THE BIBLE AND MODERN SCIENCE

By

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CHAPTER THREE -

Modern Science and the Flood

IN THE BOOK OF GENESIS, beginning at chapter 6, we have the record of what seems to have been the greatest catastrophe this earth has experienced since man first appeared.

All men, as well as all land animals, except those whom GOD chose to save in the ark, were destroyed by a great world-enveloping flood that was sent as divine punishment because " **. . . all flesh had corrupted his way upon the earth**."

The Biblical record of the deluge clearly refers to a great flood which completely inundated the entire globe.

Some writers, because of supposed geological and archaeological difficulties, have maintained that the flood was only a localized affair, applicable only to the known world of that period at most. Most critics of the Bible have, in fact, dismissed the entire tale as purely legendary.

However, if the Bible is allowed to speak for itself, an unprejudiced reader would surely understand the writer of the account to be referring to a world-wide deluge. For example, the following passages, among many others, can be sensibly understood in no other way: "**I, even I, do bring a flood of waters upon the earth, to destroy all flesh, wherein is the breath of life, from under heaven; and everything that is in the earth shall die**" (Genesis 6:17).

"**Every living substance that I have made will I destroy from off the face of the earth**" (Genesis 7:4).

"**And the waters prevailed exceedingly upon the earth; and all the high hills, that were under the whole heaven, were covered. Fifteen cubits upward did the waters prevail; and the mountains were covered**" (Genesis 7:19-20).

"**And every living substance was destroyed which was upon the face of the ground, both man, and cattle, and the creeping things, and the fowl of the heaven; and they were destroyed from the earth: and Noah only remained alive, and they that were with him in the ark**" (Genesis 7:23).

"**And I will establish my covenant with you: neither shall all flesh be cut off anymore by the waters of a flood; neither shall there be any more a flood to destroy the earth**" (Genesis 9:11).

One or two such passages might be passed off as figurative or as examples of Hebrew literary

exaggeration, but when the same theme of universal inundation and destruction is emphasized again and again and again in the verses quoted and in numerous others, then it seems quite out of reason to attempt to impress any other meaning upon the account than the writer was obviously intending to convey to his readers, which evidently was that of a world-wide catastrophic diluvial judgment.

In fact, it is quite likely that with conditions of longevity prevailing as described in the Bible, the earth's population would have so increased by this time (more than 1600 years after the creation of Adam, if one follows the Ussher chronology) that a large part of the earth, would almost certainly have been populated, necessitating a world-wide flood if all mankind were to be destroyed thereby.

Furthermore, if all the mountains even in the immediate vicinity, patently including the mountains of Ararat on which the ark eventually grounded - one peak of which is over three miles above sea level - were submerged, it would quite obviously be impossible for the flood not to have also attained the same elevation in other regions, since the record states that such conditions prevailed for 150 days at least.

But even more important, the entire story is filled with manifest absurdities if the flood described were only a localized event. The elaborate provisions for the preservation of life in the ark were utterly unnecessary and unwarranted. GOD could merely have warned Noah to move into a region where the flood would not come, which he could have done with far less time and labor than was needed in constructing and outfitting the ark. The same is true for the animals, which the record says GOD caused to come to the ark; the birds especially might easily have flown to dry land. Finally, GOD's promise that there would never again be such a destructive flood upon the earth (Genesis 9:11) would have been proved false, because there have been many floods since which were at least as great as that envisioned by the proponents of the local flood theory.

The Biblical record implies that the cause and character of the flood was both tidal and atmospheric. Such a gigantic catastrophe must have profoundly changed the geographic and stratigraphic features of the earth's surface as it then was, making it impossible now to discern geologically with any degree of assurance those things that took place in the ages before the flood. Thus, if actually there was a world-wide aqueous calamity of the sort described in the Bible, the fossil record becomes meaningless, as far as proving evolution is concerned. And, as we have seen, world history as interpreted from fossils is the only evidence of any value remaining for the theory of evolution.

Consequently, in spite of overwhelming ethnological, philological, archaeological, and geological evidence that there actually was a universal deluge, evolutionary scientists dogmatically maintain that the flood story of the Bible is purely legendary.

The credo which has been held by most geologists for nearly a hundred years is called <u>formitarianism</u>.

