittsburgh, PA: Creation Science Fellowship, 1994: 609–621.

²⁷⁰ For an overview of this background, see: Bosker, Bianca. “The Nastiest Feud in Science.” September 2018. *The Atlantic*. www.theatlantic.com/magazine/archive/2018/09/dinosaur-extinction-debate/565769/. Accessed September 23, 2020.

²⁷¹ Including geophysicist Mark Richards., formerly of UC Berkeley and now at the University of Washington. See: Richards, M. A. et al. “Triggering of the largest Deccan eruptions by the Chicxulub impact.” *GSA Bulletin* 127 (11–12) (2015): 1507–1520.

²⁷² Snelling, Andrew A. “Did Meteors Trigger Noah’s Flood?” Posted January 1, 2012. *Answers in Genesis*. <https://answersingenesis.org/the-flood/did-meteors-trigger-noahs-flood/>. Accessed September 23, 2020.

²⁷³ Ibid.

²⁷⁴ Sarjeant, William A.S. & Currie, Philip J. “The ‘Great Extinction’ that never happened: the demise of the dinosaurs considered.” *Canadian Journal of Earth Sciences*, 38, 2001: 239–247; Rocchia, R.D., Boclet, D., Bonté, P.H., Jehanno, C., Chen, Y, Courtillot, C.M., and Wezel, F.C. “The Cretaceous–Tertiary boundary at Gubbio revisited: vertical extent of the Ir anomaly. *Earth and Planetary Science Letters*, 99 (1990): 206–219; Crocket, James H., Officer, Charles B., Wezel, Forese C., Johnson, Gary D. “Distribution of noble metals across the Cretaceous/Tertiary boundary at Gubbio, Italy: Iridium variation as a constraint on the duration and nature of Cretaceous/Tertiary boundary events.” *Geology* 16 (1) (1988): 77–80. See also: Oard, M.J. “Is the demise of the dinosaurs by a Yucatán impact a myth?” *Journal of Creation* 18 (1) (2004): 6–8. Oard noted: “Sarjeant and Currie (2001) further reported that the original site in Gubbio, Italy, made famous by the Alvarez et al. paper (1980), was reanalyzed by Crocket et al. (1988) and Rocchia et al. (1990). These authors found that the reported iridium anomaly was not a single spike in value as claimed by Alvarez et al. (1980), but a series of iridium-rich layers spread across a 4 m thick interval. Sarjeant and Currie (2001) concluded that this is hardly the type of data that support a single impact.”

²⁷⁵ Sarjeant & Currie, 2001.

²⁷⁶ Keller, Gerta. “Conclusions – Based on 30 Years of Research.” *Princeton University*. <https://massexinction.princeton.edu/chicxulub/12-conclusions-%E2%80%93-based-30-years-research>. Accessed September 22, 2020.

Keller stated, “After 30 years of chasing evidence in support of the Chicxulub impact as the cause for the KTB mass extinction we found little more than the iridium anomalies, which are usually very small (<0.5 ppb), except for rare locations in Italy (Gubbio), Denmark, Tunisia (El Kef), India (Meghalaya). They are never associated with undisputed Chicxulub impact ejecta (impact spherules), and frequently occur in multiple small Ir concentrations at clay layers above and/or below the KTB. Iridium concentrations such as these are increasingly being questioned as primary sources and re-interpreted as remobilization and re-concentration at redox layers (Colodner et al., 1992; Martin-Peinado and Rodriguez-Tovar, 2010; Miller et al., 2010; Gertsch et al., 2011). The Ir contribution from volcanism, formerly thought to be negligent, is also under study.”

²⁷⁷ Keller, G. et al. “More evidence that the Chicxulub impact predates the K/T mass extinction.” *Meteoritics & Planetary Science*. 39 (7) 2004: 1127–1144; Clarey, T. “Chicxulub Crater Theory Mostly Smoke.” Posted May 31, 2017. *Institute for Creation Research: Acts & Facts*.

www.icr.org/article/chicxulub-crater-theory-mostly-smoke; Keller, G., Adatte, T., Baum, G., & Berner, Z. “Reply to ‘Chicxulub impact predates K-T boundary: New evidence from Brazos, Texas’ Comment by Schulte et al.” *Earth and Planetary Science Letters*, 269 (3–4) (2008): 621–629.

