Badlands National Park/Black Hills with a Biblical View

- 2 Badlands National Park
- 8 Bear Butte State Park
- 9 Black Hills
- 10 Black Hills Petrified Forest
- 12 Buffalo (Bison)
- 14 Buffalo Gap
- 15 Caves
- 17 Custer State Park
- 18 Devils Tower
- 20 Fossil
- 21 Fossil Cyad National Monument
- 22 Gold
- 24 Hill City Dino Museum Black Hills Museum of Natural History
- 25 Lemmon, SD: Petrified Wood Park and Grand River Museum
- 27 Mammoth Site of Hot Springs
- 29 Mount Rushmore National Monument
- 31 Museum of Geology Rapid City, SD
- 32 Ponderosa Pine
- 33 Prairie Dogs
- 34 Pronghorn Antelope
- 35 Spearfish Canyon
- 36 Stave Church Chapel in the Hills Rapid City, SD
- 38 Theodore Roosevelt National Park

Badlands National Park

The badlands national park is just off I-90 with a 32 mile loop through revealed layers of clay, sand, and volcanic ash laid down during the Flood of Noah's day. The French explorers called this area, "bad lands to cross" and so it is!

Starting at the East entrance

East entrance to the Park and Big Badlands overlook

This gives you a big view of the badlands. A quick look will show that the Badlands were deposited in layers. Notice the layers are horizontal. Follow one strata line and then follow another. There is no evidence of weathering or erosion on boundaries between layers, the contact between layers is "knife-edge" sharp. If this were laid down over slowly over millions of years there should be soil layers at each layer. Also if these layers were laid down slowly over millions of years, the creatures should have mixed the soil and it should appear homogenous. As it is these layers reveal they were laid down quickly in a flooding event. Scientific research shows that flowing water lays down sediments in layers. The Badlands testify to a worldwide Flood as mentioned in the Bible.

Door and Window Parking area

The Door trail is so named for a break in the wall. This marks the upper prairie from the lower prairie. This thick ridge is over 100 miles long and called "The Wall". The city of Wall and Wall Drug take its name from this ridge.

Ben Reifel Visitor Center

A small visitor center to helps you understand the park better.

Notice the eroded badlands around you. Pick a strata line and follow it from butte to pinnacle. Now read above **Notice the horizontal bands of sediment.**

Horse evolution exhibit

Creation scientists have examined 19 fossil horse species. Statistical analyses revealed they belong to the same "horse kind". Horses range from the small miniature horses to the large Clydesdale. (Thumbelina is a miniature horse that is 17 inches tall.) Horses vary from having 17-19 ribs. Some are born with one toe and others with more. All are just a variety of the horse kind. The same can be said of the variety we find within the dogs, from poodle to Great Dane.

Horses were created on Day 6 of creation week some 6,000 years ago. Noah took 2 horse kinds on the Ark, a male and female. The ones that we find in the fossil record are the ones that did not get on the Ark. After the Flood, the 2 horses left the Ark were fruitful and multiplied over the earth.

(Museum Guide: a Bible-based Handbook to the Museum. 2006. Answers in Genesis. p. 83.)

Fossil Exhibit Trail

In the Badlands we find in the lower grayish-black sedimentary rock called the Pierre Shale, clams, crabs, snails and baculites (squid like creature with a long shell tightly

coiled at one end). Notice the lower stratum has marine fossils. What are ocean creatures doing in South Dakota? They were caught in a world-wide flood. These fossilized creatures were caught in black mud which compressed and turned into rock (shale). This 2,000 foot thick band of rock is known as Pierre Shale. When asked of the ranger about the clams, "Do you find them mostly open or close"? Closed clams. Close clams mean they were buried alive and then died. When clams die naturally, their muscle relaxes opening the shell. Most the time on beaches you will find separate halves of the shells. With both halves still together means the clam must have been buried deeply and fast. Living clams can dig them themselves out of many feet of sand. Finding fossilized clams with closed shells testifies to rapid, deep, burial such as would be found in the Genesis Flood.

In the next two layers, Eocene and Oligocene epochs fossilized mammals are found. Saber tooth cats, miniature camels, horses the size of a collie dog, deer the size of a house cat and gigantic rhinoceros like beasts called titanotheres. Tintanothere means Giant (Titan) creature (Theres). Pigs (oredonts), the size of a large dog, are the most common mammal fossil found in the park. No dinosaur fossils have been found in the park. An excellent display of fossils found in the Badlands is on display at the **Museum of Geology School of Mines and Technology in Rapid City.**

White River Valley Overlook

Notice the strata lines.

- 1. no evidence of weathering or erosion on boundaries between layers
- 2. sharp "knife-edge" contact between layers
- 3. lack of bioturbation
- 4. lack of soil layers

Bigfoot Pass Overlook

Notice the strata lines. See above Notice the horizontal bands of sediment

Also, these layers of sediments are underneath the upper prairie. A lot of erosion had to happen to reveal what we see. Where are the eroded sediments? Washed clean away.

Burns Basin overlook and Homestead Overlook: Notice the strata lines. Scientific experiments show that flowing water separates sediments into layers.

<u>Conata Basin Overlook</u>: Notice the strata lines. How does soft, loose sediment turn into solid rock? It's the same way we make concrete, after all concrete is just artificial rock. The concrete company breaks up bigger rocks into smaller rocks and adds cement (limestone/clay) and water. Cement mineral crystals grow around the rock and we have concrete. The two most common cementing agents are calcium carbonate (the lime in limestone) and silica (silica rock cement in this form are like little packs of silica gel that get packed with electronics, they rapidly absorb water and form crystals.) During the Flood, the earth was one big cement mixer.

(The Fossil Book by Gary and Mary Parker, 2005, p. 7-8.)

<u>Yellow Mounds Overlook</u>: the sign says these are the remains of 87 soils, some are red, yellow and purple.

<u>Pinnacles Overlook</u>: Today we see layers of varied colors sweep across the landscape These layers were laid down by the Flood. Scientific experiments have found that flowing waters laid down sediments in varied layers. Then, massive amounts of water

eroded the landscape revealing these strata layers which are evidence of a worldwide Flood. Here in the Badlands erosion has reveal the history of the Flood of Noah that is usually kept hidden.

How did the Badlands form?

During the year long Flood during Noah's day, the earth experienced catastrophic restructuring. In Genesis the "fountains of the great deep" burst forth and poured water onto the earth's surface for 150 days (5 months). At the same time, "the floodgates of heaven" opened and torrential global rains fell. These waters eventually covered "all the high hills under the whole heaven." So that all the air-breathing, land dwelling creatures died. Only Noah, his family and those creatures he took on the Ark were saved. This world wide catastrophe lasted over a year (370 days). As the Flood waters swept across the continents, it ripped up the earth depositing it in a different place. Add to these earthquakes, volcanoes, tsunamis, and the moon's gravitational pull on these waters and you have violent watery storm. The earth was truly being washed clean of its wickedness. Towards the end of the Flood, the waters rushed off the land masses and into the oceans. As "mountains rose up and valleys when down" Psalm 104:8, water in sheets would erode the land, soon the waters would become channalized eroding the land more deeply. Noah, his family and animals left the ark to experience a new world. The rainbow in the sky was and is a promise to us that the world will never be destroyed by a world-wide flood again.

What we see at the Badlands is the layers of strata that were laid down during this year long flood. Flood waters had swept across the continents laying down sand, clay, and volcanic ash. On every continent is the world is found extensive areas layers of sedimentary rock. Caught in these waters would have been the creatures not on the Ark Countless billions of fossils of plants and animals are found in extensive fossil graveyards world-wide. The geological column is a record of what got caught and died in the Flood not an order of green slime evolving into a human.

Look out over the badlands notice the horizontal layers. These sharply defined layers.



The Badlands give evidence of a worldwide flood. When viewing the Badlands notice the horizontal bands or layers of sediment. These sedimentary rock layers are made of tiny grains of sand, silt, mud, and clay that have been cemented together into sedimentary rocks. The worldwide Flood would have been a horrific year long event. As the "fountains of the great deep burst open", tsunamis would have swept over the continents, bringing with them marine creatures. Add to this, "the floodgates of heaven opened". This watery cataclysm would be accompanied with tremendous earthquakes and erupting volcanoes. This global watery cataclysm would result in the destruction of every animal and plant on the face of the earth, only those safely in the Ark survived. The earth was going through great upheavals. The land was being ground into sediments. Today 75% of the land surfaces are sedimentary rocks, rocks that had been ground up and laid down in violent global Flood. At the end of the Flood, the mountains rose up and valleys went low causing the waters to rush off the continents and into the oceans. These waters would have run off in sheets and caused erosion and in places like the Badlands we are privileged to see these laid down layers from the Flood revealed.

Notice the horizontal bands of sediment, each band can be traced to the next butte, pinnacle or peak, showing one continuous band. The strata are in horizontal bands. We find no evidence between the strata (bands) of weathering or erosion. If each band had been laid down over millions of years, shouldn't those years of weathering and erosion be revealed in the horizontal layers? What we find between the boundaries of sedimentary layers is a flat, featureless, knife-edge boundary. These flat, featureless boundaries are hallmarks of continuous deposition or lying down of the year long Genesis Flood.

Notice each layer of strata, the light and the dark, have totally different rock types lying one on top of the other, each layer has a very distinct "knife-edge" line between them. The existence of sharp "knife-edge" contact between the strata <u>could not</u> happen over millions of years otherwise we should see erosional features. These layers show evidence of being laid down quickly.