This doctrine "assumes the assumption" that all natural, observable phenomena, in both the living and the nonliving realms, can be explained as to origin and development in terms of purely natural laws and processes. As applied to geology, it means that all the mountains, the rivers, the huge stratigraphic deposits, in short all features of the earth's surface, are

explainable as the result of the slow processes of sedimentation, erosion, contraction, radioactivity, and other actions of natural forces, all working over almost infinitely long periods of time.

This theory is based not so much on objective proof as on a process of rationalization, it being assumed unscientific to invoke unnatural events such as creation or the flood to explain phenomena that now seem to conform to natural laws.

The popularity of uniformitarianism dates from its enunciation by Sir Charles Lyell a good many years before the appearance of Darwin's work, which was profoundly influenced by that of Lyell. However, the idea was not at all new; its origin is hidden in the obscurity of antiquity and has always found expression in some form or other. With the renewed interest in both science and Christianity that came with the Renaissance period, nevertheless the dominant theory of geology became the flood theory and remained so until the time of Lyell and Darwin. A great many brilliant investigators held this view, which was based not on a philosophy or even on faith, but on thousands of observed facts in the field.

It is true that some of these men developed bizarre explanations for some of the data, but the common sense logic of much of their writings is still irrefutable.

The geologic time scale, which we have mentioned previously and which is the backbone of the uniformitarian view of geology, was worked out long ago, chiefly from the observed order of the fossils in a small corner of Western Europe and in New York State.

There are assumed to be four great eras.

The Primary, which is often classed as two eras, *the Archaeozoic and the Proterozoic*, <u>is supposed to represent the ages before life appeared to any extent on the earth. It is denoted by those rocks which contain few or no fossils and are thus supposed to be the oldest rocks of all</u>.

The *Paleozoic Era* <u>is marked by rocks containing fossils of the lower forms of life, especially invertebrates, fishes, insects, and amphibians</u>. It is subdivided into several large systems according to the forms of life found in the various rocks.

These systems are, beginning with the oldest, the Cambrian, the Ordovician, the Silurian, the Devonian, the Carboniferous (now commonly replaced by two systems, the Mississippian and the Pennsylvanian), and the Permian. Of course, each system is further subdivided.

The *Mesozoic Era* <u>is supposed to be the age of reptiles and is divided into three main systems, the Triassic, the Jurassic, and the Cretaceous</u>.

The *Cenozoic Era* <u>is the last of the geologic eras and is divided into two main systems</u>. The first of these is called the Tertiary and is also known as the age of mammals. There are five series in this system known, in ascending order, as the Paleocene, the Eocene, the Oligocene, the Miocene, and the Pliocene. The other system is usually called the Quaternary and includes the Pleistocene Series, in which man is supposed to have appeared (although many Paleontologists now claim that man must have appeared well back into the Tertiary because of the many finds of skeletons and artifacts of true humans in supposed Tertiary deposits). The Quaternary also

includes the Recent, often called the age of man.

It is usually to be inferred from most textbooks that this order - not only of the geologic eras but also of the systems and series and even formations - is observed all over the world in the same inviolable order. This idea, in a different form, was first developed by Professor Werner, a German who taught that the stratigraphic deposits always occurred in the same vertical order according to their mineral or lithologic character - granites, limestones, schists, sandstones, etc. This theory was called the "onion coat" theory and was very widely held by materialistic geologists for a long time.

It has now given way to a theory of biological onion-coats, in which the order of the fossils is thought to be always the same. The mineral or lithologic nature of the rocks is now considered immaterial, the age and chronological position of any given formation depending almost entirely upon the contained fossils.

The circle of reasoning involved here should be immediately evident. The fact of evolution is necessarily assumed in building up the geological series; rocks containing simpler fossils are called old, and rocks containing more complex and specialized forms are considered young. Then the Paleontological series thus constructed is taken as proof of the fact of evolution.

This method of identifying the rocks cannot be overemphasized. The physical characteristics and even the stratigraphical position are given only very minor consideration when their age is being decided. This matter depends almost entirely upon the contained fossils and is usually settled by laboratory workers who may never have seen the actual deposits.