²⁷⁸ Oard, Michael J. “The Extinction of the Dinosaurs.” Posted August 1, 1997. *Answers in Genesis*.

<https://answersingenesis.org/dinosaurs/extinction/the-extinction-of-the-dinosaurs/>. Accessed September 23, 2020; Officer, C. & Page, J. *The Great Dinosaur Extinction Controversy*. New York: Addison-Wesley Publishing Co., 1996, Ref. 76, pp. 110–129.

²⁷⁹ Oard, 1997.

²⁸⁰ “Closing in On the K-T Boundary of Dinosaur Extinction.” Posted July 16, 2011. *Answers in Genesis*.

<https://answersingenesis.org/dinosaurs/extinction/closing-in-on-k-t-boundary-dinosaur-extinction/>. Accessed September 23, 2020.

²⁸¹ Oard, M.J. “Is the demise of the dinosaurs by a Yucatán impact a myth?” *Journal of Creation* 18 (1) (2004): 6–8.

²⁸² Sanders, Robert. “Did dinosaur-killing asteroid trigger largest lava flows on Earth?” Posted April 30, 2015. *Berkeley News*.

<https://news.berkeley.edu/2015/04/30/did-dinosaur-killing-asteroid-trigger-largest-lava-flows-on-earth/>. Accessed September 23, 2020; Rosen, Julia.

“Down to Earth With: Paleontologist Gerta Keller.” *Earth Magazine*. www.earthmagazine.org/article/down-earth-paleontologist-gerta-keller. Accessed September 23, 2020.

²⁸³ MacPherson, Kitta. "Princeton geoscientist offers new evidence that meteorite did not wipe out dinosaurs." Posted May 4, 2009. *Princeton*. www.princeton.edu/news/2009/05/04/princeton-geoscientist-offers-new-evidence-meteorite-did-not-wipe-out-dinosaurs?section=. Accessed September 23, 2020; Keller, Gerta, Adatte, Thierry, Stinnesbeck, Wolfgang, Rebolledo-Vieyra, Mario, Urrutia Fucugauchi, Jaime, Kramar, Utz, Stüben, Doris. "Chicxulub impact predates the K-T boundary mass extinction." *Proceedings of the National Academy of Sciences* 101 (11) (March 2004): 3753–3758. Note: "Since the early 1990s the Chicxulub crater on Yucatan, Mexico, has been hailed as the smoking gun that proves the hypothesis that an asteroid killed the dinosaurs and caused the mass extinction of many other organisms at the Cretaceous-Tertiary (K-T) boundary 65 million years ago. Here, we report evidence from a previously uninvestigated core, Yaxcopoil-1, drilled within the Chicxulub crater, indicating that this impact predated the K-T boundary by approximately 300,000 years and thus did not cause the end-Cretaceous mass extinction as commonly believed. The evidence supporting a pre-K-T age was obtained from Yaxcopoil-1 based on five independent proxies, each with characteristic signals across the K-T transition: sedimentology, biostratigraphy, magnetostratigraphy, stable isotopes, and iridium. These data are consistent with earlier evidence for a late Maastrichtian age of the microtektite deposits in northeastern Mexico. See also: Thomas, Brian. "Strata Data Axes Asteroid Dinosaur Demise." Posted May 14, 2009. *Institute for Creation Research*. www.icr.org/article/strata-data-axes-asteroid-dinosaur. Accessed September 23, 2020. Note Thomas states: "The new data she collected for her recent study bolsters Keller's prior claim that the Chicxulub meteor did not annihilate the dinosaurs at the end of the Cretaceous period. The researchers determined that the mass extinction sediment lies on top of four to nine meters of sandstone material that was deposited on top of the Chicxulub crater. Keller told the National Science Foundation that these roughly 20 feet of 'sediments were deposited at about two to three centimeters per thousand years after the impact,' a deposition rate consistent with the concept that hundreds of thousands of years separated the events."

²⁸⁴ Many secular geologists (including Keller) maintain that the Chicxulub impact predates the K-T (now called K-Pg) boundary by 120,000 years. See: Gradstein, F., Ogg J., and Smith, A. *A Geologic Time Scale*. Cambridge, UK: Cambridge University Press (2004) and Keller, G. "Impacts, volcanism and mass extinctions: random coincidence or cause & effect?" *Australian Journal of Earth Sciences* 52 (2005): 725–757.