How were these layers laid down during the Flood? Flowing waters separates sediments into layers. Take a jar and fill it with gravel, sand, and clay, now add water. Shake it up and watch the layers form in a short time. This is but a small experiment as compared to a global flood. Moving waters sort out particles thus forming layers.



<u>Layers show lack of bioturbation</u>. Bioturbation refers to biological life mixing up the soils. Sediments that have been laid down in hurricanes quickly become mixed up by worms, clams, and plants, disturbing the layers. One study of Hurricane Carla in 1961 showed that it laid down a recognizable layer; within 20 years this layer could hardly be found, the critters and plants had mixed these sediments. If the sediments had been laid

down in the badlands over millions of years, these layers would not be so pronounced; bioturbation would have mixed the layers to almost a homogenous layer.

Each layer shows lack of a top soil. If the land had continuously supported life over hundreds of millions of year, the soil should be visible.

Extent of Sedimentary Rocks

The limestone outcrops in the Black Hills extends to the Redwall Limestone seen in the Grand Canyon to The Grand Teton Range where it is called the Madison Limestone. The limestone then extends into the Canadian Rockies. This limestone can be traced over large areas of the United States. We do not observe such extensive layers being laid down today. Today's sedimentation is limited; for such a vast area to be covered required some catastrophic event of biblical proportions for it to be produced.

Geological evidence for strata laid down in a Flood

- 1. no evidence of weathering or erosion on boundaries between layers
- 2. sharp "knife-edge" contact between layers
- 3. lack of bioturbation
- 4. lack of soil layers

Fossils: The world wide flood would have produced, as Ken Ham says, "billions of dead things buried in rock layers laid down by water all over the world". 95% of all know fossils are marine invertebrates. These creatures would have been the first to be caught in this epic flooding event. As the storms, tidal surges and tsunamis continued more and more of the land would become flooded burying plants and creatures. Those to be trapped and buried first were the marine creatures then those living closest to the shore (amphibians), and finally those farther in land, like the reptiles and finally the mammals. The surging flood waters covering these land creatures would have also brought in sea creatures. That is why in the Badlands of Theodore Roosevelt National Park, fossils finds are clams, snails, crocodiles, alligators, turtles and *Champosaurus gigas* a 10 foot long crocodile-like creature.

Volcanoes, the Flood and Bentonite Clay.......The park layers are full of volcanic ash. Volcanic ash would have been spewing out from hundreds of volcanoes during the Flood and after the Flood as the earth began to settle down. Volcanic ash weathers and decomposes into bentonite clay. Bentonite clay is mined worldwide. In the northern high plains hundreds of bentonite beds exist. Because it absorbs water wonderfully it is used in such industries as drilling wells, lining landfills, and kitty litter. These clays when wet expand and become very sticky and slick. In the Badlands area great amounts of volcanic ash were deposited over an extensive area. Notice the thick whitish-gray layers

of bentonite clay, which used to be volcanic ash! When exposed on the surface and dried



out they appear crumbly.

Bear Butte State Park

Sturgis

Bear Butte State Park is designated as a National Natural Landmark sacred to the Native Americans. But did you know that during the 1990's on the walls of this state park there was an account of "Noah" and the Flood?

There are more than 360 Flood accounts from around the world. One is even remembered at Bear Butte State Park in South Dakota (near Sturgis). There used to be posted on the walls the Mandan Indian Flood legend. Nu-mohk-muck-a-nah (Noah) escaped a worldwide flood in a dug-out canoe. "Noah" and these animals were saved and landed on Bear Butte. A dove was sent out from the canoe, and it came back with a willow branch. Then, the animals left the dug out canoe two by two. Doesn't this sound like Noah's Flood from the Bible? How did this show up in South Dakota? The ancestors of the Mandan Indians brought this history with them when they spread out from the tower of Babel. Some people will say this story is from when the Christian missionaries visited the Mandan Indians. If this were true, would they not have told about Jesus Christ? There are some 360 flood accounts from around the world. This would be expected if an awful world catastrophe, as described in the Bible, had actually happened. These ancient people would tell their children and grandchildren. These Flood accounts were brought with them as they left the Tower of Babel some 106 years after the Flood. The story would become increasingly distorted with time but the essence of the true, actual, historical event would remain. As you ascend Bear Butte, some 1400 feet above the prairie, viewing four states, you can see the reason the Mandan Indians choose this sight for "Noah" landing and the animals coming off two by two.

Inspired Evidence, Julie Von Vett and Bruce Malone, June 7, 2011

Have you considered

......that there is evidence of a worldwide flood in the historical records of many people groups from around the world. For example, the Toltec Indians of ancient Mexico record that a few men escaped the great Flood that covered the highest mountains in a closed chest. This first world lasted 1,716 years (The Biblical account has the pre-flood world lasting 1,656 years). The Toltec histories recount that after the Flood, a great tower was built and then the languages were confused. (Tower of Babel: Genesis 11). The Toltec language was spoken by 7 friends and their wives. They crossed great waters, lived in caves, and wandered 104 years until they arrived in southern Mexico. This was 520 after the great Flood. This is just one of some 360 Flood stories from around the world

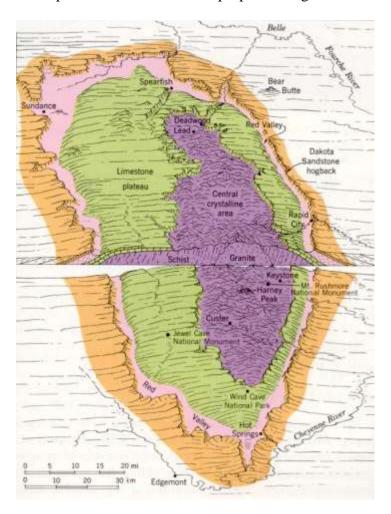
Dinosaurs by Design, Duane Gish, 1992, p.74.

Black hills

Black hills are not hills but mountains. They are smaller than the Rockies but higher than the Appalachians. From a distance they look black, this is from the spruce and pine covered slopes. Why are they called black when it is thickly covered in evergreens? Very simply from a distance these pine covered slopes look black from a distance. The Black hills is in a vast sea of prairie grasses. The Black Hills area is approximately 120 miles long and 50 miles wide. There are eighteen peaks that rise to an elevation greater than 7,000 feet.

How were the Black Hills formed?

The Flood of Noah's day (2348 B.C.) laid down sedimentary layers. Towards the end of the Flood, the mountains rose up and the valleys went low. With the Black Hills, magma below the earth pushed up like a fist. This exposed the granite basement rocks in the center of the black hills. A 7,000 foot dome of granite rock rose, forming the Black Hills. The layers of limestone, sandstone, and other sediments were tilted as a result. The green in the picture is limestone. The purple is the granite basement rocks now exposed.



Black Hills Petrified Forest

Fee

Piedmont SD (near Rapid City)

Travel west on I-90 from Rapid City and take exit 46 east about one mile to a privately owned petrified forest. According to Arthur Manning book *Petrified Wood in the USA*, this is one of the top 10 petrified wood sites in the USA. Some of the logs are large, over 100 feet long. This is also the sight were they found the brontosaurus, today called an apatosaurus.

This is a small mom and pop operation. The self-guided tour begins with a short evolutionary movie on the formation of the Black Hills. Then you meander through the woods to view some <u>25 stations</u> of petrified wood. Petrified wood pieces lie where they were found.

How did these pieces of wood petrify if sediment slowly covered it over millions of years, would not it have rotted away before it was completely covered? Tree today do not die and become petrified instead they rot away. It takes very special conditions for a piece of wood to petrify.

Petrified wood

Evolution would want you to believe that it takes millions of years for wood to petrify or turn to stone. It doesn't take a long time for wood to petrify. It takes the right chemical conditions for wood to become petrified. For example, a farmer's fence posts below the ground dating from the mid-1800's, were found totally petrified! The top portion had rotted away while those in the ground had petrified! A piece of wood was dangled in Yellowstone's silica hot springs for a year and was found to be substantially petrified! Petrified wood can be found at the chapel of Santa Maria de Salute in Venice, Italy. This massive stone block chapel was built in 1630 to celebrate the end of the Plague. The city of Venice is built on water saturated sand and clay, so the chapel's foundation was reinforced with 180,000 wooden pilings. How have these wooden pilings remained firm for some 400 years? They are petrified! The once wooden pilings have turned to stone!3 It does not take a long time to petrify, just the right conditions. Petrified wood is not as rare as you may think. In fact it is an abundant fossil and found worldwide. To make petrified wood, wood needs to be buried in oxygen-poor sediment. Water then percolates through the ground bringing with it minerals. Cell by cell, the original wood is completely dissolved away and replaced. The ideal environment for wood to become petrified is burial by volcanic ash. This provides the needed minerals and hot water for the wood to petrify. The color of the petrified wood depends on the minerals in the water. Arizona's petrified wood is famous for its yellows and reds (from the iron minerals) and

green and blues (from the copper). The petrified wood of the Dakotas are usually very light brown or cream colored.

The Flood of Noah's day would have had the right conditions in order for wood to petrify; the trees had to be buried quickly before decomposing. Living trees that die and fall in the forest will decompose from fungus, bacteria and other creatures. Flood waters would have percolated down into the soil extracting minerals and depositing them in the wood. Petrified wood is abundant and worldwide, yet it rarely occurs today because of the special conditions required. What event in history would have worldwide deep burial of wood in a water saturated ground? The Flood of Noah's time provides the answer.

So the next time you pick up a piece of petrified wood, realize you are holding a piece of evidence for a worldwide flood, the Flood of Noah's day.