However, in spite of the apparent dangers involved in such procedures, this system of classification seems to have worked out fairly satisfactorily at least in North America and Europe, although there still remains considerable doubt as to ultimate correlation with the geology of other parts of the world. It seems that, in general, the time-order of deposition of the strata is represented fairly well by the geologic time-classification as given. The really essential point of difference between the commonly accepted geology and flood geology is not the relative time of deposition of different rock strata, but the actual total time elapsed while they were being deposited.

First, however, it is well to point out that the accepted stratigraphic order and system is far from inviolable and involves many hard-to-explain exceptions and anomalies.

In the first place, the total depth of all fossiliferous strata is supposed to be about a hundred miles. However, the greatest depth ever actually observed is about two or three miles. In any one exposure, two or three systems or even fewer are all that are usually represented. At no place in the world, as far as ever observed, is the complete or even partially complete geological column exposed or even known to exist. It has been built up entirely by superposition of deposits from all over the world.

Furthermore, very many different formations, widely separated in geologic time, have been found resting directly upon the Primitive rocks. Many cases have been observed here in America of the very youngest Quaternary rocks resting directly upon the Primary with all the intervening ages omitted. The same thing can probably be said for every rock system of importance. In fact,

frequently the very oldest rocks (i.e., nonfossil-bearing) may be on the surface and have the physical appearance of young rocks, soft and unconsolidated. Young rocks, on the other hand, may well be as crystalline and metamorphic as the very oldest, and frequently are.

It is also generally accepted in geology that any fossilinerous formation may lie directly upon any other formation in the whole of the series below it, and that it is not at all to be expected that a given formation need lie directly upon the formation that immediately precedes it in geologic age. When intervening formations are missing, it is assumed that the missing periods can be accounted for as periods of erosion rather than deposition. Often, how ever, such missing periods are not at all obvious physically, and are only inferred from fossil evidence. They are called disconformities or diastems when the beds on both sides seem to have been normally deposited without intervening deformation.

Quite often the two sets of beds are parallel and give every indication of having been deposited successively without any great period of time or erosion between. The disconformities are, in such cases, discernible only on the basis of the contained fossils. If it were not for the preconceived opinions as to the evolutionary sequence of the fossils, there would be no reason for saying that such beds could not have been deposited with no great lapse of time between. This sort of thing is not an isolated phenomenon, but one of which very many examples could be cited if space permitted.

Even more surprisingly, many examples are now known to geologists of strata occurring in the wrong order and, furthermore, in perfect conformity. That is, <u>great areas containing "old" fossils are found to rest perfectly naturally upon rocks containing "young" fossils</u>. Sometimes such inversions have obviously been produced by normal faulting and folding, of which the rocks of the earth's crust give much evidence. Often, however, there is no physical indication at all that the beds came to be in their existing positions by any other means than normal deposition. This cannot be allowed, however, because it would immediately prove that the "young" fossils are older than the "old" ones, at least in time of deposition, and <u>this would obviously necessitate sacrificing the notion of organic evolution</u>.

To avoid such action, we have the *remarkable theory of the horizontal thrust fault*, according to which great masses of rock were severed from their original formations and somehow lifted up and shoved over on top of the adjacent areas, following which, surface erosion through the immediately subsequent ages removed the upper deposits, finally leaving only the older rocks lying on the younger ones beneath!

If such things as this have ever happened upon the planet, they must have been caused by forces of far greater intensity than anything ever observed by humankind in the present age. There is most certainly no experimental or observational basis for such an explanation, a fact which is most inconsistent with the rather vaunted geologic dogma of uniformity.

In fact, no less an authority than Wm. Bowie, long time director of the U. S. Coast and Geodetic Survey, and one of the world's greatest authorities on isostasy and tectonics, considered such horizontal faulting "absurd, from an engineering point of view."

Nevertheless, scores of examples of this phenomenon exist. Every large mountain range in the world that has been adequately examined (and mountainous regions are those that have been

most thoroughly examined geologically) has been found to contain large areas of these upside-down strata. A vast area in Montana and Alberta, including all of the Glacier National Park, has fossils of the Paleozoic Era or earlier overlying dinosaur bones and other fossils of the Cretaceous. This region is the divide between not only the Atlantic and Pacific Oceans, but also between Hudson Bay and the Gulf of Mexico.

