BREAKING THE ICE AGE

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Beata Smith, 2008.

INTRODUCTION

Science should be unbiased, its purpose to seek the truth and to give greater understanding about the natural world we live in. However, this is not always so. Sometimes theories are kept because they superficially answer important questions. Sometimes the faulty theories are the most popularly accepted, and any opposition to them is rudely and dogmatically shunned, silenced, banned, ridiculed, threatened, or ignored. There is usually a potent unwillingness to discard these theories even when the opposing view supports the evidence much better. Sadly, this "bad science" has resulted in suppression of the truth. (This can be called "bad science" because ignoring and suppressing evidence and ignoring and suppressing differing or opposing theories is not the rule for the scientific method.) It has pacified the minds of many with falsehood. It has stalled the advancement of technology. It has wasted billions of dollars. It has led to the loss of costly equipment, loss of careers, and reputations. It has resulted in the

acceptance of ungodly and immoral lifestyles and in the loss of millions of lives. The effects of practicing and preaching "bad science" are enormous.

My purpose here is to reveal the many big cracks in the Ice Age theory, specifically the creationist "Post-Flood Ice Age" theory. To note, there is a little irony in this: creationists who dogmatically hold to the Post-Flood Ice Age theory have largely ignored the opposition. I am afraid that creation science has compromised with secular science on this theory, without giving it a thorough consideration. Doing so could jeopardize the fragile faith and confidence of new Christians and new believers in the literal Genesis creation, because creation science has made this gross error of teaching the post-flood ice age as “biblical” truth. It could undermine confidence in the ministries which have not shown at least a balanced view of the theory. I do hope that someone will take notice of these big "cracks" in the Post-Flood Ice Age theory and seriously consider the possibility that there never was any ice age at all.

THE ICE AGE

First, what is an "Ice Age"? It is a hypothetical period lasting for more than a decade (most theories would say it lasts more than a century) in which freezing and below-freezing temperatures occur over vast regions of the earth, coupled with heavy

precipitation, causing glaciation. These regions normally, or presently, experience much warmer temperatures and normally or presently are not glaciated.

What is the general theory proposed by some creation scientists for a post-flood ice age? It is that an immeasurable amount of volcanic dust and gas from post-Flood eruptions cooled the earth, and that rapid evaporation of warm oceans produced the precipitation for glaciation. The duration of the post-flood ice age was supposedly five hundred to seven hundred years after the biblical Flood. It is said to have started with a very warm post-Flood ocean, and warmer coasts than today's. Then, from massive volcanic action and precipitation, there eventually came snow, ice, and colder summers, colder winters, glaciers, ice caps, etc. The ice supposedly covered about one-third to one-quarter of the earth's land surface. The huge glaciers lasted, they say, for about three hundred to four hundred years in the middle of the post-flood ice age. At the end of it, it is said that there was a lot of flooding from melting glaciers.

AT A GLANCE: SOME "CRACKS" IN THE ICE AGE

Ice Age theory only just originated in the early and mid 1800's. Secular science claims four historical ice ages; creation science, one. The "best" evidence, ironically for creation science, is similar to the evidence used to support evolution and an ancient

earth: landforms, rocks, and fossils. The ice age claims many fossils around the globe, yet lacks circumstances to produce them. An ice age is proclaimed the culprit of eskars, morrains, drumlins, till, and streamlined scratches over rocks, just as evolution and long ages are proclaimed agents of canyons, caves, and layers upon layers of rocks and fossils. It could very well be that these eskars, morrains, drumlins, till, and streamlined scratches over rocks were formed under water during the recession of the Flood waters, just as the Grand Canyon was likely carved out at that same time. It is also possible that there was a lot of ice on top of the water which left some of these marks as the water receded and the ice began to melt.

The creationist ice age is sometimes called the "Biblical Ice Age." Actually, there are no accounts of an ice age in the Bible. (There is more on this in the section, "What the Bible Says.") Creationists, scientists or not, have to make their observations fit in with what the Bible teaches. If the observations do not fit, they must assume that their interpretation is wrong. They must not change the interpretation of the Bible (what it says or does not say) to fit their observations. Neither is there an account of an ice age in folk legends, or in any recorded history, except for the fabricated story of ice ages, begun by uniformitarians of our modern age, which is now adopted and adapted by most creation scientists.

In effect, the creationist theory says that volcanism did not diminish immediately when God ended the Flood, but that this explicitly deadly volcanism decreased very slowly over a period of several centuries, until it reached its present level. There are

problems with the Post-Flood Ice Age theory and the amount of volcanism it requires. Aside from it being extremely deadly and poisonous to the precious few on earth after the Flood, there is no evidence for this heavy volcanism in the ice-core records, nor in surficial deposits. Studies of ice cores have indicated that our present glaciers began their formation rather abruptly, as in ten years or less.

Further, the theory says that flood-inducing precipitation also continued steadily for at least five hundred years after the great Flood. There would have been additional and severe flooding for at least two hundred years, while it rained around the globe, if the post-flood ice age were true. There could not have been any more massive global flooding after the great Flood, lasting for hundreds of years, soaking an already super-saturated earth again.

There also is the unanswered question of the temperature of the Flood water. Knowing this temperature for certain would determine whether or not an ice age could have developed. For now, the temperature is only a guess, likely in the direction favoring one's position about whether or not there was an ice age. There has been as yet little evidence or investigation to defend either side.

The unreasonable requirements for volcanism and precipitation alone should be enough to make the Post-Flood Ice Age theory doubtful, and at least suspicious. The theory re-instates two of the three main conditions for the Flood, after the Flood is over. It only misses the action of the "fountains of the great deep" pouring out over the world again. Also, the creationist ice age is globally destructive, not only regionally. This,

creationists say, all happened after God just promised climactic and seasonal regularity. (Genesis 9:21,22)

Fossil formation presents another big "crack" in the Post-Flood Ice Age theory. It is a very particular and unique process, especially when it happens across the globe, simultaneously. The global Flood nicely explains fossilization, although the Post-Flood Ice Age theory has many problems with it. It claims that many fossils are from an ice age, and not from the Flood. The theory begs several events to produce such fossils, not one event, and as yet, has not explained how this could have happened slowly during centuries of an ice age and global climate change. Creationists ought to be very uncomfortable with this. Billions of plants and animals were fossilized under specific conditions of rapid, massive burial, under lots of water producing lots of pressure, and of course, with just the perfect water chemistry to make it happen. Creationists have not explained how fossilization happened repeatedly and gradually during seven hundred years after the Flood. This gradual fossilization idea is no different from the evolutionists' claim that fossils formed gradually at different time periods and that it was a natural process, one which should be occurring today. However, fossilization is very rare. Certainly, when it does occur today, it is extremely isolated, to one or a few specimen at a time in a very small area.

It is difficult to determine exactly how the climate changed during and after the Flood. There are many factors which we still need to know, and there are many which we may never know for certain. For instance, if the climate before the Flood was

tropical pole to pole, as some creationists believe, what physical differences have caused our global climates today to vary and be different from what had been? How fast did it change from tropical to the diversity of climates that we have now? The answers to these questions might explain the answer to the question of whether or not there ever was an ice age. In the following sections, I will inspect the arguments claimed to support a post-flood ice age. I will attempt to suggest that almost all of the evidence pointing to an "ice age" was made within the time of the biblical Flood.

COMPUTER SIMULATIONS

Dr. Larry Vardiman tried to use computer-generated climate simulations and mathematical calculations to show that this post-flood ice age could be possible. 1* This does not prove that the post-flood event actually happened, as we have no idea of the severity, timing of events, or even the numbers and exact kinds of events involved in the Flood catastrophe, itself. There are just too many very significant unknowns. Mr. Michael Oard agrees that there is too little data to be able to simulate this climate change. 2* We can not, therefore, simulate something scientifically accurate representing the event and afterward. Answers in Genesis has made a similar statement concerning monkey-to-man evolution, “Unfortunately for evolutionary theorists, they

have yet to show how actual land-going, weight-bearing appendages or any of the other unique structures of land life could have evolved by chance! Ultimately, building a robot that transitions from sea to land doesn't prove a sea-to-land transition any more than an illustration of an ape slowly evolving into an upright-walking human proves that we descended from apes!" 3*

1* *Climates Before and After the Flood*, Larry Vardiman, 2001.

2* *An Ice Age Caused by the Genesis Flood*, Michael J. Oard, 1990, pages 19 and 20.

3* News to Note, 2007, #2, Answers in Genesis, commenting on this article:

http://www.livescience.com/animalworld/070308_salamander_robot.html

"Robot Reveals How Fish Crawled Ashore," Jeanna Bryner, Livescience Staff Writer, March 8, 2007, 2:00 p.m. ET

VOLCANISM: HOW MUCH IS REQUIRED?

According to Mr. Oard's books, (1*) volcanism continued at the same, globally devastating level as during the Flood for another two hundred long years. Following that, he says there was yet another two hundred years of volcanic activity only half as devastating as that during the Flood. After five hundred years, worldwide volcanic

activity would be down to a mere quarter of the level and output as it had been during the Flood! This Mr. Oard does not say with words, but with his graphs on those pages mentioned above. This is astonishing, and has almost no geologic evidence at all. Considering the enormity of Flood-era volcanic action, has any one ever wondered about the feasibility of this? Has anyone considered the absolute devastation to life on earth this kind of activity would most surely bring? The sedimentary rocks mixed with volcanic show that most if not all of the gigantic volcanic disturbances happened during the Flood, not after.

Volcanic deposits with little or no inter-layered Flood sediment (like the Deccan traps in India) formed very rapidly, as in days, or weeks, or in a few months. There is no evidence for long-term formation, over several hundreds of years. It is also unreasonable for Mr. Oard to require the presence of pillow lava to date volcanoes from the Flood. 2* Doing so, he assumes that the Flood waters had been high enough at the time of the eruption(s). It could just as well have been that the volcano(es) erupted very quickly and before water was high enough.

The Deccan Traps are believed by some to be the result of plate tectonics upon the movement of the country of India-- some creation scientists believe this happened during the Flood. It could have happened during the rainfall or during the recession of the Flood waters. No one is certain about the timing of this formation.

1* *An Ice Age Caused by the Genesis Flood*, page 68 and *Frozen in Time: The Woolly*

Mammoth, the Ice Age, and the Bible, Michael J. Oard, 2004, page 73

2* *An Ice Age Caused by the Genesis Flood*, page 70

VOLCANIC DUST

Mr. Oard says that the dust and gas must have remained in the atmosphere for centuries, for three hundred to five hundred years. Otherwise, there would not be an ice age. By God's great mercy, volcanic dust does not remain so long in the atmosphere, especially if there is precipitation.

During the Flood, there was a lot of precipitation. The Post-Flood Ice Age theory says it rained or snowed almost daily for hundreds of years. The amount of precipitation suggested in this ice age would have washed all of the dust out of the atmosphere very quickly, and that again is under the assumption that volcanic activity was unbelievably enormous, near Flood-era production, for the first couple hundred years. The Flood event had a very unique and thorough cleansing effect on the atmosphere and on most everything else on the Earth! After the Flood, there probably was almost no volcanic dust remaining in the atmosphere.

Some ash appears to have fallen out of the sky very quickly during the Flood, as indicated in the Ashfall Fossil Beds Museum in Nebraska. There is the more recent

evidence of this in the Pompeii event, which dumped tons of ash on the nearby towns in a few days.... Dinosaur National Monument in Utah shows how quickly volcanic debris or sand can be dumped nearby. Much loess and other volcanic debris is normally found directly on or near the volcano from which it came, suggesting that those particles normally don't linger very long or drift very far. There is no evidence to tell us that hundreds of thousands of tons of poisonous ash and aerosols traveled around the globe several times or lingered in the atmosphere for centuries before falling, and during continuous years of heavy precipitation.

VOLCANIC GASES (AEROSOLS)

Volcanic aerosols do not remain in the lower stratosphere, but eventually do fall down, and they are then rained back to earth if there happens to be precipitation at the time. They are also absorbed on their way up to the stratosphere in evaporating water. The problem the post-flood ice age has with this requirement is that if the aerosols fall out every one to five years, as Mr. Oard says, then there would have to have been a deadly amount of volcanism occurring every one to five years to keep the aerosols covering the entire earth's upper atmosphere. This he says went on for at least three hundred years.

Basaltic volcanoes produce more sulfur in the atmosphere than any other kind of volcano. There were some very large basaltic eruptions that happened during the Flood. The sulfur-rich haze these volcanoes could have produced would have remained in the atmosphere for at least one year during the Flood, if conditions were like today, which they were not. What was the effect this atmospheric pollution had on the climate, and what were the atmospheric conditions that prevailed during the Flood? Volcanic emissions had the potential to cool the waters and the earth if the gases remained in the atmosphere for a year or longer. As has been observed from more modern eruptions, volcanic gases do not appear to remain in the atmosphere for more than a year, or a few years. There must have been gigantic basaltic eruptions, as frequent as every year or two, for centuries, for the post-flood ice age to happen. There is no good evidence for this.

Volcanic aerosols not only have a cooling effect on climate, but they can also raise temperatures. 1* Volcanic aerosols, especially sulfates, act as seeds to cloud formation. NASA has shown, through satellite images, that dark-colored aerosols decrease cloud formation and others, such as sulfates, which reflect more sunlight, increase cloud formation. 2* These sulfate aerosols are what the ice age depends on to cool the land off once the volcanic dust particles have already settled. However, they initiate cloud formation, and cloud cover not only acts as a reflector of the sun's heat, but also as an insulator, trapping heat in the atmosphere. In addition, the aerosol-induced cloud cover would bring more cleansing rain to the inner continents as well as the

coasts, since many large volcanoes producing the aerosols were not near the coasts. Even so, the major eruptions were probably limited to the time of the Flood.

