

# The Grand Canyon – A Challenge to Evolutionary Naturalism

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(This is one chapter out of a book project that I have been working on. The purpose of this book is to really try to investigate these topics from both the Naturalistic/Evolutionary Worldview and from the Biblical Creation Worldview. Evidence has to be interpreted so the desire of this project is to better look at the whole picture. In studying both sides, we want to be able to analyze which answers the topics addressed better. I have compiled around 75 different topics that I believe are challenges to the Theory of Evolution and therefore we can see that the Creation Worldview has better answers to each of those topics.

**Take this also as good practice in thinking critically about both sides and asking good questions! Try thinking like a geologist, and like a creationist, and like an evolutionist.)**

## Introduction:

The Grand Canyon is a tremendous example of the rock layers that cover the continents of the Earth. The Grand Canyon is 277 miles long, 18 miles across at the most, and more than 1 mile deep and has been carved out due to the power of running water.<sup>i</sup> How were the rock layers formed initially? How long did it take to form the rock layers? How long did it take to carve the Grand Canyon? What can we learn about the history of the Earth from the Grand Canyon?

## Naturalistic/Evolutionary Answer:

The Grand Canyon is an amazing display and one of the best places to study and learn about Earth's geologic history and to gain more clues about the age of the earth. "Rocks exposed in Grand Canyon are truly ancient, ranging from 1840 million years old (m.y.), or 1.84 billion years old (b.y.), to 270 m.y. The Grand Canyon landscape is geologically young, being carved within just the last 6 m.y. There are younger geologic deposits in Grand Canyon too, such as the Ice Age fossils found in caves, a 1000-year-old lava flow in the western canyon, and even the debris flow deposits that continue to form each year."<sup>ii</sup> The Grand Canyon has Precambrian igneous, metamorphic, and sedimentary rock layers, Cambrian sedimentary rock layers, and more sedimentary layers from the Paleozoic Era.<sup>iii</sup>

There are large gaps of time that are not represented in the Grand Canyon layers because of the interchanging periods between ancient seas and dry land. When the continents rose above ground some of the now missing layers were eroded and thus causing the supposed missing time within the Grand Canyon. For example, the Great Unconformity is "a gap of over a billion years" between the Precambrian rocks and the oldest Paleozoic Rocks.<sup>iv</sup> It is, in reality, a "non-layer" that "indicates an age in which no sediments can be found. It is indicative of a time when an advancing sea eroded away the sediments that should be here."<sup>v</sup>

Creationists often use this "missing time" idea to show that the standard model of dating the rock layers does not make sense, but yet the Creation perspective of a worldwide flood does not fit the data of what is seen in the fossil record at the Grand Canyon. At the Grand Canyon, "interspersed with these 'water-laid formations and marine fossils' are numerous sedimentary layers that are indisputably *nonmarine* in origin. Using the Grand Canyon as an example, the Kaibab Limestone and Redwall Limestone do contain marine fossils. However, in between these layers lies the Coconino Sandstone, which contains the tracks of reptiles and shows strong evidence of being deposited as sand dunes in a desert. It's kind of difficult to create a desert environment during the year of the flood."<sup>vi</sup> In fact, Creationists deceptively only quote parts of the evidence to try to prove that the Coconino Sandstone was not a windblown desert, but was laid down by water.<sup>vii</sup>

"Below the Coconino Sandstone lies the Hermit Shale, which contains the remains of *terrestrial* plants such as ferns, and insect wings, and does not contain marine fossils. Below the Hermit Shale is the Supai Formation, containing the tracks of terrestrial animals. Creationists have proposed that these tracks might have been made by animals while they were in the water, but this theory falls apart rapidly when one considers first the purported violence of the Flood, and second, the year-long duration. How long were those animals treading water, and why were they able to make their tracks *only in a way that supports faunal succession?*"<sup>viii</sup> "Creationists claim that the year of the Flood included several geological events, but that still stretches credulity."<sup>ix</sup>

There is also evidence that there is erosion between the Muav and Redwall Limestone layers. "*A global flood would have provided neither time for the sediments to be consolidated [into hardened rock] nor opportunity for the materials to be weathered by exposure to air.*"<sup>x</sup> Creationists are even challenged by the fact that limestone takes a long time to form and so more than 1000 feet of limestone could not have formed quickly.<sup>xi</sup> There are also layers of paleosol, which is ancient buried soil and the underwater flood conditions could not account for the development of these soils. The discovery of vertebrate and worm burrows through these paleosols are also impossible in underwater flood conditions.<sup>xii</sup> Raindrop impressions, which have been found in the Tapeats, Coconino, and Hermit formations also would be impossible in underwater flood conditions.<sup>xiii</sup> Ripple marks and cracked mud fossils also create challenges for this underwater, turbulent flood theory.

Creationists claim that mass graveyards are evidence of rapid burial in a flood. "Creationist Henry Morris asserts: 'Destruction beyond imagination must have been wrought on the antediluvian earth.' So why isn't everything churned up a lot more? *Why does the fossil record appear Darwinian in nature?*"<sup>xiv</sup> In fact, could the nautiloid shells have survived the turbulent flood currents? From an old-age perspective, it just makes sense that the hard shells of nautiloids are preserved. Even soft tissue can be easily preserved at the bottom of lakes or seas especially in low-oxygen environments.<sup>xv</sup> For another thing, uniformitarians don't say that catastrophic events like local floods don't ever happen, but that typical seasonal floods do have a large impact on the make-up of the fossil record.

Creationists often point to folds within rock layers and suggest that they must have bent while soft and wet, otherwise, they would have cracked and broken if they were hardened rock. Many studies have proven that rocks under great pressure and temperature (like deep underground) become more pliable and are able to bend over long periods of time with no cracking or breaking within the layers.<sup>xvi</sup>

One evangelical Christian geologist even admits that "there is an *abundance of physical evidence to indicate that layers of rock have been eroded away* and are therefore now missing...Regardless of whether or not the concept of biological evolution has any validity, the geological data clearly point to the former presence of 'missing rock.'"<sup>xvii</sup>

If the Grand Canyon were carved by a flood or large rush of water all at once, side canyons would not have formed as they exist today, slumping of canyon walls would have occurred, major meanders like around Gooseneck State Park and with Horseshoe Bend would not have been able to form. The proposed lake would not have held enough water to carve the Grand Canyon. Large water run-off would have caused a broader, more shallow river bed rather than a deep channel and if this event happened at the Grand Canyon, why aren't there more canyons that would have formed like this as well from the receding floodwaters or the breaching of trapped lakes?<sup>xviii</sup>

Creationists often point to Creationist Steven Austin's claims that volcanic rocks at the top of the Grand Canyon were dated older than the Cardenas Basalt, which is much lower in the Grand Canyon. Thus, Austin tries to discredit radiometric dating methods, but in reality, the problem is with "Austin's slight-of-hand" in handling the data dishonestly.<sup>xix</sup>

"California Institute of Technology geologist Brian Wernicke said, 'It's hard to look at a landscape and discern its erosional history'. "<sup>xx</sup> "Part of the challenge of solving the Grand Canyon's history is that so much has changed in the ensuing millions of years: climate was different then, the topography has

changed dramatically, and tectonic forces continue to reshape the plateau.”<sup>xxi</sup> But ultimately, “there is a perfectly satisfactory gradual explanation for the formation of the Grand Canyon that avoids all these [creationist] problems.”<sup>xxii</sup>

The Grand Canyon’s iconic rock layers started forming two billion years ago by sediments being laid down in ancient seas, some layers metamorphosing due to pressure and heat, and volcanic flows and formations. The Colorado River has been carving out this canyon using water, ice, and wind over as much as 70 million years as the entire Colorado Plateau uplifted.<sup>xxiii</sup>

There has actually been considerable debate on how long the Grand Canyon has been eroding. Some believe that it has been carved over 70 million years or just 17 million years,<sup>xxiv</sup> yet some believe that “the Grand Canyon must have been carved within a period of as little as 3 to 5 million years.”<sup>xxv</sup> There is evidence to demonstrate that the Colorado River was flowing and carving the Grand Canyon at least 5 million years ago. During at least the last 5 million years, it appears that the Colorado Plateau and the Kaibab upwarp uplifted gradually and consistently allowing the Colorado River to continue to carve a deeper Canyon.

“This is the land where erosion has prevailed for more than 200 million years. Geologists, used to the rigors of a discipline where years of investigation yield an incomplete picture at best, are not discouraged by the prospect, and Grand Canyon is a very worthwhile place in which to seek the answers.”<sup>xxvi</sup>

#### **Creation Answer:**

Listen to the uncertainty coming from one secular geologist, “Grand Canyon is a puzzle, a mystery, an enigma. It appears to have been carved through an uplifted plateau, ignores fault lines, may have been born by a river that once flowed the other way, is possibly quite old or quite young, or both.”

During the massive, worldwide flood in Noah’s day, swirling sediment rich flood waters would settle different types of sediments in different places and at different times. This is why there are extensive beautiful bands of rock layers that now cover the surface of the Earth and are especially visible in canyon walls like in the Grand Canyon.

The worldwide flood lasted for about one year and thus there were times of immense destructive geologic activities and also the less violent surges that captured and ordered many different organisms. “If Grand Canyon limestones were accumulated slowly in tranquil seas, we might expect to have large, organically bound structures (“reefs”) buried with the lime mud.”<sup>xxvii</sup> There is evidence at the Grand Canyon that many organisms were transported, smashed up, jumbled up, mixed up and buried quickly in mass graves, which is consistent with flood deposits.

During the last phases of the flood, the Earth’s tectonic plates collided and mountain building processes occurred, the flood waters were pushed and flowed downhill away from those rising areas. When the waters rushed away, they stripped many of the top layers of sediment off of the continents including about 1000 feet of rock layers above the Grand Canyon that are now missing (this is called The Great Denudation). This sheet water erosion created the flat surfaces all over the world including the flat top of the Grand Canyon. This water washing away also created broad, wide, massive canyons. Some believe that the Grand Canyon was carved at the end of the draining flood waters when the last waters went from wide broad sheet flows to less water which started cutting deeper channels or canyons as they continued to flow to the ocean basins.

Others believe that the Grand Canyon was carved some time after the flood. Some scientists believe that there is evidence to suggest that two very large lakes (Grand Lake and Hopi Lake) were dammed up and trapped by the Colorado plateau. The Grand and Hopi Lake consist of much of eastern Utah, northeastern Arizona and parts of New Mexico and Colorado. Naturalists have responded that this lake idea would not provide enough water, but these lakes were a lot bigger than what naturalists thought. When the dam broke, a lot of water rushed in and very rapidly carved out the Grand Canyon.

However, some scientists believe that “a dam breach releasing water from behind the Kaibab Plateau would have carved canyons *in the direction* of flow...not perpendicular to it.”<sup>xxviii</sup> So many creationists believe that the Receding Flood Scenario is actually better able to explain how the Grand Canyon formed. In this scenario, sheets of water flowed over the entire plateau and therefore carved a canyon on the top of the underwater plateau. This hydraulic action would carve the western part of the canyon and widen and deepen going upstream. The Receding Flood Scenario would also explain how areas north and south of the Grand Canyon drain their waters through the side canyons of the Grand Canyon.

Many dispute these quick erosion theories, because of features like Horseshoe Bend where the Colorado River takes a very tight curve that turns more than 180 degrees to go from flowing east to flowing west. They say that this part of the canyon could not have been formed by very large rushes of water. But, slow, meandering rivers will cut more horizontally as they go downstream, but they won't cut vertically down into such a steep canyon, which exists today. A fast-flowing river is needed to carve down deeper creating the vertical cliffs. The reason the rivers “turns around” is due to the fact that the water follows the lowest parts of the undulating pattern of the plateau.<sup>xxix</sup>

If the Grand Canyon had formed slowly over a long period of time due to a small river then there should be more sediment in the canyon because the small river could not have washed enough sediment away. Most of “the ‘U-shaped’ side canyons with vertical walls hundreds of feet high, which are referred to as amphitheaters...[and] have no source of water for erosion.” They show signs of recent erosion, “however, there is a conspicuous lack of debris within these amphitheaters.”<sup>xxx</sup> The side canyons that exist today are best explained by floodwater drainages and fast swirling currents eating back (sideways) into the canyon walls like from a large flood.

When a naturalist responds that there should be more grand canyons according to the creation model, we could use the same argument against them. If the earth were truly billions of years old, there should be other canyons that should have also formed slowly over time by small rivers just like the Grand Canyon. Technically, naturalistic perspectives have a lot of challenges with erosion. Using current erosion rates, the continents should have eroded away within around 10 million years even with accounting for mountain-building processes.<sup>xxxi</sup> Vertical cliffs are evidence that the canyon is young, because they have not eroded more or eroded away completely. So Naturalists have big problems with erosion.

Because of the altitude of the Kaibab plateau at the beginning and end, if the Colorado River carved the canyon slowly it would have had to run upstream to cut through the Kaibab plateau, unless the plateau rose at the exact rate needed for the river to carve down at the same time, which is very unlikely.

An amazing aspect is that there are many places where the rock layers fold or bend, sometimes more than 90 degrees and yet all flow together with no evidence of breaking or cracking. Naturalists say that this can happen due to heat and pressure over sometimes long periods of time, but when that occurs there are physical markers in the structure of the rock that indicate heat and pressure. In many examples of folded and bent rock around the world, “there was no evidence that the rocks had been subjected to much heat or pressure. Instead, it was clear that bending had taken place at normal temperatures.”<sup>xxxii</sup> This means that they would have had to be soft and pliable before they hardened and this evidence fits very well with the enormous earth-moving processes going on during and shortly after the time of the flood.

In the Grand Canyon, the supposed millions of years of layers are perfectly flat on top of each other. This means that they never tilted comparatively over that vast amount of time, which is highly unlikely, especially considering that the continent supposedly went up and down, above and below water many times. Evolutionists claim plate tectonics are why the continents have gone up and down

throughout supposed billions of years of history, but it is questionable whether that really can explain how much the different regions have gone up and down.

The layers also have very smooth transitions between each layer, but wind and water erosion normally leaves sharp and ragged edges. There is no evidence of erosion (or the passing of time) between the layers. In one section of the Grand Canyon, “the horizontal strata represent almost 300 Ma [million years] of deposition, and yet extremely little erosion is found within and between layers in all that time. Especially revealing is the gap of 140 to 160 Ma between the flat contacts of the Muav and Redwall Limestones. The knife sharp contact between the supposedly windblown Coconino Sandstone and the subjacent Hermit Shale over more than 300 km represents 10 Ma missing with no erosion. Uniformitarians cannot appeal to some deep-sea environment protected from erosion for 300 Ma, since the claimed environments for the horizontal formations of Grand Canyon range from shallow marine to terrestrial. Such non-existent erosion for 300 Ma contrasts with the observation that at the current erosion rate, the continents can be worn down to sea level in only 10 Ma.”<sup>xxxiii</sup> Instead a better explanation is that they appear to be formed all at once, one layer on top of the next. “A miracle would be required to hide the supposed tens of millions of years of erosion that left no trace in the sharp, flat contacts between layers.”<sup>xxxiv</sup>

It turns out that “studies show that cross-bed angles in terrestrial dunes incline from 30 to 34 degrees, whereas water-formed cross-beds incline to 25 degrees or less, which directly corresponds to the inclines found in the Coconino cross-beds. Also, the sand qualities compare more favorably with underwater sand waves than with desert sand.”<sup>xxxv</sup> Studies also show that “trackways made on underwater sand dunes most closely resembled the fossilized trackways in the Coconino Sandstone.”<sup>xxxvi</sup> “Furthermore, these tracks often show that the animals were moving in one direction while their feet were pointing in a different direction. It would appear that the animals were walking in a current of water, not air. Other trackways start or stop abruptly, with no sign that the animals’ missing tracks were covered by some disturbance such as shifting sediments. It appears that these animals simply swam away from the sediment.”<sup>xxxvii</sup>

Paleosols are supposed layers of soil and this soil is assumed to be created in dry land areas, but this may not always be the case. “The alleged soils did not form by subaerial weathering over a long time, but by *in situ* ‘weathering’ during and after the global Flood.”<sup>xxxviii</sup>

In the Redwall Limestone of the Grand Canyon, “there are nautiloid fossils as long as five feet...standing vertically in the layers.”<sup>xxxix</sup> So each of those nautiloid fossils had to have been buried all at once, meaning that that five feet of rock cannot represent thousands or millions of years. There are many other examples of other polystrate fossils extending through numerous layers and so if each of those sets of layers were deposited all at once, then we could squash down supposed thousands (or millions) of years down into individual moments in time rather than the slow deposition of sediments. This layer of nautiloid fossils appears all smashed together and are generally oriented in the same direction as if moved within the same mud flow. Other fossil evidence demonstrating that a catastrophic flood caused the layers include trilobites (found in oldest layers and are surprisingly complex), brachiopods (buried alive), and the fact that there are no ancestral forms or transitional fossils in the rock layers.<sup>xl</sup> So it appears that the millions and billions of years of time evidenced by the rock layers are assumed and often imaginary.

