

THE ICE AGE PHENOMENA AND A POSSIBLE EXPLANATION

DONALD WESLEY PATTEN, M.A.

Pacific Meridian Publishing Company,

Seattle, Washington

The subject of the Ice Epoch (sometimes known as the Ice Age or Ice Ages) is one which has been difficult for catastrophists to locate in time; most have placed it following the Genesis Flood. This would mean that it is located, more often than not, between 2,000 and 2,500 B.C. or a little earlier.

Uniformitarians have dated the Ice Epoch variously between 1,000,000 B.C. and 8,000 B.C., with datings between 15,000 and 8,000 B.C. being most common in recent decades.¹ Most of them ignore the idea of a Flood, or relegate it to a local phenomenon.

There is a third alternative which has for some reason never been considered. This concept is that the Flood and onset of the Ice Age may have been simultaneous events. It is the purpose of this paper to first present the facts dealing with the occurrence of ice, and then to suggest an explanation which will take them into account. The following then are the requirements which any adequate theory must meet,

Requirement 1 The Frozen Mammoths: An Illustration of Sudden Freezing

Vast volumes of ice, as vast as 30,000,000 cubic miles, is one issue with which any theory for glaciogenesis must deal. But such an issue is quite different from the issue of suddenness. Was the ice deposited upon the Earth slowly in terms of centuries and/or millenia? Or was it deposited upon the Earth suddenly in terms of days and weeks?

Mammoths were, along with mastodons, the largest members of the elephant family. They have become mummified in two manners, both of which suggest cataclysm and suddenness. In Alaska and Siberia, mammoths have been mummified, apparently by the millions, both in ice and in sedimentary strata. These twin types of fossilization support the proposition that the Flood and the Ice Epoch were simultaneous global catastrophes (or rather, differing phases of the same catastrophe.)

In some areas, it is as if mammoths were deposited in watery graves, in which the alluvium was freshly deposited, then compressed and recompressed. In other areas, mammoths were encased suddenly in ice, ice which has remained unmelted since the event. Their entombment

and refrigeration have been so effective that mammoth carcasses have been thawed to feed sled dogs, both in Alaska and Siberia (Figure 1). In fact, mammoth steaks have even been featured on restaurant menus in Fairbanks.

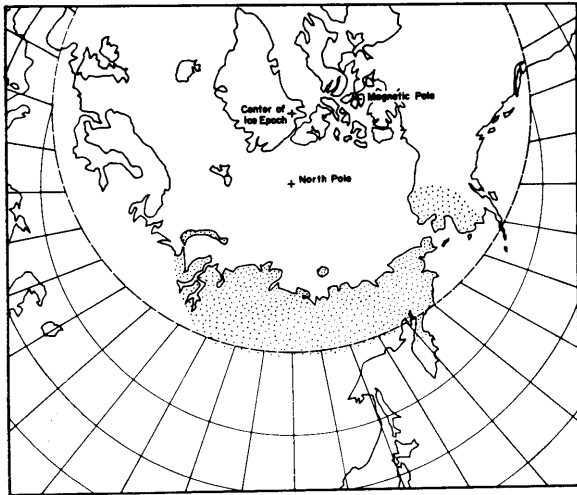
Every indication is that the mammoths died (1) suddenly, (2) in intense cold, and (3) in great numbers. Death came so quickly that the swallowed vegetation is yet undigested in their stomachs; other vegetation is yet unswallowed in their mouths. Choice grasses, bluebells, buttercups, tender sedges and wild beans have been found, still identifiable and undeteriorated, in their mouths and stomachs.²

What killed the mammoths with such suddenness and such unearthly cold? An illustration, well known and substantially recorded, may explain this strange phenomenon. We refer to the case of ancient Pompeii, and the people engulfed therein. One observer was Pliny the Elder, a Roman naturalist, who himself lost his life in his investigations of the erupting Vesuvius.

Pliny recounts that as the eruption began, many Pompeiians at first did not take it seriously; this sort of thing had happened before, and had quickly settled down again. This particular time, however, the mountain continued to roar and rumble in increasing crescendoes; smoke kept belching, cinders kept falling in increasing volumes, and hot, toxic, gaseous fumes continued to be expelled in increasing volumes.

The people became apprehensive, and soon began to panic. Long streams of refugees began to flee from the doomed city. As the cinders and sulphurous fumes turned day into night, and as the variable winds shifted, sudden squalls brought hot, toxic, sulphurous fumes down upon groups of fleeing refugees. Asphyxiation dropped the refugees in sudden death, seemingly within one breath. Their fossil remains have been preserved by a blanket of pumice; the dying expressions yet remain on their faces, and the details in the fabric of their garments remain vividly imprinted in the pumice temple.³

Excavations of Pompeii have revealed how swiftly the fleeing victims were (1) asphyxiated, and (2) promptly encased, in this case in pumice. In the case of the mammoths, the span of time between death and freezing can be estimated quite accurately through an examination of the



LOCATION OF THE ICE FOSSILS

Figure 1

carcasses. This is determined by the extent of the water separation within cells, for water begins to separate within a cell at death, and it ceases to separate at freezing. The small extent of separated water within the cells indicates that the mammoth carcasses were frozen rapidly, perhaps at temperatures below -150°F .

Temperatures of this severity exist in our solar system, but not at the surface of the Earth under its present rotation and orbital scheme. This kind of temperature exists for example, among the frozen atmospheres of Jupiter and her icy satellites such as Callisto and Ganymede, and the icy crusts of Saturn's satellites, or rings. Among satellites such as Saturn's Mimas, Enceladus, Iapetus or Hyperion, these temperatures are normal, as is the presence of vast volumes of ice. And apparently the same is true for many of Uranus' satellites, such as Miranda, Ariel, Umbriel, Titania and Oberon.