- 1. Ham, Ken, ed. 2010. *The New Answers Book 3*. Master Books: Green Forest, AR. p. 96.
- 2. Morris, Dr. John. 2002. *Geology*. Master Books: Green Forest, AR. p.71.
- 3. Snelling, Dr. Andrew. September 1995. "Instant Petrified Wood". *Creation Magazine*, p. 38-40.

Buffalo (bison)

Annual Buffalo Roundup and Arts Festival, www.custerstatepark.info Custer State Park, Custer

Has one of the largest herds of buffalo anywhere, nearly 1,600. The Wildlife Loop road is prime buffalo range.

Bison roundup. This two day even is held the first Monday after the last weekend in September. The herd thunders over hills, charging through ravines to a huge holding area. This event is called "Feel the Thunder". The bison are herded into chutes, branded, vaccinated and culled out. After the roundup, the 950 that are culled are returned to roam the park.

Have you considered

.....the buffalo (bison) survive the heat of summer and the deep freeze of winters. Why aren't there white bison? White reflects the sun's summer heat which would make it a good summer color for bison. During the winter, the white would cause the bison to blend with the snow and not be easily hunted by wolves. But white bison are rare. White bison do not multiple but dwindle and disappear.

Bison have dark coats. During the winter, it absorbs the sunlight, giving it heat. Bison are just like elk and deer, during the winter they loose their appetite, producing less heat. Food is scarcer in the winter. Experiments have found they eat 30 % less food in February and March than in April and May, even when abundant food was provided. The bison need to stay warm in winter so they have dark coats. Their hair provides wonderful insulation. When an infrared device was used for a winter census, the elk and moose were clearly seen, but the bison hardly showed up. The bison appeared as crescents. The crescents were the bellies of the bison. The bison's skin side was its body temperature while just fractions of an inch away the outer layer was below freezing. Humans loved the buffalo robe, it was highly prized; it kept them warm even in the most frigid of winter days. Every square inch of a bison's skin is covered with ten times more hair than that of a cow.

Summers brought extreme heat, so bison would shed their winter coats. The constant winds on the prairies would blow away some of the heat. But still the sun is hot and the dark coat absorbs heat. Bison don't sweat. However, they breathe. They lose their heat by evaporating water in their lungs. For evaporative cooling to work well, lots of water is needed.

The bison was designed to survive on the prairie with its extremes of hot and cold.

Lott, Dale F. 2002. American Bison. p.53-56.

Bison and the Indians

Bison were designed by God to provide the Indians the ability to survive on the vast plains of North America. These animals supplied thousands of Indians with food, clothing, and shelter. Every part of the bison was put to use.

Meat: used fresh or dried. In the autumn the meat has the best flavor. Indian would hunt and kill many bison in the autumn in order to cut and dry it into strips; this dried meant was call pemmican (jerky).

Hides: For durable clothing and tepees.

Stomachs, bladder content for holding nuts, berries and pemmican

Tallow: used for waterproofing Hooves used to making glue Dried dung: fuel for fires Tail: for quiver for arrows.

Literally from tongue to the tip of the tail, virtually every part was designed to be used by the plain Indians. God provides us with what we need; God provided the plains Indians with a unique animal called the bison.

Once abundant beyond comprehension on the Great Plains, they nearly went extinct. In the early 1800's, an estimated 40 million bison roamed the plains of North America. One hundred years later, only a few hundred bison remained having been slaughtered by the tens of hundreds. These animals were slaughtered for their hides with the carcasses left to rot. The West was covered with the decaying bones of thousands upon thousands of slaughtered buffalo. Yet of all the millions that were slaughtered do we find any of their bones left? No, they have decomposed over the years. It takes very special conditions for a bone to turn into a fossil. Those special conditions would have been present at the time of the Flood of Noah's time.

During the 1800's it was estimated that 40 million buffalo or American bison once roamed the vast plains of North America, within 100 years there were fewer than 1,000 left.

Bison have a sharp sense of smell and excellent hearing, with their eyesight being poor. They can run at top speeds of 35 mph for an hour and can also swim. These giant beasts chew the cud by grazing as they migrate. Wolves and coyotes are there only two enemies, except for man which slaughtered them during the 1800's for their hides only. The early settlers left the caresses to rot. The West was literally covered with the decaying bones of thousands upon thousands of slaughtered bison. Yet of the millions that were slaughtered do we find any of the bones left? NO, they have decomposed over the years. Evolutionists would like us to believe that a fossil that is hard as rock is made by an animal dieing and then slowly being covered with sediment. If this were true we should have lots of bison bones fossilized. In reality, it takes very special conditions for a bone to turn into a fossil. It needs fast, quick coverage of sediment so no air would be present (no decomposition) and lots of water. The water brings the minerals from the sediment to the bones and chances it into stone. What event in history would have lots of water and critters being covered with vast amounts of sediment? The Flood of Noah's day. Fortunately today the bison are making a comeback and are flourishing on the plains of North America again.

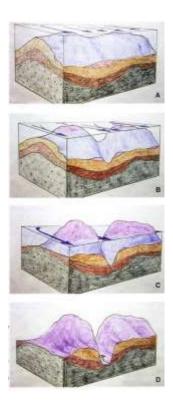
https://answersingenesis.org/kids/mammals/american-bison/

Buffalo Gap

SD 79

Water and wind gaps are common and have been found worldwide, yet they are a mystery to many scientists to how they were formed. A wind or water gap is a shallow notch in the upper part of a mountain ridge. The notch is an erosional notch and not one caused from faulting. We find such a gap at Buffalo Gap on SD 79 near the Hot Spring's mammoth site. This dry gap was a favorite access route to the Black Hills. It is just a notch between ridges/hills/mountains. Many places around the Black Hills have water gaps. Geology of SD, mentions near Fort Meade at Sturgis, "The road wanders through the foothills, cuts through the next water gap to the south and joins I-90..." p.163. OR p. 220, "The few main streams that cross the Red Valley, which leave the Back Hills through gaps in the Cretaceous hogback." How do gaps fit in with the Flood? As the Genesis Flood water rushed off the continent they were like a sheet which we called sheet erosion. Then as the waters became less, they began to channelize. These energetic waters would have cut gaps directly into the stationary or rising ridges. Once an initial notch was formed, the waters sped through the notch creating the gap we see today. Today, if a river runs through the gap it is called a water gap; if only wind blows through the gap it is called a wind gap. All over the world we find water and wind gaps, but of course we would the Flood was a powerful event!

Oard, Mike. 2008. Flood by Design. Master Books: Green Forest, AR. p.95, 98-100.

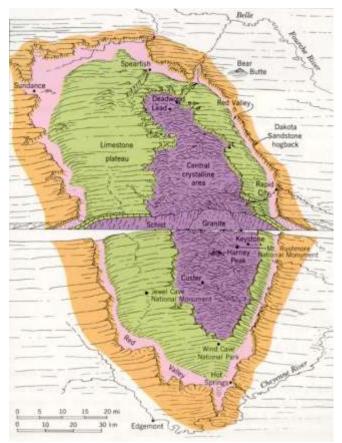


Caves

Beautiful Rushmore Cave, Keystone Beautiful Wonderland Cave, Nemo Back Hills Caverns, Rapid City Crystal Cave Park, Rapid City

Jewel Cave National Monument, Custer- pay for tour only, no need for a national park pass

Wind Cave National Park, Hot Springs- pay for tour only, no need for a national park pass



Notice the list of commercial caves able to be visited. Circling the Black hills is a belt of limestone caves. Great tectonic forces caused magma to be pushed up, revealing the granite basement rocks. The limestone that encircles this granite is gently tipped. Jewel Cave National Monument with 142 miles of mapped passages is known for its calcite crystal formations of dogtooth spar and nailhead spar. Wind Cave National Park has 128 miles of passages with the rare crystal formations of boxwork. The other Black Hills caves offer other cave formations such as stalagmites, columns, flowstone, frostwork, and cave popcorn.

Caves

How are caves formed?

Erosion does not happen only on the surface; it can happen underground too. Groundwater can erode rock, especially limestone resulting in caves. Once the cave is formed the decorating begins, dripping water from the ceiling may leave a deposit forming an icicle-like structure hanging down (stalactite). This water may drip down to the floor leaving a deposit and forming a stalagmite. When groundwater dissolves limestone, it must eventually redeposit it. Since cave formations are formed drop by drop, it is often assumed that it took million of years for these formations to form. However, in the basement of the Lincoln Memorial and other places there are both stalactites and stalagmites; these did not take millions of years to develop, just the right conditions.

Biblical view:

Have you considered the origin of caves? Most caves are limestone caves. They are usually found in nearly pure limestone layers hundreds of feet thick. There are two stages of cave formation: 1. the cave itself, 2. the decorating of the caves (stalactites, stalagmites...). The Flood of Noah's day would have laid down these nearly pure layers of limestone. At the end of the Flood, "the mountains rose, the valleys sank (tectonic activities)" ~Psalm 104:8. These tectonic activities would have caused many cracks in the limestone which would have allowed waters to drain through them. These were no ordinary waters but waters rich in acid, acids from volcanic activity, decaying dead animals and vegetation from the Flood, which would have quickly eaten away limestone forming the cave tunnels.

Now stage two: decorating the caves, these decorations were formed by waters loaded with limestone. Just after the Flood, the ground would have been much wetter, due to the Flood waters and the post-Flood Ice Age. Limestone rich waters dripped from the cave ceilings and evaporated, leaving behind a variety of cave decorations. Since that time, the water supplies have decreased, and the growth of cave decorations has slowed. When we put on our Biblical glasses, we can see where caves formation and decoration fit in. Limestone cave formations began with the Flood of Noah's day some 4,300 years ago.