Simple radiometric tests show that the volcanic lava flow in higher layers dates as older than the Cardenas Basalt buried lower in the Grand Canyon. There are a lot of assumptions that scientists have to make regarding radiometric dating and this gives further doubt to those methods and an old age for the canyon. Different radiometric dating studies have produced very contradictory results regarding the amount of time that the Grand Canyon has been forming. One researcher said “there’s a lot of evidence for a young Grand Canyon.”<sup>xli</sup> Some scientists now claim new evidence that it has been carved over 17 million years, whereas some say 55-65 million or even 70 million. “Those who believe that the canyon is

only 5 to 6 Ma claim these new dating methods are flawed, while the advocates of the new dating techniques claim the opposite.”<sup>xlii</sup>

“Regardless, it is quite interesting (to creationists) that a previous uniformitarian history with ‘firm’ dates, etc. could simply be brushed off by some researchers with ‘new’ dates. And these new dates are also claimed to be flawed. It tells me that the uniformitarian dating methods and conclusions really are not that solid to begin with, and that they are mostly the results of ‘consensus’.”<sup>xliii</sup>

So the fact that naturalists debate the age of the Grand Canyon demonstrates a weakness in their theories and gives a reason to doubt their validity. One can easily even see the bias from one naturalist as they try to refute the theory that a flood carved the Grand Canyon. They said “I don’t think it’s a valid story, and my main purpose is to dismantle it.”<sup>xliv</sup> As a scientist, one must still honestly weigh differing theories on a matter.

It is challenging to determine the truth about the Earth’s geologic past, and the more challenges or questions a theory has, the more we are able to doubt it. “A uniformitarian theory for the origin for the Canyon is unknown” as many geologists have even admitted.<sup>xlv</sup> Naturalists still can’t agree on the age of the carving of the canyon and “perhaps the biggest question of all, how the Colorado River chose this course and began carving the Canyon, still awaits a clear answer.”<sup>xlvi</sup> There seems to be a lot of evidence for Creationist theories that show that they are better explanations.

## What the Bible Says: Genesis 7-9

### Pictures to add:

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<sup>i</sup> Park Statistics, Grand Canyon National Park, last updated March 23, 2015, National Park Service, <http://www.nps.gov/grca/learn/management/statistics.htm>, accessed March 23, 2015.

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<sup>iii</sup> L. Greer Price, *An Introduction to Grand Canyon Geology*, Grand Canyon Association, Grand Canyon, AZ, 1999, p. 21.

<sup>iv</sup> L. Greer Price, *An Introduction to Grand Canyon Geology*, Grand Canyon Association, Grand Canyon, AZ, 1999, p. 25.

<sup>v</sup> Bob Ribokas, *Grand Canyon Rock Layers, 1994-2000*, Grand Canyon Explorers, [http://www.bobspixels.com/kaibab.org/geology/gc\\_layer.htm](http://www.bobspixels.com/kaibab.org/geology/gc_layer.htm), accessed March 23, 2015.

<sup>vi</sup> Karen Bartelt, *A Visit to the Institute for Creation Research: The Flood*, last updated June 24, 1998, The TalkOrigins Archive, <http://www.talkorigins.org/faqs/icr-visit/bartelt4.html>, accessed March 23, 2015.

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# Think & Believe

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## The Rocks Cry Out

by Dave Nutting

This summer millions of people from all over the world will visit America's National Parks and Monuments where they will be deluged with a flood of evolutionary dogma. It is disheartening, that instead of honoring and glorifying the Creator for His wonderful works, our parks and monuments have been turned into shrines of evolutionary paganism and pantheism.

Now you might say, "Isn't that statement going a bit too far?" Maybe, but how often in the parks "educational programs" have you heard "Mother Nature," "Time," "Gaia," "Evolution," and "Natural Selection" being credited for the wonders of our world? How often have the intricate designs and amazing beauty been attributed to blind chance? How long has it been since you heard the credit going to God, the Creator?

Then again, think about the names we find on so many geologic features. Just here in the Grand Junction area we find Devil's Kitchen, Devil's Canyon, and Serpent's Trail. In Colorado Springs we find Garden of the Gods (notice the plural). In Idaho and Oregon there's Hell's Canyon. If that's not enough, journey to Grand Canyon, where you will find Vishnu Schist, Zoroaster Granite, Vulcan's Throne, Devil's Corkscrew, Shiva Temple, Osiris

Temple, Isis Temple, Jupiter Temple, and Diana Temple. The list goes on and on.

But what do we find when we actually study the rocks, geologic formations, and the animals and plants of our nation's wonderlands? We find just what we would expect to find if the account given in Genesis is true and accurate. We find intricacy and design in living things that could come only from an intelligent, powerful Creator. We find distinct "kinds" of life, not the billions of transitions that would be expected according to evolution. We also find billions of fossils buried in rock layers all over the earth. There is evidence of rapid deposition and extensive formations covering thousands of square miles, as well as huge canyons that can best be explained by lots more water — just what we would expect to find from Noah's Flood.

Yet, with all this evidence that the Word of God is true when it speaks of Creation and the Flood, people still proclaim the glories of evolution and refuse to honor and glorify

the Creator. Just like the people in the apostle Paul's day, they worship and serve the creature, more than the Creator (Romans 1:25). Yet, the very rocks give testimony of God's power, truth, and faithfulness. Seeing what God has made should turn our hearts and mouths to worship and praise Him! However, we are not "officially allowed" to acknowledge Him in the parks of this land. The whole situation is reminiscent of the time when the rulers of Jesus' day tried to get the people to stop praising Him, and He told them that if the people didn't praise Him, the rocks would cry out (Luke 19:40). The rocks are truly "crying out" in our parks and monuments. May we, too, join our voices in praise to our Creator God. **T&B**



## Wonders of Creation Geology Book

by Rachel Painter



To most people, rocks are boring. They don't bark or meow and, outside of what can be mined from them, don't have much significance. However, The Geology Book by Dr. John Morris will open your eyes to the treasures at your feet and how they glorify our Creator. This book is an excellent resource for anyone who has ever wondered about fossils, different types of rocks, and the various geologic processes that have shaped the

earth. From earthquakes to volcanoes to continental drift and how to date the age of the earth, this book is filled with color diagrams and photographs which will make even the complicated geologic processes clear and simple to comprehend. The last few chapters of the book give an explanation of the Grand Canyon, Mount St. Helens, and other geologic events — all from a young-earth perspective. It also contains sections on the Flood of Noah, the Ice Age, and many common evolutionary problems in

the area of geology. Written on an upper-elementary to junior-high level, this 80 page, hard cover edition will be hard to put down; but don't think you have to be a youngster to enjoy it. Any adult who would like a good overview of geology will want this book. It can make a fun conversation piece for your coffee table, and be a valuable addition to any library. To order, check out our *special offer* in the enclosed insert, call (970) 523-9943, or visit:

[www.discovercreation.org](http://www.discovercreation.org) T&B

## Where Do Rocks Come From?

by Mark Sonmor

Studying rocks and their origins can be overwhelming. Learning the names of the 2,500 minerals alone can be a daunting task.

Simplifying the information into a few basic categories and defining some terms may help, such as:

**Mineral** — Non-living solid in its basic form. (Feldspar, Quartz, Calcite)

**Gem** — A mineral that is valued for its beauty and flawlessness. (Ruby, Emerald, Sapphire)

**Rock** — A collection of minerals.

Rocks can be divided into 3 basic groups: igneous, sedimentary, and metamorphic. The diagram, at right, gives a general understanding of how most rocks are formed. Many aspects of the process are open to speculation since they can't be directly observed. Processes that formed much of the sedimentary and metamorphic rock took place on an incredibly large scale under forces and conditions vastly different than those observed today. T&B

### Igneous Volcanic Rock

Molten rock that has cooled at or near the earth's surface.

- Basalt
- Rhyolite
- Andesite
- Obsidian
- Tuff

### Chemical Sedimentary Rock

Rock derived from chemicals dissolved in water.

- |                     |                       |                  |
|---------------------|-----------------------|------------------|
| ① <b>Evaporites</b> | ② <b>Precipitates</b> |                  |
| • Salt              | • Some limestones     | • Chert or Flint |
| • Gypsum            | • Some salt deposits  | • Flowstone      |
| • Anhydrite         | • Dolomite            |                  |

### Clastic Sedimentary Rock

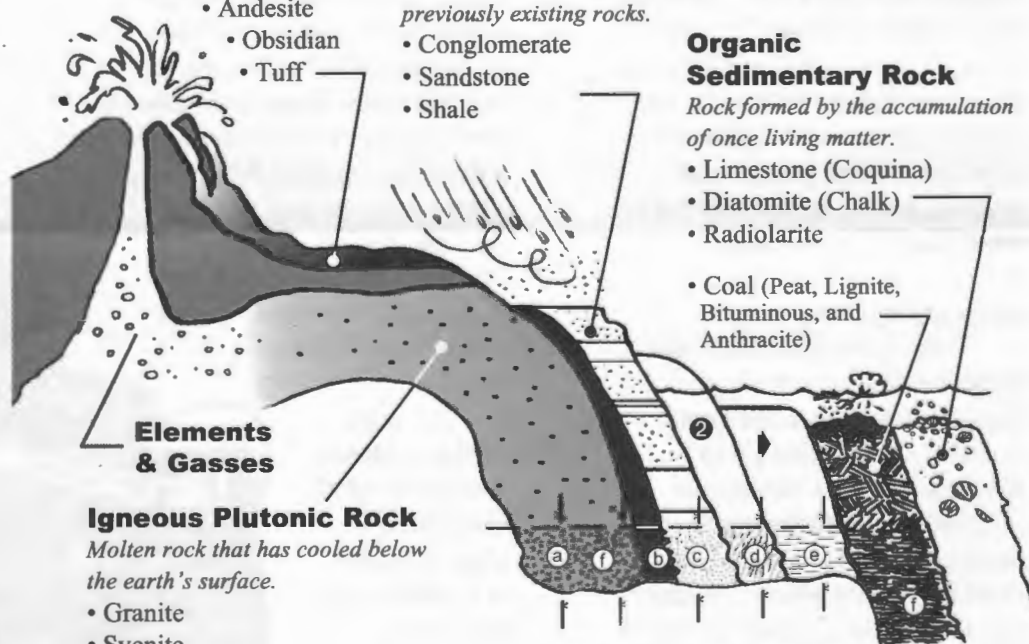
Rock derived through erosion and recomposition of previously existing rocks.

- Conglomerate
- Sandstone
- Shale

### Organic Sedimentary Rock

Rock formed by the accumulation of once living matter.

- Limestone (Coquina)
- Diatomite (Chalk)
- Radiolarite
- Coal (Peat, Lignite, Bituminous, and Anthracite)



### Elements & Gasses

### Igneous Plutonic Rock

Molten rock that has cooled below the earth's surface.

- Granite
- Syenite
- Monzonite
- Diorite
- Gabbro

### Metamorphic Rock

Rock that changes form due to heat and/or pressure

- |                              |                                 |
|------------------------------|---------------------------------|
| ③ Gneiss (from Granite)      | ④ Slate and Schist (from Shale) |
| ⑤ Greenstone (from Basalt)   | ⑥ Marble (from Limestone)       |
| ⑦ Quartzite (from Sandstone) | ⑧ Diamond (from Carbon)         |

## Pet Rock Revival

by Dr. Dan Korow

*[In the life of a veterinarian unusual cases are not uncommon. This is a silly, fictional story but it can illustrate the problems with determining the age of rocks and the age of the earth.]*

First year veterinarian, Dr. Green, enters an exam room confident he can diagnose any problem. What he discovers throws him for a loop! A young geology student, named Bias is ~~dejected over the contents of a battered shoe box.~~ Expecting to see a dying pet, he opens the lid to find two pet rocks, named Helen, and Woody.

Surprised and suspicious, Green quips, "Don't tell me; you told them to roll over and play dead." "No," Bias responds, "You don't understand. This is an emergency. Helen is very, very sick. She has grown ancient almost overnight. She is unresponsive, and cold to the touch. She used to have a great personality. Fix her Doc!"

Somewhat flustered, Green asks, "Uhm, how old is she?"

"Well," Bias replies, "21 years ago she was born at Mt. St. Helens. A scientist spotted her, picked her up, slapped her on the underside, and threw her into the back of his pickup truck."

"Okay...so Helen is 21," said Green, feeling foolish writing this in the medical chart.

"No!, that's just it," Bias cries, "I've been told she's really 340,000 - 2.8 million years old!"<sup>1</sup>

"Make up your mind. How can she be that old if she was born in 1980?" Green asked.

"See," Bias wailed, "She's prematurely aging! Please, make it stop!"

"Wait a second; who says she's so old?" asked Green.

"My professor said so based on radiometric dating. When lava solidifies into rock, the original radioactive material (the parent compound) begins

to break down, or decay into more stable forms (the daughter forms). For example, if the original contained 100 atoms, and 4,000 years from now only 50 atoms remain, the time period would be called the half life. Scientists assume that this decay rate is always the same based on the concept of uniformitarianism. They also assume that this rate can be extended into the distant past (Extrapolation). Thus, scientists determine a rock's age by comparing the amount of parent form to daughter form, and determine the number of half lives necessary to produce that ratio."

"How do they know the original amount of parent compounds Helen started with?" Green questioned.

"I'm not sure. I guess it's based on certain assumptions."

"How do they know that the parent and daughter amounts are directly related. Couldn't these amounts vary if these substances can move in or out of the sample."

"I guess so. They probably have assumptions about that too," replied Bias.

"How can they be sure that these decay rates have remained uniform over all those years?"

"I guess they just assume that as well!"

"Bias, you first said Helen was formed just 21 years ago. How can the other ages be right? They are based on some unprovable assumptions about the unobserved past," said Green, erasing the old ages from the chart.

"If we can't trust radiometric dating on events of known

age, why should we trust it on events of unknown age? Unprovable and untestable assumptions could easily lead to unreliable, inaccurate results."

"Wow... I never thought of that," replied Bias. "Hey Doc, Helen is looking younger already!"

Green then looked at the second pet rock, also made of lava. It had a charred piece of wood exposed to the outside. He asked, "What's wrong with 'Woody'?"

"He's in suspended animation," Bias replied. "This wood fragment is just 45 thousand years old based on carbon 14 testing. But the lava dated by the potassium-argon method says it's 45 million years old."<sup>2</sup>

"Wait a second," probed Green. "Shouldn't both ages agree? How do they know which date is correct, when dates are vastly different?"

"Sometimes scientists rerun their tests multiple times before they get the right birthdate. They often choose the birthdate based upon the rock layer's position in the geologic column. This position is determined by specific fossils that are believed to have lived only in certain time periods."

Green interjected, "So, the rock layer dates the fossil, and the fossil dates the rock layer. That's circular reasoning!"

"Uh...I guess so. Maybe these ages aren't written in stone after all! I'll have to rethink this. Dr. Green, could you look at one more pet?" It's my dog, Evolution. He won't stop chasing his tail! **T&B**



<sup>1</sup> "The rock which formed at the eruption of Mount St. Helens in 1980 contained much argon, even though it should have contained none. In fact, one of its minerals "dated" at 2.8 million years, when it was only 15 years old. Volcanic rock formed in the recent eruptions of Hawaiian volcanoes dates at 30 million years old." — The Geology Book, Dr. John Morris, 2000, p. 52  
<sup>2</sup> A.A. Snelling, "Radiometric Dating in Conflict," Creation, 20(1):24-27, Dec. 1997- Feb. 1998



# Spotlight On Science

## Oh No, Not a Flood!

(by Mike Shaver)

Geologist, J. Harlan Bretz, distinguished himself for several attributes: First, he believed in field work above book work. Second, he believed that evidence had to be faced.

In the 1920's Bretz wrote that out-of-place boulders in northern Oregon didn't show signs of having been rolled (and rounded) during transport from their sources in Idaho and Montana. The only agent he could conceive to bring boulders unweathered for several hundred miles was to float them on icebergs, which required amounts of water far beyond what the nearby Columbia River could hold. He noted other features that only fit with giant floods.

His colleagues, many of whom did not travel to see the features Bretz talked about, shunned him and his interpretation. Today the area he cited is described as the premier site of catastrophic flood topography in the world. Contemporary colleagues sought preposterous non-catastrophic rationales rather than taking the evidence at face value for incredible amounts of water. In the 1940's, the flood theory suddenly began being accepted, and it is now almost universally accepted. What made the difference?

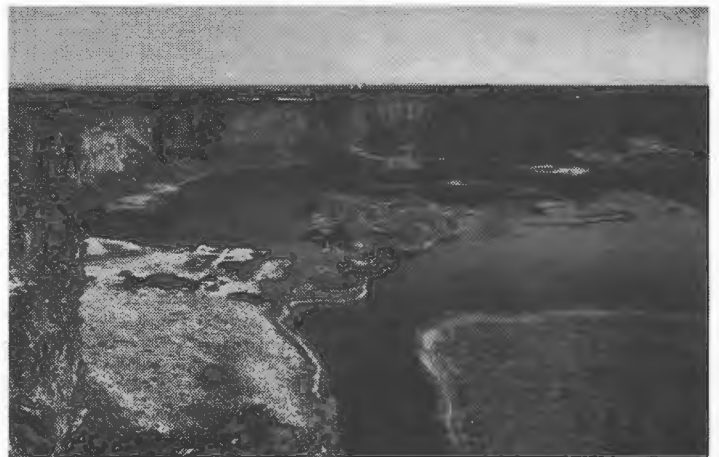
A related breakthrough indicated that a now-vanished Lake Missoula in Montana was produced by an ice dam formed by a glacier. The lake was inferred due to wave-cut terraces on hillsides. Strange hills on the lake floor were finally recognized as giant ripple marks. The ripples on a lake bottom meant the lake drained suddenly, supplying the water for the flood. Geologists could then see the route of the water to the Pacific, and that floating icebergs could carry boulders, just as Bretz had imagined. In fact, some are now suggesting that the ice dam broke roughly 40 times as water built up and floated the dam out of place, destroying the dam each time.