If icy particles in temperatures nearing -200°F . were deposited upon the Earth from such an astral visitor, this could produce a great, icy avalanche of supercooled ice, possibly reproducing the supercooled conditions under which the mammoths so suddenly met their death. Under such conditions, even a huge, woolly mammoth would immediately perish, not to mention bison, camels, rhinoceroses, sheep and other animals, which have been found similarly encased in ice. They may have perished by asphyxiation because, at these temperatures, their lungs were suddenly frozen solid. They dropped immediately; freezing of the carcass ensued shortly.

Actually, the temperature of the ice which killed the mammoths may well have been below -300°F . The surface temperature of Neptune, Nereid and Triton is about -325°F .⁵

Wrangell, the Arctic explorer, observed on Bear (Medvizhi Ostrova) Island that the soil consisted of only sand, ice, and such a quantity of mammoth bones that they seemed to be the chief substance of the island. On the Siberian mainland, he observed that the Siberian tundra was dotted with more mammoth tusks than with Arctic shrubbery.⁶

Pallas related that there was not a river bed in all Russia or Siberia, from the Don to the Bering Strait, which did not contain bones of elephants and other animals.⁷ It has been recorded that during two consecutive decades (1880 to 1900) at least 20,000 elephant tusks were taken from one single Siberian mine. Ivory trade has a history as old as the recorded annals of the area.⁸ Traditions of Siberian ivory are at least as old as the historians of the Roman Empire.

The long series of astounding finds of frozen carcasses are too voluminous to relate here.⁹ The findings of Howorth, Nelson, Rehwinkel, Sanderson and Vail are notable. But the important thing is that an adequate explanation is needed, and furthermore, an adequate explanation should be possible. The slow-snow theory intrinsic to uniformitarian notions is based on the assumption that climatological (and meteorological) observations must contain the explanation.¹⁰

Requirement 2 The Regions of Sudden Chilling

The regions of sudden chilling occurred in both hemispheres. The locations were in high latitudes with respect to both (1) the geographical poles and (2) the magnetic poles. However the regions covered by the ice coincides 75% more closely with the Magnetic North pole than it does with the Geographic North Pole.

In Antarctica, less than 200 miles from the South Pole, Byrd found evidences of a former climate which nurtured luxuriant forests.¹¹ On the island of Spitzbergen (Svalbard), palm leaves ten and twelve feet long have been fossilized, along with fossilized marine crustaceans—which could only inhabit tropical waters. This suggests that at one time the temperatures of the Arctic Ocean were similar to the contemporary temperatures of the Bay of Bengal or the Caribbean Sea, Spitzbergen is half way between the northern tip of Norway and the North Pole, at a latitude of 80°N . Today, ships can reach Spitzbergen through the ice only about two or at the most, three months of the year.

And in the New Siberian Islands (slightly warmer than Spitzbergen, at a latitude of 75°N ., between Siberia and the Geographic North Pole) explorers claim to have found species of

tropical plants, apparently including breadfruits, encased in ice, as were mammoths. How could this be? Were explorers spinning yarns?

Antarctica, Spitzbergen and the New Siberian Islands are but three places where evidence occur that coldness came with extreme suddenness, wiping out a previous tropical climate with a finality which has lasted over many thousands of years. This directly leads to two queries: First, what caused the abrupt change which so dramatically froze the fauna and flora?¹² And secondly, and probably more important, what was the nature of the previous climate? This second question may be considered in a future article, together with reasons as to why this is ultimately the more significant of the two questions. Meanwhile, the immediate question is, What happened? Was the sudden coldness natural or unnatural, seasonal or unearthly? To say the least, uniformitarian-minded geologists are hard pressed to produce a satisfying answer.

Requirement 3 The Depth of the Ice Mass

The suddenness of the onset of the Ice Epoch has been briefly considered, relative to not just one but both hemispheres. The evidences are amazing and phenomenal. Of no less import, and of no less amazement, is the depth to which ice occurred. Sudden frost, as measured in a fraction of an inch, may be one thing, and winter snows to a depth of 20 to 50 feet, such as on the Matterhorn or Mt. Rainier, are another thing. What was the depth of the ice mass in the Northern Hemisphere? What was the depth in the Southern Hemisphere?

It has been established, from the direction of ice flows, studies of gradients, distances, and other related data, that there were several nodes of ice on the Canadian Shield. The Keewatin Node, centering East of Great Slave Lake and north of Lake Winnipeg is among the leading examples. The depth of ice in this node was between 15,000 and 17,000 feet. Fifty feet of winter snows, located in mountain regions is not comparable to 15,000 feet of ice, located on a North American plain, many miles distant from the Arctic, Atlantic and Pacific oceans.

Do we find similar depths of ice in the Southern Hemisphere? This question is complicated by the fact that the floor of the Antarctic shelf is often well below sea level. Furthermore the Northern Hemisphere has a predominance of land in the high latitudes where glacial mass flows can be recognized, traced and measured. This includes glaciation in three continents; Asia, Europe and North America. No such comparable circumstance exists in the Southern Hemisphere.

However there are indications that the Ice Epoch covered such diverse locations, beyond Antarctica, as Patagonia, the Kerguelen Islands, New Zealand and Tasmania. This is comparable to about a 5,000 mile diameter of the ice sheet in the Northern Hemisphere.

In 1958, an ice core was taken on the Antarctic Ice Cap near Byrd Station. Drilling commenced at an elevation of about 5,000 feet above sea level. The thickness of the ice sheet was 10,000 feet. The drill went through solid ice all the way until it hit bedrock, at 5,000 feet below sea level.¹³

Uniformitarian theory claims that snow flakes fell over unending epochs until ice was built up to 10,000, or perhaps 15,000 feet on the Canadian Shield. Then it began to melt faster than the rate of buildup. This theory, to be consistent, also should explain the ice packs at 5,000 feet below sea level.