Oard, Michael J., Tara Wolfe & Chris Turbuck. *Exploring Geology with Mr. Hibb*. Creation Book Publishers: Powder Springs, Georgia. p.61-63.

<u>Jewel Cave:</u> Jewel Cave does not have the "normal" cave formations of stalactites and stalagmites but an abundant of sparkling jewels of calcite crystals. When visiting this cave you may feel like you are walking around in a geode. These calcite crystals are known as cave spar. Cave spar is any relatively clear cave mineral with large crystal faces. At Jewel cave this mineral is calcite, the stuff of limestone. The growth of spar rather than other cave formations such as stalactites and stalagmites requires a barely saturated solution left in a quiet stable environment over some time. This allows the crystals to grow. Some calcite crystals can be large; a cave in Romania has crystals that are 30 inches in length. The Chicly Bowl Cave in Arkansas has a calcite spar crystal about 5 feet long. Calcite crystals are the most common spar crystals found in caves, another spar mineral that is common is gypsum. Gypsum is found in sheet rock. Gypsum spar crystals have been found in the caves near Naica, Mexico. These spar crystals made of gypsum are 50 feet long. Investigation of this pocket of crystals has been hampered by 150 degree F temperatures and 100% relative humidity.

The Rock Rustlers News 2008 *Minnesota Mineral Club, Inc.* newsletter, February 2008, "Cave Spar", Dr. Bill Cordua, p.10.

<u>Wind Cave</u> has few stalactites and stalagmites but has the unusual formation called boxwork. Boxwork is thin honeycomb-shaped structures made of calcite (a mineral from limestone). Boxwork resulted from veined limestone.

Custer State Park

This is a huge state park! It has three scenic roadways. **The Wildlife loop**, 18 miles of road in which you will probably see bison and burros (you may feed the burros, so bring some carrots/apples...). This park is home to some 1,300 bison. Each fall they host the Buffalo Roundup, where you can see buffalo thunder across the grasslands as park staff and local cowboys round up the herd in order to sort, vaccinate and sell. Other wildlife seen on this loop is pronghorn antelope and prairie dogs.

Iron Mountain road takes you through wonderful scenery and tunnels that frame Mount Rushmore. Be sure to start at the south end so you are able to see Mr. Rushmore framed beautifully in the tunnel! Worth the drive!

Needles highway (14 miles) takes you to towering granite spires and Needle's eye. Wonderful drive!

Custer Park also offers gold panning. See Gold

Devils Tower

Just outside the Black hills in northeastern Wyoming stands a spectacular erosional remnant, Devils Tower. It is nearly a vertical igneous body some 900 feet tall towering over the grasslands. The circumference at the base is one mile. Devils Tower is possibly the remains of a volcanic neck or a plug of magma that never reached the surface. How was this formed?

Magma was pushed upward through sedimentary layers and into place underground. At that time, the land surface would have been 3,000 feet higher, which would be 1,800 feet higher than the top of the tower!

The thick magma had to have solidified *before* the surrounding materials were eroded, otherwise the plug shape would not have been retained. Long columns grace the sides of the tower, most are five-sided. These columns are called columnar jointing. Columns are formed when the magma is cooled quickly causing it to contract, forming cracks. As it continually cooled, the cracks enlarged forming columns. Most columnar jointing is five or six-sided, however three to seven sides can be found. The lengths of these columns at Devils Tower show that it was one pool of magma, not a series of small flows on top of each other. Columns form perpendicular to the cooling surface, in this case, the cooling surface was horizontal, leading to vertical fractures.

How was Devils Tower exposed? The land would have been cut flat to the level of the top of the tower and the surrounding high hills and then a wide valley was cut revealing Devils Tower.

Now let's put on our biblical glasses with the Genesis Flood in mind. Sedimentary layers were laid down in the Flood. Toward the end of the Flood, Devils Tower magma was pushed into place. Then other mountains rose up and valley went down (Psalms) and the waters rushed off the continents in sheets flowing to the oceans. These sheets of water thousands of miles wide would have cut wide flat landscapes; originally the land above the tower was 1,800 feet higher. The sheet flow would have cooled Devils Tower from the top, causing the cracks, producing the vertical columns.

As the floodwater decreased, the water flow would have divided into large channels and continued to erode the landscape. One of these channels cut the wide valley around the tower. These sediments are not found down slope in some huge flood plain area; they have been swept clean. The tower did not erode because it is composed of hard volcanic rock. Devils Tower is a remnant of catastrophic erosion that took place at the end of the Flood.

Why Devil's Tower cannot be millions of years old.....

- 1. The tower exists, if millions of years old, it would most likely have eroded completely away.
- 2. Devils Tower could not be millions of years old, for it would have totally disappeared in a million years from the freeze-thaw cycle. Water from storms fill the cracks in the columns and then freeze during the cold months, enlarging the cracks causing the columns to crumble to the ground. Devil's Tower should have been destroyed in less than 100,000 years because of the freeze-thaw weathering.

Notice there is a modest amount of talus (fallen rock debris) at the base of the tower. Devils Tower is thousands of years old (The Flood took place about 4,300 years ago), not millions.

3. The erosion had to be rapid for the tower is steep, if the water flow have been slow, the tower would have been much smaller at its base. As it is, Devils Tower is almost vertical.

We can better understand the tall erosional remnants like Devil's Tower, in the landforms we see today when we view then with biblical glasses. In the late stages of the flood, the water rushed off the continent in sheets. As the flood water subsided, they would have flowed in wide channels, eroding the landscape leaving remnants like Devil's Tower.

"Devils Tower can be Explained by Floodwaters Runoff", Michael Oard, Journal of Creation August 2009, p. 124-127

"Devils Tower and Bible Glasses", Tas Walker, Creation, June 2002, 20-23

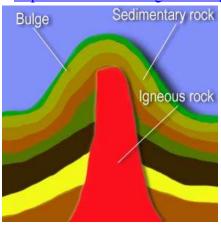
http://creation.com/devils-tower-explained

Drawing flood by design p. 62 not

http://www.unmuseum.org/devtowergeo.htm



http://www.answersingenesis.org/articles/wog/devils-tower



-As you travel down the hill from the tower, look for a gravel road on your right that leads to the Joyner Ridge trailhead, this offers another incredible view especially an hour prior to sunset.

Fossil

Have you considered

......how a dinosaur fossil is made. A fossil is a rock. It takes very special conditions to make a rock or fossil. Think about this, what happens to a dead animal? Scavengers eat it; bugs and bacteria cause it to rot and decay, eventually leaving no remains behind. It takes very special conditions in order to make a fossil. Here is the general fossil recipe:

- 1. Fast coverage by sediment. So, scavengers and bacteria don't eat it.
- 2. <u>Deep coverage</u> by sediment so no oxygen is present to start decay.
- 3. Lots and lots of water so the minerals can seep into the bone and turn it into stone.

What event in history had fast, deep coverage with lots of water? The Flood of Noah's time. Every time a dinosaur fossil is dug up, it is a reminder of this Flood. Fossils remind us of God's judgment and God's mercy. God's judgment in that He destroyed the entire world with a worldwide flood because it was so wicked. God's mercy in that He saved Noah and his family on the Ark. Every time a dinosaur bone is dug up, it reminds us of God's judgment and God's mercy; fossilized dinosaur bones are really missionaries to the world.

Fossil Cycad National Monument in the Black Hills

One of the world's largest concentrations of fossil cycads was found here. Literally hundreds of fossil cycads, a small palm looking like plant was found here! That's why it was made a monument. However so many collectors removed the fossil cycads that it is not longer a place to visit and the National Monument was decommissioned. Lesson to be learned: Do not remove stuff from national parks and monuments; leave them for future generations to appreciate. Location: on Hwy 18 between Hot Springs and Edmonton on the north side between country road 185 and 18S.

(Manning, Arthur. 2002. Petrified Wood in the USA. p.74-75)

Gold... "Black Hills or Bust"

Word leaked out that "ther' were gold in them ther' hills". The year 1876 proved to be a full blown gold rush to the Black Hills. At first gold was panned for in the streams, as that played out, mines were opened. One of the most famous mines was Homestake mine. This mine produced gold decade after decade.

Homestake Mine: the complexity of the gold ore was not fully understood until it was mapped out. The gold ore lay sandwiched between two very thick rock units. As *Roadside Geology of South Dakota* states, "All the rocks are of sedimentary origin, deposited in an ancient, shallow sea (p.226)...."Repeated folding and shearing of the entire sequence left the outcrop of the thin Homestake formation (the gold ore is here) resembling a piece of old-fashioned ribbon candy. Folding left the rocks tightly wrinkled...(228)" How do you fold rock? Would it not break and fracture? It only can be folded when still pliable. The layers were laid down during the Flood and folded. The miners referred to these sharply folded areas of the crests and valleys as ledges. They went on to number these ledges, the valleys with odd numbers and the crests with even numbers.

Gold can be formed in an instant...

Scientists have discovered that gold veins can be produced in an instant (a few tenths of a second) and not over deep time. Veins of gold are produced when hot fluids flowing through cracks deep in the earth's crust depressurize rapidly causing the minerals and metals to fall out of the hot fluid solution. The "flash deposition" of gold is a result of earthquakes opening up cracks. Gold can be found in these fault jogs - the sideways zigzag cracks that are connected to main fault lines in rocks. Earthquakes can make gold veins in an instant as the pressure changes causing the precious metals to be flash deposited. Gold does not take millions of years. During the Flood of Noah's day there would have been intense earthquake activity, which would have produced gold in an flash. The world desires gold, yet gold pales in comparison to God's Word which is "more precious than gold, than much pure gold" (Psalm 19:10).