Volcanoes emit many kinds of gases, but mostly water vapor, which is a great insulator, which would have raised the temperature. Enormous amounts of volcanism could have produced more warming effect than cooling, or just as well, the warming and cooling effects could have equalled each other. It is more likely that extreme volcanism after the Flood would have killed off most or all of life on earth immediately due to suffocation from poisons gas and dust and excessive heat, contamination from poisons in the soil, from immediate burial in lava and ash, and from additional flooding and landslides. In light of this, temperature changes would not have mattered. Everything would have died long before there was a climate change.

Here is some information from the USGS. 3*

"Potential effects of volcanic gases:

The volcanic gases that pose the greatest potential hazard to people, animals, agriculture, and property are sulfur dioxide, carbon dioxide, and hydrogen fluoride. Locally, sulfur dioxide gas can lead to acid rain and air pollution downwind from a volcano. Globally, large explosive eruptions that inject a tremendous volume of sulfur aerosols into the stratosphere can lead to lower surface temperatures and promote depletion of the Earth's ozone layer. Because carbon dioxide gas is heavier than air, the gas may flow into in

low-lying areas and collect in the soil. The concentration of carbon dioxide gas in these areas can be lethal to people, animals, and vegetation. A few historic eruptions have released sufficient fluorine-compounds to deform or kill animals that grazed on vegetation coated with volcanic ash; fluorine compounds tend to become concentrated on fine-grained ash particles, which can be ingested by animals.

"Sulfur dioxide (SO2)

The effects of SO2 on people and the environment vary widely depending on (1) the amount of gas a volcano emits into the atmosphere; (2) whether the gas is injected into the troposphere or stratosphere; and (3) the regional or global wind and weather pattern that disperses the gas. Sulfur dioxide (SO2) is a colorless gas with a pungent odor that irritates skin and the tissues and mucous membranes of the eyes, nose, and throat. Sulfur dioxide chiefly affects upper respiratory tract and bronchi. The World Health Organization recommends a concentration of no greater than 0.5 ppm over 24 hours for maximum exposure. A concentration of 6-12 ppm can cause immediate irritation of the nose and throat; 20 ppm can cause eye irritation; 10,000 ppm will irritate moist skin within minutes. Emission rates of SO2 from an active volcano range from <20 tonnes/day to >10 million tonnes/day according to the style of volcanic activity and type and volume of magma involved. For example, the large explosive eruption of Mount Pinatubo on 15 June 1991 expelled 3-5 km3 of dacite magma and injected about 17 million tonnes of SO2 into the stratosphere. The sulfur aerosols resulted in a 0.5-0.6

°C cooling of the Earth's surface in the Northern Hemisphere. The sulfate aerosols also accelerated chemical reactions that, together with the increased stratospheric chlorine levels from human-made chlorofluorocarbon (CFC) pollution, destroyed ozone and led to some of the lowest ozone levels ever observed in the atmosphere. At Kilauea Volcano, the recent effusive eruption of about 0.0005 km3/day (500,000 m3) of basalt magma releases about 2,000 tonnes of SO2 into the lower troposphere. Downwind from the vent, acid rain and air pollution is a persistent health problem when the volcano is erupting."

Nobel Prize scientist Paul Crutzen suggested to slow down global warming by shooting sulfur into the upper atmosphere, so that it would reflect sunlight from the stratosphere. He commented, "I hope that my experiment will never have to take place," and he said, "the possibility of the albedo enhancement scheme should not be used to justify inadequate climate policies but merely to create a possibility to combat potentially drastic climate heating." Crutzen must know that the dire effect of the resulting acid rain would be much worse than the supposed benefit of possibly cooling off the climate a few degrees or tenths of degrees.

1* "Atmospheric Compound is Double-edged Sword in Climate Change," Holly Wagner, Ohio State Research, 2003: http://researchnews.osu.edu/archive/sulmeth.htm

"Sodium Aluminum Sulfate Aerosols as Ice Nuclei: a Pathway for Cirrus Cloud Formation," J.P.D. Abbatt, S. Benz, D.J. Cziczo, Z. Kanji, U. Lohmann, O. Mohler, Science AAAS magazine, August 31, 2006: http://intl.sciencemag.org/cgi/content/abstract/1129726v1?ck=nck

2* NASA images of clouds and volcanic aerosols: http://earthobservatory.nasa.gov/Newsroom/NewImages/images.php3?img_id=17335

3* USGS, "Volcanic Gases and Their Effects," January 10, 2006: http://volcanoes.usgs.gov/Hazards/What/VolGas/volgas.html

TEMPERATURE OF THE FLOOD WATER

This is one of the most important parameters in the ice age theory. Determining the Flood water temperature can be very complicated. It can involve calculating the low and high extreme temperature tolerance of all marine life, and calculating the effect of temperature on salinity tolerance. There are creatures which thrive in freezing sea

water. There are vents in the ocean today that emit water, minerals, and bacteria at temperatures as high as seven hundred sixty degrees Fahrenheit. 1* Because of the bacterial content, it is assumed that this water is not from under the crust, but is circulated and heated up by hot spots on parts of the ocean bottom.

Mr. Oard says much of the Flood water came from inside the earth's crust. 2* This is a reasonable, generally accepted belief, encouraged by the Biblical phrase, "fountains of the great deep." Some research has recently indicated the possibility that a very large body of water inside the earth's crust does exist. 3*

Ninety percent of the ocean is between thirty-two and thirty-seven degrees Fahrenheit, which is to say that most of the ocean is near freezing. Only the top portion, heated by the sun, is much warmer. 4* Something is keeping the depths very cold. If the interior of the earth were perpetually hot, as is commonly believed, the outer layers would eventually heat up, and, coupled with the sun's heat, would roast all things on the earth's surface! Probably the heat observed at the surface is due to the force of friction between substances upon high-pressure, upward movement to the surface of the earth. The earth's crust and mantle probably vary greatly in temperature from one horizontal area to the next. The hotter areas, such as along the “Ring of Fire,” probably make up the minority of the earth's interior temperature, most parts being colder.

Many creationists believe that the pre-Flood world was much warmer than today. Adding such enormous measures of heat to the land from volcanism would soon also affect the Flood water temperature, as the whole Earth was quickly covered in water. If

the land was hot, and the fountains were hot, wouldn't all sea life overheat and die? Much sea life did perish, but how hot was the water? Was it uniform in temperature, due to the violent turbulence during the Flood?

Was the outflowing water under high pressure or low, and was it hot or cold? These questions need to be answered. It is possible that a large portion of water was added through volcanic action, as hot water, but if the fountains of the great deep brought forth a lot more cold or cool water, not under as much pressure as that from volcanoes, then the post-flood ice age would not have been possible.

It has also been suggested by Dr. Walt Brown, that if the "fountain" water shot up high into the atmosphere, it could have come back down as ice or hail. 5* It is interesting to note that the April 2007 issue of Answers magazine from Answers in Genesis also seems to suggest this high-altitude attainment of the fountain waters before they fell back as precipitation. (That information is not written with words, but is seen in the picture on the fold-out pages of the magazine.)

Some Flood water also came from rain. Larger raindrops take longer to warm up during their descent to the earth. How warm was this rain that came down in massive amounts for forty days and nights continually? How much of the Flood water came from rain?

Fossils should give clear evidence of the Flood water temperature. There have not been many studies in this area, though. Because many fossils are exquisitely preserved, this may indicate that the water temperature was cool or cold, since warm water speeds

up the rate of decay.

Dr. Larry Vardiman published a study in which ocean temperature change is extrapolated from fossilized clam shells. 6* His graph shows the highest ocean temperature reached was about seventeen degrees Celsius. There is no indication of a rise in ocean temperature in Dr. Vardiman's presentation. It only continues to decrease to today's temperature. Could these results be showing that the pre-Flood ocean was around seventeen degrees Celsius, and that during fossilization and the Flood, the water temperature dropped rapidly to where it is today? According to Mr. Oard, the temperature of the flood water must have been around thirty degrees Celsius in order to begin the ice age. This is almost twice as hot as the ocean temperature in Vardiman's clam study. Mr. Oard says it took the ocean seven hundred years to reach today's temperatures after the Flood.

Studies of Antarctic fossils have indicated the possibility that some of the rock strata was formed in cool, ambient water. 7* It would be very beneficial if more scientists could examine the probable ambient temperature of fossils at the time of their fossilization.

Another question which should be considered is the content of the injected flood water. Was it mineral rich, salty, or fresh and pure? Chemical changes, combined with drastic temperature changes, could produce devastating effects on aquatic life.

1* http://www.rcom.marum.de/English/Some_like_it_hot_407C_vent_found.html

2* *Frozen in Time*, page 75

3* "3-D Model Shows Big Body of Water in Earth's Mantle," Tony Fitzpatrick, Physorg.com, February 8, 2007: http://www.physorg.com/news90171847.html

4* http://www.windows.ucar.edu/tour/link=/earth/Water/temp.html&edu=high

5**In the Beginning: Compelling Evidence for Creation and the Flood*: http://www.creationscience.com/onlinebook/

6* "Cooling the Ocean After the Flood," Larry Vardiman, Ph.D., Institute for Creation Research: http://www.icr.org/index.php?module=articles&action=view&ID=406

7* PALAIOS; June 1998; v. 13; no. 3; p. 276-286 © 1998 SEPM Society for Sedimentary Geology

HOT LAND

Voluminous additions of hot magma or lava, ash, steam, gas, and possibly hot liquid water, during the Flood would only make the warm (pre-Flood) world hotter, it would seem. This is another problem for the Post-Flood Ice Age theory: the earth or land itself would have had an enormous heat increase during the Flood, as we can evidence from the volcanic deposits. For instance, the Siberian traps are estimated to have contributed between one and four million cubic kilometers of lava across the

continent, enough to have covered the entire earth ten feet deep. How much heat did that event add to the Asian continent? Then there were other enormous volcanoes contributing their output during the same time. How long would that have taken to cool? How much would it have heated up the Flood water above it? Did all of the land and water reach an equilibrium temperature by the end of the Flood? Was there enough time? Was there enough COLD water to cool off the land by the end of the Flood? The amount of heat on land and in the atmosphere immediately above it must have been unimaginable, most deadly, and quite significant for figuring climate change, possibly not allowing an ice age to happen, because the land and surrounding atmosphere would have been much too warm with the volcanism that is required to start an ice age after the Flood.

GLOBAL TEMPERATURE CHANGES

The Post-Flood Ice Age theory sounds so much like a repeat of the Noachain Flood. It requires A WARM GLOBAL CLIMATE initially (like the pre-Flood climate). The theory requires tons of PRECIPITATION (like rain from the Flood), then it says that there was massive FLOODING from glacial melt water, and finally, DESSICATION of the land and deserts (like the receding of the Flood).

Many assume that the hypothetical ice ages only affected specific regions of the

earth, but really, they say that there were big climate changes all over the earth. Mr. Oard said that in the beginning of the ice age, there would have been very little seasonal change. He said that the seasons gradually became more distinct, and that this was global, affecting even the tropics. 1* This conflicts with God's promise to Noah in Genesis 8:22, "While the earth remaineth, seedtime and harvest, and cold and heat, and summer and winter, and day and night shall not cease."

1* *Frozen in Time*, page 95

WIND COOLING

During the recession of the Flood, there must have also been much cooling, from the driving wind and from the mixing of the water temperature with that of the cooler atmosphere. The most under-appreciated effect of the Flood is the wind spoken of in Genesis 8. This mighty blast from the Lord drove off water perhaps two miles deep, for thousands of miles, and sent it back, probably deep inside the earth. That is some powerful wind, one that has never been known since. Its effect would be much like one blowing cool air on one's spoonful of hot soup before sipping it. The flood water would have also dissipated much of its heat into the atmosphere during recession. The

new oceans would have ended up much cooler than the flood water had been.

AMOUNT OF RAINFALL: FLOOD AGAIN! ACID RAIN!

Mr. Oard says that the rate of precipitation during the post-flood ice age would have been between twenty to one hundred times what we experience today! 1* Furthermore, Oard says, that the precipitation continued for at least five hundred years! Much of the world would have flooded yet again, for centuries. That would have been devastating for any and all life on our planet. Plants would not have enough sunlight due to volcanic dust, according to Mr. Oard, and on top of that, they would have too much water, and this as acid rain. (The vast amount of sulfur required in the atmosphere would certainly soon fall back down as acid rain.) Heavy acid rain for five hundred years, or even for one year, all over the globe would have made it impossible for life to multiply rapidly, as it had done after the Flood.

How much precipitation is Mr. Oard requesting? For the U.S., the overall average annual rainfall is around four feet a year. Twenty times this (Oard's lowest value) is eighty feet a year, or more than six feet a month. Some areas in the mid-western U.S. were flooded during the summer of 1993 with only four feet of rain in a month. It is not hard to imagine what the full one hundred times our average rainfall amount would do--

four hundred feet of rain a year on average! Mr. Oard goes on to say that this rate continued for about five hundred years, with no time to dry out.

The 1998 summer flood in S.E. China recorded over five and a half feet of rain in two months (June-July), and it killed more than three thousand people. Oard's ice age calls for more than that. The average rainfall in the Fertile Crescent region of Arabia, the first inhabited area after the Flood, is only around twelve inches per year. Twenty times this is still two hundred forty inches per year, or almost two feet a month, assuming an even distribution of precipitation through the year.