Thus, the very highest region of North America consists of a stratum of Pre-Cambrian limestone resting perfectly naturally on a Cretaceous bed. In Tennessee and Georgia, a great "fault" continuing for hundreds of miles consists of Cambrian deposits resting quite normally on Carboniferous. The great Bannock Overthrust of Utah and the Heart Mountain Thrust of Wyoming, along with many other examples in the Rockies, offer more illustrations of huge areas of rocks, thousands of feet thick, that must have been shoved up and over the adjacent areas, without leaving any evidence at the so-called fault-line or elsewhere of their incredible journeys.

Much of the Swiss Alpine region is in this upside-down condition. The same is true of the Scottish Highlands and the mountains of India. One of these displacements in Northern China has been followed for more than 500 miles. A similar area of some 85,000 square miles is known in Scandinavia. Every part of the world yields other examples.

However, even if the geologic time-scale is assumed to be substantially correct as far as the relative positions of the various strata are concerned, the flood theory can account for their deposition thus equally as satisfactorily as the theory of great ages, and probably more so.

The pre-deluge world, like the present world, was undoubtedly one in which lived a great variety of different kinds of creatures. Then, as now, they did not all live together or in the same type of environment, but each particular kind would live in the environment for which he was fitted.

Therefore, a great catastrophe of the kind described in the Bible would not be expected to pile all types of creatures together heterogeneously throughout the world. Rather, it would necessarily destroy together the particular assemblages of creatures living in the same environment.

The currents would transport such assemblages together, and finally bury them together.

This, of course, would not be expected to be an inviolable rule, but would generally hold true. Thus, two or more strata might be deposited quite simultaneously, but containing completely different groups of future fossils, because of their different sources, directions of transport and final deposition localities.

On the other hand, evolutionary geology teaches, by implication at least, that only one assemblage of organisms was living at anyone time in the history of the world and that, therefore, these organisms can be used to identify any rock strata formed during that age. There can be no basis for this assumption other than evolutionary presuppositions, because such is certainly not the case in the modern world, which is supposed to be "the key to the past."

The Biblical deluge was both terrestrial and atmospheric in nature.

Tremendous volumes of water poured from the heavens for forty days and nights. At the same

time, "**were all the fountains of the great deep broken up**," most likely implying great subterranean and subaqueous disturbances, which would have created great tidal waves and ejected great amounts of juvenile water. The great complex of hydrodynamic currents and forces thus generated would then undertake its divinely ordained mission of destruction and purification of the antediluvian world.

Such a flood would necessarily tend to affect first and bury lowest the creatures inhabiting the deep ocean, then those in shallower waters.

Then the waters and disturbed sediments would overtake the amphibious and land-bordering creatures.

Above these would be buried swamp, marsh, and low river-flat creatures, including especially reptiles.

Higher mammals would usually be able to retreat from the rising waters to some extent, but also would be eventually drowned and perhaps buried in the sediments.

Finally man, the chief object of the waters, would be overtaken and carried under.

There were also probably many inland seas and waterways at various elevations. Burial of the creatures in these inland basins would account for the present existence of marine strata in some of the higher beds. Thus the flood would in general have tended to form just such strata, and in just the order as the geologic age scale purports to represent. These strata would perhaps in many instances be reworked and redeposited in the later periods of the retreating flood waters, and perhaps also in the succeeding centuries. Also, in their semiplastic state during and soon after the flood, they would have been subject to much distortion of all kinds, caused by great forces generated by the hydrostatic and hydrodynamic pressures of the deluge waters, and by the redisposition of the prediluvian topography. This might partially account for the existence of the great faults and folds in the sedimentary rocks of the crust.

Another factor tending to cause the deposition of the strata in the order in which they are found would be the sorting action of moving water, which would tend to separate particles, whether organic or inorganic, into assemblages of similar sizes and shapes. Also, the rapidity of settling and deposition of particular fossils would be at least partially controlled by their specific gravity. The usually more dense marine organisms would therefore tend to settle first, then amphibia, mammals, etc.

This of course is but the barest outline of the probable geologic activity of the deluge.

Further geologic work would be accomplished on the surface as the lands were uplifted in places and the waters retreated. Abnormal geologic and meteorologic conditions perhaps prevailed for centuries before the present condition of approximate equilibrium in the earth's crust and atmosphere was attained.