Now when snow falls into brine at 25° to 32° F., it will not sink; it will dissolve into a sort of floating slush. And we know what just a little bit of salt will do on a frozen pavement. The real question is not whether it may be ludicrous to propose that ice might be formed in brine, some 5,000 feet below sea level, by falling snow flakes. The real question is whether or not uniformitarians require us to believe other propositions equally ludicrous.

In the work, *The Biblical Flood and the Ice Epoch* (See footnote #12), it is demonstrated that the Flood was tidal in nature, including tides of great magnitude; tides both in the hydrosphere and in the lithosphere. It is demonstrated that the recent series of mountain uplifts occur in scallop-like curves which merge into great circles, (Figure 2) suggesting a global scale of orogenetical uplift, caused by massive tides of magma within the Earth's crust. It is further demonstrated that the scallop-like or arcuate curves comprising mountain ranges traverse across continental massifs and oceanic basins with seeming equal ease. Consider the parallel. Here, it would seem, ice was deposited in the high magnetic latitudes, irrespective of sea level, and on both a continental shield (Canada) and on the Antarctic shelf, well below sea level. This parallelism (actually a twin parallelism) must **not** be disregarded in evaluating the nature and the cause of the Ice Epoch of the planet Earth.

Requirement 4 The Volume of the Ice Mass

The ice sheet is pretty well traced in the Northern Hemisphere due to the prevalence of land at high latitudes (Europe, Russia, Siberia,

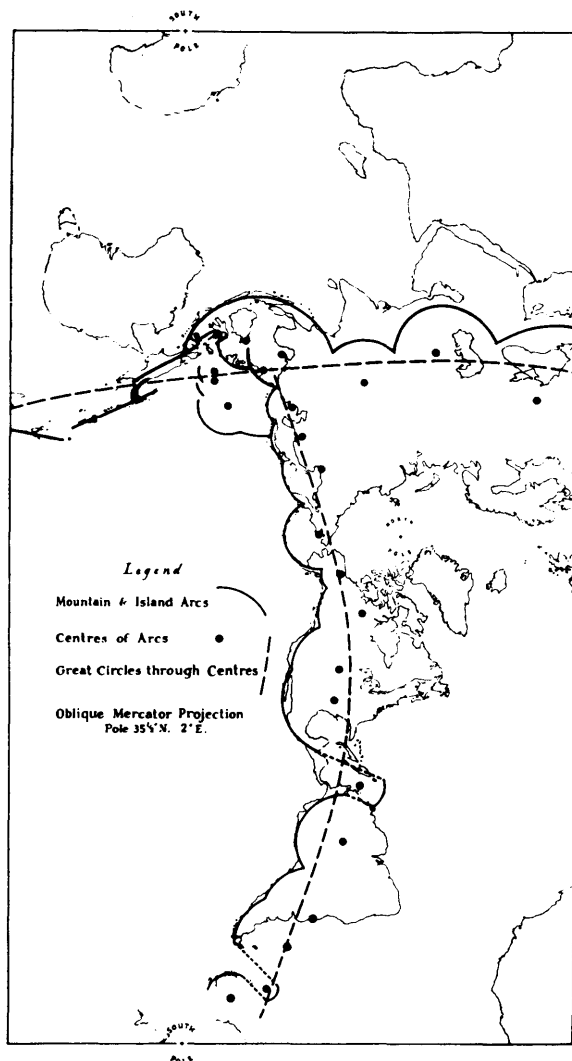


Figure 2. The Great Circle Alignment of the Two Recent Zones of Orogenetic Uplift.

(After J. Tuzo Wilson, *The Earth as a Planet*, ed. Kuiper, p. 138, Chicago: Univ. of Chicago Press, 1954.)

Alaska, Canada and the United States.) Figure 3 illustrates this region, which apparently extended from Alaska to Central Europe, and from the fringes of Siberia to the Central United States. Its location is polar, but it more closely coincides with the Magnetic North Pole than the Geographic North Pole. It is about 75% closer to the Magnetic North Pole; furthermore there is substantial evidence for the conclusion that the magnetic pole was once located between Baffin Island and Greenland, the center of the ice sheet. The eccentricity of geographical latitudes with the ice sheet must be considered significant. Simultaneously this observation does nothing for the uniformitarian proposition that the Ice Epoch developed in the high latitudes because

that is where little sunshine is received, and climates are cooler. Illinois, at 37° N. latitude, was glaciated; Siberia, at 70° N. latitude was unglaciated; however Illinois is closer to the magnetic pole, and has a better view of the Aurora Borealis.

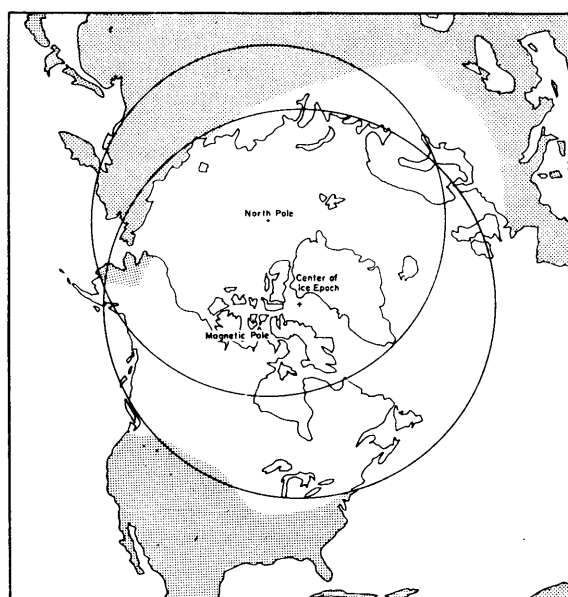
If the ice sheet was about 5,000 to 5,200 miles wide, and 3 miles deep, feathering out toward the edges, the resultant volume of ice is about 15,000,000 to 20,000,000 cubic miles. The former number will be used since there is virtue in being conservative. This is still a lot of ice to account for; particularly when it is realized that **another** 15,000,000 cubic miles was deposited in the Southern Hemisphere.