This very heavy and continuous rainfall the Post-Flood Ice Age model calls for, is supposed to have been welcomed by the earth which had just been completely saturated with water. There are areas on the earth, such as India, which receive very heavy monsoon rains half the year, but then the remaining months, the land dries off. Of course, if this precipitation had fallen as snow, then it would not have caused immediate flooding. However, in the beginning (the first two hundred years or so) of this hypothetical ice age, it would have been too warm for snow, and there would have been much heavy flooding. It is more likely that the ocean was cool at the time that the waters had receded from off the earth, and that there was not nearly so much precipitation as this ice age theory says.

Some creationists think that the post-flood ice age could have been possible without volcanic activity, that the evaporation of the warm ocean and the cooling from precipitation would have been sufficient to make an ice age. It would be wise to

examine the possibility and the consequences of COLD flood water, versus warm, and to consider the effects of massive global rainfall immediately after the Flood. There ought to be more caution taken before advertising these speculative "ice age" theories as "biblical truth." God did stop the rain at the end of the Flood. This is obviously not to say that it never rained again. However, since God did stop the rain, it makes no sense to say that it continued to pour down on the earth twenty to one hundred times more heavily than it does today, almost daily, for half a millennium.

1* *Frozen in Time*, page 39

DESSICATION

On page 84 of Frozen in Time "desiccation" at the end of the ice age is mentioned. There is also supposed to be massive flooding at the same time, from melting glaciers. The evidence for the rapid dessication, or drying out, in no way proves or even suggests a reason for a gradual, post-flood ice age onset. The rapid desiccation also could have happened at the end of the Flood, as the Bible says, when God caused a wind to drive away the flood waters (Genesis 8:1), and the waters continued to recede and dry up from off the earth.

ICE CORES

Acidity:

One interesting piece of evidence is the ice itself. There have been several ice cores extracted from Greenland and from Antarctica which were each almost two miles deep. One observation that was made is that dust composition in the ice directly affects the estimated accumulation temperature. Acidic ice corresponds to warmer temperatures, whereas alkaline ice, particularly containing calciferous dust, relates to colder periods. That should have been reversed for the Post-Flood Ice Age theory. There should have been cooler temperatures corresponding to higher acidity, according to the theory, but it is not so.

Clean ice:

The most obvious visual objection to the theory is that the ice cores remain relatively clean for almost the entire lengths. The overall dust content is much smaller than would be expected, especially in the lower part of the ice cores. The ice shows no indication of abnormally massive volcanics occurring repeatedly for the first hundred years, nor for such an extensive period, ever.

Only a decade to change:

Near the very bottom the ice becomes muddy. A pine needle was found at the bottom of one of the ice cores in Greenland. 1* It is very significant, suggesting that immediately before ice began accumulating, the ground was soft enough to allow pine tree roots to penetrate deeply. This suggests a quick freeze and very rapid accumulation of snow and ice.

In addition, four ice cores from Greenland have each shown significant and RAPID climate/temperature changes in the very bottom portion of the cores. 2* "Rapid" means ten years or less, according to the reports which are coming from those who say the ice cores represent hundreds of thousands of years of accumulation! The fact that four separate cores agree on this is compelling and shows that this information could probably be a valid representation of ice sheet formation at that time. Stratigraphic disturbances may account for some of the variation, but not all. Unfortunately, uniformitarians are very uncomfortable with this observation, and therefore will probably suppress the data or attempt to alter it, if they have not already. This information about the rapid (decade or less) formation was still published early in 2006.

There is also agreement about these rapid changes in the North Atlantic sediment cores. Deuterium content in the bottom of the GRIP ice core indicates that the basal, silty ice is possibly the original buildup of this ice sheet. The bottom layer is silty, with

alternating layers of silty and clean ice on top of it. The Eemian ice (bottom-most layer) contains tropical aerosols. These aerosols are a reason used to label the Eemian as a "warm ice age." This basal ice is low in oxygen and high in methane, indicating anaerobic activity, or decay. (Billions of dead things...?) The GRIP report suggests that the ice sheet was formed on a marsh. In other words, the ice sheet probably formed very quickly on top of a wet place that had been rather warm just before the ice began building up. It also formed during a time in which there was much decaying matter on the ground below it. Thus, it easily could have started building up during the receding of the Flood.

There is much to learn from ice cores. More analysis of them would increase understanding of past climate change and earth history.

1* Picture of the “needle” in the bottom of the ice core:

http://www.gfy.ku.dk/~www-glac/ngrip/billeder_eng.htm

2* GRIP, GISP2, Camp Century, Dye 3

3* Final Report, GRIP

ANIMAL REMAINS: FOSSILIZATION

"Fossilization is a rare event, requiring, as a rule, sudden burial (as in the Flood) to prevent decomposition." 1*

Here is one of the most obvious and annoying “cracks” in the Post-Flood Ice Age theory. There is a very real danger to the reputation of creation science in accepting the ice age. It agrees with the theory of evolution, in part, saying that there were many conditions and places that each alone produced fossils around the world at many different times.

Take for example the article from Answers magazine in spring of 2008, "Lucy Was Buried First." Here the author infers that there were several events after the Flood which produced many fossils. First, the ape fossils, and later, he claims, assuming years or longer in between, human bones were fossilized in around the same location as the apes. His answer for this is a post-flood "climate change," or in other words, the ice age. There is no explanation from the Post-Flood Ice Age theory for fossil formation to occur multiple times, multiple places, and even as is the case in the article mentioned, of fossilization which happened in the very same location separated only by long time intervals. This smarts of evolutionary undertones, which, no surprise, comes from an evolution-inspired notion of ice ages.

There is every reason for creationists to reconsider their ice age theory. Here is an alternate explanation for the ape and human fossils lying on the top and upper layers of sediments: apes and humans are the most agile of all creatures, and were able to survive

the Flood longer than others, such as hoofed mammals. They would have been able to cling to floating trees or such longer than others. Obviously, they were not buried suddenly by volcanic dust, as some others had been, such as the rhinos of Ashfall Beds in the American west. The apes and humans which were fossilized on top of most of the Flood sediment probably were in a place where they were able to survive longer and were buried later. They could easily be fossils left by the Flood.

"Pleistocene" or "ice age" fossils are found all over the world; north to south, east to west, just as are the rest of the fossil record. The Post-Flood Ice Age theory says that most of the "ice age" animals died of natural causes. This would not have produced fossils. When speaking of ice age fossils, most of the creation scientists would probably say that most of the ice age animals were buried quickly at the end of the ice age. Creation scientists should examine their inconsistency here. On the one hand, they say they mostly died of natural causes. On the other, they say that they died periodically in enormous dust storms and in floods in isolated areas. On still another, they say that most of the animals died out quickly and suddenly at the end of the ice age when there was massive flooding from melt water. There is no consensus about the fossils, and no sufficient explanation as to how they were formed, so many of them, all over the earth.

"Ice age fossils" typically are called such because they have been found frozen, in a tar pit, in a cave, or found along with woolly mammoths, saber-toothed cats (*2), short-faced bears, and the like: animals which have been assumed to have lived only during an "ice age." These animals, such as the cave bear, saber toothed cat, the woolly

rhino and woolly mammoth, are not usually identified as victims of the global flood, even by creation scientists. It is as though these animals did not exist before the Flood, but became distinct variations of the former kinds and existed only for a few short centuries in the ice age. They would have adapted very quickly to their harsh ice age environment, only to have been killed by it soon after, assuming many died of natural causes due to an extremely cold, dry climate. That is ridiculous!

This deduction is the same as evolution's conclusions which have produced the time distinctions in geologic columns. This claim on the fossils says that none of these creatures died in the Flood, because all of the fossils of them which are discovered, are immediately and unquestioningly labeled, "ice age." On the contrary, almost all fossils were formed in the Noachain Flood.

Riverbluff Cave:

One of the most exciting, yet little-known fossil discoveries is at a place called Riverbluff Cave, in Missouri. These fossils are located in a large cave, well beneath Flood sediment, actually beneath Mississippian limestone, which is a marine deposit. These fossils had immediately been labeled "ice age" since they were found in a cave. However, it is imperative to note that the cave had been completely sealed off (under this limestone deposit) until only a few years ago, when road crew blasted a hole in the ground there. Only then was it opened for the first time since its formation. It is full of a large, diverse, and unique collection of well-preserved fossils, most encased in thick

mud. There are also bear claw marks on some of the walls, as though the animal was trying to dig its way out. There was no way for these creatures to fall or crawl into the cave during an "ice age" and then fossilize. A secular scientist descending into the cave said that the cool air coming out of the cave "smelled like the Ice Age." Creationists should not hold fast to these same, false pre-suppositions. Riverbluff Cave and its contents can not have been from an ice age. They could only have formed in the Flood.

Quote:

2004 Denver Annual Meeting (November 7–10, 2004)

Paper No. 180-2

Presentation Time: 1:45 PM-2:00 PM

THE RIVERBLUFF CAVE PALEONTOLOGICAL SITE AND ITS IMPORTANCE AS AN EDUCATIONAL TOOL

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The Riverbluff Cave Site was discovered September 2001 during construction of a new road in southwest Greene County, Missouri. Initial exploration of the cave system

uncovered thousands of trackways, dung and coprolites, hair, and numerous bones of an extinct Pleistocene fauna. The remains are those of mammoths, short-faced bears, horses, peccaries, birds, reptiles, and rodents, many of which are undescribed species. The entire length of the cave, in excess of 2000 feet of passages, contains a thick, well stratified sequence of Pleistocene sediments. Preliminary investigations show the potential for thousands of bones to be recovered once cave excavations begin.

A second, and equally important component of the site, is the surface geology. The exposed surface above the cave has one of the finest exposures of fossiliferous Mississippian limestone in the area and contains a diverse echinoderm fauna. As in the case of the subterranean portion of the site, the surface has the tremendous potential of providing new insights into the paleontology and stratigraphy of southwestern Missouri.

During the development phase of the Riverbluff Cave Site it was decided that the site was to be used as an educational tool to provide K – 12 educators an opportunity in which to conduct group and individualized research. As part of this approach, a collaboration between the Riverbluff Cave Site and Wright State University, Dayton Campus and Lake Campus, has recently begun. Currently, plans are underway which would allow middle and high school educators to begin research and field work to begin during the summer of 2005.

Fieldwork and laboratory work will include excavation, data collection, documentation, preservation of fossil material, cur ration of specimens, instruction on casting and photographic techniques, as well as preliminary work on individualized and group

projects. Projects will include the taxonomy of animals found within the cave, analysis of dung and plant material, ecological reconstructions, behavioral analysis based on track and trace fossil evidence, and the stratigraphic analysis of both the subterranean and aerial exposures of the site. The data obtained from fieldwork and laboratory projects will make essential contributions to the ever expanding paleoecological picture that is emerging from this exciting site.

2004 Denver Annual Meeting (November 7–10, 2004)

1* "How did animals get from the Ark to places such as Australia?"
by Don Batten (editor), Ken Ham, Jonathan Sarfati, and Carl Wieland
First published in The Revised and Expanded Answers Book, Chapter 17
2* Saber-toothed cat fossils were found recently with large variety of mammals (not from an ice age): giraffes, gazelles, zebras, wild boar, goats, and giant hyenas...at the Fonelas P-1 site in Granada, Spain. (Anthropology.net, October 31, 2007)
3* See “Cave Formation by Rock Disintegration”

DIVERSITY AND DISHARMONY

Among fossils claimed to be from an "ice age" there is unusual, unexpected, and

unexplained diversity. This again, seems to indicate mild climate upon time of burial. The remains of the so-called ice age fauna are mixed. There are fossils of animals from exclusively warm climates along with other, more tolerant animals, and there are semi-aquatic animals and even fish found with land animals. There are burrowing animals found with surface-dwellers. There is quite a mix, very similar to what is found among the fossils from the Flood. It is highly unlikely that such a mixture would have been rapidly buried together in very restrictive climactic conditions requiring cold and dryness, as in an ice age.

Dust storms are unlikely to arise in areas that support large numbers of diverse creatures, because they should have had plenty of food to sustain them, i.e. vegetation, which requires lots of water. Lots of water allows very little dust. Diversity in abundance would not happen in a glaciated or frozen climate, but that is what is found. Either the diversity of preserved animals did not happen all at the same time, or else these creatures lived in a temperate climate. It is improbable that they lived together in an ice age. Thinking hippos and burrowing rodents are disharmonious with woolly mammoths may be a wrong assumption. Woolly mammoths may have been limited to warmer climates. GRADUAL CLIMATE CHANGE CANNOT EXPLAIN SUCH MASSIVE, DIVERSE, SIMULTANEOUS EXTINCTIONS ALL OVER THE WORLD.

The estimated seasons of death for "ice age" animals (fossils) are all warm-weather. 1* None of the remains give sufficient evidence to conclude winter or even

mid-winter death, and the indications for warmer-weather deaths is predominant. This suggests that the mass extinctions claimed for an ice age occurred all at once, during one season, a warm one. They could have died in the Flood, coming from a warm global climate before the Flood.

Another dilemma: Mr. Oard says that mammoth remains were also found as far south as Central America. This is strong evidence that mammoths lived in warm climates. Mammoth fossils are also found in South Africa, and mammoth fossils have been found in Florida together with alligator and fish fossils. Also, claiming that woolly mammoths were not quick-frozen because they are associated with the ice age is circular reasoning! 2*

1* *Frozen in Time*, page 153

2* *Frozen in Time*, page 149

A COLD CLIMATE?