²⁸⁵ Wikipedia has a very useful page on the Tanis location: [https://en.wikipedia.org/wiki/Tanis_\(fossil_site\)](https://en.wikipedia.org/wiki/Tanis_(fossil_site)). Accessed September 23, 2020. For details about the site and images, see the leading article about the site, especially the *Supplement*: DePalma, Robert A., Smit, Jan, Burnham, David A., Kuiper, Klaudia, Manning, Phillip L., Oleinik, Anton, Larson, Peter, Maurrasse, Florentin J., Vellekoop, Johan, Richards, Mark A., Gurche, Loren, Alvarez, Walter. “A seismically induced onshore surge deposit at the KPg boundary, North Dakota.” *Proceedings of the National Academy of Sciences*, 116 (17) (April 2019): 8190–8199.

²⁸⁶ Ibid.

²⁸⁷ Ibid (Supplement, p. 7).

²⁸⁸ The Tannis research reports (cited above) provide strong evidence for the tsunamis happening in correspondence with one or more asteroids during the Genesis Flood. Both layers were full of both fresh *and* salt water creatures as well as land creatures and plants. They believe this 10-plus meter high tsunami took about a day to travel the 1,900 miles from the Chicxulub crater to North Dakota, if it in fact traveled up the Western Interior Seaway. While Biblical Creationists have no problem with the Interior Seaway during a stage in the Flood process, it certainly wasn't the only flooding going on, with massive bonebeds of this size and much larger being laid down all across America and other parts of the world, happening at the same time. Secular geologists openly admit to a “Late Cretaceous Transgression” (see Bond, 1976) where catastrophic folding and buckling of the North American continent was necessary to deposit fossils today much higher than present sea levels could have done.

²⁸⁹ “10,000 Dinosaurs in One Meter of Mud.” *Is Genesis History*.

<https://isgenesishistory.com/10000-dinosaurs/>. Accessed September 23, 2020.

²⁹⁰ Snyder, K., McLain, M., Wood, J., Chadwick, A. “Over 13,000 elements from a single bonebed help elucidate disarticulation and transport of an *Edmontosaurus* thanatocoenosis.” *PLoS ONE* 15 (5) (2020): e0233182.

²⁹¹ Horner, J.R. & Gorman, J. *Digging Dinosaurs*. New York: Workman Publishing, 1988, 122–123.

²⁹² Hoesch, W. A. & Austin, S. A. “Dinosaur National Monument: Jurassic Park or Jurassic Jumble?” *Acts & Facts*. 33 (4) 2004.

²⁹³ The idea has been around since the 19th Century with Huxley proposing this notion first. See: Pavid, Katie. “How dinosaurs evolved into birds.” *Natural History Museum (UK)*. www.nhm.ac.uk/discover/how-dinosaurs-evolved-into-birds.html. Accessed September 23, 2020.

²⁹⁴ Brocklehurst, N., Upchurch, P., Mannion, P.D., O'Connor, J. “The Completeness of the Fossil Record of Mesozoic Birds: Implications for Early Avian Evolution.” *PLoS ONE* 7 (6) (2012): e39056. See also: Mitchell, Elizabeth. “Birds Buried with Dinos at K-T Boundary.” Posted October 8, 2011. *Answers in Genesis*. <https://answersingenesis.org/fossils/fossil->

record/birds-buried-with-dinos-k-t-boundary/. Accessed September 23, 2020.

²⁹⁵ Werner, C. *Evolution Grand Experiment*, Kindle Location 3458–3459.

²⁹⁶ Martin, A.J., Vickers-Rich, P., Rich, T.H. and Hall, M. “Oldest known avian footprints from Australia: Eumeralla Formation (Albian), Dinosaur Cove, Victoria.” *Palaeontology*, 57 (2014): 7–19. Note specifically: “Moreover, although the tracks may belong toenantiornithine birds, their overall form and size are similar to those of ornithurines (Falk 2011), specifically birds belonging to the modern clade Ardeidae, such as egrets and herons (Elbroch and Marks 2001; Lockley et al. 2009).”

²⁹⁷ Darwin, Charles. *The Origin of Species* 1st ed. (1865): Chapter 6, 184.