Of course this is not a great deal of ice by the standards of Callisto, Neptune, Uranus, or even tiny, icy Iapetus, with a diameter of 1,000 miles and a very heavy percentage of ice among its components. But it is a lot of ice to account for by uniformitarian standards, where 50 feet of snow is sometimes viewed as a phenomenon.

The volume of heat required to reduce 30,000,000 cubic miles of water from 70° F. to below freezing and turn it into ice exceeds 7 septillion calories. Seven septillion calories of heat loss is sufficient to freeze 400 cubic feet of ice for each and every cubic foot of the Earth's surface. Imagine 400 blocks of ice stacked vertically, upon each square foot of Earth's surface. This is the magnitude of heat exchange which must be explained, apart from the obvious suddenness, which also must be explained. This is enough heat exchange to reduce about 7 Earth atmospheres to absolute zero.

There is another method to check out this estimated volume of ice which was deposited upon the Earth. It involves review of the increase in sea level, as adjudged by the continental shelves. The Hudson River Valley, for instance, does not end at New York. It continues for about 100 miles beyond New York to the edge of the continental shelf. The Delaware Valley is a similar case. Other continents contain other examples. The North Sea has been inundated within recent geological times, if the stumps which are raised therefrom are any indication.

Evidences point to a recent rise in sea level of between 300 and 450 feet. If this is attributed to the addition of juvenile ice to the Earth's hydrosphere, which melted in the early post-diluvian age, then this tends to substantiate the previous volume estimate. It also corroborates the observation in Genesis that some 200 to 300 years after the Deluge, the land mass became divided, (Genesis 10:25) for rising waters tend to divide islands off from continents, and archipelagoes from islands.



THE GEOGRAPHICAL LOCATION OF THE ICE AGE IN THE NORTHERN HEMISPHERE

with regard to (1) the Geographical Center of the Ice Age
(2) the Geographical North Pole
(3) the Magnetic North Pole

Figure 3

Requirement 5 The Geometry of the Ice Sheet

Any acceptable theory on the Ice Epoch must accommodate itself to the conical geometry of the ice formation. On the Canadian Shield, there were several nodes with ice elevations around 15,000 feet. From these areas, the ice flowed outward in all directions, in a radial pattern, corrected only by local topographical considerations or coriolis force. This kind of pattern occurs when honey is poured onto pancakes, or pancake batter on the griddle.

It flowed over hills a thousand or more feet high, en masse for hundreds of miles. As the ice flowed, it gathered rocks, timber and other debris, which were ultimately dropped at or near the edges, forming lateral or terminal moraines. The extent of the ice flow is determined from, and orthogonal to the terminal moraines; the direction of flow was parallel to such formations as drumlins and lateral moraines. The path of flow is also plotted by locations of erratic boulders, striations and other methods.

According to uniformitarian theory, the ice was supposedly formed by snow, which had been transported by planetary wind systems from moist, warmer regions where waters evaporated abundantly. It built up until the process was exceeded by principals of outflow and melt. But this hypothesis does not agree with the manner of flow of the ice mass; neither does it agree with the direction of ice flow.

Perhaps the best illustration is found in the coldest area of the Earth, Interior Antarctica. In Interior Antarctica, the air is not only very cold, but is incapable of containing much water vapor. It is also very dry. In fact, Interior Antarctica ranks along with the interior of the Sahara Desert in lack of precipitation.¹⁴ It is rather at the fringes of Antarctica where substantial snows occur, for this is the region where warmer and more humid maritime air mixes with cold, dry, polar air.

Snowfall in Antarctica therefore takes on a saucer-shaped pattern, being greatest at the rim and least at the center. This saucer-shaped pattern of snowfall also occurs in the Northern Hemisphere. The regions of abundant snowfall are mostly at maritime locations on the Arctic peripheries where warm humid maritime air mix with colder and drier Arctic fronts. The saucer-shaped pattern is more irregular in the Northern Hemisphere than the Southern, due to the irregular distribution of polar seas and continental massifs; however the same principle in general holds.

If falling snow is presumed as the cause of the Ice Epoch, then it would be logical to conclude that the ice would build up deepest where the snow fall is deepest. There would be a thicker accumulation at the edges than at the dry interior, where little humid air would penetrate, and where temperatures would not allow the air to retain much humidity. Yet geological study of ice masses reveal that the ice mass was conical in shape; not saucer-shaped, as uniformitarian theory would logically suppose.

Furthermore, the pattern of ice flow does not agree with the slow-snow uniformitarian hypothesis. Today there are slow-snow glaciers in the Cascade Mountains along the Pacific Ocean, from Alaska, through British Columbia and Washington, and into Oregon. Here, glacial flow is similar in pattern to riverine flow. This is known as a dendritic, or river-like pattern. The glacial flow is between hills and ridges, and is concentrated in the valleys.

Requirement 6 The Ice Cave Phenomena of Eastern Washington

A most unusual phenomenon is that of ice sandwiched between lava formations. Lava (igneous rock) usually is considered as being laid down in temperatures which are either warm or hot, and at the very least, at temperatures other than below freezing (32° F.)