The deluge theory, then, seems to offer an acceptable framework within which to explain all the multitudinous data with which geology deals. The main criticism of the theory has always been

on the basis of the time element involved. It has been maintained, by those few geologists who have adequately considered it and then rejected it, that the immense sedimentary rock beds of the earth and their fossils cannot possibly be attributed only to one great cataclysm, but that their formation must have occupied aeons of time. This assertion cannot be proved, however, in the very nature of the case. It is based on the assumption of uniformitarianism which, however reasonable such an assumption may be normally, obviously cannot have held valid during the time of the deluge if the deluge actually occurred.

Obviously, in a book of this sort, it is impossible to give a complete discussion of all phases of geology, and their harmonization with the flood theory, and to explain all phenomena and formations which may at first seem to be inexplicable on this basis. However, the writer believes that this would he possible, given enough time and study, and that the flood theory encounters far less serious scientific objections than the presently accepted theory of uniformity.

As a matter of fact, the flood theory of geology is very little if any less uniformitarian in character than orthodox geology. The catchword of the uniformitarian view of geology is that "the present is the key to the past." However, one does not go very far in the study of historical geology, as now interpreted, before he sees that "uniformitarianism" is actually a rather gross misnomer.

Present geologic processes, such as erosion, sedimentation, volcanism, diastrophism, glaciation, etc., are supposed to be able to account for all stratigraphic and physiographic phenomena. However, if the present character of the activity of these agencies is to be taken as typical, it is obvious that they cannot begin to do any such thing.

In recent years, in fact, many geologists have recognized the limitations of a consistent uniformitarianism, such as had been advocated by practically all geologists since the time of Lyell. They have come to recognize the necessity of a rather large extrapolation from present geologic processes in order to make a reasonable accounting for the existence of many of the earth's geologic phenomena.

For example, when in recorded history has there ever been a great outpouring of volcanic lava such as must have formed the terrain extending over great areas of the Pacific Northwest and in many other parts of the world?

Where has there ever been observed a mountain uplifted thousands of feet against the huge forces of gravity and friction?

What about the great rock ruptures that are supposed to have formed the Great Rift of Africa, the formation of the great fault-scarp on the eastern edge of the Sierra Nevadas, or the one that formed Grand Teton, or thousands of others almost as spectacular?

Speculative geologic history is replete with the erosion of vast pene-planes, but where is such to be found in the modern world?

Wherein lies the present-day observational basis to account, on the basis of uniformity, for the great ice sheets, thousands of feet thick, that are supposed to have covered most of Europe and North America many times in past ages.

What about the coal beds, which are said to have been formed over long ages as the result of alternate submergences and emergences of peat bogs, the cycle repeated scores of times on the same spot (and this in spite of the fact that many fossil tree trunks have been found extending through several coal seams, each presumably formed during one such cycle)?

Who has actually observed great canyons excavated through solid rock to depths of thousands of feet, or the deposition of great silt deposits over great areas and hundreds of feet deep by periglacial winds, or the formation of great alluvial planes hundreds of square miles in area and hundreds of feet deep by any modern river?

Such events as these, and very many more with which historical geology deals, most definitely cannot be adequately described or explained in terms of their modern counterparts.

Even the customary appeal to great ages of time cannot be made in many such instances. Modern volcanoes could never produce the volcanic terrains of many parts of the world, not to mention the tremendous igneous intrusions that have formed the great dikes and sills, the great batholiths, etc., the like of which has never been observed by man in the process of formation. The slight earth movements of the present day, even those accompanying great earthquakes, can by no type of legitimate extrapolation, be held to be incipient movements of the gigantic magnitude and intricate complexity that have been experienced by the earth at some time or times in the past.

The erosion of deep gorges through solid rock by normal river flows, no less than the erosion of vast pene-planes near sea level by ordinary stream action, are things which not only have no observational basis, but which seem to be precluded by basic principles of stream mechanics.

All such events can only be explained by admitting that present-day phenomena are not adequate to account for them.

The flood theory also recognizes this, but postulates only one great physical revolution, chiefly diluvial in character, but also and necessarily accompanied by great volcanic and telluric movements, far eclipsing anything ever experienced by the earth before or since, and perhaps also followed by glaciation of tremendous extent.