What changed was that a source of the water could be envisioned without any reference to Noah's flood. Had a source of water other than the flood of Noah not been found, "open-minded" scientists would likely not have admitted the overwhelming evidence of catastrophic flooding.

When the study of glaciers was young, one camp of scientists thought that many glacial features (such as bullet-shaped hills called drumlins) looked like hydraulic features and could be evidence of a flood. They thought the hills were made by vast amounts of water pouring across the land surface rather than being the result of ice movement. This group of men were largely forgotten in preference to

scientists who ascribed all of the landforms to the work of ice. The men who won the debate had an aversion to floods and were hence deemed more rational, more scientific. But if an ice dam in Montana burst because the ice impounding it floated, what would happen if the ice cap covering half of the continent melted unevenly during its movements? Melt-water could penetrate beneath the huge glacier, pooling giant lakes. Some scientists now think that many of the drumlins might be the product of giant floods after all. Floods involving up to 20,000 cubic miles of water (Think & Believe, 11/89, p. 3; Science News, 9/30/89, p. 213) may have raised the sea level 9 inches in one event.

So, the men who lost the debate on drumlins were possibly correct. Bretz's correct observations weren't accepted until they could fit into the prevailing worldview. Such is the science of prehistory: where the truth can vanish for generations and the most obvious data can be ignored.



**Dry Falls in eastern Washington.** *The last time we were at this site, we discovered a new sign placed by the park officials. It gave the catastrophic interpretation for this site. They stated that there was a huge waterfall here with water flowing 300 feet above the horizon. They also gave an approximation of the total amount of water flowing past here. If you were to add all the water contained in all of the world's rivers at one time, then multiply that number by 10, it would be equivalent to the amount of water flowing through this region. Now that's a flood! Looking at the damage occurring in North Dakota this year, one can only imagine what a catastrophe it was when Lake Missoula collapsed. (Dave)*

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## Lots of Time or Lots of Water?

What caused the Grand Canyon? Is it the result of a lot of time with a little water, or a lot of water over a short period of time? For those willing to consider an alternative to the standard long age, evolutionary model, there is ample evidence. Two aspects of the question must be considered: first, the deposition of the rock layers themselves and, second, the actual carving of the canyon. What is the evidence?

### *Deposition:*

All of the sedimentary layers of the Grand Canyon seem to be of the type laid down by the action of moving water. Many of them contain fossils of marine organisms, such as trilobites, brachiopods, clams, sponges, etc. along with other evidences of water deposition. Even the Coconino Sandstone, which has frequently been interpreted as a wind deposit, seems, under careful scrutiny, to indicate water deposition. Evidence for this includes high-angle cross-bedding and fossilized amphibian or reptile tracks.

Cross-bedding is quite characteristic of the Coconino Sandstone. This cross-bedding looks in many places similar to the cross-bedding which occurs in the formation of wind-blown sand dunes. However, in some places, the angle of the cross-bedding is too steep for wind deposits, but it is consistent with deposition by fast-moving currents.

The fossilized footprints have been studied by Dr. Leonard Brand. He found, in experiments with modern day amphibians and reptiles, that the tracks in the Coconino Sandstone more resemble those made under water than those on dry or moist sand. It is hard to even imagine how these types of tracks could be preserved sufficiently in a sand dune!

We do recognize that, even though there is good evidence that all of the layers were water deposited, this is not sufficient proof of flood origin. It is, however, a viable interpretation which "holds a lot of water." In our slide presentations, we do give evidence of layers throughout the country which even more clearly indicate flood origin.

### *Erosion:*

There are two main theories for the carving of the canyon. One is the antecedent-river theory and the other, the stream-capture theory. The first supposes that the Colorado River was in place before the uplift of the Grand Canyon area occurred. According to this theory, the river cut down as the plateau rose, eventually carving the Canyon. If this is true, there should be an enormous amount of mud, silt, sand and gravel deposited near the western end of the Canyon. This

is not the case. Instead there is a relatively pure thick bed of limestone.

The other commonly held view involves the idea of stream capture. This view states that the ancestral Colorado River had a different course. A gully cut eastward until it "captured" the Colorado River, and the Grand Canyon was cut. However, there is not good evidence of the "old" channel of the ancestral Colorado River. This, plus other problems, indicates that neither of the two "usual" explanations for the carving of the canyon are very good. (More information is available in ICR's upcoming publication, *Field Guide to the Grand Canyon*.)

There is an alternative theory for the cutting of the Grand Canyon that has received little attention. This is the idea of catastrophic or sudden carving of the Canyon over very little time as a great body of water was suddenly released. There is evidence that at one time there was a great body of water impounded to the east of the Grand Canyon. If this body of water broke through a weak spot and emptied quickly, the force would have been sufficient to carve the Canyon, especially if the sedimentary layers were not completely lithified (turned to stone) yet. A similar scenario actually occurred on the Toutle River after the eruption of Mount St. Helen's, and formed a miniature "Grand Canyon" in a very short time. Other major canyons are also now recognized to be the result of this type of catastrophic process. This explanation seems to fit the facts and is consistent with the idea of a global catastrophic flood and subsequent collapse of impounded inland seas.

### *Meaning of the Grand Canyon:*

What can we learn from the Grand Canyon? If the canyon is really the result of a major, catastrophic flood, it is good evidence for the accuracy of the Scriptures. The Bible teaches us that the Flood was sent upon the earth as judgment on sin. Noah and his family were saved by God's grace through Noah's obedient faith.

God still hates sin and will bring judgment. However, just as He provided a way of safety in Noah's day, He has provided a way to escape the coming judgment. That way is Jesus Christ. Through accepting His sacrifice on our behalf as payment for our sin and coming to God in repentance and faith, we will be saved.

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# SPOTLIGHT ON SCIENCE

## TASSEL-EARED SQUIRRELS AND THE AGE OF THE GRAND CANYON

Tassel-eared squirrels are named for the prominent tufts of hair on their ears. They live near the rim of the Grand Canyon in Arizona, feeding on the cones and terminal buds of the Ponderosa pines. These agile little creatures have become famous in textbooks as evidence of evolution. However, according to some scientists, they fit well with the creation model and ~~provide independent evidence for a young age of the Canyon.~~

The Canyon acts as an effective barrier which separates the squirrel population of the north rim from that on the south and prevents interbreeding of the two isolated squirrel populations. The squirrels on the north are different enough in appearance from those on the south that they are classified as separate varieties, though not as separate species. The northern variety, the Kaibab squirrel, is characterized by a flashy white tail and black belly, whereas the southern variety, the Abert squirrel, has a white belly and a dark tail. Otherwise they are quite similar.

Dr. John Meyer, who has studied these squirrels extensively, has made some interesting observations. He found "Abert-like Kaibabs" on the north rim and "Kaibab-like Aberts" on the south. Thus, while the overall populations showed distinctive coloration differences between the north and south, some exhibited intermediate characteristics. This suggests that the squirrel population is genetically one continuous population. Dr. Meyer argues, through the use of the Hardy-Weinberg Law (a widely accepted principle used in population genetics) that if the mechanisms for evolution really work, we should certainly see the results here. However, the relatively minor differences indicate only a fairly short period of isolation.

If the Canyon is really several million years old, as stated in most textbooks, we would expect much more distinction between the two populations. **Dr. Meyer's analysis of the data presents fascinating evidence for a fairly recent cutting of the Grand Canyon.** It would be interesting to see if other animals living near the Canyon would support similar conclusions.

(Ref: *ICR Grand Canyon Field Study Tour Guidebook*, 1990 and J. R. Meyer, 1985, "Origin of the Kaibab Squirrel," *Creation Research Society Quarterly* Vol. 22.)

## THE ORIGIN OF DIVERSITY

Evolutionists believe the tremendous variety of life on earth has resulted from millions of years of change due to natural processes. They usually rely heavily on mutations (accidental changes in genetic structure), and natural selection ("survival of the fittest") to explain how new characteristics arise and are subsequently saved in a population.

Most creationists today also acknowledge that changes do occur within animal populations, but they differ from evolutionists on the extent of change possible. While they believe that mutation and natural selection processes can be partly involved in diversification, creationists usually question **how much** change these processes can bring about and suggest there are **limits** to that change.

Take, for example, the tassel-eared squirrels. It seems reasonable to assume that these squirrels were once part of the same interbreeding population. Creationists would say the differences observed today can be explained in terms of an initially created potential for genetic variation within the squirrel kind coupled with geographic isolation, inbreeding, genetic drift, and perhaps a small amount of mutation. These processes, they say, cause variation among squirrels, but will not lead to different kinds of animals. Evolutionists, however, believe that, given millions of years, squirrels could eventually evolve into something fundamentally different. Of course, no one will be around that long to watch!

Clear examples demonstrating the origin of new types (or even new structures) **have never been** demonstrated in either the fossil or living world. Selective breeding has, however, clearly demonstrated the tremendous variety in details that can be produced in just a short time from an existing gene pool.

So how did all the variety originate? Evolution from one kind to another has never been demonstrated. Creation of the basic kinds with potential for variation within those kinds is consistent with both science and Scripture. "In the beginning, God created . . ."

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# SPOTLIGHT ON SCIENCE

## HOW DESERT ANIMALS BEAT THE HEAT

Deserts! Lizards, rattlesnakes, and cacti come to mind. Can anything else survive? Yes! Many animals have either learned how to cope or come equipped with ingeniously designed systems to "beat the heat."

Many animals cope by avoiding the heat as much as possible. They limit activity to the cooler morning or evening hours, and spend much of the day in a cool, moist burrow or in the shade of rocks or vegetation. Others minimize heat absorption by aligning themselves parallel to the sun's rays, or seeking the shade of a telephone pole! When the going gets really tough, larger animals may migrate to cooler areas while some smaller ones go into estivation, a condition similar to hibernation.

Desert animals exhibit various temperature regulation methods. Many have light coloration which reflects much sunlight or heavy fur which insulates against intense heat. In some, the basal metabolic rate can decrease to minimize heat production during the hottest part of the day. In others, the blood flow to the skin increases to dissipate body heat (The large, heavily-vascularized ears of the jackrabbit act like radiators!). Some animals expose thinly-haired belly regions to the "cooler" air to dissipate body heat, while many take advantage of evaporative cooling by panting or wetting their fur in puddles or streams or by drooling.

There are also many ingenious solutions to cope with the water shortage. Certain small animals have extremely efficient water conservation mechanisms. For example, the kangaroo rat is able to live its entire life on dry seeds, without ever taking a drink! Its many complex specializations help conserve the tiny bit of water produced in the breakdown of its food -- its efficient kidneys and intestines excrete extremely concentrated wastes and the convoluted passages in its nostrils prevent water loss from the lungs. Some larger animals are able to tolerate extensive dehydration. Camels and donkeys, for instance, can tolerate water loss up to 25% of their body weight. (By comparison, humans can stand only 12%.) Amazingly, donkeys can rehydrate from a 25% water loss in less than 2 minutes!

Are these amazing specializations the result of time, chance, and natural processes? Not likely! Complex, highly coordinated systems and specialized behavior as seen in desert animals reflect the handiwork of an Intelligent Designer.

## CAMELS: SHIPS OF THE DESERT

Camels are some of the most important beasts of burden known to man. They have been used for thousands of years as the chief means of transport in desert regions. Most people know that camels can go a long time without water, but few understand just how amazing these "ships of the desert" really are.

Indeed, camels can go for a week or more without water. They can withstand dehydration of up to 25% of their body weight and then rehydrate amazingly rapidly by drinking up to 25 or 30 gallons in less than 10 minutes! By contrast, man can withstand only about 12% dehydration, before his blood thickens to the point that it puts too much stress on the heart and circulation is reduced to the point of death. Fortunately for the camel, its blood volume does not decrease as it becomes dehydrated; moisture is lost from other body tissues and fluids instead.

Camels have an amazing ability to conserve water and "beat the heat." At first glance, the thick wool coat seems to be a mistake, but in actuality, it helps to cool the animal by insulating it from the beating hot desert sun. The hump is of special significance. No, it is not filled with water -- it is made up of stored fat which can be used as an important source of energy when food is scarce. Some water is a by-product of metabolism, though. The hump also helps in heat regulation, by concentrating body fat rather than distributing it under the skin. This allows body heat to escape more readily. Camels conserve water through their very efficient kidneys which excrete extremely concentrated wastes. In addition, they lose very little through sweat, since their "normal" temperature fluctuates more than humans, ranging from 93 to 105 degrees and they do not start to sweat until body temperature reaches the upper end of the range.

Besides all this, camels are specially suited for desert travel. Their wide hooves and long bony toes covered with tough skin help keep them from sinking into the sand. In addition, they are equipped to deal with blowing sand: their nostrils close part way to keep out sand, their long eyelashes protect their eyes, and an inner eyelid acts like a windshield wiper if any sand does manage to sneak by. As an added bonus, their mouths are so tough that they can eat almost anything, even a thorny old cactus.

Camels, like people, are "fearfully and wonderfully made." They clearly demonstrate the intelligence and ingenuity of our great Creator God.

# SPOTLIGHT ON SCIENCE

## Radioactive Dating Woes

Radioactive dating methods are commonly cited as "evidence" the earth is "billions of years old." They are often referred to in textbooks as "absolute" dating methods and are presented as being very reliable. In past issues of **Think & Believe**, we have discussed problems relating to the accuracy of these methods and the plausibility of the underlying assumptions. Now, even more problems have surfaced.

Rubidium/strontium dating is usually considered to be one of the most accurate of all the radioactive decay dating methods. However, research by Dr. Steve Austin on Grand Canyon rocks challenges this belief. Utilizing good research techniques, and with the necessary permits, Dr. Austin took samples of volcanic rock from Vulcan's Throne, near the top of the canyon, and Cardenas Basalt near the bottom. These were then "dated" by a major lab using standard procedures.

The volcanic material from Vulcan's Throne flows down into the canyon and thus is obviously more recent than the Cardenas Basalt, which underlies the canyon walls. Hence, we would expect that the rocks from Vulcan's Throne should give dates much **more recent** than those of the lava of the Cardenas layer. Strangely enough, though, using the rubidium/strontium decay dating method, the **recent** rocks turned out to be about a billion years **older** than the underlying rock layers.

What gives? When I asked a geologist park ranger at the canyon for an explanation, at first he denied the data. Later, he did some investigation and found there indeed was a problem. "However," he said, "There is a good explanation." He said that this "absolute" dating method is accurate only on "ancient" events and not on recent events. "How do you know that," I asked. He answered, "Well, **every time** we date something that is recent, we get horrible results!" I answered, "If you get horrible results on things of known age, how can you rely on them to give you accurate results on things of unknown age." He had no answer.

While we do not accept the "billions of years" interpretation, this data brings into question the accuracy of the method as a whole. Such a clear contradiction of expected results should make even evolutionary scientists question the method. For young-age creationists, it is just one more piece of data justifying rejection of radioactive dating methods as "proof" of an old, old, earth.

## A Young Universe?

Is there really evidence of a young universe? Physicist Dr. Russell Humphreys, believes there is. In an article called "Evidence for a Young Universe," he lists and explains 15 natural phenomena conflicting with the idea that the universe is billions of years old as required for evolution. He says there are many others. The following items are condensed from his publication.

1. **Galaxies wind themselves up too fast.** According to observed rotational rates, the spiral shape of our galaxy indicates that it could not possibly be billions of years old.
2. **Comets disintegrate too quickly.** As they near the sun comets lose material. Calculations show that they could survive no longer than 100,000 years maximum, and many types no more than 10,000 years.
3. **Earth's continents erode too fast.** It would take only 15 million years for **all** the land to be eroded into the sea. [Whoops-there goes the fossil record of evolution!]
4. **Not enough sediment on the sea floors.** Even at the **current** rate of sedimentation, the maximum age for the ocean floor is less than 15 million years. [During the Flood, rates would have been much higher.]
5. **The ocean accumulates sodium too fast.** Assuming that the ocean had **no** sodium to begin with, and assuming present-day rates of accumulation, it would be much younger than presently suggested.
6. **The earth's magnetic field is decaying too fast.** Projecting back on the basis of current rates, a maximum age of 10,000 years is obtained.
7. **Multi-layer fossils straddle too many strata.** These "polystrate" fossils indicate that all the layers they penetrate must have been deposited within a few years maximum, not millions of years.