In the intermontane region of North America which is located west of the Rockies and East of the Cascades, there was a great outpouring of lava during the Flood catastrophe. In some

places, the lava deposits exceed 8,000 feet in depth overlaying the original bedrock. It is punctuated systematically by paper-thin layers of shales, as if the lava had alternately bled out, and had been washed and compressed by immense oceanic tides.

Several great outbleedings of lava occurred, forming basaltic plateaus. One was in Abyssinia; one was in Brazil; one was in India. But the one in North America was unique in that in this region, the ice deposition coincided with the lava outflow. Here ice and lava are mixed with fossil debris and alluvium.

This area covers approximately 150,000 square miles, in five states and one Canadian province, namely Idaho, Oregon (Eastern), Washington (Eastern) and a small portion of northern California, Utah and British Columbia.

At the northern edge of this lava plateau, inflowing ice complicated geophysical features. Great coulees were formed by rivers of flowing ice. Rivers were alternately formed, blocked and rerouted. The Columbia Valley, Grand Coulee and Moses Coulee are among the examples. Throughout this area, particularly Eastern Washington, Eastern Oregon and Southern Idaho, there occurs a phenomenon known as ice caves. Apparently, much ice was sandwiched in between alternating layers of lava, and has thus been insulated by the surrounding lava from copious melting. Where melting has occurred, ice caves have resulted.

When the Milwaukee Railroad was being built in this impressive, volcanic, desert-like region, ice caves were discovered in Southern Grant County. They were used for refrigeration of food for the railroad construction gangs. When highway construction crews made great cuts through the lava hills, they also ran into pocket after pocket of ice which has been there certainly for thousands of years (but we doubt for millions of Lyellian years.)

In Okanogan County, in the hills above Tonasket, an ice cave exists which spelunkers have followed for 7,000 feet without finding its end.¹⁵ And it has been reported that outside of Bend, Oregon, a man was digging a foundation for a house, and encountered an ice cave.¹⁶ In Deschutes County, there are reportedly several ice caves.

A small ice cave is located about 15 miles downstream from Grand Coulee Dam, in the hills overlooking the Columbia, on the Norman Ailing ranch. It has been inspected by this writer. This particular cave apparently had been known to the Indians. In the homestead days, the Allings used the cave for refrigeration, and

thus ate beef during the hot summer months while their neighbors ate salt pork. Even today, by family tradition, as the family fathers on each 4th of July, one of the foremost of festivities is the making of home-made ice cream with the old wooden bucket and the rotating cylinder and crank, using fresh ranch cream. And they use ice from the ice cave—ice which is obviously old, perhaps 5,000 years old in terms of its terrestrial existence.

This ice cave is at the base of a natural lava terrace. Rising above and back of the cave is a large hill, composed almost entirely of ice and lava. Its face, almost a cliff, is about 300 feet high, and beyond that are further rises. The chill, constant draft emanating from within the cave is felt as one stands in front of the cave, which is prehistoric in existence, and located between layers of lava. Upon entering one sees the massive icy stalactites and stalagmites and marvels at their architecture and origin.

At the base of the lava terrace, in addition to the ice cave, is a spring formed by melting water from the ice contained within the hill. Its temperature is a constant 34° F., summer and winter, since it comes from the cave interior which is 32° F. The rate of water flowing per hour from this icy cool spring is unknown. It is known that it is sufficient to accommodate ranch needs, including watering the livestock. The amount of water lost in seepage is thought to be far greater than the amount of water flowing from the spring itself.

If the rate of flow of the icy water, including both that from the spring and the lost seepage, is five gallons per hour¹⁷ (and since we endorse the many virtues of conservatism, this is most assuredly a conservative estimate), then by simple calculations, at least 1 million tons of ice have melted from within this hill over the last 5,000 years. And no one knows how much ice yet remains unmelted; unquestionably both amounts are vast when viewed from any perspective.

Recall that these temperatures exist today, sandwiched between lava formations which must have contained much original heat. In this external climate, the annual temperature average is not 34° F. or 32° F., but a little more than 40° F. Also it must be realized that temperatures increase vertically within the Earth's crust, at a rate of about 16° F. per 1000 feet. Thus this ice and lava sandwich overlays rock which, some 10,000 feet down, contains temperatures which approach boiling. For ice to maintain its state under these conditions for millenia is no small feat. The fact that the ice has not fully remained at 32° F. has resulted in formation of the ice caves.

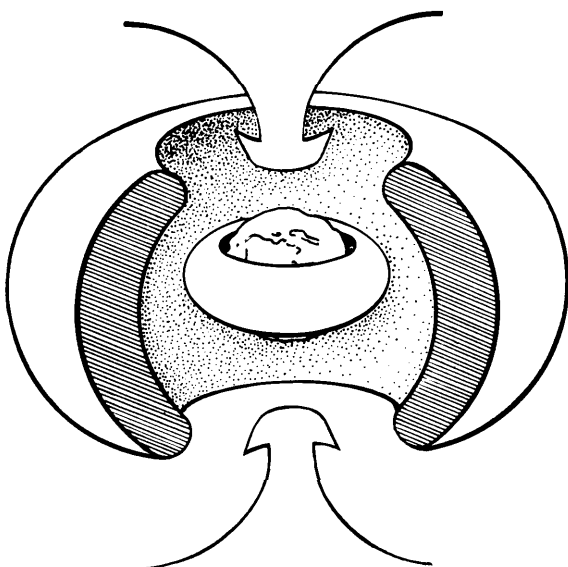


Figure 4. The Van Allen Belts and the Direction of Descending Ice.