²⁹⁸ Table adapted from Werner, *Evolution: The Grand Experiment* (Vol. 1) (2014), p. 274–275.

²⁹⁹ “Order Artiodactyla Even-toed ungulates and whales!” *The Ultimate Ungulate*. <http://www.ultimateungulate.com/Artiodactyla.html>. Accessed September 23, 2020. See also Wikipedia:

https://en.wikipedia.org/wiki/Evolution_of_cetaceans

³⁰⁰ Ibid.

³⁰¹ Werner, *Evolution: The Grand Experiment*, p. 40.

³⁰² Werner, *Evolution Grand Experiment*, p. 40: “A scientist can tell if an animal had a whale’s widened tail fluke by looking at the bones of the tail. A whale’s tail has a special round “ball” vertebrae, followed by several flat bones where the cartilaginous fluke tail attaches...Without a ball vertebrae, a scientist could not be sure if *Rodhocetus*, in fact, had a fluked tail.

³⁰³ “Animal-Reference: Blue Whale.” *National Geographic*.

www.nationalgeographic.com/animals/mammals/b/blue-whale/. Accessed September 23, 2020.

³⁰⁴ “Whale Evolution vs. Population Genetics - Richard Sternberg and Paul Nelson.” Posted August 19, 2016. Living Waters Intelligent Design in the Oceans of the Earth (excerpt posted on “Philip C” YouTube Channel). Produced by Illustra Media (2015) *YouTube*. <https://youtu.be/0csd3M4bc0Q>. Accessed September 23, 2020. Narrative from excerpt states: “Could random chance, natural selection, and millions of years explain all these differences? That’s certainly not what leading evolutionary biologist Dr. Richard Sternberg believes. Dr. Sternberg concluded that—even under the evolutionary idea of millions of years—there’s just not enough time to make *even a few of the changes* necessary to change such a land creature into a whale. Dr. Sternberg stated in a debate, ‘How could this process alone have produced fully aquatic cetaceans (whales) with their multiple, anatomical novelties, requiring many hundreds, even thousands of adaptive changes in less than 2 million years—even less than 9 million years?...I’m saying it doesn’t add up.’ We would need thousands of in-between examples of fossils demonstrating *each* of these requirements developing through time.”

³⁰⁵ Ibid.

³⁰⁶ “Richard Dawkins: Show Me the Intermediate Fossils! - Nebraska Vignettes #1.” Posted June 5, 2014. *YouTube*.

<https://youtu.be/DP53WakQ5Yc>. Accessed September 23, 2020.

³⁰⁷ Whale Evolution Display at the Nebraska State Natural History Museum (Copyright Earl L. Miller).

³⁰⁸ Gingerich, Phil. “Evidence for Evolution from the Vertebrate Fossil Record.” *Journal of Geological Education* 31 (1983): 140–144.

³⁰⁹ Ibid.

³¹⁰ Thewissen, J.G.M., Williams, E.M., Roe, L.J., and Hussain, S.T. “Skeletons of terrestrial cetaceans and the relationship of whales to artiodactyls.” *Nature* 413 (September 20, 2001): 277–281.

³¹¹ Ibid.

³¹² As published in *Nature*.

³¹³ Thewissen, G.M., Williams, E.M., Roe, L.J. & Hussain, S.T. “Skeletons of Terrestrial Cetaceans and the Relationship of Whales to Artiodactyls,” *Nature* 413 (September, 2001): 277–281.

³¹⁴ de Muizon, Christian. “L’origine et l’histoire évolutive des Cétacés.” *Comptes Rendus Palevol*. (March 3, 2009). See Figure 3. Reconstitution de Pakicetus (par Carl Buell). Reconstruction of Pakicetus (painting by Carl Buell).

³¹⁵ Image credit: Werner, C. *Evolution: The Grand Experiment* (3rd edition).

³¹⁶ Paleobiology Database: <https://paleobiodb.org/navigator/>. Accessed January 26, 2017.

³¹⁷ For example, the *Proceedings of the National Academy of Sciences* showed *Rodhocetus* with a fluked tail similar to a typical whale.

³¹⁸ Enyart, Bob. “Phil Gingerich admits Rodhocetus lacks imagined whale features.” Posted May 20, 2015. *YouTube*. <https://youtu.be/POMjpTSk3no>. Accessed September 23, 2020. Also see Werner, Carl. *Evolution: The Grand Experiment* (DVD) (Based on interview conducted on August 28, 2001), (Green Forest, AR: New Leaf Publishing Group).