That should be enough to pique your interest! Note that the ages given are **maximum** ages based upon current rates. If conditions in the past were different, as in the creation/flood model, these rates could have been much more rapid. In fact, Dr. Humphreys says that each fits well with a Biblical time scale of 6000 years! Write to us for a full copy of Dr. Humphreys' excellent, referenced, 4 page article. (One copy free, but donations to help defray cost are appreciated.)



# SPOTLIGHT ON SCIENCE

## The Fish of Fossil Butte National Monument

Fossil Butte National Monument located near Kemmerer, Wyoming, is a great place to include in your Creation Vacation. It is literally a monument to catastrophic geologic processes. The area is famous for the multitudes of perfectly-preserved fossilized fish, ranging from fingerling size to several feet in length. The assemblage of fossils includes at least 20 species of fish, turtles up to 6 feet long, crocodiles, insects, and many plants including large palm fronds. These are entombed in the layers known as the Green River Formation which is made up of laminated limestone, mudstone, and volcanic ash.

These fossils exhibit intricate detail. Not only are the skeletons most frequently preserved with every fin in place, but also the teeth and scales. The preservation is so perfect that most visitors are amazed and wonder how it happened. Usually, when fish die, they deteriorate rapidly and are hardly recognizable as fish in a very short time. The excellent preservation indicates that they were buried quite rapidly, otherwise there would have been much more widespread signs of decay. How fast was the burial? To give an idea, some larger fish were found with smaller fish in their mouths, evidently eating their lunch when trapped by sediment. Another fish was found squashed flat from top to bottom in swimming position as it tried to escape the weight of sediment on top of it. Large slabs of rock have also been uncovered which have hundreds of perfectly preserved fish on the same surface, indicating mass mortality.

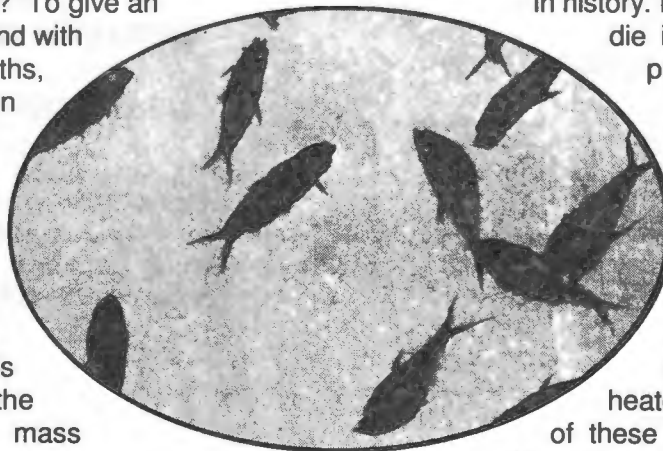
What is the explanation for this region? The literature distributed by Fossil Butte National Monument says that these fish and other creatures lived in a large lake "50 million years ago" when this part of Wyoming was subtropical. Seasonal fluctuations coupled with occasional episodes of volcanic activity supposedly produced many of the layers in the area. Exactly how the specific layers exhibiting evidence of mass mortality were formed is considered an "unsolved mystery" by the "experts."

Several possible models have been proposed, but there is no uniform explanation and many of the suggested mechanisms are seriously in question or have already been abandoned. Models involving

superblooms of poison-emitting blue-green algae and sudden changes in water temperature or salinity are still under consideration. One early model proposed that there was a toxic zone in the lake into which, over the course of time, great numbers of fish swam and died. Supposedly the toxic zone kept them from decaying until they were slowly buried. This model has several major problems, though, including the fact that the layers of mass burial are not confined to the deeper zones. Even the widely-accepted idea of seasonal fluctuations has come under attack recently and one of the National Monument's own publications admits that "geologists now question the classic 'varve' model (seasonally deposited laminae), thought to have occurred at Fossil Lake." Research continues, and undoubtedly more models will be suggested, but it is important to remember that no one was there to see what really happened.

Creationists who accept the Biblical account of the global Flood are attempting to understand the evidence in a manner consistent with that earth-changing event in history. Did the fish buried in Fossil Butte die in that great Flood or did they perish during the aftermath of the Flood, after the "mountains rose up and valleys sank down?" Great inland seas could have been formed as the land masses came up or as deep basins filled. Volcanic activity associated with the motion could have added toxic chemicals to the water or even heated the water in certain sections of these inland seas. This would have driven the oxygen out of the water and caused suffocation of the fish which would then be found in mass concentrations. Continued heating of the water may have caused massive precipitation of limestone which today encases the fossils. Perhaps further research will yield more clues to the puzzle.

If there really was a global Flood, one would expect to find "millions of dead things buried in these rock layers laid down by water all over the earth," as Ken Ham so frequently states. Fossil Butte clearly illustrates this prediction, but more research is needed to understand the specifics of how it fits in the overall time sequence of events during and following the Flood. Stay tuned for further developments.



# Think Believe

Discover Creation...Worship the Creator

A Publication of Alpha Omega Institute

May/June, 2010; Vol. 28, No.3

## Professor, What Would It Take for You to Believe?

by Dave Nutting

**M**any years ago, Mary Jo & I spent a full evening answering a professor's arguments for evolution and presenting a solid case for creation. About midnight it dawned on us that nothing was penetrating. We asked the professor what he would accept as evidence in favor of a Creator. He replied, "Absolutely nothing!" I wished we had asked that question 5 hours earlier!

Just recently we asked another professor the same question. His response was (rough quote from memory), "If a cube of solid bronze would suddenly appear out of thin air right in front of me, and if that cube of metal would melt and turn into a giant squid, and if that giant squid would grow wings and fly away, then I would believe." He then added, "That is if I could convince myself I was not hallucinating." Granted, God could certainly do that, but there will always be some excuse.

There are many good teachers who are fair, but too many teachers like the above are influencing our young people. It is rampant in elementary schools through universities. At one university, several students (including some

who sadly said they "used to" attend church) were giving similar anti-God arguments. I said they must be listening to the same Professor X. One of the students came up afterwards and admitted that the professor had indeed primed them.

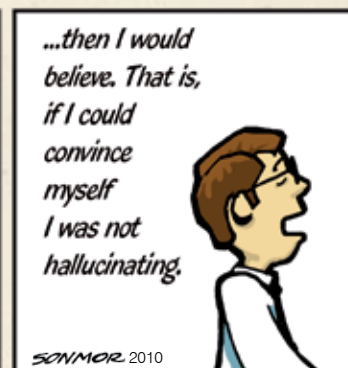
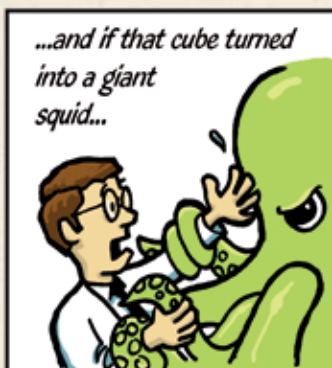
It irks me that schools regularly play the totally false "trump card" of "separation of church and state" to silence all opposition but still allow teachers to stomp on Christianity. Some of these teachers are purposely out to sink our kids' faith. The "rule" which governs the classroom for "dissenters" is, "Don't you even dare mention problems with evolution." If you do, you will likely lose your teaching job since you must be "religiously motivated" (as determined by some court justices).

But, aren't those professors "religiously motivated" who promote evolution and atheism? Students with a backbone might challenge their atheistic professors by asking, "Excuse me, but aren't you using your tax-paid salary to promote your own religion to the detriment of other beliefs and is that not a violation of the separation

policy?" The professor will likely say no, he is teaching science, not religion or mythology. However, his definition of science incorporates his naturalistic worldview and excludes any evidence which points to an intelligent designer. You can also present your case to the academic dean. You may run into the same arguments, but at least you'll make your side known.

With your help, and as God enables and opens doors, Mary Jo and I will continue speaking in the "lions' dens" at universities and will train others to do so as well. However, the battle really begins at home. Churches and parents need to help students develop a strong backbone founded on the truth of God's Word, understanding of the battle, and a personal walk with the Lord, starting in elementary school. Otherwise we find ourselves picking up the broken pieces of the youth at the universities. **AOI**

[\*Note: Not all professors push their beliefs on students. However, it is all too common. We applaud those who teach critical thinking skills and encourage students to think for themselves, while at the same time respecting the beliefs of their students.]



SON/MOR 2010



# The Grand Canyon - A Magnificent Wonder by Mary Jo Nutting

I never get over the awesome majesty and immensity of this geologic wonder. In various lightings, it appears to be almost a painting, but as you don your boots and backpack and venture into the Canyon as Dave & I have done with students dozens of times, the immensity begins to impress you in a very real way. Geology textbooks refer to Grand Canyon as a monument to evolution, but I have become solidly convinced that the rock layers and the Canyon itself are silent testimony to the truth of God's Word and the accuracy of the events recorded in Genesis – the Creation, Fall, and Flood. When you think Grand Canyon, THINK FLOOD!

- **Kaibab Limestone (8)**

*Claim:* Petrified coral reef.

*Fact:* Fossils are broken and scattered – not in place. Think Flood!

- **Coconino Sandstone (7)**

*Claim:* Cross-bedding and “reptile” trackways indicate

it's a petrified desert sand dune.

*Fact:* Angle of cross-beds (<30 degrees) is consistent with observed underwater sand waves, not wind deposition (typical angles of 33-34 degrees). Trackways were experimentally demonstrated to fit best with amphibians struggling against water currents. Flood!

- **Redwall Limestone (6)**

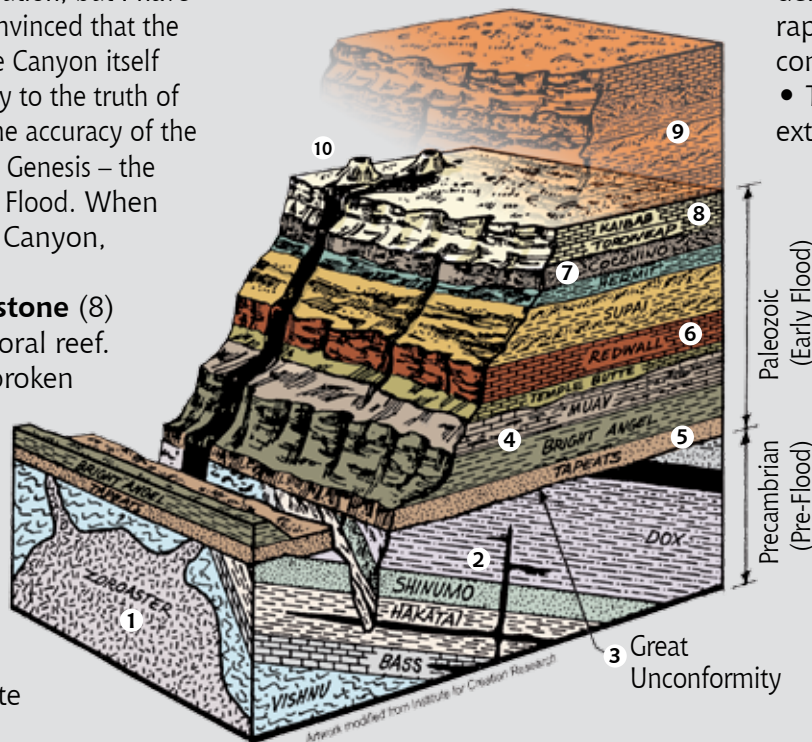
*Claim:* Millions of years of deposi-

tion in a calm, placid sea. *Fact:* contains millions of broken and jumbled fossils. It also has a cross-bedded layer with millions of nautiloids buried in a manner consistent with turbulent, catastrophic water debris flow. Think Flood!

- **Tapeats Sandstone (5)**

*Claim:* Slow deposition. *Fact:* Contains huge boulders and evidence of storm beds – Indicates rapid flows and turbulent water conditions. Flood!

- Think BIG FLOOD! Layers extend for 100's and 1000's of miles, even trans-continentially. **AOI**



At the Canyon, thousands of feet more of layers (9) were planed off as the waters receded at the end of the Flood. The upper volcanic activity (10) occurred after all of this. Ironically, radioactive dating of this recent volcanic event gave dates up to twice as old as the layers under the whole canyon. This casts serious doubt on the reliability of these dating methods.

## Grand Canyon DVD and Guidebook

As you stand on the rim of the Grand Canyon and gaze at this awe-inspiring hole in the ground, you are struck by the immensity and the beauty, but then many questions come to mind, like: Why are there so many different layers? How were they formed? How long did it take to make the layers and carve the canyon? What do the fossils tell us? What does it all mean?

Two excellent resources to help answer these questions are the fascinating, well-illustrated DVD,

Grand Canyon: Testimony to the Biblical Account of Earth History, and the easy-to-use, informative, guidebook, Your Guide to the Grand Canyon: A Different Perspective. Both the guidebook and the DVD are produced by veteran Grand Canyon researchers and provide valuable information and insights to understanding the Canyon from

a Biblical perspective. The guidebook also includes many practical tips for visiting the Grand Canyon.

Whether you are actually going to the Canyon or are an arm-chair explorer, these resources are like having your own personal creation guide to Grand Canyon. Order today! (DVD: \$20; Book: \$15. Ask for free S/H through 7/31/10.)

(Remember, your purchases help the ministry of AOI.) **AOI**





# Grand Canyon in Biblical Perspective

by Dave & Mary Jo Nutting

**G**rand Canyon is called a monument to a billion years of evolution and millions of years of gradual erosion. However, under careful scrutiny, the evidence seems to tell a different story – a story much more consistent with the Biblical record. No human was present to see the canyon form so here is just a possible scenario based on Biblical text and certain geologic clues. (See page 2 to correlate the numbers given below.)

Genesis 1:1-7 says that God created the heaven and the Earth and that the Earth was covered with water. Is it possible that the granites and schists (1) at the bottom of Grand Canyon are the remnants of re-worked original “creation rock”? On Day 3 of creation week, God formed the dry land (vs. 9).

With this massive earth movement and resulting water currents, there would be a lot of erosion which could form the “Precambrian” sedimentary layers which are also interspersed with lava flows. (2) These layers would be devoid of fossils (except for some microscopic algae and plant materials) because they were mostly formed before death entered the world at the Fall.

Between the Fall and before God judged the wickedness in the world with the Flood (Gen 6-8), moderate conditions on the earth would produce mostly localized erosion, sedimentation, coral reefs, and fossilization. But things changed dramatically at the time of the Flood. The Bible says it rained for 40 days and nights and the “fountains of the deep” opened (Gen 7:11). Some take this to mean great geysers and water spouts from under the earth; others think it may also refer to

volcanic eruptions. In any case, it is clear that this is a very catastrophic event with powerful forces in the earth resulting in changes to the basement rock (1) and tilting (2) of the pre-Flood layers.

The onslaught of Flood waters would sheer-off the tilted layers and basement rocks and leave behind what is known as the “Great Unconformity.” (3) This break in the contiguous rock layers is clearly seen at Grand Canyon and around the world. According to uniformitarian geologists, this break represents vast amounts of erosional time but with the Flood, it would happen very rapidly.

## Grand Canyon Facts

- 4-18 Miles wide
- Over 1 mile deep
- Stretches 277 miles
- 4,500 feet of horizontal sedimentary layers plus a great depth of layers below.

As floodwaters rose, there would be massive erosion, deposition, and fossilization. The horizontal rock layers of Grand Canyon (4) contain crushed and broken fossils of marine invertebrates as evidence of this. Whole ecological zones would be ripped up and buried. Shallow-water marine creatures would be swept up and deposited first, followed by fish, and later by amphibians, reptiles, and mammals. Some discrepancies would be due to localized conditions, but this scenario explains the general order found in the fossil record, as well as the fact that marine fossils are found throughout the geologic column.

The Bible tells us the waters rose until they covered the whole earth. We see evidence of this throughout the world: marine fossils on the tops of earth's highest mountains including Everest; extensive sedimentary layers stretching not only across

continents, but even trans-continentially; and characteristics of catastrophic water deposition in sedimentary rocks world-wide. (4-7) Deep currents washing back and forth would result in more deposition, mixing and re-working of sediments, as well as layers of fossils which were hydrodynamically sorted according to specific size, shape, and mass.

Towards the end of the Flood, “The mountains rose; the valleys sank down.” (Ps. 104:8, NAS) Powerful earth movements would have resulted in massive sheet erosion leaving extensive plains and plateaus. Later channelized erosion would leave deep canyons and gullies. (8) In addition, huge inland lakes would be left as the continents rose. Later these lakes (and others dammed by glacial ice during the Ice Age) would break through, causing catastrophic erosion (as seen in the Channeled Scablands of the Pacific Northwest as well as in Grand Canyon).

The Bible presents a credible scenario for the formation of Grand Canyon, the rock layers and the fossils they contain. We believe it is more consistent with the evidence than traditional long-age, evolutionary, uniformitarian models. The Canyon truly is an amazing testimony to the Biblical account of earth history. **AOI**

[Information for this article is from personal study of Grand Canyon and the following resources: Grand Canyon: Testimony to the Biblical Account of Earth History (DVD), and the books: Your Guide to the Grand Canyon: A Different View, and Grand Canyon: Monument to Catastrophe by Dr. Steven A. Austin. For more information also check our website at [www.DiscoverCreation.org](http://www.DiscoverCreation.org).]