In fact, it has been said many times of this post-flood ice age that it was a WARM one, most of the time, and that the coldest weather only happened somewhere in the middle of the period. Comparing two of Mr. Oard's charts presents a contradiction

again: "world ice volume versus time" to "woolly mammoth population versus time." 1* As the ice volume declined, according to Mr. Oard, mammoth population continued to decline as well, even though he says they had been thriving and increasing during the time at which there was the same amount of ice before the decline. 2* Trying to say that cold climate did kill most of the mammoths, he says here that cold and ice could *not* have been the main killer. In chapter sixteen of *Frozen in Time*, he says again that cold was the killer. If the massive extinctions happened near the end of the ice age, as Oard says, when the climate was warming up again, one would expect the populations of floundering fauna to have been growing again, not continuing to decline to extinction.

Creationist ice age advocates struggle to create a climate that is freezing, snowy, and windy, one which lasts for centuries or for thousands of years... They try in vain to explain why there is so much contrary evidence for a temperate climate at the time of the extinctions, and a quick freeze following, opposing their theories of gradual freezes or of one gradual freeze. Take, for example the saiga antelope in Alaska, the burrowing rodents, beavers, the hippos in Europe, the type of trees found floating around the northern Siberian shores, the type of food found in the mammoths' teeth and innards, the type of fly found frozen with mammoth carcasses, the thick, frozen loess which contains a lot of plant material and is still frozen and abundant in Siberia today... These do not indicate a gradual freeze, but a sudden one.

1* *An Ice Age Caused by the Genesis Flood*, page 117

BIOMES

This "ice age" could be synonymous with “the age of the woolly mammoth.” This sounds peculiarly like “the age of the dinosaurs,” a phrase used by evolutionists when assuming that dinosaurs lived in a separate time frame from most other animals and plants. Instead, they should assume that the dinosaurs or mammoths lived in a separate location from others, particularly at the time of their death. In fact, this is the way most fossils are found: grouped together by species or kinds because of the sudden and complete destruction of their biomes/habitats. There are areas which have more of one type of dinosaur than another, or a plethora of large dinosaurs in particular, and there are other areas which contain an abundance of nautiloids, or clams, fish, etc., for example. These groupings are representative of the biomes in which the creatures lived before the Flood. Because the mammoths are found in surficial sediment, this might show that they occupied that particular biome which was last to be covered in the Flood; i.e. they might have lived on a high, vast plateau before the destruction took place.

Even within these Siberian biomes, there is “disharmony,” discussed earlier, indicating a mild climate upon the time of death. Pre-flood biomes would have varied

less than the ones we have around the world today, since all creatures would have been living in similar climates around the world. Still, there probably were areas exclusive to some animals, either because of incompatibility with other species or because of challenging terrain.

Mr. Oard says mammoths are rarely found in glaciated areas yet he admits that they are, however, found in glaciated areas. This does little to prove an ice age demise. Mammoths are found all over the world. Also, Mr. Oard implies that a steppe environment was not possible before the Flood. Must the elephant kind live on a grassland steppe, or could they also live in a denser and forested area? Many of the food particles taken from the mammoths were from various types of trees.

FOOD SUPPLY

Gradual cooling does not explain that most of these mammoths, or "well dressed giants" (1*) died almost all at the same time, and nearly at the end of the ice age. Judging by the size of the tusks and some carcasses found in Siberia, these mammoths were very healthy and probably lived long lives. At the end of the ice age, and even many years before then, there would have been no food or water to sustain these animals. They all would have dehydrated and starved to death long before the end of the

ice age. Feeding and watering hundreds of thousands of mammoths and other grazing and burrowing animals is impossible in a snow-covered, contaminated, and dark world. Winters in Siberia would have been even darker.

"Dima" was a small, baby mammoth, one that still would have been nursing from his mother. His carcass looks emaciated. It is the only one like that. It could be an indication that he had been separated from his mother for a few days, or that his mother had recently died. It could indicate that he was sick, or that his mother was sick or starving. Mr. Oard only suggests that Dima's condition indicates that the entire herd was starving. 2* The other possibilities are not mentioned. Incidentally, Dima's determined cause of death is suffocation, which could include drowning. He did not die of starvation.

1* *Frozen in Time*, page 13

2* *An Ice Age Caused by the Genesis Flood*, page 131

SUFFOCATION

Curiously, of all those Siberian beasts that could be examined for cause of death, suffocation was the killer. A gradual freeze does not explain the cause of their

suffocation. Volcanic gases are hot and poisonous and could have caused some widespread suffocation, by excessive heat or oxygen depletion, dust inhalation, or by rapid landslide or tidal-wave burial. Drowning could also be the cause of suffocation, as most creatures died this way during the great Flood. This is the most likely, since the among the materials found in their lungs and digestive systems were silt, sand, and clay.

The Siberian mammoths' and rhinos' remains are found surrounding the Siberian trap deposits. It is quite likely that the mammoths in Siberia died during the gigantic eruption of the Siberian traps, probably during the Flood. They were then very quickly frozen, even unto the present day.

Effects of volcanism in that area can be compared to the Mt. St. Helen's eruption. There were forests of trees torn off the land and dumped into Spirit Lake. Similarly, there is much timber still found floating or caught in the ice off the northern Siberian coasts, some are kinds that do not grow there in today's climate.

Volcanoes can cause landslides and tidal waves. Landslides could account for the buried upright trees, the mammoths buried standing up, some standing with broken bones, and some mammoths buried instantly with their last bite still unswallowed. It seems that a landslide, a very cold tidal wave, rapid burial, and a quick freeze are the more likely explanations for these mammoth remains.

The eruption of Krakatoa produced one hundred foot tidal waves. How high were the tidal waves during the Flood? They may have been well over one thousand feet high, and probably were able to move many tons of sediment, like the

loess which is found in the permafrost of Siberia.

FROZEN CARCASSES

If most mammoths died a normal death and decayed (1*), then their remains should not be found, especially not in such abundance. What happens today when animals die is an almost complete consummation of their carcasses, bones and all, and that ceases to provide evidence of their previous, though recent, existence. The fact that there are so many remains of mammoths, rhinos, antelope, etc. suggests that there was a sudden, massive catastrophe that reached over several or over all the continents at once, and it included a sudden freeze. Finding protein strands on T-rex bones has caused a stir. Isn't the Siberian carcass treasury much better? These animals may have died at the same time as the dinosaurs, in the same catastrophic event.

1**Frozen in Time*, page 151

FROZEN DUST STORMS?

Mr. Oard also says that many of the mammoths, etc. died gradually at first from starvation and were buried in dust. He also says that many of them died later in the meltwater flooding. So which is it? Dust storms or meltwater floods? Dehydration or drowning?

Because Mr. Oard says that it was colder in Siberia during the Ice Age than it is now, the ground had to have been frozen when the mammoths were dying off. Then there would have been permafrost, and mammoths cannot be buried into frozen ground. Even if the ground was not frozen then, the climate was supposed to be warming up at that time, and it would never have frozen at all afterward. Then, it would not even be frozen today.

The fact that the Siberian muck which mammoths are buried in is very wet and sticky when thawed suggests that the ground was not dry when it froze. It also contains a lot of ice. It probably was saturated with water when it froze. The muck that the mammoths are buried in is also rich with vegetation, unlike normal contents of a dust storm. It is very similar to the soil found throughout much of China. Dust storms, especially of the content and magnitude Oard calls for seem impossible, given these conditions. It is unlikely that there was ever a dust storm strong enough to cover many large mammoths completely and suddenly, before some of them could manage to swallow their last bite. An enormous landslide or tidal wave during the Flood is more likely. It is pretty hard to bury mammoths, but the Flood buried everything, even huge

dinosaurs. And it all happened very quickly. If this is correct, the frozen mammoths are a profound indication of a quick freeze and that the temperature of the Flood water was cold, not warm.

PERMINERALIZATION

Mr. Oard requires mammoth bones to be permineralized to be considered Flood deposits, on page 191 of *Frozen in Time*. Yet on the very next page, he says the contrary about fossilized plants: "It is likely the vegetation, some of which is frozen and not permineralized, was rafted into the area during the Flood." Mr. Oard is saying here that plants don't always have to be permineralized, but that mammoths must be, to be considered Flood deposits. It should be either only one or the other. Which is it?

IT WAS A QUICK FREEZE

Here is an assessment of Mr. Oard's "Table 15.2 Evidence Against a Quick Freeze" from page 154 of *Frozen in Time*.

1. "Mammoths associated with the ice age" : This is circular reasoning!! Paraphrased: 1) Some mammoths have long hair and therefore must have lived in a cold climate or ice age. 2) Therefore, there was an ice age, because there are woolly mammoths! Again, the long-haired mammoth is used to 'prove' that there was an ice age and the 'ice age' is used to prove that woolly mammoths preferred cold, icy weather! 1* See below for a discussion about sebaceous glands and the woolly mammoth.

2. "Carcasses rare" : The fact is, there ARE carcasses!! They are rare, partly because not many are looking for them, and often they go unreported when found. Even today, fresh carcasses of any one kind of animal are very rarely found, and then, they decay or are scavenged very quickly! The most we see today is roadkill.

3. "Carcasses partially decayed" : It must have taken a short time to freeze, but not enough time for complete decay. In a very short time after death, decay and scavenging (for the most part) ceased and everything was frozen into its present condition.

4. "Fly pupae associated with bones and carcasses" : Same as #3. This type of fly is native to a warm climate.

5. "Signs of scavenging" : Same as #3. Could happen anytime. "Scavenging" is ongoing, even as the carcasses are being uncovered today. Disfigurement also might have happened in a sudden catastrophe.

6. "Different seasons of death" : This is unfounded. Examining teeth to determine season of death is hardly conclusive. The majority of examples used could be grouped

together under "warm weather deaths." (pgs. 152-154). Also, in tropical or temperate climates, distinctions between seasons are already very small. Is it known whether or not mammoth teeth had seasonal changes even before the Flood? 2* See below for a discussion about teeth and seasonality.

7. "Remains mostly woolly mammoths" : A woolly mammoth biome can explain this!

Sebaceous glands and the woolly mammoth:

Mammoths may not have had enough oil glands in their skin needed with their long hair to insulate them from cold, as other animals do which can adapt to cold. Long hair alone would not shield them from cold. Scientists have searched for sebaceous glands on the woolly mammoth for over one hundred years. Recently, they found them: in the legs and feet of the woolly mammoth. 1* Now there are websites that claim the woolly mammoth had “numerous” sebaceous glands, proving they were able to withstand very cold temperatures of an ice age. The findings in no way prove that they lived in an ice age, for there were no sebaceous glands indicated on the rest of their bodies. What would have happened to the hair on their bodies if they were to lay down in snow, or when snow fell from the sky onto them? They would have been very wet and cold.

How does mammoth hair compare to that of the orangutan which lives exclusively in the tropical rain forest? Sebaceous glands in the chest of orangutans are present at

birth in both sexes, but they disappear in mature females and in aging males. 2* This shows that even though orangutans have them, the sebaceous glands are not always used. The same could be true about the few sebaceous glands in the feet of the woolly mammoth. Were the sebaceous glands in the feet of the mammoth only used for a "season" of its life, and not for a cold "season"? This has not been determined, and it is wrong to assume that they lived in an ice age because of the presence of oil glands which are only on their legs and feet.

Teeth and seasonality:

In only five out of sixty-three reindeer teeth specimens from Greenland there seemed to be correlation between age and dental layers. These correlations were observable in horse teeth, but only for specimens between five and fifteen years old. 3* Age may have more to do with cementum layering than seasons, and it is very difficult to determine either exactly when studying fossil teeth. It is best to take all the surrounding evidence and other available samples into consideration as well.

There are many problems when using teeth to determine season of death, and this procedure is largely unreliable in determining season of death. 4*

Using thickness of cementum layers to determine season of death also presents the same problems as using growth-rings in trees to determine the age of trees. There may be many "seasons" within one season, for example, depending on rainfall, for trees, or availability of food, for animals. There may be a lot of food one winter, for example,

and this could extend the previous growth layer, with the appearance of no seasonal change between actual seasons. The opposite could also happen, resulting in more seasons than there actually were. If, in the ice age, the conditions of the seasons were changing, as is required, it becomes even more complicated and unlikely to be able to determine season of death by examining teeth. For example, the ice age theory requires summers to cool off and winters to warm up, for a few centuries before changing again.

There are also other causes for cementum layering besides diet and temperature, such as light availability, humidity, pollution, and altitude—all of which affect diet and nutrition. Hormonal changes also may affect cementum growth. 5* Cementum will still layer even when seasonal and nutritional changes are minimized. 5* Knowing so many variables affect the growth of teeth suggests that it is not very reliable to designate "seasons" of death just by looking at cementum layers.

1* "Mammoth's Sebaceous Glands," Sergay Komarov, Innovations Report, December 13, 2004: http://www.innovations-report.com/html/reports/life_sciences/report-37634.html

2* "On the Nature of Modifications of the Skin in the Sternal Region of Certain Primates," George B. Wislocki and Adolph H. Schultz, Journal of Mammalogy, Vol. 6, No. 4 (Nov., 1925), pages 236-244, published by American Society of Mammalogists: http://www.jstor.org/pss/1373410

3* Microscopic examinations of bioarchiological remains,"Part II--Histological features

of tooth cementum, dentin, enamel, and their use in age estimation of mammals," edited by Gisela Grupe and Joris Peters, 2006:

http://www.vml.de/e/inhalt.php?ISBN=978-3-89646-619-8

4* "Lean times and fat times recorded in teeth-cementum bands reflect diet," Bernice Wuethrich, *Science News*, September 4, 1993

5* *Paleodemography: Age Distributions from Skeletal Samples*, " Biological basis of tooth cementum annulation," pages 112-113, by Robert D. Hoppa and James W. Vaupel, 2002.