For the ice to maintain its temperatures, imbedded in igneous rock, is remarkable. But how did it get there? By falling snow flakes? How was it that this condition occurred not just a few times in one county, but hundreds of times over a tri-state region?

But in the Ice Epoch, the flow was radial, not dendritic. It flowed out in all directions, with no relation to hill or dale, and engulfing both as it moved on for hundreds of miles. This radial pattern of flow, like the example of the mammoths, requires suddenness and not gradualness as a major explanatory feature.

Discussion

Siberians generally get a poor view of Aurora Borealis, not because of their colder climate, but because of their remoteness to the North Magnetic Pole, which is located in Northern Canada. Illinois is about 500 miles closer to the Magnetic Pole than is Northern Siberia. More glaciation occurred in Illinois despite the fact that glaciated areas occur at latitudes as low as 37° , which is well over half the way from the North Pole to the Equator (almost 60% of the way to the Equator.)

In noticing the location of the Aurora Borealis in association with the region of the ice sheet, one might realize that in geography, associative relationships may be as meaningful as "cause and effect" relationships. The Aurora is related, not to the Ice Epoch, but rather to the Van Allen Belts and the magnetic poles. Could it be that the Ice Epoch also is related to magnetic principles?

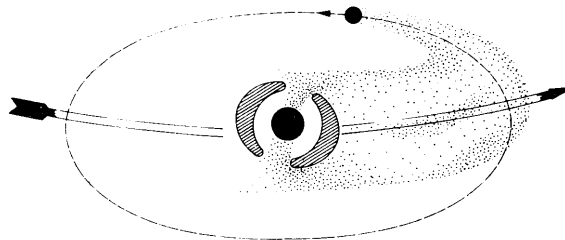


Figure 5

If the Deluge was tidal in its essence, this means that the Earth underwent an extreme gravitational disturbance. This means the Earth-Moon system may have temporarily been faced with an icy intruder. But the Earth has two fields; one is gravitational and the other is magnetic. If the Earth experienced historical gravitational chaos, might it not simultaneously experience magnetic havoc? And if astral ice particles were captured, possessing both extremely low temperatures and dielectric charges, would not they respond to magnetic deflections?

There seems to be a relationship between the geographical poles and the magnetic poles, the nature of which is not yet understood. They are located about 1300 miles apart in each case. It is supposed in this essay that had the magnetic poles been located in tropical climes, the Ice Epoch would have been located there also.

It is further supposed in this essay that a volume of astral or celestial ice, in a volume of 30,000,000 cubic miles, was captured simultaneously with the gravitational havoc (the Flood). Therefore the uniformitarians were incorrect in concluding that the Ice Epoch was antediluvian. And the catastrophists such as Price, Rehwinkel and Morris were incorrect in concluding that the Ice Epoch was a postdiluvian development. The two were simultaneous. However it needs to be added that the catastrophists, such as those just previously mentioned, did read the geological record correctly in ascribing glacial deposition and scouring to the postdiluvian age. It took weeks, months, years for the waters to drain off, and reach a new equilibrium.

Similarly, it took the ice many centuries to outflow, and melt down. And also similarly, the oceans were filled with a great volume of cold juvenile ice water. It took the oceans several millenia to reach a new temperature equilibrium. This is why the climatology of the ancient postdiluvian world was somewhat different from today. This is why Arabia was a well-watered region in Job's time; humidity, temperature and precipitation conditions resembled the mid-latitude conditions of today and not the horse latitude conditions to today's Sahara. This is why olive groves extend deeply into Cirenaica, and

Cyrene along with Carthage were metropoli. Their hinterlands were much greater than today, since the planetary wind systems have become warmer (and for those areas, more dessicating.)

It is finally supposed in this essay that at the time of the Flood catastrophe, millions of cubic miles of extremely cold, charged ice particles were engulfed in the Earth's magnetic field (Figures 4 and 5). They were shunted around, not dissimilar to ions during times of sunspot activity. They were deflected toward the magnetic polar regions. Here, these high speed particles tended to converge. In converging they collided. In colliding, they decelerated. In decelerating, they descended. Their pattern of descent was some 5,000 miles in diameter; their depth was 3 miles in the central magnetic regions, and increasingly less toward the peripheries.

Summary

Six major groups of facts are presented in relation to the occurrence of ice both as regards the present and the past. The evidence is clear that mammals, particularly mammoths, were frozen very suddenly by the millions. The regions of this sudden freezing coincide 75% more closely with the magnetic north pole than with the geographic north pole.

The depth of ice in both polar areas is from 10,000 to 15,000 feet. In the south polar area 5000 of the 10,000 feet of ice is below sea level. The volume of ice conservatively estimated is

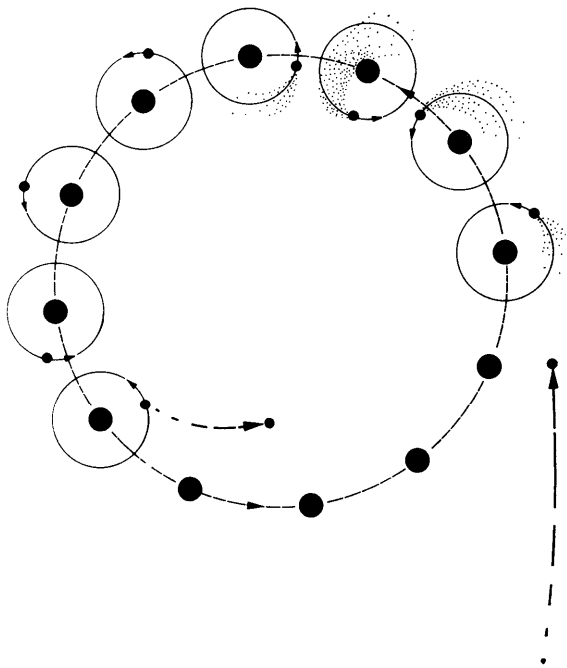


Figure 6. Era of Flood Catastrophe and Era of Ice Capture.

about 30,000,000 cubic miles. The ice evidently was conical in its geometric outline, and acted in its outflow like honey that is poured onto pancakes. One of the most unusual phenomena is the occurrence of ice caves sandwiched between lava formations.