The so-called uniformity theory professedly ridicules the idea of geologic catastrophe, while actually having to resort to a great number of geological events and phenomena of character and intensity quite outside the scope of anything ever observed in the present age. Since this is the case, it follows that the flood theory is quite as consistent with a true scheme of uniformitarianism as is the theory that has appropriated the name, and in many ways much more so. The flood theory furthermore has very good basis in written and orally transmitted records, whereas the presently accepted interpretation of historical geology necessarily has no such basis at all.

There is surely no intention here to impugn either the abilities or the motives of modern geologists. Most of them are capable, sincere men, diligently, sacrificially and honestly devoted to the study of science for its own sake. The writer has taken considerable graduate work in geology and has known and studied under some outstanding men in this field, and would gladly testify to the above statement.

Generally speaking, their adoption of the uniformity theory has not been because of an antireligious bias, but because they believed it to be the most scientific approach to geologic study. However, it seems very likely that the effect of their training in the uniformitarian tradition, together with the long-time preponderance of geological opinion, has kept them from ever even considering the possible merits of the diluvial theory.

Most of the results of the past hundred years of geologic study and research would be valid regardless of which theory is correct.

None of the great mass of useful geologic data or techniques would have to be discarded if the flood theory were accepted. Only the time element and the evolutionary implications would be sacrificed, and neither of these has any genuine value in geologic research. As far as the evolutionary deductions are concerned, we have already examined somewhat the very dubious character of the entire philosophy of progressive evolution.

The fact that the only real evidence left favoring evolution is the evidence from geology, and that all other evidence of biological change is much better evidence of deterioration would, by strong implication, make the evolutionary framework of geology exceedingly questionable. The other major item to be revised by geology is the matter of time involved in the formation of the strata.

This also will be found to be a very questionable element in the theory, as usually held by orthodox geology. Methods of measuring geologic time and their dependability will be briefly discussed later in the chapter.

There are also in geology certain very positive evidences for the flood which we should mention. The outstanding of these, probably, are the enormous graveyards of fossils that are found all over the world. Almost without exception, the indications are, from the appearance and manner of preservation of the fossils, <u>that they were buried suddenly</u>; but nothing of the sort is taking place now. It is known that such few fishes as die natural deaths are usually soon devoured in whole or partially by other creatures. In any event, they do not settle into the ocean or river bed but float on the surface until eaten or decomposed. A modern fish buried whole in sediment normally deposited would be a unique specimen. When land animals die, their remains are almost always quickly decomposed.

<u>This is well substantiated by the fact that it is practically impossible to find bones of modern animals in the process of fossilization</u>.

Then how can the ancient fossil deposits be accounted for on the basis of uniformity?

The extent and wealth of these deposits is one of the marvels of geology. This fact is so well known that it hardly needs elaboration. Fossil fish beds have been found which extend miles in every direction and contain fish buried in whole shoals by the millions. The fish have every appearance of having been buried alive and with great suddenness.

The same is true of the reptilian deposits of the Rockies and the Black Hills and many other parts of the world.

The amazing elephant beds of Siberia, the hippopotamus beds of Sicily, the horse beds of France and other parts of Europe, to say nothing of the shells of marine organisms, which probably form the greater part of the stratined deposits of the globe, all point to a great, world-wide catastrophe in which "**. . . the world that then was, being overflowed with water, perished**." In no other way can the sudden extinction of the dinosaurs and the great mammals of the past be accounted for. They were certainly not eliminated by the much less hardy creatures of the present order in the struggle for existence.

The Siberian deposits of elephants, or mammoths, should be mentioned further.

Literally millions of these animals have been entombed in the vast wildernesses of that land. Some explorers have said that on some of the northern islands particularly, the ground consisted almost entirely of mammoth bones. A regular trade in fossil ivory has afforded livelihood to the natives of this region since at least 900 A.D. In the more northern parts of the country, where the ground is perpetually frozen, large numbers of these beasts have been preserved whole, with even the skin and hair intact.

From the evidence of the congested blood in the blood vessels of all these frozen elephants, scientists say they must have died by drowning, in spite of the fact that the modern elephant is a very strong and long swimmer. The remains of the last meal, consisting of elephant grass and other plants now utterly foreign to the region, have been found in their stomachs. What is true of the mammoths is also true to a lesser extent of many other animals whose fossil remains have been marvelously preserved in Siberia.