CROSSING THE SHALLOW OCEAN

The Bearing Straight crossing was not possible. The Post-Flood Ice Age theory says that the ocean was three hundred feet shallower at the end of the Flood, and that it rose again to its present level when the ice age glaciers melted. The theory is undecided when the perfect time for crossing would have been. Had they crossed early in the ice age, when the crossing was covered in water (1*), as it is today, or later in the ice age, when there was supposedly much ice over it forming a land bridge (2*), or at the end of the ice age, when once again, the Bering Straight would have been under water? They say that the mammoths and other "ice age" animals had to have crossed the Bering

Straight early to have produced these numerous "ice age" fossils in the Americas. On the one hand, early or very late in the ice age, the mammoths and other animals would have to have swum across the Bearing Straight. That is obviously impossible. Had they crossed later, while there was supposedly a land bridge, it would have been too cold and infertile there, and they would have dehydrated and starved to death as they were crossing. Either way, they would not have made it across. The conclusion is that woolly mammoths and others never did migrate across the Bering Straight.

Mr. Oard seems to have decided that they did cross, late in the ice age. However, according to the theory, they also all died off late in the ice age. In effect, the theory says that they all crossed safely over, and very soon after, died off. There are many locations of mammoth and mastodon remains in the U.S., of differing types or species. Most scientists presume they were from an ice age. If these mammoths crossed late in the ice age, there was not time for one or two kinds to adapt into the different varieties we find there today. Also, if the mammoths did spread from Alaska down into Mexico in such a short time, they must have been running to beat the clock. What then killed off the mammoths in the Americas, especially in the south, if it was not dust storms, starvation, or meltwater floods? Answer: they were all victims of the Noachain Flood.

Horses were introduced to the Americas in the 1500's. There are extinct horse fossils in Florida, and other parts of the U.S., which lived here before then. There would not have been enough time for them to repopulate a couple of continents in only a century at the end of the ice age. However, in retrospect, all life on the whole earth

would have had an impossible start and slim chance to survive in the ash/aerosol/toxin-laden environment that is required by the Post-Flood Ice Age. There really would not have been any animals left to cross over, because nothing could have survived that smothering environment after coming off of the Ark.

A more likely explanation is that parts of Siberia, Beringia , and Alaska were high-altitude land before the Flood standing out of the pre-flood ocean, connecting Asia with the West. Perhaps some of this land of Beringia was sunken down into the ocean during the Flood. Indeed, there were no more elephants, rhinos, camels, or horses in the West, until people later re-introduced them in zoos or otherwise after the Flood.

Another explanation for animal crossing, as of the kangaroos into Australia, is that there could have been a significantly lower sea level right after the Flood, allowing for there to be land bridges for a while, perhaps a few decades or centuries. This would have been possible because after the Flood receded it would have left some water trapped in inland lakes. Some of the lakes would have eventually drained out or dried up, and if enough water were released, the sea level would have raised up, submerging the land bridges. An ice age is not needed for this.

1* *Frozen in Time*, page 140

2* *Frozen in Time*, page 130

CAVE MEN

Man has lived in caves in the past, and many still do. Modern cave homes are in hot or temperate climates, as in India and Spain. They are also in colder climates, as in central China. Cave homes are in arid or semi-arid climates most of the year. Where the climate is not so dry, cave dwelling is much less pleasant. For the rest, mankind chooses not to live in caves. It is not always practical because of geography, climate, and other reasons. The majority of these Chinese caves are much like earth-sheltered homes, most of which are carved out of loess cliffs and hills. 1*

The caves in which we find evidence of past human use, and which are not being used currently, other than for tourism, show no indication of additional man-added architecture, such as doorways or windows, which should be there if these caves had been used as homes. Without doors, caves in cold, wet climates would have been drafty and damp, and fires built near cave openings would not have warmed up much of the cave's interior. 2*

Some creationists have said that after the dispersion of people from the Tower of Babel, many lived in caves before building cities. There is a problem with this. Caves are generally hard to come by, especially caves in which there is easy access from the outside, and also in which there is enough room to stand up in, walk around in, and that have enough room for families, or cities, of people to inhabit. Those travelling tribes

would have been looking for fertile land and fresh water, not for caves. There is no reason why they could not have lived in tents, stone buildings, or in homes made of mud, brick, grass, reeds, or even lumber. Job 4:19 mentions "them that dwell in houses of clay," suggesting that it was typical to live in a brick house, at least at that time. Job's children must have also lived in a brick house, as is clear in the first chapter of Job that the four corners of their house were wrecked by the wind, and the house fell on them and crushed them.

Mr. Oard says that immediately after the Flood the land was completely barren. 3* However, it can take as little as twenty-five to fifty years for barren land to become a dense forest, with many large trees. Since the Tower of Babel incident happened one hundred and one years after the Flood, there would have been plenty of large trees in the forests at that time to use for building homes--and in a virtually unlimited supply, especially since there were relatively few people living on earth at that time. There was no lack of resources and no lack of knowledge, as Noah, after all, was the craftsman of the Ark, with God's instruction!

The Tower of Babel was built, probably with stone or brick, only one hundred and one years after the Flood! If the tower were built out of brick, it would logically follow that the surrounding houses could have been made out of brick. Thus, very few, if any, of the people who left Babel would have been forced to live in caves, since home-building materials and knowledge how to do so were plentiful at hand.

1* Modern cave dwellings Shaanxi and Shanxi provinces, China:

http://depts.washington.edu/chinaciv/home/3arcave.htm

http://www.chinavista.com/experience/cave/cave1.html

2* Lascaux Cave, France: http://www.culture.gouv.fr/culture/arcnat/lascaux/en/

3* *An Ice Age Caused by the Genesis Flood*, page 40

CAVE ART

There are several probable reasons why men painted pictures on rocks and inside caves long ago. Here are some guesses:

1.) One commonly assumed reason for the paintings is to record history.

2.) Cave art and rock art may be comparable to some of our modern graffiti. They might have painted these things just to show off, or to leave marks telling that these territories already had been discovered and temporarily inhabited.

3.) If the paintings were done after the Tower of Babel and the dispersion of peoples, pictures may have been one of the few ways to communicate a written language, especially a new one. It could have been the best way to leave a message to others who might pass through the area who did not speak the same language.

4.) Many of those who have studied cave art have suggested that it was done for

religious reasons. We may wonder why they were painted in what seems like secretive places and why there are recurring themes, particularly hunting scenes and pictures of animals. They could have been practicing a secret religion, or just seeking the cover of darkness from caves and the mysterious ambiance they provide, in which to practice their rituals.

5.) Patriarchs of the Bible were traditionally buried in caves, so the paintings could also have been indications of the lives of those who might have been buried in them. The problem is, there seldom have been remains found to support this, (who is looking?) but it also could be that these caves had been looted in the past.

6.) Perhaps cave painting was a trend in an artistic expression at the time. Perhaps some of the artists of different caves and rocks were some of the same people. The fact that some of the paintings are so beautiful and that they are in places which usually are difficult to access, shows how clever and skilled these people were.

7.) There is a possibility that the peoples who painted them were painting what they had seen in Babel, before they left. Nimrod was a mighty hunter. Perhaps this was in some way worshiped and also preserved in these paintings.

Some depictions are about farming, as some artwork depicts plows and men plowing. These cave artists may have come from farming communities. Even those of us who do live in self-sustaining cities, some still like to hunt, also, more for fun than for necessity. These pictures of hunting and farming do not necessarily suggest that there

were no cities present at the time they were made. The artists could have chosen not to depict city life. The plow illustrations, plus the fact that there are so many bull illustrations, indicate that there must have been warm summers, so that the ground would not be covered by snow all year or be too hard to plow. The people at that time and place could have had hunting parties for nostalgia, for wartime practice, or they may have been herdsmen, hunting while watching over their master's flocks, or for any number of other reasons. 1*

There are cave and rock illustrations of now extinct animals, which suggests that these animals must have lived in those areas after the Flood, unless these paintings and such were made before the Flood and somehow preserved. (See Riverbluff Cave example—a cave formed and preserved by the Flood, with all its contents.) It is unlikely in the case of the mammoth and rhino paintings that mammoths and rhinos lived in these northern areas after the Flood.

1* Altamira Cave, Spain:
http://www.turcantabria.com/Datos/Historia-Arte/Cuevas/Cuevas Altamira/altamira-i.htm

ANCIENT MAPS

The Ice Age is discussed in *The Puzzle of Ancient Man*, by Dr. Donald Chittick. (The 2006 edition references Mr. Oard and devotes two chapters to the Ice Age.) Chittick's claim is that the Piri Reis map shows mountains in Antarctica where there is now ice several miles thick. He says this is evidence of the ice age coming after the Flood, because Antarctica was accurately mapped without the ice cap in the early 1500s, using maps as old as perhaps 400 B.C. However, the Piri Reis is none other than a representation of the east coast of South America, with the bottom half turned upwards ninety degrees so as to fit the gazelle skin on which it was printed. It is not depicting any part of Antarctica. The bottom portion of that map is Argentina, not Antarctica. If it were Antarctica, then the mapmaker has chopped off the bottom half of Argentina and attached Antarctica in it's place! There ought to be at least a disclaimer about this written in the adds for Mr. Chittick's book by the creation organizations which sell it.

Other ancient maps have more clear illustrations of the continents. Whether or not they do show Antarctica with less ice and with mountains, or whether they show a greener Greenland and North Pole, is still beside the point. If the "post-flood ice age" ended thirty-seven hundred years ago, there would have already been ice covering the Antarctic mountains and polar regions by as early as 1300 B.C., long before 400 B.C. These most ancient of maps, e.g. 2600 years old, are not old enough to show the topographical climate changes from an ice age that ended 3300 years ago.

More ancient maps:

Babylonian map 600 BC

http://www.henry-davis.com/MAPS/AncientWebPages/103.html

Turin papyrus 1300 BC

http://www.henry-davis.com/MAPS/AncientWebPages/102A.html

Europe and surrounding areas 600 BC

http://www.henry-davis.com/MAPS/AncientWebPages/108A.html

"world" map 1505

http://www.henry-davis.com/MAPS/AncientWebPages/1191.html

Orontious Fineaus Map 1531 (If it shows Antarctica, where is Australia?)

http://images.google.com/imgres?

imgurl=http://xoomer.alice.it/dicuoghi/Piri_Reis/Finaeus.jpg&i

Mercator map 1587 (shows no mountains on Antarctica)

http://upload.wikimedia.org/wikipedia/en/5/58/Mercator_World_Map.jpg

modern topographic map of Australia

http://www.ga.gov.au/image_cache/GA4073.jjpg

LEGENDS

There are more than two hundred historical legends of a great flood, many of which involve one surviving man and his wife and children, who, alone, repopulate the world, and who save and replenish the Earth with land animals and birds. 1* There are NO ice age legends among all the peoples of the world, save for the very recent compilation of the drama. There are no ancient tales of unusual darkness, rain, and cold combined, a cold that killed millions of animals and lasted for half a millenia. The duration of the Noachain Flood, on the other hand, was merely one year and fourty days, yet it's saga is still prevalent worldwide. If it were true, one also would expect there to be ice age legends of old, especially since the people that lived in the time of the supposed post-flood ice age were descendants of Noah. Noah lived another four hundred fourty-eight years after the Flood, and Shem lived five hundred years after it. They would have lived in the ice age, if it happened. Since each of these lived for over one hundred years in the pre-flood world, they would have told their descendants who were living at the time of how things had been before the Flood. There would have been

more legends or stories told about this different, very dark, depressing, ash-laden, wet, snowy, cold....new world--but there are not any, probably because it did not happen.

It probably did not take hundreds of years of shifting to stabilize the world's climate after the Flood. There may have been more and bigger lakes for a while, as some of the flood water may have been trapped in some spots, before completely drying up or draining off. That situation would not have been able to produce an ice age, either.

1* *Folklore in the Old Testament: Studies in Comparative Religion, Legend, and Law*, "Chapter 4, The Great Flood," Sir James George Frazer, 1918: http://www.creationism.org/flood/FrazerFolkloreOT_4.htm#FrazerOT4_StoriesNoAmerica

ANCIENT HISTORY

There are some records of Sumer, Ur, Akkad, the Babylonians, Chaldeans, Egyptians, Chinese, and Indian civilizations which arose soon after the Flood, perhaps several hundred years after the Flood, soon after the fall of Babel. Most of the depictions and writings from these civilizations will give clues to the climate at that time: half-dressed and bare-footed or sandaled people, lions, dragons or large lizards,

horse-drawn chariots (imagine how hard this would be to do in the snow!), palm trees, elephants, tropical fruits,... These depictions indicate that the climate for those areas was warm, as it is today. There is no indication of an ice age. If this time period did not experience an ice age, then there must never have been one. True, there was not ice in those areas theoretically, but with the glaciated areas being as close as they were imagined, these areas also would have been quite cold in the post-flood ice age scenario.

SUNKEN CITIES

It has been said that the presence of ancient cities buried under the ocean near coastlines proves an ice age. There is, for example, *Ice Age Civilizations* Book and DVD from James I. Nienhuis. The theory is that a number of ancient cities sank into the sea because of the meltwater flooding which raised ocean levels at the end of an ice age.

Other scientists and historians believe that some of these cities were sunken because of either earthquakes or local floods, causing very unstable and liquefied foundation under these structures. The result was that the architecture lost its footing, fell over and slid off the delta or coast into the water and became permanently submerged. There is good evidence to support this.

Even so, here is the clincher: circumstantial and historical evidence shows that

many of these sunken cities became submerged long after the end of the imagined "ice age." The creationist ice age supposedly ended in around 1500 to 1300 BC. Herakleion, Egypt, is believed to have submerged around the 3rd or 4th century BC. The city of Menouthis sank around 740 AD. The ancient sunken city in India is believed to be from the time of the Pallavan dynasty, or 400-675 AD. Aperlae, off of Turkey, sank around 330 AD. This is not the complete list of sunken cities, but it is a very good start.