("Gold Veins produced "in an instant". 2013. Creation Magazine. 35(3)7.)

Surface Tour of a gold mine

Homestake Mine in Lead: Surface tours of a gold mine that yielded more gold than any other mine in America, about 250,000 ounces of pure gold annually.

Gold Mine tours

- 1. Big Thunder Gold Mine, Keystone
- 2. Broken Boot Gold Mine, Deadwood

Pan for Gold

You can learn to pan for gold today. Find gold panning lesson at Black Hills Mining Museum in Lead, Broken Boot Gold Mine in Deadwood, Big Thunder Gold Mine in Keystone or **Custer State Park**. A summer afternoon is the perfect time to pan for gold!

Museum of Geology at the South Dakota school of mines and technology: replicas of famous of gold nuggets.

Devotional:

In Malachi 3:2b-3, it states, "For he will be like a refiner's fire... He will sit as a refiner.. and refine them like gold and silver." The Bible says that God will refine us like a goldsmith. Very few pieces of gold come out of the ground in a pure state; they have impurities running through and around it. In the past, refiners would refine gold with a very hot fire; this caused the gold to melt. Once melted, the impurities would rise to the top and the refiner would skim them off. The refiner continually monitored the heat for if the heat is just the slightest degree exceeded, the gold is injured. How would the refiner know when the gold was pure? He would see his face reflected in the molten gold. We are that piece of impure gold that needs to be refined under the refiner's watchful eye. The heat from the fire is not too great yet it needs to be hot enough for the impurities to separate. "But he knows the way that I take; when he has tested me, I will come forth as gold." Job 23:10

Old time hymn: "How firm a foundation"- one verse

"When through fiery trials thy pathway shall lie, My grace, all-sufficient, shall be thy supply. The flames shall not hurt thee; I only design Thy dross to consume and thy gold to refine.

When going through trials, remember you are the gold being refined to remove impurities.

Black Hills Museum of Natural History

Hill City, 117 Main Street

This museum is a fantastic museum of real dinosaur skeletons. These are the folks that dug up the famous t-rex called Sue that is seen in the Field Museum in Chicago. You can't see Sue but you can view Stan another t-rex. This museum is treasure trove of fossils, well worth the stop!

Have you considered

......how a dinosaur fossil is made. A fossil is a rock. It takes very special conditions to make a rock or fossil. Think about this, what happens to a dead animal? Scavengers eat it; bugs and bacteria cause it to rot and decay, eventually leaving no remains behind. It takes very special conditions in order to make a fossil. Here is the general fossil recipe:

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Did you know dinosaurs are mentioned in the Bible? They were not called dinosaurs but dragons. As you stand in front of an Apatosaurus (long neck dinosaur) read from Job 40:6-24. See Stave Church reading.

World's largest petrified park and museum Lemmon, S.D.



Ever seen a gas station made of petrified wood? Or a museum made of petrified wood with a floor of fossilized grass? How about 100 conical shaped structures some 20 feet tall, made of petrified wood and concretions* called "cannonballs"? How about a castle with turrets reaching 32 feet into the air, all made of petrified wood! This city park was created in the 1930's, after the towns people collected petrified wood in a 25 mile radius and brought it all together.

Petrified wood

Evolution would want you to believe that it takes millions of years for wood to petrify or turn to stone. It doesn't take a long time for wood to petrify. It takes the right chemical conditions for wood to become petrified. For example, a farmer's fence posts below the ground dating from the mid-1800's, were found totally petrified! The top portion had rotted away while those in the ground had petrified! A piece of wood was dangled in Yellowstone's silica hot springs for a year and was found to be substantially petrified! Petrified wood can be found at the chapel of Santa Maria de Salute in Venice, Italy. This massive stone block chapel was built in 1630 to celebrate the end of the Plague. The city of Venice is built on water saturated sand and clay, so the chapel's foundation was reinforced with 180,000 wooden pilings. How have these wooden pilings remained firm for some 400 years? They are petrified! The once wooden pilings have turned to stone! It does not take a long time to petrify, just the right conditions. Petrified wood is not as rare as you may think. In fact it is an abundant fossil and found worldwide. To make petrified wood, wood needs to be buried in oxygen-poor sediment. Water then percolates through the ground bringing with it minerals. Cell by cell, the original wood is completely dissolved away and replaced. The ideal environment for wood to become petrified is burial by volcanic ash. This provides the needed minerals and hot water for the wood to petrify. The color of the petrified wood depends on the minerals in the water. Arizona's petrified wood is famous for its yellows and reds (from the iron minerals) and green and blues (from the copper). The petrified wood of the Dakotas are usually very light brown or cream colored.

The Flood of Noah's day would have had the right conditions in order for wood to petrify; the trees had to be buried quickly before decomposing. Living trees that die and fall in the forest will decompose from fungus, bacteria, and other creatures. Flood waters would have percolated down into the soil extracting minerals and depositing them in the

wood. Petrified wood is abundant and worldwide, yet it rarely occurs today because of the special conditions required. What event in history would have worldwide deep burial of wood in a water saturated ground? The Flood of Noah's time provides the answer. So the next time you pick up a piece of petrified wood, realize you are holding a piece of evidence for a worldwide flood, the Flood of Noah's day.

- -Ham, Ken, ed, 2010. The New Answers Book 3. Master Books: Green Forest, AR. p. 96.
- Morris, Dr. John. 2002. The Geology Book. Master Books: Green Forest, AR. p. 71.
- Snelling, Dr. Andrew. September 1995. "Instant Petrified Wood". *Creation Magazine*, p. 38-40.

*Concretions

When handed a concretion, I thought it looked like a perfectly round cannonball and I wanted to know who made it. I found out concretions are round rocks made of silt or clay sized particles that have cemented together to look like a cannonball. They are very common throughout the rock record and come in a variety of sizes with some concretions the size of boulders. They often erode out of sedimentary layers. Is there anything inside? Some concretions have organic material within, others have no organic material. Concretions are <u>not</u> being formed today. Giant red concretions almost 10 feet in diameter can also be found having weathered out of a side hill at Theodore Roosevelt national park- north unit.

So, how were they formed? Within the Flood framework, these concretions would have formed as they were rolled along in high energy forces resulting in rapid formation and burial.

Froede Jr. Carl R., 2007. Geology by Design. Master Books: Green Forest, AR. p.82-90.

Grand River Museum- FREE

Lemmon, South Dakota

This is a creation museum with dozens of displays of dinosaurs and fossils found in the area. This museum is unique in that these are not plaster cast models but the real thing. This museum also features exhibits on the Native Americans and cowboys.

Mammoth Site of Hot Springs www.mammothsite.com

This indoor air-conditioned active excavation site features over 60 mammoths displayed where they were found and Ice Age exhibit hall displaying a walk-in mammoth bone shelter, giant short-faced bear, an American lion and Lyuba the baby mammoth.

Mammoth bones were accidentally found in 1974 as a bulldozer operator was preparing the site for a new housing project. Since then more than 50 Columbian and woolly mammoths have been found, many were left in the ground just as they were found so that you can see a working dig site in action.

Usually when we think of mammoths we think of the Ice Age. So, <u>how do mammoths</u> and the Ice Age fit into the Biblical framework?

Two factors result in an ice age: 1. Increased snowfall and 2. Cooler summers. With more snowfall and less of it melting during the summer due to cooler temperatures, snow would build up and compress into ice. But what conditions would create increased snowfall and cooler summers? The Flood of Noah's day. When "the fountains of the deep burst open" and flooded the earth, this would have warmed the ocean waters greatly, couple this with much volcanic activity. The volcanic dust would have filled the sky and blocked out the sun's warming rays causing the land mass to be cool enough so the snow would not melt. The warmer oceans would cause lots of evaporation and winds would carry the moisture onto the cold continents. The cold continents would cause the moist air to condense and fall as snow. Snow on the ground would not melt during the summer. Each year the snow would build up. Just after the Flood, ice sheets would have formed quickly around the world in the higher latitudes such as Greenland and North America. At its height, the ice sheets would have only covered 1/3 of earth's landmass. The southern edge of one of the ice sheets would have been in South Dakota. As the earth settled down and the volcanoes stopped erupting, the volcanic dust would dissipate out of the air, eventually the sun would shine on those ice sheets and the snow would melt. Creation scientists have calculated the Ice Age to last for 700 years, 500 years to build up and 200 years to melt down. What causes an ice age? Very special conditions. An ice age needs lots and lots of warm water and cooler continents. What event in history would have these two ingredients? The Flood of Noah's time.

What are mammoths?