It is proposed that the earth temporarily captured a small satellite (Figure 6) from outer space similar to one of the moons of Saturn having about the same icy composition. As a result the earth captured about 30,000,000 cubic miles of ice particles at the same time as it suffered great gravitational havoc resulting in the Flood. Evidence is given suggesting that this capture was related to the magnetic poles due to the dielectric charges of the ice particles.

Diagrams illustrating this concept are presented and for further detailed data the reader is referred to a book soon to be published by the author entitled *The Biblical Flood and the Ice Epoch*. Pacific Meridan Publishing Co., Seattle, will publish this book.

Literature Cited

¹Charles Lyell, the originator of the uniformitarian Geological Time Scale, originally ascribed the dating of the Ice Epoch to 1,000,000 B.C., a "recent" event. This dating was as arbitrary as his many other datings.

Later, it was pointed out to Mr. Lyell that Niagara Falls was a "geological clock." An escarpment, a crystalline structure, lies across Northern New York and Eastern Ontario between Lake Ontario and Lake Erie, two lakes which were formed at the end of the Ice Epoch. Across this escarpment flows the Niagara River. The crystalline escarpment is underlain by a layer of soft limestone, which erodes out from under the harder surface layer, causing an eroding of Niagara Falls from the original escarpment line back towards Lake Erie.

Lyell viewed this recession. He knew the distance which it had eroded back from the original escarpment line. He inquired of local residents as to the rate of recession. The consensus of the local residents was that the rate was 3 feet per year. Lyell's calculations indicated that this was about 12,000 B. C., which was much too recent for his Geological Time Scale. He immediately concluded that the local residents were exaggerating. He allowed 12 inches per year rather than the 36 inches which the local residents had considered reasonable. He proceeded to revise his earlier pronouncement; the Ice Epoch ended at 40,000 B.C.

We now know that the local consensus was not exaggerated, it minimized the current rate by at least 50%. Furthermore it is reasonable to assume that the rates of erosion immediately after the end of the Ice Epoch were greater, not less, than the current rate. This is because of a much greater amount of water flowing over the falls, together with more debris and ice. Lyell's error in dating in reality was over 99%; this brief review notes that he ultimately acknowledged 96% of that error. The essential point to gather is Lyell's arbitrariness in organizing his Geological Time Scale, one which is still considered sacrosanct by uniformitarian geology.

²Ivan T. Sanderson "Riddle of the Quick-Frozen Mammoths," *Readers Digest*, April, 1960, p. 123. (Also see author's "Riddle of the Frozen Giants," *Saturday Evening Post*, Vol 232, Part 4, January 16, 1960, pp. 39 and 82, 83.)

The fossils of these people, dead for 2000 years, have been found by a careful search of the ruins of Pompeii. Where a person died and was covered by pumice, the body decomposed, but the pumice did not subsequently shift. The result was a cavity in the pumice which, if filled with plaster of paris, produces a perfect specimen of the dying individuals, with dying expressions on their faces, in positions reaching for loved ones. Even the detail of the fabric of their clothes, along with wrinkles are preserved.

⁵Sanderson, *loc. cit.* "It takes a great deal of cold to freeze a warm-blooded mammal. Men have been out in temperatures of -100° F. for up to half an hour without their lungs freezing. Sled-dogs in the Arctic and Antarctic have been out in blizzard conditions in temperatures well below -80° F. for many hours and even days without freezing, and admittedly moving air is more chilling than still air. In 1911 when Scott took his ill-fated dash to the South Pole, his little Shetland ponies survived until their food gave out.

"At -40° F. it takes 20 minutes to quick-freeze a dead turkey, 30 minutes to preserve a side of beef. But these are mere bits of meat, not the mammoths clothed in fur, at a temperature of about 98° F. Unless we have tremendous cold outside, the center of the animal we are trying to freeze will remain comparatively warm for some time, probably long enough for decomposition to start. Meanwhile, the actual chilling of the flesh will be slow enough for large crystals to form within its cells. Neither event occurred with most mammoths, although one of them has been found by the radio-carbon dating method to be just over 10,000 years old. The flesh of many of the animals found in the muck is remarkably fresh. Frozen-food experts say they must have been frozen at well below -150° F.

"Further, several studies indicate that mammoths were not especially designed for the Arctic; nor did they live in Arctic conditions. The Indian elephant, which is a close relative of the mammoth . . . has to have several hundred pounds of food daily just to survive. But, for more than six months of the year, there is nothing for any such creature to eat on the Arctic tundra. Yet there were tens of thousands of mammoths."

⁶Janles S. Pickering, *1001 Questions Answered about Astronomy*, New York: Dodd, Mead & Co., 1959, p. 68.

See also p. 59 for discussion of satellites of Jupiter, p. 61 for discussion of Saturn and its ice structure, and page 62 for discussion of the rings of Saturn. Interestingly, Pickering says, on page 58:

Jupiter has more atmosphere than any of the other Planets, excepting possibly Saturn. . . . Rupert Wildt, a modern astronomer and an authority on the planets, has constructed theoretical models of both Jupiter and Saturn. His model of Jupiter shows an atmosphere of hydrogen, methane, and ammonia which is about 8,000 miles deep. Beneath this, there is a layer of ice about 10,000 miles deep over the entire core of Jupiter. These dimensions leave about 38,000 miles for the diameter of Jupiter itself.