It is also interesting to note here that so many early civilizations built pyramids, perhaps miniature copies and modifications of the Tower of Babel. Several of these submerged ruins include large human statues (gods?) and ancient temples. Did God destroy these places with earthquakes and local floods, in judgement, to show that He alone should be worshipped?

Links:

"Spectacular finds of lost city revealed," BBC News, June 7, 2001:
http://news.bbc.co.uk/2/hi/middle_east/1375708.stm

"The Sunken cities of Egypt," Holly Davis, *Science Notes*, from the UCSC Science Communication Program, 2001:
http://scicom.ucsc.edu/scinotes/0101/egypt.html

Report from the National Institute of Oceanography: "Preliminary Underwater Archaeological Explorations of Mahabalipuram," Kamlesh Vora, 2002:
http://www.india-atlantis.org/pages/news.html

“Researchers Discover Church Submerged in Ancient Port City,” *Science Daily*, August 19, 1998: http://www.sciencedaily.com/releases/1998/08/980819081042.htm

FERTILE DESERTS

The Sahara desert was fertile at one time. Flood deposits make land very fertile. How long after the Flood would the land have been wet enough to support the life in places which are now deserts? Genesis 8:13,14 says, "And it came to pass in the six hundredth and first year, in the first month, the first day of the month, the waters were dried up from off the earth: and Noah removed the covering of the ark, and looked, and behold, the face of the ground was dry. And in the second month, on the seven and twentieth day of the month, was the earth dried." This first time, the "face of the earth" was dry, and one month later, the "earth" was dry. This probably means that the first time, there was no water to be seen settled on top of the ground, but perhaps it was marshy. A month later, the ground was then dry enough for all in the Ark to go out on it and make a living, as God tells them in the next several verses.

Now, if the earth continued to dry out after it had been super-saturated, it may have taken some low areas, in particular, longer to dry out than it took the mountains of

Ararat and those surrounding areas. There may have been trapped lakes in some places that also took a long time to dry up. Therefore there could be other explanations for the evidence of the Sahara Desert being fertile not too long ago.

EARTH'S RECORDS:

These things have been discovered:

1. that there was much, unusual diversity and robustness among plants and animals

2. that they were thriving together in a temperate climate, likely year-round

3. that there was an unprecedented amount of precipitation added globally

4. that there was a sudden, global, massive extinction of these flora and fauna

5. at a time very near this extinction large amounts of sea water and land froze, and global temperatures plunged

6. that most if not all of the "ice age" fossils and remains are found buried in sediment

7. the process of fossilization requires very rapid burial and is scarce today

Consider these events all together. Why do these not sound like consequences of

the global Flood? Why should centuries pass before everything froze? The flood waters and precipitation would have provided ample inland waters to form land glaciers immediately. Secondary flooding would happen as with Lake Missoula and Grand Canyon when the global floodwaters continued to recede. Present-day deserts would have been wetter for a while...Skies would have been clear from dust, allowing rapid regrowth....

It has been suggested several times that drumlins were formed not by ice, but by deep, fast moving currents of WATER. There is good evidence that some of our "glacial" landforms were formed during the flood, especially during the receeding of the flood waters and the uplifting of some of the continents and mountains. Doug Cox has written extensively about this and about some of the problems with the glacial theory on his website, *The Creation Concept*, under the subtitles of "Controversy about the Glacial Theory," and "The Drift." http://www.sentex.net/~tcc/#drift Here are some quotes from his site:

"Drumlins were formed under water!

In most areas where drumlins occur, there is also evidence they were formed when the land was submerged. Water currents generated by a rapid uplift were the likely cause of patterns of drumlins. There is no doubt that sediment-laden currents can produce drumlins, as researchers have confirmed the formation of drumlin-like structures in flume experiments (Wysota and Piotrowski, 2001).

Submerged drumlins are known from several areas. Drumlins partly drowned in the sea occur along the east coast of Nova Scotia, their orientation indicating flow was southward, apparently from the Gulf of St. Lawrence. About 200 drumlins occur in Boston harbour, and many partly drowned drumlins form islands in Strangford Lough, Northern Ireland, where flow direction was from NE to SW.

Sumberged drumlins are present on the floor of Lake Huron near Joseph Island, and on the floor of

Lake Ontario. About 6,000 drumlins occur in the area between lakes Huron, Erie, and Ontario. Typically these have signs of former submergence, such as gravel lag boulders, strand lines and wave-cut notches at well defined elevations. The higher strand lines are not horizontal, showing crustal warping has occurred.

Westover Drumlins (south of Guelph) are oriented E-W which contrasts with the orientation of the main Guelph drumlin field. Some of these drumlins have been modified by water action, having wave-cut benches and notches, and a gravel bar formed by wave action connects two drumlins."

Reversing ice sheets?

Orientation patterns in the Guelph drumlin field northwest of Lake Ontario indicate a NW current flow. This discredits the idea of the drumlins being formed by a former continental ice sheet as the direction of flow indicated by drumlin orientation suggests reversal of the ice flow. Glacialists invoke a "lobe" of ice from the basin of Lake Ontario, implying there was a thicker ice mass in Lake Ontario causing the "lobe" to extend to the northwest, west, and southwest, to account for the drumlins with these orientations, which in turn, implies greater accumulation of ice in the lake, etc., but the principle of Occam's Razor proscribes "multiplying hypotheses".

The directions of flow indicated by drumlins around the western basin of Lake Ontario discredit continental ice spreading from centres in northern Quebec or in the NWT. Flow of a continental ice sheet should be directed away from the thickest ice accumulation. The hypothetical ice sheet that formed the drumlins of the Guelph drumlin field must have somehow flowed northwest, which is towards one of the regions supposed to have maximum ice accumulation. Of course, the required ice motion is improbable. The Guelph drumlin field is shown this map.

In general, if the drumlins were caused by water currents rather than by rigid ice sheets, flow directions would be away from the uplifted areas. Currents generated during crustal warping and uplift of submerged areas could have formed drumlins with various orientations. The process would depend on the amount and rate of uplift, the water depth, the flow rate, and the nature of the sediments that were streamlined by the currents. Where the flow was too fast for streamlining, erosion would occur, possibly forming lake basins or eroding wide valleys or spillways. If flow rates were too slow, the longitudinal vortices that form drumlins would probably be replaced by transverse vortices, resulting in a rogen landscape resembling giant current ripples, rather than drumlins.

The patterns of drumlin distribution in many areas around the Great Lakes seem to fit this scenario, as the patterns of drumlins are closely associated with lake basins. The Finger Lakes are parallel to local drumlins. The drumlins on the floor of Lake Ontario are parallel to the axes of their basins. Drumlin fields are associated with all of the Great Lakes and with many other lakes along the perimeter of the Canadian Shield. The lake basins represent areas that were subjected to current flows too strong for streamlining, and where sediments were eroded by the currents. Associated drumlin fields occur in regions with rising elevation downstream. The drumlins are arranged in radial patterns, indicating spreading or fanning out of currents when they were being developed. The patterns of drumlins in most areas are radial, diverging downcurrent. This points to their cause being currents of water rather than ice, as the line of flow in an ice sheet is confined by the ice on either side.

Whereas in a glacial environment the direction of ice flow would tend to be down-slope, and away from the central parts of the ice sheet, if currents generated by uplift of submerged areas of the earth's crust were the cause of drumlins, the flow directions would be radial, and directed away from the centers of uplift. The currents would become faster where the depth decreased. There is no difficulty explaining flow from the sea, or flow from lower regions towards higher ground, in this interpretation.

In the theory of tectonic uplift of submerged land causing the powerful currents that eroded lake basins and streamlined sediments to form patterns of drumlins, the arc-shaped patterns evident in groups of drumlins is significant, as this arc or fan pattern indicates a radial spreading of the currents, such as would be predicted by the uplift model and an environment of submergence. For each episode of uplift there would be a wave generated that spilled in all directions, and displaced sea water would spill out towards surrounding areas. There would be little effect in deep water, but the effect in shallow areas or regions of low elevation is likely to be the formation of streamlined landforms such as drumlins and flutings. The currents generated by uplift would spread from the focus of uplift. The radius of the arcs in patterns of contemporaneous drumlins can be determined from maps of drumlins. From this data the centers of uplift that generated drumlin patterns can be located. Thus the arc patterns of groups of drumlins could be related to specific tectonic features such as faults.

See: Ontario Drumlins

“William R. Corliss reprinted this article in his handbook of geological enigmas, *Unknown Earth*, and portions of it again in his 1990 book *Neglected Geological Anomalies* p. 224-225, where he also cited objections by E.J. Butler and F. Hoyle to the idea of glacial movement over vast distances that has been invoked in the glacial theory. Corliss wrote in his introduction to the article, "Most readers should find the following survey paper stimulating, comprehensive, and well-referenced."

Abstract: The drift phenomena around the world have been interpreted by modern geologists in terms of tbe Glacial Theory. A great many problems of a fundamental nature are involved in this interpretation. The cause for the ice ages has not been determined. The distribution of the drift has given rise to numerous complicated and unlikely theories of events in the earth's past. Movement of great ice-sheets, necessary for a theory of distribution of the drift by ice-sheets and for the formation of streamlined landforms in a glacial environment, is postulated through some unknown mechanism. Mysteries abound in the glacial explanations of drumlins, kames and eskers, the formation of stratified drift, and ice-disintegration features. Fossils of the Quaternary include mammals not usually associated with cold climate. All of these facts suggest that the reality of the ice ages has not been proved.”

WHAT THE BIBLE SAYS

The post-flood ice age should not be called the "biblical" ice age because the Bible says nothing about an ice age. For creationists, what the Bible says is more important than anything else. What it does NOT say, is also just as important to note.

Many Christians assume that the ice age should not be in the Bible because it would not have affected the Middle East, and the Bible is mainly about the Middle East. That is not all true. The catastrophe of the ice age is not, as popularly believed, just death and destruction through severe cold weather in isolated regions. The post-flood ice age would have affected the entire world, especially with the volcanism that is purported to have happened then, the massive rainfall, and meltwater flooding. These things are not only NOT mentioned in the Bible, they don't even fit into the climactic situations in Genesis 9 through 50, the timing of the post-flood ice age. The massive precipitation, meltwater flooding, and certainly if there was at all such volcanic activity as the theory claims, would have affected the Middle East dramatically and in many ways, as it would have affected the whole world. It would have been a SECOND GLOBAL CATASTROPHE, or possibly the third, if counting the curse on the world after the Fall in the Garden of Eden.

The post-flood ice age discredits the Noachain Flood and robs from it. The post-flood ice age is just a repeat of the conditions and destruction of the Noachain Flood,

without the addition of the fountains of the deep, and it theoretically took hundreds of years to complete instead of one year and ten days. The Flood had completed its purpose by the time Noah and his crew left the Ark. God did not need to send an echo and destroy the few inhabitants of the earth so soon again.

What God has written in His word is not a complete record of all things that ever were and ever will be. There are many details obviously left out. Even so, God's Word, being perfect, is sufficient. It is sufficient in completing its intended message. The overall intent is not to detail the entire movement of human history. It is to reveal Himself to mankind, to give mankind purpose and hope in this world, and to invite and secure a relationship between God and man. However, God has been faithful to tell us about global catastrophes and judgements affecting the entire earth. If God were to change the climate of the whole earth for seven hundred years, as the Post-Flood or "biblical" ice age theory claims, He would have said more about it.

THE BOOK OF JOB

Many Christians reason that because snow and ice are mentioned in the book of Job, that it is enough to assume that Job lived during an Ice Age, no less, during “glacial max.”

First off, it is very likely that Job was living in an area of the Middle East that experienced snow regularly. This can be seen from several verses. Job 6:16-18 mentions brooks of water "which are blackish by reason of the ice, and wherein the snow is hid: What time they wax warm, they vanish: when it is hot, they are consumed out of their place." This is a description of seasonal streams, which only occur during each winter or spring, and which dry up every summer. Job 9:30 mentions washing in snow water, and Job 24:19 mentions again that drought and heat consume the snow waters—as in the annual summer season. There is also mention of snow in Job 37:6, 10 and in Job 38:22, 29, mention of snow and also hail. Job 24:19 is like Gen. 31:40, where Jacob is complaining to Laban about his troubles: he has endured the drought by day and the frost by night. It is also like Jeremiah 36:30, "...cast out in the day to the heat and in the night to the frost." There is nothing unusual about the weather in Job, and in fact it is very likely that it is the same as it is today in the mountainous regions of the Middle East.

Snow is rare in the Middle East, though IT CAN OCCUR EVERY FEW YEARS, as for example the cold snap in 2000 and again in 2004. 1* Some of the mountainous regions, as in Turkey, are extremely cold in the winter, and experience snow and ice EVERY WINTER. Jeremiah 18:14 speaks of the snow of Lebanon. The mountains of Lebanon have ski resorts today.

Second, Job was a very learned man, and kept company with others of the same. No doubt he and his companions knew about snow and ice. They probably knew of it

first-hand, having seen it either in the mountains nearby, or during cold seasons in the land where they lived. This would not be unusual, even in today's middle-eastern climate. In addition, they could have learned about snow and ice from travelers, by studying written accounts, or by the stories they had heard from others. Job lived well over 140 years (Job 42:16,17), plenty of time to have experienced several cold snaps. There is, therefore, no need to read the Job passages about snow and ice and assume from them that there must have been an ice age. On the contrary, from these verses, it is apparent that Job lived in a climate in the Middle East that is still the same as today's.