Mammoths are essentially hairy elephants with a large shoulder hump, a sloping back, small ears, short tail and possessing curved tusks up to 11 feet long. Mammoths are of the elephant kind. Noah took 2 of each kind on board the ark. After the elephant kind left the ark, they repopulated the earth. As their numbers increased, some moved into Africa and became the African elephants, some into India and became the Indian elephants. The four basic elephants are African, Indian, mammoth, mastodon. Mammoths can be broken down further into woolly mammoth, steppe mammoth, Imperial mammoth, and Columbian mammoth. Just as we have a variety of dogs from Great Dane to poodle, we have variety within the elephant kind. Many of the mammoths into Siberia crossed the land bridge (today the Bering Strait) and traveled south into the United States. Many have wondered what froze the woolly mammoths in Siberia and Alaska. Their frozen remains

are estimated to be in the millions. After the flood of Noah's day, the far north would have been much warmer. The Arctic Ocean would have been very warm due to the fountains of the deep bursting forth and the multitude of volcanic eruptions. This warmth brought abundant rains and vegetation to the mammoths' region and a subsequent mammoth population explosion. In the later stages of the Ice Age, the climate started to change, vegetation decreased, causing the mammoths to starve. In Siberia in 1977, a frozen baby mammoth was dug up showing severe signs of starvation. Many of the mammoths starved to death and died, leaving behind millions upon millions of bones. As the earth warmed, glacial ice melted. In Siberia, great rivers flowed northward causing erosion and deposition. Many woolly mammoth remains were buried in muck and gravel. Then the northern regions gradually became frozen and have remained so ever since. Other bones and emaciated mammoths were covered by gigantic dust storms that were result of the climate drying out and temperature changes. Many of the mammoths and other animals are found buried in wind-blown silt (loess).

Oard, Michael. 2004. Frozen in Time: The Woolly Mammoth, the Ice Age and the Bible. Master Books: Green Forest, AR.

DeYoung, Donald. 1992. Weather and the Bible. Baker Book House: Grand Rapids, MI. p.118-119.

In the United States, south of the great ice sheet, animals thrived, for this was a well watered place with much vegetation. That is why we find remains of camels, llamas, giant short-faced bear, and mammoths. At the end of the one and only Ice Age (about 3,500 years ago), large animals went extinct, such as giant sloths and saber-toothed tigers. In fact, worldwide, 70% of all large mammals over 100 pounds disappeared. Many large carrion birds also disappeared. Why? When we put on our Biblical glasses, we find that as the oceans cooled to today's temperature, evaporation, and precipitation onto the continents would have been less. Also, at the end of the Ice Age, the volcanic dust would have dissipated out of the skies and some of the land masses would have become warmer and some like Siberia would have become colder. The climate was changing. The earth was drying out. Many of the once well-watered parts of the earth were drying out (like Australia, Sahara, Southwestern USA), reducing the food supply for large mammals. Without enough food, mass death resulted. Once the large plant eating mammals died, the large carrion eating birds would also be reduced in number. The end of the Ice Age resulted in the mass extinction of many animals.

What was the Great Plains like during the Ice Age like? Take a look at what we find at Mammoth Hot Springs. Mammoth Hot Springs is like a time capsule of that period. Paleontologists have uncovered the bones of camels, llamas, giant short-face bear, wolves, coyotes, Columbian mammoths and woolly mammoths plus more creatures. At the end of the Ice Age, the Great Plains was drying out. Here at Mammoth Hot Springs, thirsty Ice Age animals would have gathered at the watering hole. This watering hole proved to be a death trap as these animals could not get a footing on the steep-sided pond as they tried to get out.

As you look upon these mammoths, an Ice Age animal, think of how the Flood (2348 B.C.) caused the one and only Ice Age.

Recommend books: Life in the Great Ice Age by Michael Oard.

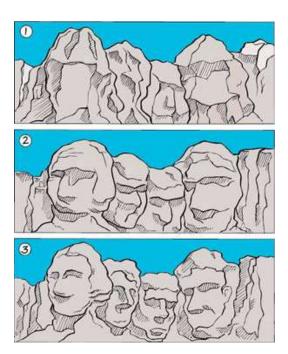
Uncovering the Mysterious Woolly Mammoth: Life at the End of the Great Ice Age, by Michael and Beverly Oard.

More technical book Frozen in Time: The Woolly Mammoth, Ice Age, and the Bible by Michael Oard.

Mount Rushmore National Monument:

Four 60 foot granite faces were carved by Gutzon Borglum. Carving began in 1927 and ended in 1941; it took 14 years and 400 men to complete. With the use of pneumatic drills and dynamite these four massive heads were carved out of a granite mountaintop. Highly skilled workers used dynamite to remove 90% of the 450,000 tons of granite. These highly skilled workers could blast to within inches of the finished surface. Then drillers used air powered tools to drill holes closely spaced together and removed the remaining rock between the holes with using hammers and chisels. Finally pneumatic drills were used to smooth out the surface, leaving the four colossal heads we see today. To go from the sculptor's models to the large scale granite rock took complicated mathematics. Also, to prevent loss of life, Borglum developed special harness for the workers. Four presidents were chosen: George Washington was the "father of our country" and our first president. Thomas Jefferson was the author of the Declaration of Independence. Theodore Roosevelt built the Panama Canal. Abraham Lincoln was president during the Civil War and was able to hold the Union together while abolishing slavery.

When you look at these four faces in the mountain, you can tell immediately that they were made by an intelligent designer. No one would believe that the four presidents' heads were the result of millions of years of erosion. We know it was designed and when we see a design, we know there must be a designer and in this case it was Gutzon Borglum.



In the same way, consider the eye....

The eye is irreducibly complex, all the pieces needed to be present or the eye would not be able to see. From the very beginning you would need the cornea, lens, retina, correct fluid pressure within the eye, optic nerve and the brain to interpret it. This is just a small list of the pieces that are needed in order to see. Evolution says that the eye evolved over millions of years, with each piece evolving as the eye needed it. How could blind chance create a seeing eye? It can not! The eye is irreducibly complex. All the pieces needed to be present at the beginning or the eye would not be able to work. The eye is very much like a camera. In fact, the camera was patterned after the eye. Camera makers proudly put their name on their product. If we say there is a camera maker, does it not stand to reason that the more complex human camera, the eye, must also has a Maker?

The hearing ear and the seeing eye, the Lord hath made them both. Proverbs 20:12

So as you gaze upon Mt. Rushmore <u>with your eyes</u>, realize that both Mt. Rushmore and your eyes were designed and created by a designer; the former by Gutzon Borglum the later by God.

Museum of Geology

501 E. St. Joseph St, S.D. School of Mines Rapid City, 57701 Monday-Friday: 9am-5pm, Saturday: 9am-6pm, Sunday: 12pm-5pm

This museum is open free to the public. Some of the best local fossils of dinosaurs, giant fish, and mammals are exhibited here. Also, there are meteorites, a fluorescent minerals room, and models of famous diamonds and gold nuggets.

Have you considered

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Have you considered

.....diamonds. Evolutionists have never bothered to check to see if diamonds had carbon 14; they assumed diamonds to be at least a billion years old. Some creation scientists were curious, so they took 12 diamonds and prepared them for carbon 14 analysis. To their amazement, every diamond was found to have carbon 14! Diamonds, according to evolutionist should not have any C-14. Carbon 14 has a half life of 5,730 years. Meaning that every 5,730 years only ½ the C-14 remains having decayed to nitrogen, so after 57,300 years or ten ½ lives there should hardly be any C-14 left. Anything over 250,000 years should contain absolutely no C-14. Diamonds still contain C-14 that means they are not billions of years old. Diamonds are young! So how do diamonds fit into the Flood model? During the Flood some 4,300 years ago, there were violent volcanic eruptions; this would have brought the diamond up in pipes from more than 100 miles down below. Diamonds are the hardest known substance, so C-14 leaching in would have been impossible. Yet, C-14 was found in diamonds. This means that C-14 had to be present in the diamonds when they were formed before they reached the surface. Diamonds are not billions of years old but young. Diamonds are a creationist best friend!

(Museum Guide: a Bible-base Handbook to Natural History Museums, 2007, p.199)

Ponderosa pine

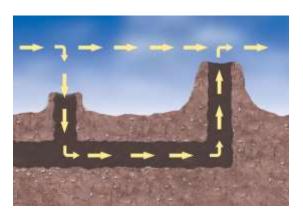
Have you considered the ponderosa pine? It is the dominate tree throughout the Black Hills towering some 180 feet high. It is able to survive a forest fire in a unique way. You can recognize a mature ponderosa pine by its bark; its thick yellow to orange plate-like bark looks like puzzle pieces. When the bark is on fire during a forest fire, these plates pop off. The tree actually sheds the fire! How did this pine know how to do this? The Ponderosa pine did not get together with other ponderosa pines and talk about the threat of forest fires and what to do about it. Pine trees can not think. God in His wisdom designed these pines to survive a fire in this manner. When we see design we know there must be a designer and that designer is God.

-Wind Cave National Park has a self guide trial that help you explore the ponderosa pine forest. Trail booklets are available at the visitor center or trailhead.

Prairie dogs

When visiting Wind cave, Custer state park, the Badlands, or Devil's Tower be sure to visit the prairie dog town. Chances are you will hear the chirping, whistling, and barking. Prairie dogs are social animals and communicate with each other using calls and body language. If you wait long enough you might see them standing erect and whistling. These prairie dogs are warning the other that their home may be under attack by coyote, hawk, snake, or ferret. Surveillance is increased for the prairie dog by reducing the grass height around the burrows to about 6 inches. Prairie dogs are not dogs but are rodents in the squirrel family. They live underground in tunnels and chambers. They come out during the day to forage on grasses, seeds, and roots. They live in towns, many with hundreds of prairie dogs. Most the time these towns cover less than half a square mile however, some towns have been enormous. One town in Texas extended 100 miles in one direction 250 miles in the other; 400 million prairie dogs were estimated to live in this one town.