³¹⁹ Curtis, Helena & Barnes, Sue. *Biology* (5th Edition). W. H. Freeman, (April 15, 1989): 969.

³²⁰ Ibid.

³²¹ Miller, Kenneth R. & Levine, Joseph S. *Biology*. Boston, MA: Pearson, 2006: p. 469.

³²² Dines, J.P. et al., “Sexual selection targets cetacean pelvic bones,” *Evolution* 68 (11) (November 2004): 3296–3306

³²³ Image credit: Author, Washington DC Natural History Museum.

³²⁴ The Biblical timelines that rely on the 17th-century chronology formulated by Bishop James Ussher place Creation at 4,004 BC and the Flood at 2,348 BC. Some recent research into the copyist differences in the early Masoretic and early Septuagint texts place the Flood around 2,518 BC based on the Masoretic text and between 3,168 BC and 3,298 BC based on the Septuagint (and other early texts), with Creation as early as 5,554 BC. These differences, however, can be settled by comparing multiple texts to reveal the perfect nature of the original writings which were “written through man by God” without error. These issues have been discussed in papers from three leading creation ministries. See, for example: Brian Thomas, “Two date range options for Noah’s Flood,” *Journal of Creation* 31(1) (2017); Henry B. Smith Jr., “Methuselah’s Begetting Age in Genesis 5:25 and the Primeval Chronology of the Septuagint: A Closer Look at the Textual and Historical Evidence,” *Answers Research Journal* 10 (2017): 169–179. Answers in Genesis: www.answersingenesis.org/arj/v10/methuselah-primeval-chronology-septuagint.pdf (November 5, 2018); and Lita Cosner and Robert Carter, “Textual Traditions and Biblical Chronology,” *Journal of Creation* 29 (2) 2015.

³²⁵ Jeanson, N. T., “Recent, Functionally Diverse Origin for Mitochondrial Genes from ~2700 Metazoan Species,” *Answers Research Journal* 6 (2013): 467–501; Parsons, T.J., et al., “A High Observed Substitution Rate in the Human Mitochondrial DNA Control Region,” *Nature Genetics* 15 (1997): 363–368; Gibbons, A. “Calibrating the Mitochondrial Clock,” *Science* 279 (1998): 28–29.

³²⁶ Tennessen, J. A., et al., “Evolution and Functional Impact of Rare Coding Variation from Deep Sequencing of Human Exomes,” *Science* 337 (6090) (2012): 64–69; Fu, W., et al., “Analysis of 6,515 Exomes Reveals the Recent Origin of Most Human Protein-coding Variants,” *Nature* 493 (7431) (2013): 216–220.

³²⁷ Data compiled and modified after Snelling (1998): Snelling, Andrew. “The Cause of Anomalous Potassium-Argon ‘Ages’ for Recent Andesite Flows at Mt. Ngauruhoe, New Zealand, and the Implications for Potassium-argon Dating,” in Robert E. Walsh (ed.), *Proceedings of the Fourth International Conference on Creationism* (1998): 503–525. See also: Snelling, Andrew A., “Excess Argon”: The “Achilles’ Heel” of Potassium-Argon and Argon-Argon “Dating” of Volcanic Rocks. *Institute for Creation Research*. www.icr.org/article/excess-argon-achillies-heel-potassium-argon-dating/. Accessed February 3, 2016; Austin, Steve. “Excess argon within mineral concentrates from the new dacite lava dome at Mount St Helens volcano,” *J. Creation* 10 (3) (1996): 335–343 (see: www.creation.com/lavadome, February 3, 2016).

³²⁸ Thomas, Brian. “Monuments of Catastrophe from Mount St. Helens.” Posted June 30, 2015. *Institute for Creation Research*.

www.icr.org/article/monuments-catastrophe-from-mount-st. Accessed September 23, 2020; Austin, Steven A. “Excess Argon within Mineral Concentrates from the New Dacite Lava Dome at Mount St. Helens Volcano.” *Institute for Creation Research*.

www.icr.org/research/index/researchp_sa_r01/. Accessed September 23, 2020.

³²⁹ Image credit: Wikipedia (spelling errors corrected on original, side text and shaded boxes added).