Third, the creationist ice age theory says that at glacial max, around five hundred years post-flood, there was very little sea ice. It says that there would have been at that time the maximum inland ice and snow buildup. Now, going back to Job 38, God mentions, "...the waters are hid as with a stone, and the face of the deep is frozen." This statement in verse 30 speaks of sea ice, of which Job knew. This verse suggests that either Job lived after "glacial max" because there was a lot of sea ice in his lifetime, or, more convincingly, it could be suggesting that the climate at that time was just as it is today. In all of God's answer to Job, He never gives any clue as to a severe climate CHANGE, massive volcanism, or of any other global destruction during Job's lifetime.

Lastly, Job did not live during an ice age because he could see stars. The mention of stars and constellations in Job verses 31 and 32, cannot support the idea that Job lived during an ice age, because stars would probably not have been visible! Even if the massive volcanic dust had cleared, the theory says that a lot of aerosols remained in the

atmosphere. Clouds form more readily in the presence of aerosols. It would have remained too cloudy for anyone to see stars.

1* "Cold snap brings Gulf rare snow," BBC News, December 30, 2004: http://news.bbc.co.uk/2/hi/middle_east/4135857.stm

"Rare and deadly snowstorm socks Middle East," CNN.com, January 28, 2000: http://edition.cnn.com/2000/WORLD/meast/01/28/mideast.snow.01/index.html

GENESIS: THE TIME OF THE "ICE AGE"

The "Ice Age," lasting until seven hundred years after the Flood, would have occurred during the time from Genesis 9 through the last chapter, Genesis 50. The ice age theory says that glacial max occurred at five hundred years post-flood, and that there was massive flooding from deglaciation in the following two hundred years, or from five hundred until seven hundred years post-flood.

Here is a contradiction. On page 85 of Mr. Oard's book *Frozen in Time*, he says that deserts would have received much more precipitation during the first five hundred years of the ice age. Later on the same page, he says that there would have been a great "dessication" of the deserts, in the following two hundred years. He says that in these

years, there was "deglaciation" and much "flooding." Thus, the floods from the melt water never reached the deserts.

Wells were used in the arid or semi-arid Middle East in Genesis 29, and in Genesis 37, Joseph was thrown into a dry well. The area there was good for grazing large flocks, which means it was not too dry, though the need for wells to water the animals may be an indication that there was a scarcity of lakes and ponds. The Bible describes the land and climate of the Middle East the same as it is today, no change.

There are several famines mentioned in the Bible during the time of the ice age. Isaac experienced one in Genesis 26. There is also the famine which plagued the Middle East during the time of Joseph, in Genesis 41. According to the biblical time chart published by Chartwell books, and from guessing that Joseph was between the ages of thirty and sixty at the time, the famine would have taken place somewhere between 1820 and 1790 BC. Also, the Flood is believed to have occurred somewhere near 2340 BC. This being so, the great and very severe famine during Joseph's life probably happened between 520 and 550 years after the Flood. The famine lasted for seven years, following seven years of “plenty.” The famine was so severe that in the last five years of it, there was no harvest at all. 550 years after the Flood would have been a transitional time between the ice age “wet desert” stage, and the remaining 150 years of “dessication” during “deglaciation” and “flooding". After the seven years of famine the climate and production of food went back to something near normal. The ice age theory does not fit very well here, in this case, because the land did not continue to dry

out and become less and less fertile after the famine.

SEASONS AND COVENANTS

About the seasons, there are many references in the Bible pertaining to seasonal rains: Leviticus 26:4, Deuteronomy 28:12, Jeremiah 5:24, Ezekial 34:26. There is reference to unexpected cold during normally hot seasons: Proverbs 25:13, "As the cold of snow in the time of harvest, so is a faithful messenger to them that send him: for he refreshest the soul of his masters." Proverbs 26;1, "As snow in summer, and as rain in harvest, so honour is not seemly to a fool." These verses indicate that snow and cold have been normal in their season in the Mid-East. Harvest times in their seasons are also mentioned throughout the Bible. There were only three verses with the word "ice" in the whole Bible: Job 6:16 and 38:29, and Psm. 147:17, "He casteth forth his ice like morsels: who can stand before his cold?" 2Samuel 23:20 speaks of the "time of snow", meaning the snowy season of the year. Then, of course, we have Genesis 8:22, "...seedtime and harvest, cold and heat, and summer and winter, and day and night shall not cease."

God means what He says, and His promises are sure, as is this promise in Genesis 8:22 above. Jeremiah 33:20 says, "Thus saith the Lord; If ye can break my covenant of

the day, and my covenant of the night, and that there should not be day and night in their season; Then may also my covenant be broken with David my servant, that he should not have a son to reign upon his throne; and with the Levites the priests, my ministers." Should it be said that God broke His covenant of the seasons because He brought on an ice age after the Flood? No. Through this, there seems to be no reason to speculate that there was any "ice age." It is more likely that the earth experienced its regular seasonal changes, much as they are now, since the end of the Flood. There is no indication of "ice age" conditions in the book of Genesis, the time at which the ice age was supposed to have happened. There is no indication of abnormal climate change elsewhere in the Bible, either. All of the biblical climate clues and information indicate that the climate is much the same now as it was then.

RAINBOW PROMISE?

If the post-flood ice age climactic situation were correct, then Noah would not have seen a rainbow. He would have looked up (if still alive), gagging and choking, at a sky black with ash! Then also it would have rained or snowed heavily almost every day for the next five hundred years! Mr. Oard suggests this dark, depressing scenario in at least two of his books about the ice age. This rainbow which God showed Noah was to

give him hope and comfort, not doubt and depression!

THE CATASTROPHIC FLOOD THAT CHANGED THE WORLD

A chronology of the Flood taken from the readings in Genesis 7 and 8 are particularly helpful:

In the 600th year (of Noah's life), on the second month, on the seventeenth day, all that were saved entered into the ark. On the same day, stated in this order, the fountains of the great deep were broken open, the windows of heaven were opened, and the rain began. That was the most dramatic Earth-shaping event that happened since the creation week.

This order of physical disturbances given in the Bible is interesting, allowing the possibility that the fountains breaking up and/or the windows being opened somehow may have caused or brought rain. The extra flood water probably came from under the Earth's crust, and then returned there later on, as is said in Psalm 104. (Was this water underneath cold, as we encounter deep in cave lakes, or was it hot, as we observe that spewed from tectonic action on land and sub-sea? Could it have been a combination of these?) If the Flood waters rose steadily to a height above two miles high in only forty days, burial would have been extremely quick; the water would have climbed more than

three hundred feet each day, if steady!

Next, God sent a wind over the earth, and the rain, the fountains, and the windows were stopped from acting further. The wind was very strong, able to drive off this water which covered this entire world, several miles deep. The wind which made the Red Sea crossable, a wall of water on either side, was very strong and directed. It could not be explained by natural forces. Likewise, the wind used at the end of the Flood was also a very abnormal event, one which natural forces cannot explain.

This is also a curious part in Genesis: it says when the wind began, but it does not say when it ended. It may have lasted only for one day. It may have lasted five months (until the 600th year, seventh month, when the ark came to a rest, possibly implying that it was not rocked or moved anymore by wind), or the wind could have lasted longer.

It is surprising to note the lack of consideration for the role of this wind. It may be a huge contributor to geologic changes and temperature changes. Again, one can only speculate on the actual strength, temperature, source, locations, and direction(s) of this wind, but if more scientists would see the benefit, they would study our geology more carefully and try to determine at least a few more of these details, and incorporate this into our Biblical history.

The ark rested on the mountains on the seventh month, on the seventeenth day. This was before the mountain tops could even be seen, as that was later, in the tenth month, on the first day. From the second month until a time between the seventh and the tenth or eleventh month, the water was still in the mountains. This would be enough

time for mountain glaciers to form. That is eight or nine months of freezing temperatures in the high altitudes affecting the water there. Since ice floats, the water below it would not have frozen, and it would have continued to flow off of the land for several months more, if it had a way out. Glacial formation at this time would depend on the overall Flood water temperature. Also, because the water was high altitude for at least eight months, it would have been cooled at the surface, also reducing the temperature of the Flood water.

Forty days after this tenth month, or in the eleventh month, Noah sent out the raven and then the dove. The dove returned the same day, and the waters were (still) on the face of the whole earth. (Genesis 8:9) Here, "face" must mean surface. In other words, there was still much water, even though the mountain peaks were showing. One week after that, Noah sent the dove out again, which returned to him this time with an olive leaf. Another week later, Noah sent the dove a third time, and it did not return. This was the 600th year, the eleventh month, the second week. About two weeks later, Noah opened the covering of the Ark. This was the 601st year, the first month, the first day. The face (surface) of the ground was dry then. After another month and twenty-seven days, was the earth dried. (Genesis 8:14) This was the 601st year, second month, twenty-seventh day, and the earth was dry, not just on the surface, but also it was dry and solid enough to walk out onto. This is when God spoke to Noah and told him to exit the ark, and all that were there with him.

In all, the survivors were on the Ark for one year and ten days. The first forty days

were in the rainstorm. If one month were thirty days, it would have been for one month and ten days. The rest of the time, or for one entire year, the survivors waited in the Ark for the waters to dry up. Again, it only took forty days to totally cover the earth. Destruction was complete in forty days, as would have happened also to Nineveh, noted in Jonah's warning: "Yet forty days and Nineveh shall be overthrown." (Jonah 3:4)

NOAH, NIMROD, AND PELEG: NO CONTINENTAL DRIFT, NO ICE AGE BOOSTER

If it be said that the continents shifted and drifted far away after the Flood, it might follow that this would have expedited an ice age. The continents probably have not shifted much at all since the end of the Flood. Continental drift after the Flood did not help bring on an ice age. There are several reasons to believe this.

After the Flood story in Genesis, there is a chronology of persons leading to the fall of the Tower of Babel, 101 years after the Flood (Genesis 10 and 11). The birth of Peleg is at the time the world was divided. This was the dividing of the of the people into groups of nations, the scattering of the people from Babel into different parts of the world. The people groups spread out into Asia, Europe and Africa, and possibly to the Americas and Canada. People often use existing landforms and rivers to divide

territory.

The dividing of the world at this time could not have been a dividing of the earth, or a continental break up, as some say, because that would have caused another horrendous global catastrophe. Just think of the earthquakes, tidal waves, etc., not to mention the tremendous climate instability, enormous wind storms, etc. To clarify, this division was of mankind, claiming areas of land, often separated from one another by water, such as rivers or oceans. This division is not of the earth's crust, it is not a continental shift or breakup. Genesis 10:25 says, "...the name of one was Peleg; for in his days was the EARTH DIVIDED..." This agrees with Genesis 10:5, "By these were the isles of the Gentiles DIVIDED into their LANDS, everyone after his tongue, after their families, in their nations." These both are obviously referring to the division and spreading out of mankind after the Babel incident.

It is also helpful to compare the Hebrew words "parad" and "palag" in Genesis describing the divisions. The word "parad" is used in Genesis 10:5, Genesis 10:32, and 2 Samuel 1:23. All of these have the meaning "to scatter abroad," except the one in Samuel. It means there the division of the relationship between two people.

The word "palag" is used in Genesis 10:25, Psalm 55:9, 1 Chronicles 1:19, and in Job 38:25. The definition given is "to split or divide (literally or figuratively)." Psalm 55:9 at least, may be using a figure of speech: "Destroy, O God, and divide their tongues..." That is an interesting one, since again, it mentions dividing of tongues. It may not be the same kind of division of tongues as in Genesis 10:5.

The word "plag" is similar to palag, found in Daniel 2:41 (dividing of the kingdom) and Daniel 7:25 (the dividing of time). Both could be used literally or figuratively in those cases.

Studying the word "peleg" and the name "Peleg" is even more interesting. The word peleg, in every of the ten citations, means river or stream, or watercourse, and is once even used to mean streams of tears. Again, a common borderline separating people groups from one another is water, such as rivers, lakes, and oceans.

The name "Peleg", interestingly enough, means "earthquake." At first this may give the impression that there was continental splitting and moving at the time of Peleg. However, take a look at the time frames given in Genesis.

There is a significance of Noah, Peleg, and Nimrod all living at the same time, and the dispersion of the nations happening within this time frame. Peleg is the 5th generation after Noah. After Noah there was Shem, who had Arphaxad two years after the Flood. Thirty-five years after that Arphaxad had Salah, who, thirty years later had Eber. Then, after another thirty-four years Peleg was born. This is 101 years after Noah stepped off of the Ark. Peleg lived 239 years.

Now compare this to the timescale for Nimrod. Nimrod is only the third generation after Noah. The years of birth are not given, but some very reasonable assumptions can be made about this time. After Noah, there was Ham, who had four sons. The first one named is Cush. Because he is mentioned first, he may have been the first born son. This might have occurred soon after the Flood, like within two years,

similar to the timing of the birth of his cousin, Arphaxad.

Cush later had at least six more sons, the last mentioned is Nimrod. With longevity and a later season of infertility, it becomes difficult guessing the time around which Nimrod was born. Perhaps Cush, Nimrod's father, was in his thirties when he had his first son, or for simplicity's sake, assume he was thirty years old. This would be thirty-two years after the Flood (the additional two years are from the time of the birth of Cush after the Flood). Also Cush could have begat sons every two years after that, until all six were born. If Cush had sons every two years, beginning thirty-two years after the Flood, Nimrod would have been born only fourty-four years after the Flood. This would make him sixty-three at the time of Peleg's birth, which is a reasonable age to assume that he was already a mighty hunter and a king. This would make the interpretation of the word "palag" in Gen. 10:25 reasonably fit the meaning that the earth was divided into nations, into distinct areas of the world, coinciding with the event at Babel. It would support the position that Peleg was so named because the earth (the people and their real estate) was divided up into nations at that time.