# Think & Believe

Discover Creation...Worship the Creator

A Publication of Alpha Omega Institute

May/June, 2012; Vol. 30, No.3

## Visiting Our National Parks

by Dave Nutting

In this issue of Think & Believe, our articles focus on Yellowstone National Park and the adjoining Grand Tetons. With over 3 million visitors to the area each year, I suspect that many of our readers will be venturing there even this year. If not, you will likely visit another one of our parks or museums this summer if you take a road trip vacation.

On the negative side of going to the parks or museums is the plain fact that you and your family will likely be inundated by evolutionary and anti-Biblical philosophy. It is hard to escape the evolution and all those “millions of years” that is so prevalent unless you never go into a visitor center or gift shop. Since there is a slim chance of that happening, I really recommend that you prepare your family well for the trip and the vain philosophies they will get. Remember the warning in Col. 2:8 not to be taken captive by philosophies!

On the positive side of going to the national parks is the tremendous teaching opportunity you have to point out the problems with evolution and the other philosophies

that permeate those museums and national parks. If you don't want to miss this opportunity, make sure you are prepared to help your family understand the evolutionary bias and contrast that to the Truth of God's Word.

We mention the Yellowstone Guide in this issue, but there are also guides available through our office or website (DiscoverCreation.org) for the Grand Canyon and for Bryce Canyon

and Zion National Parks. Not only that, but we also have guide books to prepare your family before you go to zoos (Complete Zoo Adventure),

for museums (Museum Guide) and for aquariums (Complete Aquarium Adventure). With all of these resources at your fingertips, you can make this year's vacation a real vacation with a purpose!

Almost 20 years ago, we ran an article entitled Vacation Alert (T&B, volume 10 No.3). In it, we mentioned a trend in the parks to embrace and teach new age

philosophies, pantheism, spiritism, reincarnation, and nature worship. As you go to most of the parks, you will note that the trend has now become the norm. Much of this has crept in by the park's extolling of the Native American cultures. You will want to point this out to your family as well. Go to our website articles section and look in the back issues of **Think & Believe** to read that article.

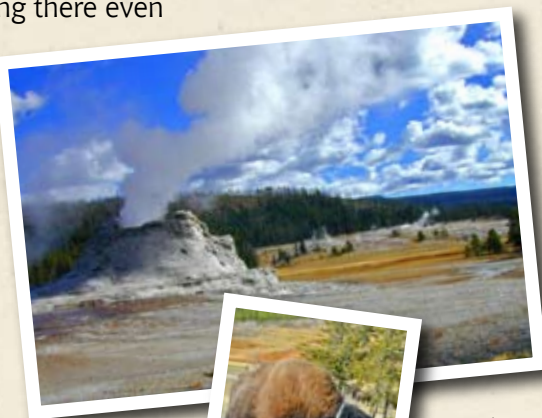
Mary Jo & I have recently returned from leading a group of 39 (besides us) on an extensive excursion through the American Southwest. This included several national parks as well as other sites. It was exciting for us to see the students begin to recognize the evidence for the Truth of God's Word while visiting those parks. You can have the same impact with your own family.

We reiterate what we have said before: When you pack for vacation this summer,

don't leave your mind at home! Enjoy what you see, but be alert! Vain philosophies are lurking out there. As you enter the “secular temples,” teach your family to

use their minds and their hearts to evaluate what they hear.

Have a great summer family vacation with a purpose! **AOI**





## The Fossil Forests of Yellowstone by Dave Nutting & Mark Sonmor

**Y**ellowstone! The Tetons! Hot springs, bears, mudpots, hoodoos, waterfalls, and buffalo! Because of its thermal oddities and astounding geology, this area covering 3,400 square miles is like nature's Disneyland. For creationists, it's even better. There are so many features that cannot be accounted for by slow and gradual processes that, in some cases, even uniformitarian scientists are talking "catastrophe."

We've chosen a few highlights from the True North guidebook to invite your interest and to encourage your faith.

For instance, Specimen Ridge in Yellowstone National Park consists of many layers

containing standing petrified trees. These trees were assumed to represent 27 successive forests which were each buried by volcanic eruptions, separated by long spans of time. If this is right, why do trees in different layers have the same ring structure?

Where are the soil zones between forests? Why are the roots broken off? The 1980 Mt. St. Helens eruption answered our questions and altered our view

of the formation of Specimen Ridge forever. It ripped up trees from a single forest and deposited them in mudflows and also in Spirit Lake. There they became water-logged, sank to the bottom, and were buried upright in distinct

layers as if they grew during different times.

The multiple forest interpretation of the layers in Yellowstone which assumes very long periods of time had certainly captivated many students causing them to reject the Biblical record or making them take a dimmer view of Scripture. As it turns out, Scripture holds! Actual observation showed how multiple layers with trees standing upright could form within merely a couple of years. Colossians 2:8 warns us not to be taken captive through vain philosophy. Evolution is certainly a philosophy; however, it poses as if it were science. Don't be taken captive! Stand firmly on the Word! **AOI**



## Your Guide to Yellowstone and The Tetons

by Mark Sonmor

**I**f you are planning to visit or want a new perspective on this amazing region, this True North guidebook is essential! Not only is it attractive, with colorful foldouts and appealing design, it gives a concise creationist viewpoint regarding the geology, ecology, and history of each of the area's attractions. With it, you will receive facts and interpretations that can be found in no other source.

For example, visitors may drive past Mount Washburn and casually note that it is the highest point in Yellowstone. However, most will never know that the entire mountain is made up of layer upon

layer of Absaroka Volcanics (see pg.3) whose formation is best explained by a series of volcanic flows in an environment such as Noah's Flood.

Others gazing at Mt. Moran may never realize it is topped by the same sandstone that covers North America. This indicates it was once covered by continent-wide sediments and lifted up in the Flood's later stages.

Along with explaining the parks' geologic features, this handy guide helps you plan your trip to get the most out of the time you have. It also lists helpful travel information and items of interest that might be missed by casual observers.

Even if you aren't planning a

trip this year, there are nearly 3,500,000 others who are. Because so many have been, and will be influenced by the naturalistic explanations promoted throughout the parks, this guide book is essential. Sections 7 & 8 offer concise, easily-understood explanations of worldview, dating methods, fossilization, and unique design features of flora and fauna. (Did you know mistletoe eject their seeds up to 30 ft. at 60 mph?)

If you do know of someone who is planning to go – even a skeptic – it would make a great gift. This book is available from AOI for \$16 + Shipping & Handling. **AOI**



## Flood & Volcanoes of Yellowstone

by Mark Sonmor

**W**hile fossilized trees are unique, so are the strata that encases them. Layers of volcanic and other rock debris mixed with underwater mudflows and landslides make up the the Absaroka mountains(1). This range extends from east of Jackson, WY and past the northern boundary of Yellowstone to Montana's Beartooth and Gallatin ranges. Imagine flow after flow of volcanic deposits reaching to heights of 6-11,000 ft. While you're at it, envision those deposits entombing large quantities of logs floating in the late-stage flood waters or a large postflood lake. (2) It's a mystery

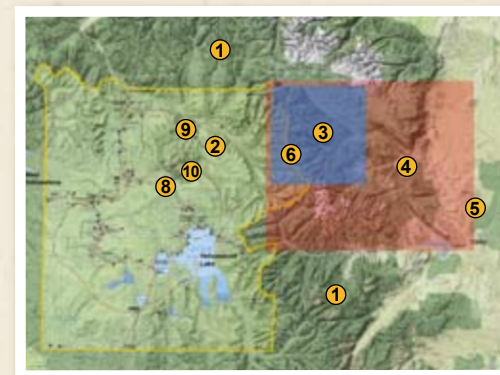
on a grand scale that you can begin to solve on your next visit to Yellowstone.

Petrified trees, however, aren't the only structures entombed under the Absarokas. At the northeast end of the park, they cover large carbonate blocks that have come to be known as the Heart Mountain slide. It is the largest landslide known to man.

According to researchers, a section of limestone (3) 425 square miles x 1,600 ft. thick, broke away and slid some 30 miles southeast on a nearly level layer of rock. It is estimated that it took only 4 minutes at a speed nearly 700 mph to break the slab into approximately 50 pieces and spread it over an area larger than the state of Rhode Island! (1,300 sq. miles) (4)

Since most slabs of rock don't normally slide on a 1-2° slope, even

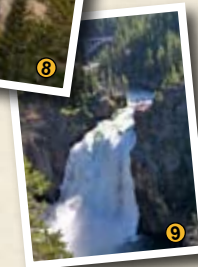
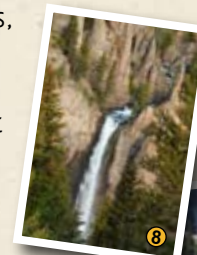
under extreme conditions, most scientists have conceded it was initiated by volcanic activity. For it to slide, however, a slab that size would need some lubrication. One proposal is that friction heated the water in the lowest section of rock resulting in an increase of water pressure. Others have suggested that friction released CO<sub>2</sub> from the rock allowing it to float on a cushion of gas.



A more straightforward explanation is that, an earthquake triggered the block to break loose and slide on a cushion of water during the later stages of the Flood. Similar submarine landslides have been found near the Hawaiian islands with large blocks of rock sliding on low-degree slopes.

Remnants of the slide can still be seen at Heart Mountain near Cody, WY and at the northeast end of the park along the Beartooth and Chief Joseph highways.

After the buildup of the Absarokas, retreating Flood waters eroded their strata to depths of 3-4,000 feet. (See photo of Specimen Ridge p.2) Further erosion came when the waters of a much larger Lake



Yellowstone flowed north through a breached dam cutting a 1,200 ft.-deep canyon. Over time, the greater erosion in the main canyon caused the canyons of Tower Fall(8) and Upper Falls(9) to become "hanging valleys."

Presence of glacially-transported boulders on top of the rim and its V-shape, indicate the "Grand Canyon" of the Yellowstone was formed recently and after the Ice Age. **AOI**

### Recommended Reading:

Oard, Journal of Creation, 20(3),2006  
Oard, Journal of Creation, 24(2),2010

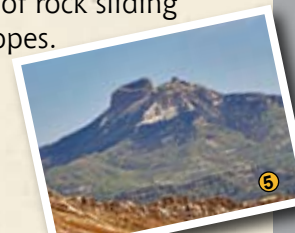
## Teton Tectonics

**A**ccording to the guidebook, the Tetons are the result of massive vertical shifting of the earth's upper crust. The total shift from the top of Grand Teton to a point underneath Jackson Hole is 30,000 feet!



On top of the Tetons are remnants of sedimentary layers found across the continent. Lack of erosional features between the layers indicate little or no time between deposition.

Rounded quartzite boulders are also found on top of the Tetons. Their presence indicates they must have been deposited prior to the uplift. Amazingly, these boulders were transported up to 800 miles from their source in Idaho and Montana. This mass of boulders (some larger than basketballs) is believed to have reached a volume of 600 cubic miles. Again, events of this magnitude seem best explained by Noah's Flood. **AOI**





# Think Believe

Discover Creation...Worship the Creator

A Publication of Alpha Omega Institute

September/October, 2012; Vol. 30, No.5

## Atheism on the Rise – Build a Firm Foundation

by Dave Nutting

**Y**es, I know! You have heard this type of message before. Even in the last issue, we wrote an article entitled, “Danger, Cliff Ahead!” There is a reason I am emphatically repeating myself. This is being confirmed by a very recent poll. Many national newspapers have recently carried articles such as Washington Post’s August 13 article by Kimberly Winston:

“Poll shows atheism on the rise in the U.S.” “Religiosity is on the decline in the U.S. and atheism is on the rise, according to a new worldwide poll. The poll, called “The Global Index of Religiosity and Atheism,” found that the number of Americans who say they are “religious” dropped from 73 percent in 2005 (the last time the poll was conducted) to 60 percent. At the same time, the number of Americans who say they are atheists rose, from 1 percent to 5 percent.”

For anyone with school-age relatives or with a heart for the future of Christianity, this should concern you. True, some of the increase in atheism may be a reaction to the world situation with militant religious groups represented. Some increase may be the result from atheist Richard Dawkin’s calling on atheists to make their faith (or lack thereof) known. Another factor is the number of anti-god websites that have sprung up which are loaded

with false information. Many of the arguments we hear against the Bible can be traced right to these atheist sites.


Central to coming to a solution is to really grasp the problem. We still assert and agree with evangelist, Mark Cahill, that the number one reason students reject the Gospel is evolution. When we speak on the university campuses, we talk with a lot of students from evangelical church homes who say they became atheists because of evolution. We see many others very much weakened in their faith also because of evolution. Evolution and associated anti-god philosophies are key ingredients (or at least good excuses) for unbelief.

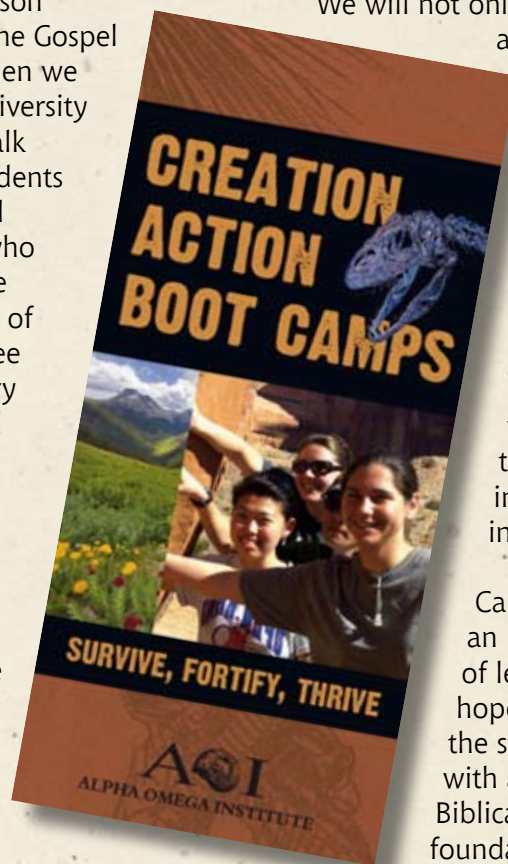
This has become so rampant, that we at AOI are not only setting the groundwork to train up many others to take the Truth of God’s Word to their communities but are initiating special creation/apologetics “Boot Camps” for the

summer of 2013. These can help stem the tide of evolution and other anti-Biblical philosophies which are pulling our young people under. These camps are meant to help “fireproof” or “drown-proof” your youth and point them in the right direction. We will not only give students

answers to many of the anti-god “proofs,” but also work toward building a much firmer foundation that is not easily eroded. At the same time we wish to give them tools which can help them “take ground” in their circle of influence back home.

These “Boot Camps” will provide an intense time of learning and, hopefully, will send the students back with a new set of Biblical glasses – a new foundation – that will last for life.

[See the Director’s Column and brochure for more information. Please sign up your students and give the brochure to your youth pastors for them to bring their youth groups.] 





## How can you believe the Bible when...? by Dave Nutting

**T**his is a common question format leveled at students as a presumably unanswerable criticism of the Bible. For instance one argument I heard begins with a question to the Christian. "Who killed Goliath?" Most Christians would easily give the answer, "David killed Goliath." The skeptic would then ask, "Then how come it says in 2 Sam 21:19, 'Elhanan the son of Jaare-oregim the Bethlehemite killed Goliath . . . So who killed Goliath? What part of the bible is true and what part isn't?'"

When this type of argument is stated with authority, especially if it is quickly followed with several other "purported" Bible contradictions, it begins to weaken a Christian's faith. The problem is that most

young people are not prepared with answers.

So "Who killed Goliath?" I spoke at a meeting where I challenged the people on this to get the point across. Most stared blankly without an answer. One teen raised his hand and simply said, "Context, please!" Wow,

right on! This very appropriate answer will frequently clear up most of

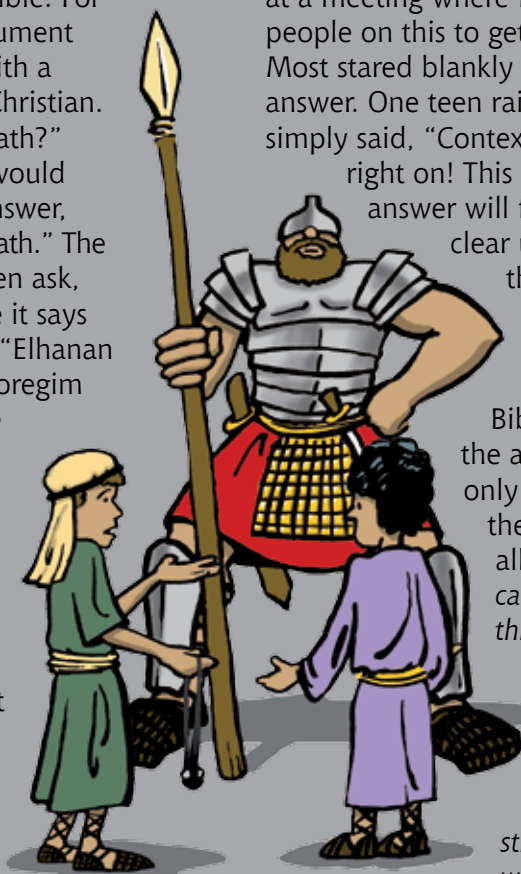
the apparent contradictions that the atheists point out in the Bible. First of all, the atheist objection only quotes part of the verse. Read it all: (18) "Now it came about after this that there was war again with the Philistines at Gob; then Sibbecai the Hushathite struck down Saph, who was among the descendants

of the giant. (19) And there was war with the Philistines again at Gob, and Elhanan the son of Jaare-oregim the

*Bethlehemite killed Goliath the Gittite, the shaft of whose spear was like a weaver's beam. (20) And there was war at Gath again, where there was a man of great stature who had six fingers . . .*

Note the wording "there was war again." Also note the end of vs. 18, "among the descendants of the giant." At this point it becomes obvious that this is likely a relative or a descendant of the famous Goliath who was killed by David. Perhaps there was another person later who was surnamed or nicknamed Goliath or perhaps "Goliath" began to be an expression for a giant like it is today? 1Ch 20:5 makes it clearer regarding "brother" of Goliath. (By the way the word "brother" could have also been translated as "relative.")