The following references should also be noted by the reader: Robert H. Baker, *Astronomy*, Princeton, N. J.: D. Van Nostrand Co., 1959, pp. 218, 228; Gerald P. Kuiper et al., *Planets and Satellites*, Chicago: University of Chicago Press, 1961; and George Abell, *Exploration of the Universe*, New York: Holt, Rinehard and Winston, 1964, p. 298 for good discussion of the origin of comets.

⁷Byron C. Nelson, *The Deluge Story in Stone*, Minneapolis: Augsburg Publishing House, 1931, p. 122.

⁸Nelson, *op. cit.*, p. 125. "The remains of mammoths are incredibly numerous in Siberia and, strangely enough, their numbers increase farther north toward the Arctic Ocean. Their bones are spread over the bottom of that ocean, where ships have dredged them up. And 200 miles to the north, in the New Siberian Islands, not much farther from the North Pole than New York is from Chicago, mammoth remains are thickest of all."

Author's note: The reason that the New Siberian Islands and other offshore islands in the Arctic Ocean were populated by fauna are (1) there was a subtropical climate in the antediluvian age, and (2) there was a lower mean sea level, approximately 400 feet lower than the current level. Thus not only were the New Siberian Islands connected with Siberia; the Bering Strait also did not exist, and Alaska was connected with Siberia. Africa, Asia, Europe and North America were one interconnected land mass in that age.

⁹Charles H. Hapgood, "The Mystery of the Frozen Mammoths," *Coronet*, September, 1960, pp. 71-72.

¹⁰Hapgood, *Op cit.* p. 74. "Baron Edward Toll, the explorer, reported finding a fallen 90-foot fruit tree with ripe fruit and green leaves still on its branches, in the frozen ground of the New Siberian Island. The only tree vegetation that grows there now is a one-inch high willow."

¹¹"The writer has taken courses in geography and related subjects in two different colleges, and has discussed this problem with uniformitarians in several different departments. The tendered explanations were nearly identical. The following kind of suggestion was the normal explanation:

Perhaps some mammoth started walking across the ice in a blizzard on a recently-frozen lake. Perhaps he wandered into an area where the ice was too thin, and the mammoth fell through and drowned. Perhaps he had been carrying his breakfast of buttercups, wild beans and tender sedges with him across the ice, and drowned with them yet in his mouth. Maybe through some freak of nature, his drowned body did not deteriorate, and was not cannibalized by fish. Perhaps it was preserved until a permanent change of climate occurred. And possibly this sort of thing happened to thousands or millions of animals over long periods of time—animals including bison, horses, lions, rhinoceroses, sheep and others.

The author totally disagrees with such inadequate and incongruent explanations, no matter how sincerely tendered, no matter by how many professionals, no matter how devious and complicated the path of explanation may be. Logic just happens to be overstrained.

¹²Dolph Earl Hooker, *Those Astounding Ice Ages*, New York: Exposition Press, 1958, p. 44, as taken from *National Geographic*, October 1935. Admiral Byrd wrote as follows:

The rock fragments from this mountainside invariably included plant fossils, leaf and stem impressions, coal and fossilized wood. Here at the southernmost known mountain in the world, scarcely two hundred miles from the South Pole, was found conclusive evidence that the climate of Antarctica was once temperate or even sub-tropical.

¹³Author's note: It is suspected that many geophysical alterations, changes and upheavals took place simultaneously in this gravitational-magnetic crisis period. One was tidal upheaval of the oceans (fluid hydrosphere.) One was tidal upheaval of magma (fluid lithosphere.) One was a reorganization of the climatological regime. One is the relocation of the geographical poles, quite

likely accompanied by a change in the angle of the axis to the perpendicular of the ecliptic (currently $23\frac{1}{2}^\circ$). This may assist in explaining many things, and the existence of warm-water crustaceans in Arctic latitudes is only one. Further reference is made to *The Biblical Flood and the Ice Epoch*, Seattle, Pacific Meridian Publishing Co., 1966, written by the author.

¹³Hooker, *op. cit.*, p. 68.

¹⁴Hooker, *op. cit.*, p. 30. "The everlasting wind blowing from the pole is as dry as the winds over the Sahara."

¹⁵Mr. Arthur Patten, Tonasket, Washington.

¹⁶Mr. Rupert Shaw, Seattle, Washington.

¹⁷Mr. Arthur Kalmen, Grand Coulee, Washington. Mr. Kalman, an employee of the Department of Interior, Bureau of Indian Affairs, is a credit manager for the Colville Indians. He is familiar with this particular ice cave, the Ailing ranch, and surrounding area. Our estimate of 5 gallons per hour from the spring at the base of the hill containing the ice cave is considered markedly conservative by Mr. Kalman.

NEW PUBLICATION

"The Fallacy of Reconstructions" (Paper #33) by Arthur C. Custance, Ph. D. Doorway Papers, Box 1283, Station B, Ottawa, Canada, 1966. The price is 50¢. post free.

This Paper is an attempt to show that in dealing with living forms of the past, especially those which have to do with man's supposed evolution, there has been a lack of complete honesty on the part of experts when it comes to providing the public with pictorial reconstructions. This is particularly true in the case of Anthropology, a subject which occupies most of the Paper. Photographs and line drawings derived from well-known texts are used to show the extent to which the evidence has either been falsified or "distorted" to reinforce in the public mind the claim that evolution of man is based on solid grounds.

This Paper, very carefully documented, is a 28 page symposium of the kind of reconstructions that are commonly found in the literature, plus 11 pages of figures.