This is quite possible, but it is also possible that Nimrod was born when his father was more than one hundred years old, since Shem was one hundred when he had his first son. He probably also had daughters in between the years in which he had sons. It does not matter in this case. Peleg lived 239 years, or until 340 years after the Flood. So, even in the second case, if Nimrod had been born, say 101 years after the Flood , as was Peleg, or even 200 years after the Flood, he would have been king in the years

during the life of Peleg, and the dispersion after the building of the tower would still have coincided with the years of Peleg's life.

There are several times in the Bible when children have been named prophetically, years before the action came to pass. Because of this, it is not imperative that the dispersion of people groups happened before or at the birth of Peleg. The dispersion could have happened at any time during the life of Peleg. The point here is that Nimrod's kingdom and the life of Peleg were at the same time, and therefore, it is most likely that the reading of Genesis 10:25, and the like, mean the dividing of people groups into their geographical areas, and NOT that there was a dividing up of the earth's crustal plates and continents at that time.

Noah himself and his three sons lived for several centuries after the Flood. (Noah lived 350 years post-flood, which by popular conjecture, was the middle of the "Post-Flood, Biblical Ice Age." Noah grew grapes, got drunk from the wine of it, and sometimes slept naked and uncovered (Genesis 9: 20, 21). There is nothing unusual mentioned about the weather during these centuries. It would have been very difficult to hunt and to farm, even to live under thick clouds of volcanic dust, poisons, cold, and additional acid-rain floods.

CONCLUSION: WAS THERE REALLY AN ICE AGE?

"Was there really an Ice Age?" (pages 33-34 of *Frozen in Time*) That is a very good question. (Was this a question to prompt the reader, or was it a genuine question in the mind of the author?)

The "ice age" which was supposed to cover half of the North American continent and similarly much of the Asian continent, is very unlikely to have ever happened. The reason for the initial thrust of the ice age theories is because of the striated, scratched bedrock and smooth boulders, eskers, and drumlins found in those areas. Most of these features are more likely the result of deep, massive, and rapid aquatic action, and/or wind, as the Flood waters receded off of the land very quickly, leaving these unmistakable marks of turbulence and flow and deposits from huge volumes of water, not from solid ice. 1* The geologic evidence of rock stratification and moraine formation, etc., ought to be reconsidered as it is highly possible that these features arose during the receding of the Flood waters and the uplifting of parts of the earth's surface during mountain-building. Secular scientists may be comfortable saying that some geological features are due to glacial retreat from an ice age, but that is deceiving. Creationists should beware of the danger in their message when they compromise with secular science. If these features are results of the receding Flood water, then the ice age theory is discrediting the Flood and the Bible.

Would ice on top of the flood water be able to remain in the mountains as glaciers as the rest of the flood water receded? Or would all of the floating ice have been

lowered with the water level, and melted at lower altitudes? It is possible to freeze a lot of moving water, little by little, if the conditions are right, as when waterfalls slowly freeze over.

If there was ice on the flood water during the year of recession, it probably would have melted in the places where the weather was too warm for it, and some may have remained frozen in other places that are in sub-zero temperatures most of the year. Since it took almost a whole year for the water to dry up from off the earth, there probably was enough time and cold air, coupled with high altitudes and higher latitudes, to freeze some of the flood water.

I believe that the post-flood ice age was not possible. Neither is it biblical. I will briefly restate my reasons.

1) The Bible does not mention any ice age or any other global devastation or change until the last days of the future, as in Revelation.
2) There are no accounts of an ice age historically or in legends.
3) The amount of volcanics and precipitation the post-flood ice age requires is too much to have been possible. It also would have killed everything.
4) Two-mile deep ice cores show very rapid glacial initiation from a warm climate.
5) The lengths of the ice cores are too clean, a clear lack of evidence for massive volcanics occurring after the Flood.
6) Mammoths were very suddenly and quickly frozen.

7) "Ice age" fossil remains indicate a uniformly warm global climate upon time of death, because of their variety and widespread location.

8) There was enough time to form mountain glaciers when the Flood water was receding.

9) The great wind mentioned in Genesis 8 could have produced significant cooling of the Flood water.

10) A good part of the post-flood climate cooling could also be attributed to mountain building during the Flood, and the effects of mountains on climate.

11) The Flood water may have carried huge glaciers on it, some of which melted soon after the Flood had receded.

12) Geologic evidence for non-existing land glaciers can often be explained better by massive aquatic action.

1* Douglas Cox wrote much about geologic evidence supporting aquatic action versus glaciers, for example, in "Problems in the Glacial Theory,"
http://www.sentex.net/~tcc/gtprob.html and in
http://vinyl2.ssentex.ca/~tcc/GT/GTDT.html
Also, "Was there an Ice Age after the Flood?"
http://vinyl2.sentex.ca/~tcc/GT/PFIA.html
from The Creation Concept website.

ONE MORE OPINION

Here is an excerpt of an article, "Planetary Transgression," copyright 2007 by Vern Crisler.

Secrets of the Ice Age

I grew up believing in an Ice Age. I think it must have first come into my consciousness from an episode of the television show Star Trek, in which Mr. Spock and Dr. McCoy went back in time into an Ice Age. This Ice Age was not even on earth, but not being overly concerned about such minor and unimportant details, I became “hooked” by the coldness and frozenness and windiness of it all. Even when I came to believe in creation and the Flood, doubts about whether an Ice Age had ever occurred never entered my head. This was largely due to Henry Morris’s acceptance of an Ice Age as caused by the Flood. (Cf., The Genesis Flood, 1961.) Even though Morris offers some skepticism about an Ice Age, the concept is still accepted as a reality:

“They [ice sheets] constitute the primary characteristic of what is called the Pleistocene

Epoch, and are universally accepted by modern geologists. Since the onset of a cold period is also strongly implied by our deductions from the Biblical description of the Deluge, we do not take issue with the accepted uniformitarian geology at this point." (The Genesis Flood, p. 292.)

Morris went so far as to claim that Pleistocene deposits "can be excepted as post-Deluge." (Ibid., p. 295.) Thus, Noah and his family would be the first inhabitants of a Pleistocene world.

Nevertheless, despite the acceptance of an Ice Age by Morris (and other Flood theorists), my faith was undermined by D. S. Allan & J. B. Delair's book Cataclysm! Compelling Evidence of a Cosmic Catastrophe in 9500 B.C., 1997. Did great ice sheets cover much of the northern continents? Did half of the world look like the Arctic region, or even Antarctica? Allan & Delair's book cast grave doubts upon the whole idea.

Still, one wonders, could the Ice Age have come about, as many creationists believe, after the Flood? Michael Oard's book Frozen In Time: The Woolly Mammoth, the Ice Age, and the Bible, 2004, answers the question in the affirmative. I read the book, anticipating that my faith would be restored as at the first, but alas, faith was replaced by cold doubt. Oard's theory is that the Ice Age was a reality, that it lasted only a few

hundred years, and represents an after-effect of the Flood. However, he brought so many criticisms against the uniformitarian view of the Ice Age that I fear, despite his intentions perhaps, that I may have apostatized completely from Ice Age orthodoxy. Is it possible that the Ice Age is just a 19th century myth?

...(time chart omitted)...

In conventional views, the Ice Age correlates with the Pleistocene and Paleolithic categories. The post-Ice Age period begins with the Mesolithic, which is correlated to the "Pre-Boreal" phase, which in turn follows the period called "Younger Dryas." The latter is regarded as part of the Late-Glacial. (Cf., J.G.D. Clark, Cambridge Ancient History, Vol. 1, Part 1, 1970, p. 91.)

The question is, how does Oard's post-Flood Ice Age fit into this? Basically, he believes the Ice Age started with Noah's descent from the ark, and lasted well into the time of the patriarchs. This would mean the Pleistocene and Paleolithic periods were post-Flood and lasted at least to the time of Abraham. Oard also has no hesitation in saying that the Book of Job was written during the Ice Age:

"Biblical history records events during or soon after the Ice Age. This epoch includes the Book of Job and the life and times of the Jewish patriarchs. The Bible's focus is on

events that took place in the Middle East after the Flood. So, we should not expect to read about an Ice Age in the Bible." (Frozen in Time, p. 127; cf., p. 133.)

It is further claimed that the Tower of Babel incident took place while the Ice Age was "well underway" and that those who dispersed from Babel included "Neanderthal and Cro-Magnon man." (Ibid., pp. 128, 129.) This view of the Ice Age is seconded by John D. Morris, son of the late Henry Morris. In his The Geology Book, 2000, John posited that after the Flood, the waters were "quite warm," which allowed precipitation, but at the same time, the continents were Ice Age cold. This paradox is part of Oard's theory, and doesn't make any more sense when repeated by Morris. In addition, the mammoths who died in the millions during the Ice Age, were descended from two mammoths who walked off of Noah's ark. (Ibid., p. 68.) This seems highly implausible.

From our point of view, Noah's embarkation from the ark signals the end of the geological period and the beginning of the archaeological period. Thus, the Paleolithic and all previous sedimentary levels are the result of the Flood, while the Mesolithic (or proto-Mesolithic) represents the beginning of the post-Flood era. (This was Courville's view.) Further, the Tower of Babel incident took place at the end of the Uruk phase (just before the Early Bronze Age), and the Conquest took place at the end of the Early Bronze Age. If Oard agrees with conventional archaeology in its placement of Abraham in the Middle Bronze 1 phase, or even later, then how would he reconcile the placement

of the Paleolithic period into the Middle Bronze Age? This is implied by his placement of the Ice Age into the patriarchal period. In fact, this cannot really be done since the archaeological levels are clearly stratified, from Mesolithic to Iron Age, and are certainly post-Paleolithic. Oard's theory would have to ignore several different archaeological levels, or at least squeeze them into such a small time period as to render the whole thing quixotic.

Oard's theory of how an Ice Age could occur in the first place appears rather speculative, but at least he provides a good discussion of issues in Ice Age theory, e.g., criticisms of ice-core dating methods, myths about the woolly mammoth, implausibility of uniformitarian explanations, etc. Aside from the archaeological problem of relating post-Flood Ice Age theory with the metallic ages, Oard's book is well worth reading for its helpful introduction to the subject.

Allan and Delair's book Cataclysm! also has its problems (e.g., too much Velikovskian-style reliance on myth and legend to interpret geological events), but it recognizes that much phenomena used to prove the existence of an Ice Age (or several) can be accounted for in terms of water. They do not deny an Ice Age may have occurred but say it must have "occurred in a form and by a means not properly accommodated by conventional dogma." (Ibid., p. 25.) On their theory, this "greatest single disaster" took place around 9500 B.C. and was part of a wider catastrophe involving interstellar

phenomena including the solar system. Its effect upon the earth was remembered by early man as "the Great Flood or the Noachian Deluge." (Ibid., p. x.)

It seems to us that if an Ice Age did happen, or if creationists insist on keeping it as a theory, it would more likely have occurred after the Flood maximum (150 days) but during the drainage period that followed (about 114 days), when the waters were diminishing slowly from the continents (Gen. 8:1-3). It's not hard to imagine that some of the shallower northern waters were subject to freezing in light of the new weather conditions. The regular climate system had not yet reached equilibrium, so during the months that Noah waited on the ark, vast ice sheets may have formed over the northern continents. Presumably, these did not last long in the sunlight, which may have created melt-waters, ponding, formation of conglomerates, drift, or other "Ice Age" phenomena. In addition, some of the waters that ponded were released when their ice dams melted (e.g., the Bretz flood), and the remnants of the Flood may still have been swirling and receding, carrying great icebergs and iceflows along, dropping off erratic boulders, causing striations, tillage, and other recessional effects. In any case, however it may have happened (if it happened), the Ice Age could only have been a pre-archaeological event, and that would leave only the latter part of the Flood as its likeliest time slot.

Allan and Delair do not seem to have any obvious theological orientation in their book, but they do bring up many problems in Ice Age theory, and are prepared to accept a

greater role for "colossal masses of water." (Ibid., p. 68.) The geological column is accepted as a reality, but what is questioned is the length of its last period. The Pliocene is regarded as much more recent than conventional geologists will admit to, and the subsequent Pleistocene is theorized to be of a very short duration, in which the Ice Age "largely vanishes." (Ibid., p. 340.) The reason is that the Pleistocene level is thought to be the result of a catastrophe rather than of slow uniformitarian processes. The writers do believe in a continuity between the Pleistocene (Younger Dryas) and the Recent periods, but not so much as to run them together, or to ignore the archaeological ages. In my opinion, Allan and Delair's theory is in contradiction to the Bible's account of the Flood, but as a secular Flood theory, it at least seems possible (if shorn of annoying Velikovskian features). At least their work shows that there is no need to adopt Oard's theory of a post-Flood Ice Age with all the attendant difficulties that follow from such a concept. The so-called Ice Age may never have happened at all.

We accept the view that the Pleistocene is part of the Flood rather than part of a post-Flood Ice Age, and also accept that Noah is to be found somewhere at the beginning of the Mesolithic (a proto-Mesolithic stage, perhaps). There is then no need to posit an Ice Age of long duration, as uniformitarians would have it. Or if an Ice Age is found to be necessary to account for all the data, the most likely solution would be to locate it during the last part of the Flood, not after the Flood, as some creationist would have it. A post-Flood Ice Age would impinge upon the archaeological ages, and it would be better not to

have an Ice Age at all than to ignore the well-established stratigraphic levels of archaeology. Such is my faith as it stands today.

For full article:

http://vernerable.tripod.com/mesolithic.htm