So, stand firm on the Word. You might not have the answer at the time, but there are answers! In the AOI "Boot Camps" we intend to challenge the students to think so that they can gear up for the evolutionary and anti-Biblical assault! **AOI**



## Grand Canyon: The Puzzle on the Plateau

**H**ow did Grand Canyon form? This DVD gives a clear scenario for its formation with outstanding graphics which will keep the attention of young and old. In it, you will find explanations of the canyon along with several other areas of tourist interest. Central to the canyon formation explanation is a huge and cataclysmic draining of two very large inland seas which were aftermaths of the Noahic



Flood. The models presented help to visualize a possible scenario to explain the canyon as well as other geologic "puzzles." Whether you actually go to the canyon, or want an armchair tour with a lot of good meat to chew on, this video is for you.

**Grand Canyon: The Puzzle on the Plateau** DVD by Mike

Snively offers a rational explanation of how the Grand Canyon was formed. It is packed

with high-quality visuals and is divided into seven parts:

- What is the Grand Canyon?
- How did it form?
- Standard ideas on its formation
- Post-flood catastrophe theory
- Problems with standard theories
- The icing on the cake
- When did it form?
- Theory review
- A lesson from the canyon?

This would make an excellent Christmas gift. Running Time: 53 minutes. Price: \$20+S/H **AOI**



# 80 Years of “Scientific Fact” Wrong! Radioactive Decay Rates Not Constant?

by Dave Nutting

**W**hoa! For those who thought that radioactive decay rates were constant and ensured “absolute” dating techniques, research by Ephraim Fischbach and Jere Jenkins of Purdue University may vibrate some nerve endings.

It appears that solar neutrinos or perhaps an unknown particle actually changes the decay rate. Over the last 6 years, seasonal fluctuations of the decay rate have been observed which correspond to the Earth’s proximity to the sun. The decay rate also appears to be affected by solar flares! This overturns 80 years of “scientific fact.”

In the 1930’s, Ernest Rutherford, who is known as the father of nuclear physics, “proved” experimentally that the decay rate is constant meaning that outside influences cannot alter it.

Science Daily  
(August 13, 2012)  
quotes Jenkins

as saying, “Since neutrinos have essentially no mass or charge, the idea that they could be interacting with anything is foreign to physics. So, we are saying something that doesn’t interact with anything is changing something that can’t be changed. Either neutrinos are affecting [the] decay rate or perhaps an unknown particle is.”

The logical conclusion from this potentially “apple-cart-overturning” research is that decay rates can change significantly. The data looks compelling and, if substantiated by further research, may have huge implications on the assumed constancy of radioactive decay rates.

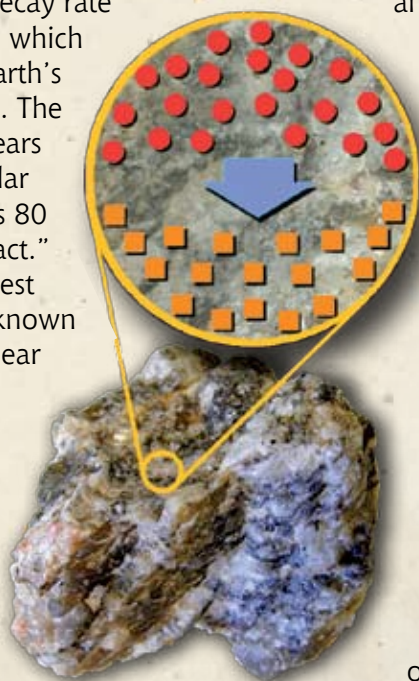
The changes noted in the current research are not, in themselves, enough to allow dismissing the vast numbers of “accepted” dates assigned to geologic formations, but it opens a door to further research of other factors which could play a part. If we consider for instance, solar flares, the shrinking of the sun, the effect of outside cosmic radiation, and even the possibility of an expanding universe,

“absolute” dates could be affected drastically.

This isn’t the first time the decay rate assumption has been challenged by actual observational science. John Woodmorape reported research in 2001 giving results which indicated changes of a decay rate of a factor of a billion.

[<http://creation.com/billion-fold-acceleration-of-radioactivity-demonstrated-in-laboratory>.] Also, observations reported in the RATE project conducted by the Institute for Creation Research indicate a greatly accelerated decay rate in the past.

For detailed data on the Purdue research, see: <http://moriond.in2p3.fr/J11/transparent/fischbach.pdf> and also Solar Physics (2011) 272(1): 1-10. Also see another creation response to this research: <http://creation.com/neutrinos-not-so-neutral>. **AOI**



## S.T.O.P. Revisited

by Dave Nutting

**I**n the Jan/Feb ‘06 issue of T&B, I said that, when you don’t have an answer to a teacher promoting anti-Biblical philosophies, you should STOP! That meant:

**S:** Stand Firm

**T:** Trust the Lord (His ways are higher)

**O:** Observe Options

**P:** Pray!

Often we are told that the Bible can’t be true because radioactive decay dating methods are assumed “absolute” and have proven it false. Yet, one of the options which “standard” science had not even considered is the role neutrino bombardment can play in changing the decay rate. (see related article on pg.3 ) The latest research certainly shows the validity of the “**O**” option.

Another assumption is that all of the lead 206 present in a sample is the result of radioactive decay of uranium. In my seminar presentations, I have noted that neutrinos from supernovas have also been shown to alter lead 204 (standard lead) into lead 206. That means that, given enough neutrinos, the second assumption is also false. This is especially so if we consider that the same processes which produce uranium can produce a whole suite of related elements including lead.

A third major assumption is that nothing has gone in or out of the rock sample since its formation. This one is not true, as ground water flows through many rock units bringing other elements with it. Also, neutrinos from solar flares and cosmic radiation penetrate deep into the earth disrupting any supposed “closed systems.”

Observe the “**O**” option: Neutrinos can alter all of the major assumptions of radioactive decay! **AOI**



# Think Believe

Discover Creation...Worship the Creator

A Publication of Alpha Omega Institute

July/August, 2013; Vol. 31, No.4

## Who Cares about the Flood?

by Dave Nutting

**T**he secular world laughs at it and scholars scoff at it. Moreover, university students point to the account of the Flood in Genesis to prove the Bible wrong. Earth science textbooks make statements like, "People used to believe in a Flood, but today ..." Even many people in the Christian community marginalize the Flood, calling it a "myth" or a "story" for kids. In contrast, there are many people like me and the rest of the AOI staff, who not only accept the Biblical account of the Flood as literal truth, but also point to abundant geologic evidence for it. (See page 3 for some of this evidence.)

Why do many church people reject the Flood? First of all, the secular world constantly hammers students with evolution and the idea that geology has proven the Flood to be a myth. Year after year of this indoctrination certainly takes a toll on young minds. But I think another, more subtle reason starts in the church nursery with all those cute drawings of Noah and his tiny little ark with all the animals squeezing on. Later, students see this idea depicted by colorful cartoons and TV shows. These images are firmly imprinted

in the minds of many students that I encounter at our university programs.

I remember one student in particular, who sarcastically asked, "How did Noah get all those stinking animals on board that little boat?" I responded with two questions: How big was the boat? and How many animals needed to go on board? He replied, "I don't know, but they certainly couldn't have fit." I pointed out that what he was trying to say was that an unknown number of animals couldn't fit on board a boat of unknown size. That brought a lot of chuckles from the other students. Of course, the Bible indicates that the ark was enormous, at least 1.5 to 2 football fields in length, which can easily solve the problem. But those cute pictures continue to keep young people from believing the Bible.

Why do I believe the reality of the Flood is such an important issue? Well, God cares that we take His Word seriously. Since He took at least 3 full chapters in Genesis to give the details of the worldwide Flood,

to say otherwise indicates a total disregard for His Word. If we don't believe that part of Scripture, then why believe any of it? Unfortunately, many students have bought this line of reasoning and rejected the Bible—because they have been told that geology has proven the Bible wrong.

Peter warns us in 2 Peter 3: 3-6, "Knowing this first, that there shall come in the last days scoffers, walking after their own lusts, and saying, 'Where is the promise of his coming? for since the fathers fell asleep, all things continue as they were from the beginning of

the creation.' For this they willingly are ignorant of, that by the word of God the heavens were of old, and the earth standing out of the water and in the water: whereby the world that then was,

being overflowed with water, perished." When I am on the college campuses and even in some churches, it sounds like we are in those last days. I don't want to be one of those people scoffing at God's Word and denying true earth history which includes catastrophic judgment for sin by a global Flood.

Besides all of that, the truth of a global flood should have a major impact on how we view geology. Instead of rock layers indicating millions of years of geologic history, they actually are a silent testimony of the truth of the Flood. In addition, the fossils found in those layers bear witness of the death and destruction as recorded in Genesis. That may sound like "heresy" to secular geologists today, but it was the prevailing view held by most competent geologists in the not-too-distant past. I believe we need to return to this Biblical perspective and take God at His Word! **AOI**



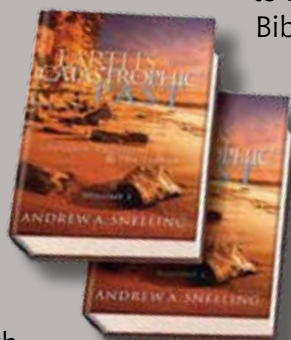


# The Genesis Flood Updates by Dave Nutting

**T**he Genesis Flood was written in 1961 by Dr. Henry M. Morris and Dr. John Whitcomb and is truly a classic book. This book has had a huge impact in drawing Christians back to the Truth of the Bible with evidence derived, not only from the Biblical text itself, but also from the science of geology. However, much work has been done in the field of geology since that book was published. We have always wanted to see an update to that book.



Finally, two different publications have been produced. The first, **Earth's Catastrophic Past**, is a 1,100 page, semi-technical, 2-volume set written in 2009 by Dr. Andrew Snelling – one of the world's leading geologists in the creation science movement. According to the Institute for Creation Research, "**Earth's Catastrophic Past** provides up-to-date geological evidence that demonstrates the authority and accuracy of the biblical account of creation and the Flood. . . with in-depth scholarly research and insight. Topics covered in this two-volume set include: The Biblical Record of the Global Genesis Flood; Non-Geological Arguments Used Against a Global Genesis Flood; Noah, the Ark, and the Animals; The Framework for a Scriptural Geology; and A Biblical Geologic Model of Earth

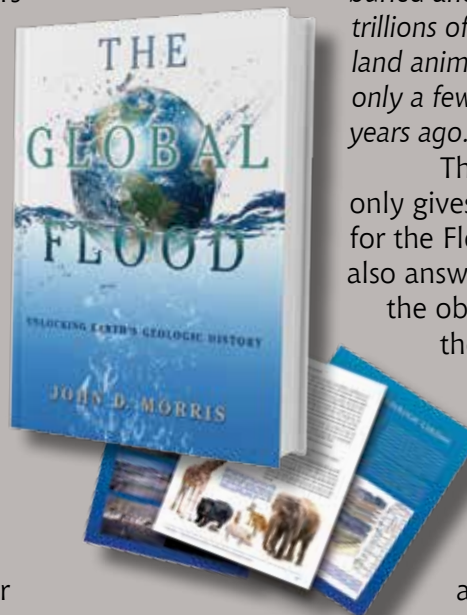


History." This is a great book for those willing to devote serious study time. (Hardcover; \$60/set)

The second book, however, is the one that I recommend to virtually everyone. Make sure you get this book. It is what I would have tried to write but Dr. John D. Morris saved me a whole lot of time! Anyone who has been to one of my seminars knows I like pictures and lots of them. Well, so does John Morris! His book, **The Global Flood, Unlocking Earth's Geological History**, is chock-full of wonderful photos and illustrations. It is easy to read, yet concise enough to engage even casual learners. This 176-page book fills a need, not only for geologists, but for the lay person who wants

to know about geologic and Biblical evidence for the Flood and its related issues.

Dr. John C. Whitcomb, who co-authored the original classic book, writes this in his Forward to **The Global Flood**: "*For some, the thought of a worldwide flood is ludicrous. But for serious scientists who research the various formations of the earth and the catastrophic processes that shaped the world we see around us today, the evidence of a global flood is indisputable. The Global Flood presents that evidence in a way that clearly demonstrates why the biblical account of the Flood matters to all of us who want to*



*understand and communicate the truth of the Genesis Flood with confidence. The Global Flood helps to meet a great need today. It is comprehensive. It is aimed at those who are not experts in earth sciences. People everywhere need to understand the true significance of the year-long, mountain-covering Deluge that buried and fossilized trillions of marine and land animals and plants only a few thousand years ago.*"

This book not only gives evidence for the Flood, but also answers many of the objections to the Flood. It

is a great resource for pastors and Bible teachers, as well as students and laymen. I believe

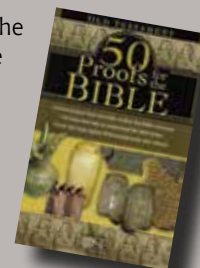
this 8.5" x 11," hardcover book will have a big impact on a lot of people. I recommend that you invest in the lives of your friends and family by getting a stack of them to give out for Christmas gifts. (\$20) **AOI**

**Free!**

For anyone ordering either of these books or giving a donation to AOI, we will include a high-gloss,

full-color

booklet showing the authenticity of the Bible from actual archaeological discoveries. Just ask for "**50 Proofs for the Bible** (Old Testament)."





# A Flood of Evidence

by Dave Nutting

**K**en Ham frequently says, “If there really was a Flood, what would the evidence be? Billions of dead things, buried in rock layers, laid down by water, all over the earth.” Well, that is exactly what we see – billions of dead things, buried in rock layers, laid down by water, all over the earth! Of course, evolutionary geologists have their interpretations based on their “millions of years” scenarios. However, I think there are many evidences that really support the Flood and wreak havoc with evolutionary explanations. Here are a few:

**Polystrate Trees** are fossilized trees which are found poking through multiple geologic rock layers. Did these trees grow in place as the mud slowly piled up around them? Doubtful! Instead, it appears they were buried rapidly by a major water-and-mud cataclysm such as the Flood.

**Sandstone Pipes** are tubular structures filled with material which originated from layers way below the pipe. Hydraulic activity resulting from various pressures during, or shortly after the flood, could better explain the formation of these features. The material from down deep needed to still be soft as this “toothpaste” material squeezed upward from below. That means all the assigned millions of years between the layers could not have existed. Instead, the layers must have been put down in rapid succession.

**Mass kills events** found in rock layers indicate that marine (ocean dwelling)

creatures were buried very quickly by massive amounts of mud. These include the famous fossil nautiloids found in the Redwall limestone of the Grand Canyon. Millions of them are aligned in a way that indicates rapid burial by moving water currents rather than in a calm ocean environment usually presented by Park rangers.

**Extensive rock layers** fit a lot better from a Flood geology perspective. The rock layers are stacked on top of each other like big stacks of giant pancakes. However, the “pancakes” are enormous, spreading over vast areas. For example, the Tapeats sandstone found in the Grand Canyon covers an area that stretches from Mexico, across Canada and even as far north as Greenland. It also reaches from California, and across the United States, to the eastern seaboard. That’s a giant pancake!

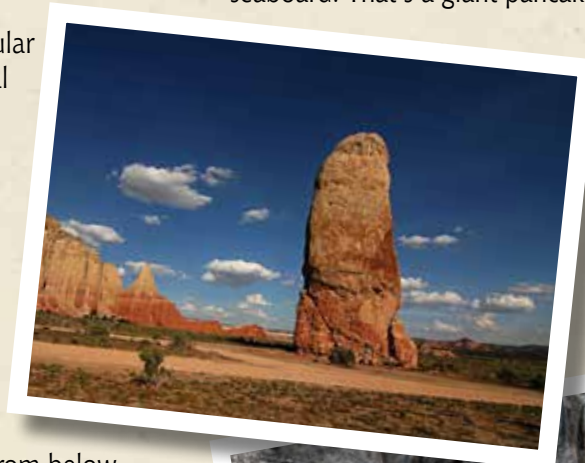
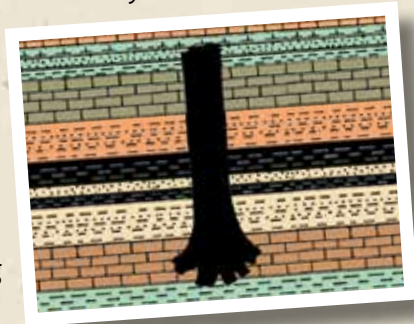
Other “pancakes,” like the Redwall Limestone, extend from the western United States and across the ocean to Europe. This indicates a global event and not local geologic processes. Many examples like this can be found in Dr. John Morris’s book, **The Global Flood**.