Living in these burrows, one would think that the air would become stall. However upon closer observation, we see that the burrow shape creates ventilation. Prairie dogs build their mounds in such a way that air moves. Typically there are two openings. When a breeze crosses the mounds, air enters the burrow through the lower mound and leaves through the higher mound. God has created prairie dogs with the instinct to build one mound higher than the other mound. This creates a draft or chimney effect which draws fresh air into the tunnel and allows it to circulate throughout. So during the summer, the tunnels have "air conditioning". When the temperatures exceed 100 F. on the outside with the soil surface temperature reaching about 113 degrees F. the burrow temperature one foot below was a comfortable 74 degrees. During the winter, the snow covers the "chimney", not allowing the cold air to enter the tunnels.



Pronghorn antelope

Pronghorn Antelope is North American fastest mammal; from a stand still it can explosively accelerate to a speed of 60 mph and then cruise at 45 mph for many miles. This dual design of speed and endurance is unusual in the mammal kingdom. For example, cheetahs are great sprinters but only for a quarter of a mile and then they are exhausted. Or think about the Olympic runner, those that run the 100 or 200 meter dash, these athletes are usually heavily muscled in their torsos and thighs. The long distances runners- 400, 800 meters....- however, are longer limbed and scrawnier. Notice the body types for sprinters and distant runners, there is an optimal body type. Notice the pronghorn it is both a speedster and distance runner fit in one body.

With this much running...muscles heat up. Antelope run hard for long distances causing heat to build up which can be dangerous to the brain. So how does a pronghorn antelope not overheat its brain? A Pronghorn is able to keep cool because it possesses two heat exchangers in its head. As the muscles create heat, the heated hot blood moves its way through the major artery to the brain. Suddenly, the major artery branches out into smaller channels forming a network. Meanwhile, the cool venous blood, which has picked up its coolness from the ears and nose, forms a network around and near the arterial network. Now the venous blood picks up the hotness and cools the arterial network. The newly cooled blood is sent to the brain and an antelope is able to keep a cool head in the heat of the run. Did these heat exchangers happen by accident and chance? How many antelopes died from boiling their brains out before evolution accidentally evolved these heat exchangers? When you see a heat exchanger you know there must be a heat exchanger maker and that heat exchanger maker is God. From the very beginning God created the pronghorn antelope to run and to run fast and long. He needed to protect them from overheating and so created and placed within them this heat exchanger.

(Built for Speed: A year in the life of pronghorn, John A. Byers, 2003, p. 4-5, 14-15.)

Spearfish Canyon Scenic Byway

Hwy 14A

This is a beautiful 20 mile drive through a gorge with Spearfish Creek at the bottom and 1,000 foot high white limestone cliffs on every side. During the Flood sediments were laid down, one of theses sediments was limestone. Towards the end of the Flood, the mountains rose up and in this case under the Black Hills, volcanic magma pushed up like the fist of your hand. It did not push all the way through to the surface; just enough to have the Black Hills look like an island in a sea of grasslands. Waters rushed off the surface, some carving out canyons, in this case carving through the limestone and creating Spearfish Canyon. This canyon is not millions of years old, just thousands (Flood 3458 BC or about 4,300 years ago). Evolutionary geologists will tell you this canyon was carved out by this little creek over 5 millions years. If this were so, why are the canyon cliffs so vertical?

There are numerous gorgeous falls along this canyon. Bridal Falls is part of the igneous intrusion that occurred when the mountain rose up at the end of the Flood. As you drive through this canyon be amazed at the amount of limestone that was laid down during this year long Flood of Noah's Day.



In Spearfish Canyon at Roughlock Falls the rare American Dipper or Water ouzel can be seen.

American Dipper

A small bird that loves to dip when beside a fast-flowing river is called the little dipper or water ouzel. This little bird not only flies but swims. He even strolls on the bottom of the stream turning rocks over with his beak and feet to find his food. He does not have webbed feet so he uses his wings as oars to move through the water. He uses his air sacs to rise to the surface and compresses the air out of these sacs to submerge. The dipper's eyes have a special lens curvature for underwater vision AND nasal flaps in his nostrils to close when diving, who wants water up his nose. Evolutionists will say this bird evolved, why would he have to evolve all this underwater equipment when he could just as easily gotten his food off the ground? Our heavenly Father just loves to show His creativeness! "All Your works shall praise You, O LORD," ~ Psalm 145:10

Chapel in the Hills (A stave church)

Free

3788 Chapel Lane, Rapid City

Open 7 a.m. until dusk daily from May 1 through September 30. Vespers (worship) services begin at 8 p.m. each evening from mid-June through late Aug.

What do churches and dragons have in common? Both are true.

This little stave chapel built in 1969 is a replica of the Borgund Church in Norway which was built about 1200 AD. While the rest of Europe was building towering cathedrals out of stone during the medieval times, Norwegians were building churches out of wood. Stave churches had mighty wooden corner posts (staves) and the walls were made of planks placed vertically. The stave churches were then ornately decorated with carvings, many times with dragon motifs. When visiting this church look to the roof and see the carved dragons. Dragons on a church, sounds fanciful?

Do you know that the Bible mentions dragons? The translators did not call them dragons, they could not figure out what kind of creature was being mentioned, so they just transliterated the Hebrew word. Here is a partial description of Leviathan in Job 41: "his strong scales are his pride" (v.15), "His sneezes flash forth light" (v.18), "Out of his mouth go burning touches; sparks of fire leap forth. Out of his nostrils smoke goes forth as from a boiling pot and burning rushes. His breath kindles coals and a flame goes forth from his mouth". (v.18-21), "when he raises himself up, the mighty fear" (v.25). Sounds like a fire breathing dragon doesn't it?

Dragon legends are numerous around the world. The Chinese are famous for their dragon stories and have always displayed dragons prominently on their pottery, carvings, and embroidery. Some old books record that the Chinese kings used "dragons" for pulling royal chariots on special occasions. One family even kept "dragons" and raised the offspring. European accounts speak of knights fighting dragons like England's story of St. George who slew a dragon and saved a village from further harm. The Vikings built ships with carved dragon heads on the prows. The emblem on the Flag of Wales (Great Britain) is a dragon.

Dragons were real creatures; only today we would call them dinosaurs. The word dinosaur was invented in 1841. Are dinosaurs mentioned in the Bible? YES, not the exact word but the description. In Job 40: 15-19 it speaks of a Behemoth, "Look at the behemoth, which I made along with you and which feeds on grass like an ox. What strength he has in his loins, what power in the muscle of his belly! His tail sways like a cedar; the sinews of his thigh are close-knit. His bones are tubes of bronze, his limbs like rods of iron. He ranks first among the works of God." This awesome creature was huge a gigantic beast! Even the behemoth's tail was huge and strong; God compared the tail to the ancient world's largest and most spectacular trees - the gigantic cedars. Yes, dinosaurs are mentioned in the Bible, but with different words.



Where did dragons/dinosaurs come from? God created all the land animals including the dinosaurs on day number six of creation week (Genesis 1:20-25). The swimming creatures were made on day number five, which would have included the swimming reptiles like the plesiosaurs.

What happened to most the dinosaurs? They were killed in the worldwide Flood of Noah's day. We dig them up as fossils today.

Did any of the dinosaurs go on the Ark? Yes, Noah took animals that had the breatheof life in its nostrils. Creation scientists calculate that Noah had about 50 kinds of dinosaurs or about 100 dinosaurs on the Ark.

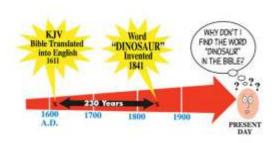
Did they get off the Ark? Yes. We find accounts of dinosaurs in dragon legends from around the world

What has happened to the dinosaurs that got off the Ark? Most have gone extinct through environmental changes, for the world after the Flood was quite different, also people began killing them.

What do churches and dragons/dinosaurs have in common? Both are <u>true</u>. So as you look at the church's roof notice the dragon/dinosaur heads, know that people and dinosaurs did live at the same time. These Norwegian's personally saw or knew of these living dragons/dinosaurs.

(Taylor, Paul S. *The Great Dinosaur Mystery and the Bible*. 1987. Chariot Books, David C. Cook Publishing Co: Elgin, IL.

Ham, Ken. 1998. The Great Dinosaur Mystery Solved! Master Books: Green Forest, AR)



Theodore Roosevelt National Park, ND South Unit:

<u>Painted Canyon Visitor Center</u>, just off I-94. This gives a panoramic view of the multicolored strata. The horizontal layers are beds of sedimentary rocks. Read about in the Badlands of SD (see page).

Petrified Forest hike: This park claims it has the nation's third greatest concentration of petrified logs and this is quite believable! This hike will take you to a remote place with a high concentration of logs and stumps, many gigantic! These petrified trees are sequoia and bald cypress. What aren't cypresses, found in swampy Florida? North Dakota is hot and arid during the summers and frigidly cold during the winters. The environment must have been very different before the Flood of Noah's day. Notice the logs have no roots and no branches. The jumbled mess of petrified logs testifies to a violent flood that ripped the trees up and moved them around! They did not grow here but were probably rafted here and then covered with sediments and became petrified. Get the shorter hiking directions from the visitor's center, it is well worth it! Remember no collecting, let future generations enjoy the awe.

Just a note, nearby is the town of Dickenson. While I-94 was being constructed the workers uncovered a gigantic petrified log, 120 feet long and 10 feet in diameter at the base. This definitely would be one of the largest petrified logs ever found. Time did not allow them to dig it out so, they buried it. Perhaps someday someone will dig it up. (*Petrified Wood in the USA*, Arthur Manning, 2002, p.57-59)

36-mile Scenic Loop Drive:

Milepost markers show the mileage from the entrance to the park.