On page 167, Morris sums up the scientific evidence that the Flood was global in extent with the following statement:

*“In general, the rocks speak of rapid, catastrophic deposition. The geologic column is a graphic record of repeated marine transgressions, incursions of the ocean onto the land, interspersed with regressions as the water rushed back into the oceans. Little time is needed for the entire column. The record shows what Genesis tells us, that the Flood waters were washing ‘to and fro’ over the land. There is nothing about the ‘column’ that should cause the Bible-believer to doubt the truth of the Genesis record.*

*“Some say there is no scientific evidence for the great Flood of Noah’s day. To this we can only ask, ‘What evidence are you looking for?’ All the stratigraphical evidence, the geological evidence, the fossil evidence, etc., speak of a watery judgment of life that can best be understood as resulting from the great Flood of Noah’s day – just as described in Genesis.”*

Keep in mind that the evidence is so broad, that this short page of Think & Believe can certainly mention only the tiniest tip of the iceberg. However, I sincerely hope that this whets your appetite to further study. One of the greatest resources you need to get is **The Global Flood**. I am excited about this book and expect you will be too! **AOI**





# Drifting Plates or Flying Saucers?

## Continental “Drift” and Plate Tectonics

by Dave Nutting

A frequently asked question at our seminars is, “Do you believe in continental drift?” This is the idea that all the land masses on our planet were originally one large continent which is referred to as Pangaea. Pangaea then supposedly broke up over millions of years to give the present distribution of our continents. What about this and what about the time frame?

In 1859, creationist Antonio Snider suggested the idea of a super continent based on a biblical passage. Gen 1: 9, 10 says, “And God said, ‘Let the waters under the heaven be gathered together unto 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.”

Snider’s ideas were at first laughed at, then accepted much later by uniformitarian geologists (with the addition of millions of years) to give us the present configuration on earth. If the theory is correct, we would then suggest the millions of years are not needed for the break-up, especially considering the cataclysmic events during the year of Noah’s Flood.

There also seems to be geologic evidence for the theory. It appears that the continents fit together similar to a jigsaw puzzle (but not perfectly and the pieces fit other ways as well). Other indicators for continental drift

are that geologic formations continue from one continent to another as well as mineral veins and deposits extending from one continent to another.

Dr. John Baumgardner, who has been considered one of the top geophysicists in the world came up with a theory based on his research to explain not only the break-up of the super-continent, but which also explains the Flood of Noah’s day. To get a grasp of this, realize that the oceanic crust is being slowly pushed (or subducted) under the lighter continental plates. The material of the oceanic plates are actually denser than the magma it rides upon. Dr. Baumgardner’s model suggests that the denser oceanic crust at one time began to quickly fall into the less dense mantle. When that began, the generated heat caused a very rapid subduction. This resulted in an even greater increase of heat and then even faster subduction. Baumgardner refers to this as runaway subduction. When that occurred, many events were set into motion.

With material being forced into the mantle and new, less dense, oceanic crust replacing the subducted crust, a rapid rise in the sea level by thousands of feet would result. This rising of the sea level would certainly be a major factor in causing the earth to flood. Huge plumes of superheated steam would also

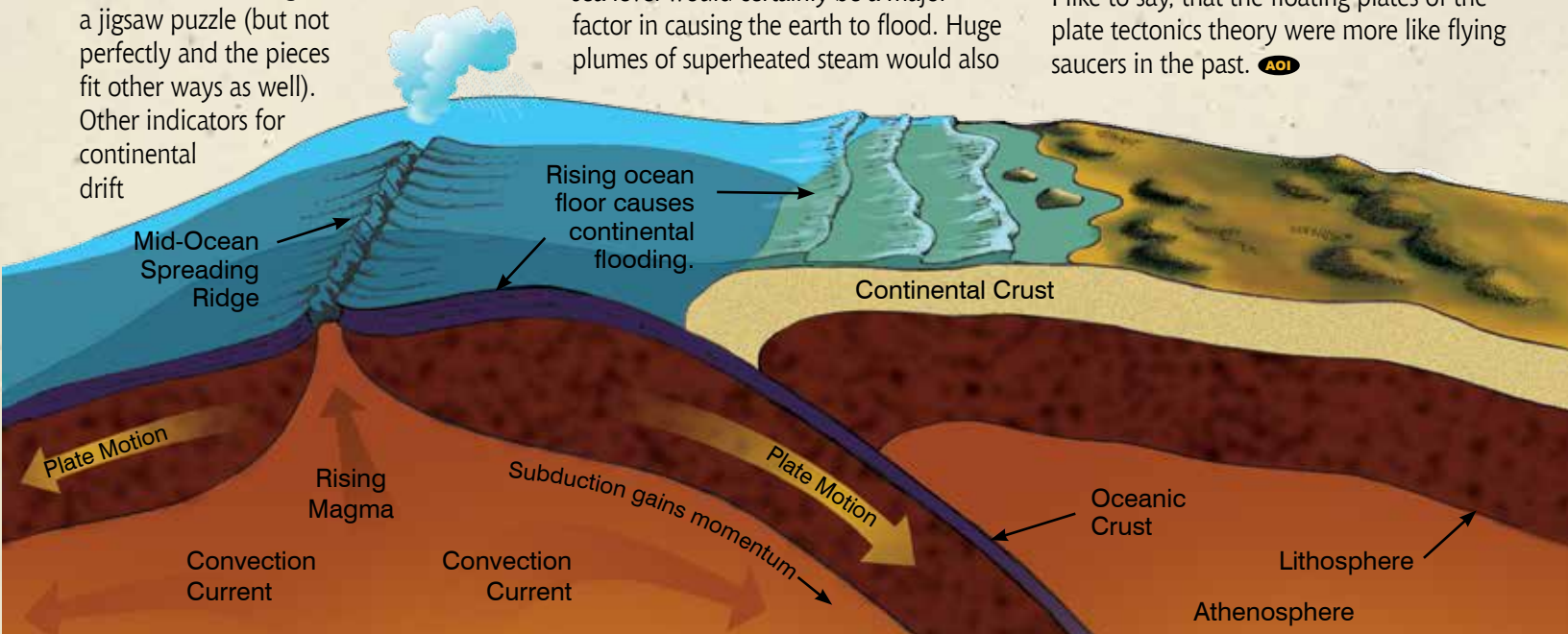
condense causing torrential rain.

Baumgardner’s model shows that circulation patterns would be set up within the mantle which would not only create electrical and hence, magnetic disturbances, but would also exert tremendous pressure on the land mass causing it to break apart and set continental drift into motion.

So, how long would this process take? Dr. Baumgardner’s model and calculations show that once it begins, the runaway effect will not happen slowly, but in the span of merely the one year of the flood. This is certainly a major deviation in the current theory of continental drift involving millions of years.

I do not have a problem with continents moving, but I do have a problem with the current time frame. As an example, suppose a skier streaks down a mountain slope but near the bottom, he takes a major spill and plows into a huge snowbank. Also suppose you just happened to look up at the very last micro second as the skier grinds to a halt. Based upon the ultra-slow speed you actually observed as he was grinding to a halt and seeing the ski tracks coming down the mountain, you might calculate that it must have taken that skier millions of years to get down that mountain.

In a like manner, if we observe the almost imperceptible motion of the continents and do not take into consideration the rapid motion resulting from the runaway subduction, we will come up with a very wrong picture of the time frame expected for all of the drifting to take place. Instead of subducting slowly, I like to say, that the floating plates of the plate tectonics theory were more like flying saucers in the past. **AOI**





# Think Believe

Discover Creation...Worship the Creator

A Publication of Alpha Omega Institute

September/October, 2013; Vol. 31, No.5



## Ready for the Universities?

by Dave Nutting

**T**he fall season is here. Unlike the warriors of old who went out to do battle in the spring of the year and came home during the harsh winter months, AOI continues to launch out. Why? For Mary Jo & I, the church seminars are still very important, but schools have started and the universities are in their new semester with a new crop of impressionable students.

Having spoken on the college campus for many years, my heart grieves to think about comments from so many students. Comments like: **“I used to go to church, but not anymore.” “I used to believe, but evolution is a fact so I gave up those religious myths.” “I can’t believe the Bible, because it has so many errors.” “There is no proof that Jesus ever existed.”**

First of all, these reasons that students usually give for rejecting God and the Bible have huge flaws. Evolution is certainly not a fact and has serious problems. Also, contrary to what they have been taught, the Bible is not full of errors. About the existence of Jesus, let’s get real. There is much more historical evidence that Jesus existed, than


there is for the professors who are making those claims that He didn’t.

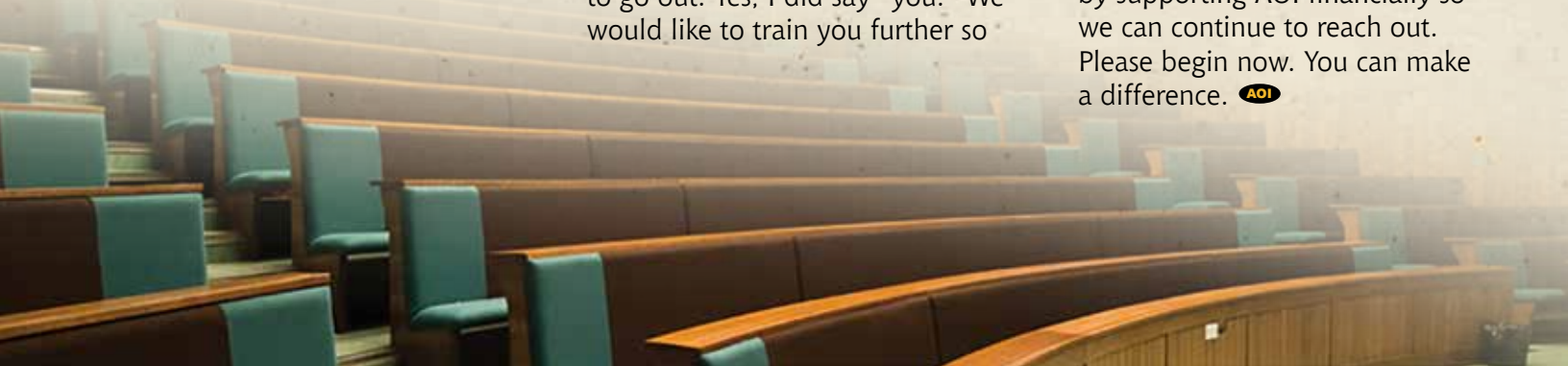
So we go out to do battle – battle for the hearts and minds of the students who are being fed a lot of misinformation. Many times, we encounter quite a contingency of atheists who come to our presentations to protect their turf. Others, including some professors, come out to “roast a creationist.” True, some of those die-hard, committed atheists might come around to the Truth, but a big reason to be at those universities is to come alongside the Christian students to encourage them to stand on the Truth and keep them from becoming casualties. We are also there for those students who are basically teetering on the edge of the fence. They are not sure yet what they believe. Many of these, for the first time in their life, actually see that there is evidence for creation and a reason to believe in the Lord Jesus Christ.

The problem is, we can only reach a few campuses. There are thousands of others. In order to make a bigger dent, we need more of you who have studied this topic to go out. Yes, I did say “you.” We would like to train you further so

that you can have an impact on your church and community. You may not be able to tackle a university professor or student, but can you talk to a middle school or an elementary school child? Please write to us and tell us of your interest in getting more training.

A second option for you is to register your teens and college students in one of our creation action boot camps to bolster their faith and skills in defending themselves in the classrooms. So grab your youth leaders and Go to [www.DiscoverCreation.org/BootCamps](http://www.DiscoverCreation.org/BootCamps) and begin planning for next summer’s 5-day camps. If you want to sponsor one of these boot camp events in your region or can put us in contact with a camp where we can offer our program in place of the normal teen week, let us know. The more of these our staff can conduct, the more young people can be fortified in their faith.

Please get involved in this battle for the minds of our young people by actively promoting these activities and by supporting AOI financially so we can continue to reach out. Please begin now. You can make a difference. 



## Dinosaur Skin Found: The Big Assumption by Dave Nutting

In a recent blog on our website ("Question Your Assumptions"), I related how Mary Jo & I were on a speaking trip and couldn't locate on our map what appeared to be a major road we had just crossed or the towns that the road signs were pointing to. Assuming we were traveling on the correct highway, we came to the erroneous conclusion that the map was very inaccurate. Consequently, we proceeded down the wrong highway. After encountering another road sign, we discovered that we were heading toward a city where we did not want to go and that we had gone a considerable distance out of our way. At that point, we finally realized that we must sometimes question our assumptions and make a U-turn to get back on track.

An April 26, 2013 article (<http://www.lightsource.ca/media/>

[media\\_release\\_20130426.php](http://www.lightsource.ca/media/media_release_20130426.php)) reported on a find that should call some assumptions into question. Dinosaur skin was found intact. In fact the skin could actually be peeled off! This is an amazing find! In the article, the discoverer asked the question of just how in the world the dinosaur skin survived intact for 70 million years and said that he was planning to undertake more research to figure that out. We have previously mentioned research showing that red blood cells were found in Tyrannosaurus Rex bones. Still other articles reported that soft tissue has been found in many petrified dinosaur bones as well as strands of DNA.

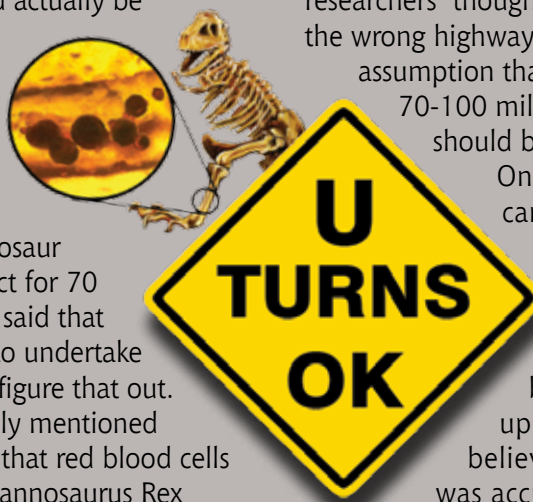
In each case, researchers asked the puzzling question: How in the world

could those features remain intact over 100 million years?

Do you see the big assumption in all of these cases? Perhaps the researchers' thought process is on the wrong highway and the huge assumption that the bones are 70-100 million years old should be questioned.

Once I turned my car around on the highway mentioned above, everything began to clear up. Can you believe it? The map was accurate after all.

Similarly, if we realize that the Biblical roadmap is correct and that there really was a global flood not too long ago, these geologic "mysteries" can finally be solved. **AOI**



## Book Review: Chronicles of Dinosauria

by Mark Sonmor

Dave Woetzel has personally travelled to locations all over the world to investigate reports of living dinosaurs and record their sightings. The information he relates is current and may surprise you.

For instance, you may have heard of Mokele Mbembe but did you know that research teams have made casts of what they believe to be its footprints and have photographed possible nesting sites? Did you know that more human footprints and dinosaur tracks have been found together in Texas giving new evidence that the two coexisted?



Many of us are familiar with the biblical and historical references to dragons related in numerous books of this type. By now, most people understand the significance of the Coelocanth discovery and have seen pictures of artifacts and depictions of dinosaurs from many cultures and continents. Although *Chronicles of Dinosauria* is no exception, it is unique for two reasons.

First, As an explorer and as director of Genesispark.com, Dave Woetzel has years of first-hand interaction with the newest historical finds that indicate

the contemporary existence of man and dinosaurs.

Second, it is Dave Woetzel's willingness to delve into the area of Cryptozoology (the science of hidden creatures) and relate his primary research that makes this book refreshing and thought-provoking.

This is not just another dinosaur book. Although children will enjoy it – especially the illustrations, it is truly a chronicle of one man's passion and investment in support of the Biblical account of history and thereby helping to intellectually clear the way for others to come to a restored relationship with their Creator through faith in Christ. An extensive resource and great gift. Available from AOI for \$17 + shipping & handling. **AOI**



# Favorite Evidences that Contradict Evolutionary Deep Time

**W**e asked some of our staff and a few volunteers to write a very brief nugget of what they consider to be their favorite indicator that the earth is much younger than what is demanded for evolution to occur.

## 1. Where's the Salt?

– Lanny Johnson

The input of salt into the sea is greater than the output causing the saltiness to increase steadily. Using input and output rates from secular sources, geologist Dr. Steve Austin and physicist Dr. Russell Humphreys calculated that the sea must be less than 62 million years old – much less than evolutionists suggest. Note that this is a maximum age. However, major floods including Noah's Flood would drastically reduce the time frame!

## 2. Radioactive Decay Dating

– Steven Thornberg

Evolutionists rely on radiometric dating for determining the ages of rocks and fossils; however, recent scientific studies raise questions about their reliability. For example, lava rocks from the 1980s Mt. St. Helens' eruptions were radiometrically dated at 340,000 to 2,800,000 years! Another example is from Australia: fossilized wood encased in basalt rock was carbon-13 dated at ~45,000 years, but the encasing rock was dated at ~45,000,000 years. These are only two of many such examples. Conclusion: we cannot rely on radiometric dating!

## 3. Population Density

– Dave Nutting

Evolutionists say Neanderthals lived 40,000 years ago, and modern humans occupied North America 15,000 years ago. However, using conservative rates of population increase (1.5%) and wars or disease killing 50% of the world's population every 75 years, in

only 15,000 years, the human population would be  $10^{37}$ . This would greatly over-fill a sphere whose radius reaches from Earth to our sun. In 40,000 years, the population would be  $10^{98}$ . This would be more than the number of marbles that could fit inside our known **universe**. Evolutionary time-scales don't work!

## 4. Recession of Our Moon

– Brian Mariani

The moon is currently moving away from the Earth about  $1\frac{1}{2}$  inches each year, about as fast as your fingernails grow. If we calculate backward, the moon would have been touching the Earth 1.37 billion years ago. Naturalists try to solve this problem by claiming that the recession rate was lower in the past, but it really should have been greater in the past, because a greater proximity would increase tidal activity. This would transfer more energy to the moon adding to its recession. Besides that, these tremendous tides would wreak havoc over the

surface of the earth and be extremely challenging for the supposed start of evolution.

## 5. Soft Tissue in Dinosaurs

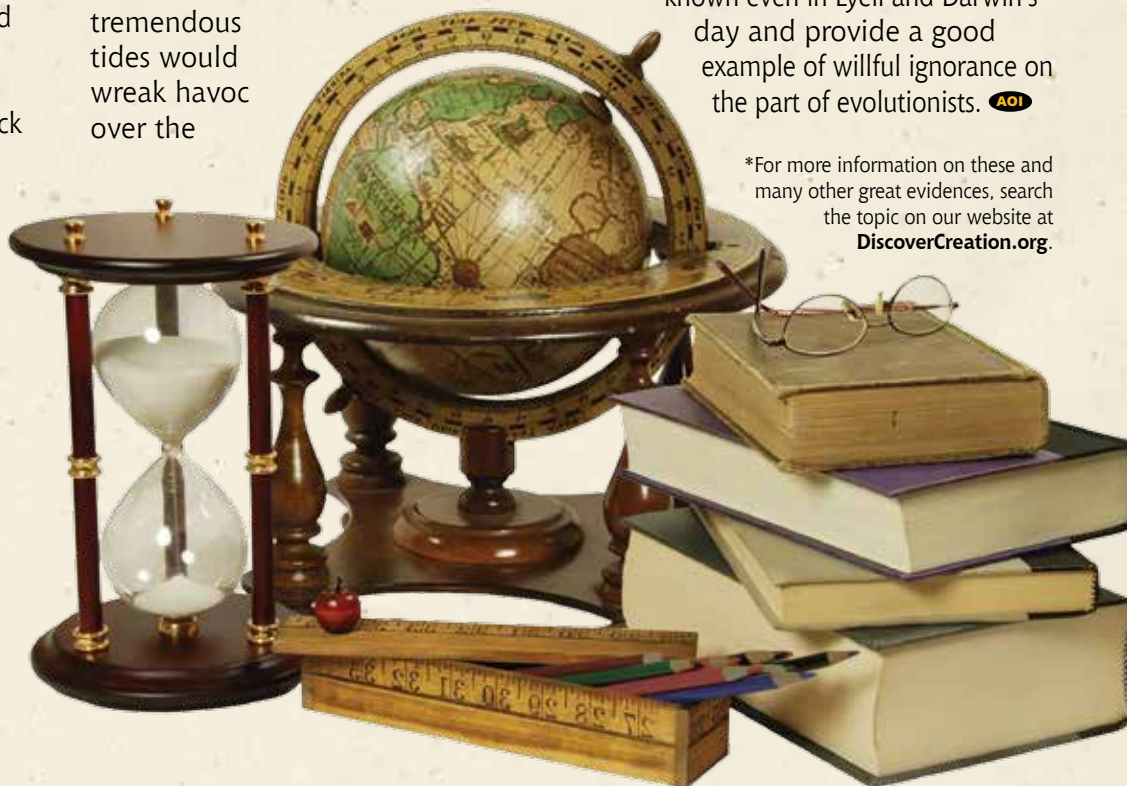
– Richard Stepanek

The amazing discovery of soft tissue found in some dinosaur fossils challenges the belief that they are millions of years old. Observations of tissue breakdown in decaying animals, plus the effects of scavengers, etc., underscore this great problem. Scientists have also discovered carbon-14 still remaining in the soft tissue. The very fact they detected carbon-14 is further evidence questioning the idea of deep time. A young earth and a huge flood to preserve these remains is the answer.

## 6. Polystrate Fossils – Dave Demick

A young-earth evidence that should be known to everyone is polystrate fossils. These are fossil tree trunks that protrude vertically in sedimentary rock, usually going through many layers of strata. This kills the idea that these layers took millions, thousands, or even hundreds of years to form. For the tree to remain intact and fossilize in this way, the whole column of strata must be laid down quickly. These polystrate tree fossils are found all over the earth. They were known even in Lyell and Darwin's day and provide a good example of willful ignorance on the part of evolutionists. **AOI**

\*For more information on these and many other great evidences, search the topic on our website at [DiscoverCreation.org](http://DiscoverCreation.org).





## The Chalk Problem *by Dave Nutting*

**S**ecular geologists claim that chalk beds argue against the possibility of the Flood. On the next page, Dr. David Demick does a good job of “chalking these formations up” to the Flood. For several years, I have used the extensiveness of the chalk beds to support a Flood model in my presentations and seminars. It turns out that the chalk beds are part of an extensive deposition of chalk called the Niobrara formation that reaches all the way from the front range of Colorado, across Kansas and Nebraska, and all the way to the Atlantic seaboard. But they don’t stop there. They are also found on the other side of the ocean where they form the White Cliffs of Dover. They are found in France, Spain, Israel and even South Africa. Trans-continental deposition speaks of a global event and

can easily point to a global flood catastrophe when the whole world was covered by water as described in Genesis as Noah’s Flood.

Critics claim there is too much chalk representing an enormous number of dead micro-organisms – including algae – for it to be accounted for during the Flood. However, conditions during, or near the end of the Flood would be **perfect** for amassing the material that would make up the chalk deposits. Think of the heat of the water due to much undersea volcanism. Think about the abundance of nutrients due to decaying organisms that would result in an exponential increase of algae similar to algal blooms today. Also, think about the huge supply of another key ingredient, carbon dioxide, emanating from the undersea volcanism. All of this

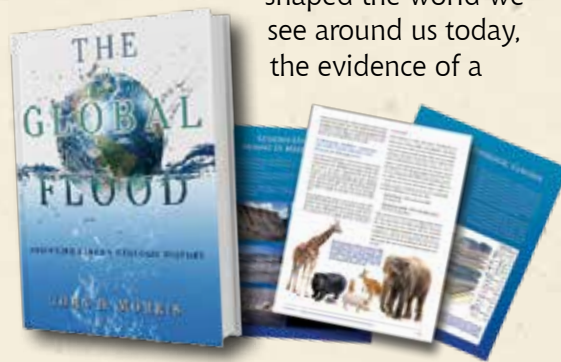
makes a perfect recipe for the amount of chalk deposits worldwide! See Dr. Demick’s article on the next page for additional details.

As you travel across Kansas or Nebraska on your way to Creation Camp in the fabulous Colorado mountains, stop and visit some of these chalk beds. Find some fossils, large or small, or examine the chalk under a microscope when you get home. This will help make the Flood of Noah’s day even more real to you! **AOI**

## The Global Flood

**T**he Global Flood, Unlocking Earths’ Geological History, is chock-full of wonderful photos and illustrations. It is easy to read, yet concise enough to engage even casual learners. This 176-page book fills a need, not only for geologists, but for the lay person who wants to know about geologic and Biblical evidence for the Flood and its related issues. Dr. John C. Whitcomb, who co-authored the original classic book, writes this in his Forward to The Global Flood: “For some, the thought of a worldwide flood is ludicrous. But

for serious scientists who research the various formations of the earth and the catastrophic processes that shaped the world we see around us today, the evidence of a



global flood is indisputable. The Global Flood presents that evidence in a way that clearly demonstrates

why the biblical account of the Flood matters to all of us who want to understand and communicate the truth of the Genesis Flood with confidence. The Global Flood helps to meet a great need today. It is comprehensive. It is aimed at those who are not experts in earth sciences. People everywhere need to understand the true significance of the year-long, mountain-covering Deluge that buried and fossilized trillions of marine and land animals and plants only a few thousand years ago.”

This book not only gives evidence for the Flood, but also answers many of the objections to the Flood. It is a great resource for pastors, Bible teachers, students, and laymen. Available from AOI for **\$20**. **AOI**



# Fabulous Chalk Beds

by Dr. David Demick, Guest Writer

**S**oft chalk rock is not “writing chalk,” which is actually the mineral gypsum (calcium sulfate, or  $\text{CaSO}_4$ ). True chalk is the compacted remains of trillions of tiny marine algae with cell walls made of calcium carbonate ( $\text{CaCO}_3$ ). Chalk is the softest form of limestone. It is white in its natural state, but yellows with sun exposure. Chalk beds are found in scattered locations worldwide. Much of western Kansas is covered by chalk beds, which are exposed in eroded areas like Castle Rock, Wildcat Canyon, and the Monument Rocks.

Nebraska has a few similar chalk beds, such as the Happy Jack Chalk Mine. England’s White Cliffs of Dover are also made from thick chalk deposits. Most of these chalk beds are very pure  $\text{CaCO}_3$ , about 90% to 98% pure.

## How and when were the chalk beds formed?

Old-earth geologists tell us that the chalk beds were formed during the Cretaceous Period, 65 to 100 million years ago (Latin *creta* = chalk). They say the beds were formed by slow, gradual deposition of calcium-rich algae remains drifting down to the sea floor and piling up. However, this can’t be true. Such algae remains do drift down to the seafloor and accumulate, but they mix with other stuff and don’t make the pure deposits we see in the fossil chalk beds. The best explanation for the very pure and thick chalk beds we find on dry land today is a HUGE three-phase mass kill event. In phase 1, many larger

animals are drowned by the Flood and decomposed, resulting in nutrient-rich water. Then, for phase 2 there is a massive bloom of the calcium-walled algae produced by the nutrient-rich waters. Similar, but smaller blooms happen in the oceans today, if nutrient conditions

are right, and can be seen from satellites as white blushes at sea. However, the blooms that occurred late



in the Flood were of a much greater and world-wide scale. Phase 3 was another mass kill – this time of the algae, with rapid burial of their  $\text{CaCO}_3$  “skeletons.” Such extreme catastrophic conditions, unlike anything happening today, would have been present in worldwide fashion in the later stages of Noah’s Flood.

## Why are there large fossils in the chalk?

The chalk beds have other signs of catastrophic deposition, including embedded animal fossils. These are mostly clam shells, fish bones and scales, but sometimes tylosaurs, plesiosaurs, and pterodactyls. The remains of a few land animals are also found. Some

of the fish in the chalk are very well preserved; however, most are partly disintegrated. This fits the Flood scenario very well.

## Why are the chalk fossils mostly shells, with relatively few fish, and very rare sea monsters and land animals?

Remember the “fossil rule of 95’s” – shells and marine invertebrates make up about 95% of all fossils with plants and algae making up 95% of the remainder, and land invertebrates 95% of that remainder. This leaves only about 0.01% of all fossils as vertebrates – which are mostly fish. Of the rare land vertebrate fossils, 95% are isolated bone fragments.<sup>2</sup> This “95%” pattern is evident in the Kansas chalk beds.

## Have the chalk beds been there for millions of years?

No, the evidence contradicts ancient ages. For one thing, the exceptional preservation of microscopic detail in the calcium carbonate cytoskeletons points to more recent deposition. Also, there is rapid erosion. The soft chalk (and firmer but still soft underlying shale) erode rapidly, so that new fish and clam fossils often are uncovered. Erosion can be even more sudden – Castle Rock lost one of its major 30-foot columns of chalk a few years ago when it just collapsed! It’s obvious that those chalk bluffs have an age closer to a few thousand years than to millions of years.

## Conclusion

The chalk beds, like numerous other geologic features, seem to fit much better with a comparatively recent, catastrophic event as described in the account of the Flood in Noah’s time. **AOI**

## References:

<sup>1</sup>Dr. Andrew Snelling. “Can Flood Geology Explain Thick Chalk Beds?” (on the Web at Creation.com).

<sup>2</sup>Dr. John Morris. *The Young Earth*, Master Books, 1994.



# Best “Proofs” of Evolution – None Still Standing

by Dave Nutting

**E**ach of the following has been given as “proof” of evolution in the past. Some are totally false or hoaxes. Some sound good, but are not supported by recent research. How can we expect the next latest and greatest proof to be valid?

## 1. Claim: Evolution proceeds by mutation and natural selection.

Reality: After years of research, a top genetic researcher, Dr. John Sanford (co-inventor of the “Gene gun”), gave up evolution based on hard data. He says in his book, **Genetic Entropy and the Mystery of the Genome**, “If the genome must degenerate, then the Primary Axiom is wrong. It is not just implausible. It is not just unlikely. It is absolutely dead wrong. It is not just a false axiom. It is an unsupported and discredited hypothesis which can be confidently rejected.” To see his credentials and more info, go to: (<http://www.discovercreation.org/newsletters/WhatstheEvidence.htm> )

## 2. Claim: 95% of the DNA in our body is Junk, left over from millions of years of evolution.

Reality: This is a “proof” necessitated by the theory of evolution rather than fact. “Junk DNA” is not junk but has a very important function. A recent consortium of hundreds of genetic researchers concluded, “We don’t really have any large chunks of redundant DNA. This metaphor of junk isn’t that useful.” (<http://www.discovercreation.org/blog/2012/11/16/new-findings-about-junk-dna/> )

## 3. Claim: Humans share almost 99% of our DNA with Chimpanzees.

Reality: This originally came from analyzing only the portion of the genome that is already similar. Looking at the broader genome including Indels, that percentage is closer to 86-89%. If “junk DNA” is considered (which is not junk!), the percentage is even much lower. Genetic researcher, Dr. Jeffrey Tomkins, shows the similarity may be

between 71-86%. He states, “While it is true that there are sections of the chimp genome that are very similar to humans, this is not the complete picture. DNA sequence comparisons that include all the relevant data plainly show that the human and chimp genomes are not nearly identical at all.” (<http://www.icr.org/article/human-chimp-dna-nearly-identical> )

## 4. Claim: Organs such as the human appendix were needed in our evolutionary past but are useless today.

Reality: This argument assumes an evolutionary ancestral connection with animals with a larger “appendix.” Research actually shows the appendix in humans is vital in embryonic development, in our immune system, and is a safe harbor that replenishes the digestive tract with crucial, beneficial bacteria after serious illness. ([www.discovercreation.org/blog/2013/.../appendix-not-useless-junk/](http://www.discovercreation.org/blog/2013/.../appendix-not-useless-junk/) )

## 5. Claim: Gill slits, a yolk sac, and a tail found in the human embryo indicate we were once fish.

Reality: “Gill slits” are neither gills nor slits, but pharyngeal pouches. They are not for transferring oxygen but develop into important structures of the jaw and neck region. “Yolk sacs” do not contain yolk. They are blood-

forming  
sacs that  
supply  
blood to  
the

developing baby until the long bones take over that function. The “tail” is not a tail but, instead, is important for muscle and tendon attachment. Why do the textbooks label them as such unless someone is deceptively trying to convince students of evolution? ([http://www.discovercreation.org/newsletters/2003\\_Winter.htm](http://www.discovercreation.org/newsletters/2003_Winter.htm) )

## 6. Claim: You could choke to death! There can’t be a Creator.

Reality: According to atheist Richard Dawkins, to design a system where we breathe and swallow through the same tube, “is the height of stupidity!” Hmmm... How many of you choked to death today? Something is working! Where would you put another tube? Like a good Swiss army knife, our Master Designer fit many dual functions into a small space. His design gives us the ability to cough up food when it gets stuck rather than using a plunger. It also allows speech to be possible since airflow, and the position of the teeth, tongue, and mouth, are all necessary to be in place and functioning together. <http://www.discovercreation.org/wp-content/uploads/2015/05/n2014-6lo-res.pdf> )

For several more “so-called” proofs for evolution currently used in the classroom, see [www.DiscoverCreation.org/articles/bestproofs](http://www.DiscoverCreation.org/articles/bestproofs). This includes Darwin’s finches, antibiotic resistance, the peppered moth hoax, pseudogenes, retro-viruses, stickle-back fish, etc. **AOI**