- **3.3 Prairie Dog Town** see article on prairie dogs.
- **4.2 Skyline Vista**: Notice the flat area on which this overlook is located. The Little Missouri River flows in the valley below.
- **5.4 River Woodland Overlook**: The cottonwood and willow trees grow close to the river. This provides shelter for wild life such as white-tailed deer and birds. The open area is filled with sagebrush which provides space for hawks, songbirds, and mule deer. Throughout the park certain trees grow in ravines or coulees, these are green ash, wild plum, chokecherry, and box elder. Notice how some trees grow in horizontal bands in the hillsides; these are Rocky Mountain juniper trees. Why do they grow in horizontal bands? The hillside is made of layers of sediment, some sediment is looser and more permeable than others, this water comes to the surface where that layer is exposed and hence junipers trees grow with the moist conditions.
- **5.6 Cottonwood campground**. Drive in; many times bison hang out here.
- **5.9** Lignite coal seam on the right, halfway up the slope. Coal seams can be seen throughout the park.

Have you considered how coal is formed?

Coal is the remains of once-living plants. Evolutionists will tell you that coal formation took place slowly in swamps over millions years. Yet, many of the plants found in coal would not grow in swamps. The plants found in swamps tend to stay together, while plants found in coal have been torn apart and separated into layers- roots, stems, leaves, seeds and pollen. Also today, we do not see swamps and bogs turning into coal. So, how was coal made? During the Flood, huge amounts of vegetation was ripped up and torn apart in this cataclysmic storm. They were then deposited in layers along with other sediments. The weight of the other sediments above squeezed out the extra water, keeping the oxygen out, and raising the temperature of the buried plants. The plants then turned into coal. What happened to the pre-flood world's luscious plant life? Much of it turned into coal.

Many coal deposits show burial over a great area. For example Kentucky No. 12 runs from Kansas to Pennsylvania, halfway across America!

Coal-like features were seen when the volcano Mt. St. Helens erupted on May 18, 1980. This volcano produced a steam and ash blast that caused a huge wave in Spirit Lake to reach 860 feet up into the mountain side. The waters rushed back into the lake bringing with it about one million broken trees. The rocks, ash, and plant material began to settle out on the bottom of Spirit Lake- bark sheets in one layer, pollen, and spores in another...similar to what is seen in coal fields. If Spirit Lake were covered with more sediment, like with the Flood, then coal could have developed. Coal is found worldwide. Coal is a result of a world wide Flood.

(The Fossil Book, Gary and Mary Parker, 2005, p.14-16)

Did you know that coal has been carbon dated!

Evolutionists date coal to about 300 million year old, if that were true then no carbon -14 should be present. Ten samples of coal were collected from the major coalfields across America. These samples were analyzed for their C-14 content. In all ten samples carbon-14 was found to be present. Coal is not millions of years old, just thousands. Coal testifies to a recent worldwide Flood, about 3,500 years ago.

(Thousands not Millions, Dr. Don DeYoung, 2005, p.51-55.)

Just north of here are the rich oil fields. So much time does it take to make oil? Zero time! It already exists in plants (corn oil, olive oil...), in animals (whale oil...), microbes and people. So oil started as oil, it now had to get trapped. If it is not trapped, oil gets eaten by scavengers and decomposers, and no pools of oil form. Like with the olive oil to retrieve it, the oil is squeezed out of it. During Noah's Flood, billions of plants and critters were buried under huge amounts of sediments; this caused the oil to be squeezed out of the once living things. The oil separated from the water and continued to rise to the top. Oil can move fairly easily through the sand and lime, however, a dome of shale and clay can trap the oil, forming a pool of oil. The gathered oil is under great pressure, so when it is drilled into, the oil gushes out.

(The Fossil Book, Gary and Mary Parker, 2005, p.16-17.)

6.6 begin loop drive, continue to the road on the right.

8.8 Turnout on left. Notice how the juniper trees are heavy on the north-facing slopes. Why? The north-facing slopes generally are cooler and moister. The slopes on the south are drier because they receive more sunlight both in the summer and the winter causing the moister to evaporate before absorbed into the ground.

- **9.3 Scoria Point Overlook**. Notice the reddish rock layers; these are sediments that were baked by burning lignite. The locales call it scoria but it should be called clinkers. True scoria is of volcanic origin, lignite is formed from compressed plant debris. Scoria (clinkers) has a variety of colors pink-red to orange, yellow and purple. Color is based on mineral composition, grain size and the baking process temperatures.
- <u>**9.9**</u> in the Badlands the buttes and other hills are often capped with scoria (clinkers) or sandstone which resist weathering.
- **10.8 Ridgeline Nature Trail**: A 0.6 mile walk through a typical landscape of North Dakota Badlands.
- 11.4 North Dakota Badlands Overlook: Horizontal layers of sedimentary rocks. The Grayish-blue layers are beds of made of clay. Clay is derived from the decomposed volcanic ash. During the Flood, a tremendous number of volcanoes were erupting large amount of ash. Extremely fine particles of ash were caught in the Flood and laid down in these bluish layers. The ash then decomposed into bentonite clay. Commercially bentonite clay is used in hundreds of products such as kitty litter, candy bars, and toothpaste. It has the ability to soak up water and swell up to 16 times its size. When wet, bentonite clay is very slippery and gummy, making it very difficult to drive in. The brownish gray layers are made of sand. Black layers are lignite coal.

These layers were laid down during the Flood. As the Rocky Mountains rose up, water would run off the land in sheets; sheet erosion would plain the land. As the waters became less, they would become channelized thus carving out the land and to reveal the layers we see before us.

Look around you, look at the highest parts and then see the amount of dirt that had to be washout out of this area. Where is the washed out dirt?

- <u>12.0 Lignite coal bed</u>: In the gully on the right. North Dakota has the largest reserve of lignite coal in the world. Thin seams are seen throughout the park.
- **16.2** Notice the layers of sediments. The reddish brown layers are rich in iron.
- <u>17.1 Buck Hill</u>. Turn right and travel 0.8 mile to the top. A 100 yard foot trail leads to the very top of the hill. This gives a view of the badlands. Where did all the dirt go that has been eroded away?
- **19.9 Boicourt Overlook**: Rocky Mountain juniper grow thickly on the north-facing slopes, more moisture is available than from the south-facing slopes.
- **Boicourt Overlook Trail** is considered one of the most beautiful South Unit overlooks and is accessible by an easy nature trail. Rangers pick this as a favorite for a sunset over the Badlands.
- **20.5 Petrified tree**: To the right near the bottom of the valley. It takes very special conditions for a tree to turn to stone. Would not a tree rot away in your back yard before turning into a rock? The Flood of Noah's day provided the special conditions in order for a tree to petrify.
- **<u>24.8 East River Road</u>**: Turn left to return to Medora, finishing the loop.
- **<u>26.6 Beef Corral Pullout.</u>** A guide book states, "This flat area is the old floodplain of the Little Missouri River". Did the Little Missouri River really fill this valley from edge to edge? This is a wide valley with a little river. It is common worldwide to find valleys

like this, where the river is much smaller than the valley. Geographers have given a name for this, "underfit valleys". Underfit valleys are evidence of huge volume of Flood waters receding from the land and carving out these large valleys at the end of the Genesis Flood, later the river follows the carved valley.

28.8 Peaceful Valley Ranch: This historic ranch is to your right. During the 1880's this was a working cattle ranch, then a horse ranch, a dude ranch, Civilian Conservation Corps (CCC) headquarters, Theodore Roosevelt National Park Headquarters and today a saddle horse concession.

29.1 End of loop. Turn right to Medora

North Unit: some 50 miles away.

14 mile scenic drive

4.6 Cannonball concretion Pullout: Giant red concretions almost 10 feet in diameter can be found having weathered out of the hillside. Read about concretions –Lemmon SD (*Roadlog Guide for the South and North Units TRNP*, Theodore Roosevelt Nature and History Association, 2005)

Have you considered petrified wood? It is not as rare as you may think. In fact it is an abundant fossil and found worldwide. To make petrified wood, wood needs to be buried in oxygen-poor sediment. Then water percolates through the ground bringing with it minerals. Cell by cell, the original wood is completely dissolved away and replaced. The ideal environment for wood to become petrified is burial by volcanic ash. Ash from the multitude of volcanoes erupting during the flood was carried to the Dakota/Montana area. Flood waters moved through the silica rich volcanic ash and sediments. This silica rich water soaked into the buried trees. The organic compounds in the wood dissolved and were replaced, turning the wood into stone which is called petrifaction. The color of the petrified wood depends on the minerals in the water and sediment. Arizona's petrified wood is famous for its yellows and reds (from the iron minerals) and green and blues (from the copper). The petrified wood of the Dakota's is creamy brown in color. Near here in Lemmon, South Dakota, there is a 1930's gas station and a large museum all made from petrified wood, even some of the nearby roads are "graveled" in petrified wood. Petrified wood is abundant and worldwide, yet it rarely occurs today because of the special conditions required. What event in history would have worldwide deep burial of wood in a water saturated ground? The Flood of Noah's time provides the answer. So as you stand in the midst the third largest concentration of petrified forest in the United States, realize that this is a result of the Flood of Noah's day!

Also within many coal deposits are polystrate fossils. Polystrate fossils like tree trunks cut across many sedimentary layers. These polystrate fossils represent those plants caught in the Flood and buried in an upright position while more sediment filled in around. Evolutionists have a hard time explaining tree trunks existing for millions of years as the sediments covered them. Would the tree not rot over the millions of years as it stood there? The tree had to be catastrophic covered in order for it to become fossilized. The Flood of Noah's day would have provided those special conditions for it to become a fossil.