This is especially true of the rhinoceros, who is now as much a stranger to Siberia as the elephant. These animals were very evidently then living in a land where the climate was warm and afforded an abundance of vegetation.

This was absolutely necessary to support such hordes of the animals as lived there. But there is no sign of such climate or vegetation now. That they were suddenly buried by a great deluge, which was accompanied by an almost instantaneous and a very extreme change of climate, is equally evident. No slowly encroaching glacial age or any other tenet of evolutionary geology can account for these amazing finds.

The Siberian mummies are an especially vivid illustration of one outstanding fact that Paleontology unquestionably reveals; that is, that at one time in the history of the globe there was a world-wide temperate climate. The remains of coral reefs formed by sea creatures that can live only in warm waters have been found so far north that it is believed now that they underlie the very poles themselves. Tropical animals have been found in large numbers as fossils <u>not only in Siberia but in Greenland, Alaska, and practically every region in the world</u>. Fossil ferns and other tropical and temperate vegetation have likewise been found in large numbers in the polar regions. Even in the very coldest region of the globe, the great continent of Antarctica, extensive coal beds have been found, extending almost to the South Pole itself.

Geologists also believe there have been one or more periods of earth history when large areas of the globe were submerged by great ice sheets. Some outstanding geologists have said that the supposed evidences for these ice ages could be better interpreted in terms of water action,

especially the earlier ones. The glacial till from the last ice sheet, however, is of a different type from the others and probably does indicate true glacial conditions.

The cause of this ice age or ages, however, as well as the cause of the world-wide temperate climate or climates preceding them, has never yet been determined, and constitutes one of the most perplexing unsolved problems of geology. The principle of uniformity seems completely incapable of supplying the answer. A world-wide temperate climate preceding the deluge, however, with the latter possibly followed by extensive glaciation, fits well into the framework of flood geology.

Another geologic evidence for the flood is the existence of raised beaches and terraces, indicating former high water levels. These raised beaches and terraces are found all over the world, often hundreds and even thousands of feet above present water levels. They are found along coast lines, on the sides of river valleys, and along the shores of great inland basins, in truly world-wide distribution. There are a number of ways in which geologists have suggested these terraces might be formed, most of which have very definite objections.

By far the most logical explanation for most of them at least is that they were formed by the waters of the flood, possibly over many years, as the lands were uplifted and the waters receded.

Rivers carried much greater discharges and the oceans were at a much higher level relative to the land than now. Lakes and inland basins formerly contained much more water and submerged far greater areas than at present.

These facts surely can be understood far better in terms of post-deluge conditions than in any other way.

Finally, the very fact that most of the sedimentary rocks of the earth were obviously laid down under moving water, including the peaks of most of the great mountain ranges, is itself a strong indication of the flood, although it has actually been made the basis of evolutionary geology.

The physical cause and character of the deluge must necessarily be somewhat a matter of speculation. There are, however, some very interesting possibilities suggested by the Genesis account of creation and the flood, which we shall now examine.

<u>It is intimated in Genesis 2 that there was no rainfall, such as we know it now, in the antediluvian period</u>. Also the rainbow is later mentioned specifically as a divine token given to Noah by GOD after the flood, implying that atmospheric water, if any, was always in the vapor state and could not form a rainbow. The statement in Genesis 1 that the "**waters which were above the firmament**" were separated during the creation from the "**waters which were under the firmament**" would imply that at this time there was a great body of water vapor surrounding the earth above its atmosphere.

The word translated "firmament" literally means "expanse" and would seem to be descriptive of the atmosphere, or at least the troposphere (which is that part of the atmosphere in which there are now convection currents, storms, clouds, etc. - below the stratosphere). Certain very unusual atmospheric and climatic conditions are also indicated by the extreme longevity of the

antediluvians.

Such a condition is also strongly implied by the Biblical record of a tremendous rain, continuing for forty days and forty nights, as one of the causes of the deluge.

We have already shown that the Bible teaches very clearly and emphatically that the deluge was world-wide, and therefore must have required a world-wide cause. A mere local rainstorm, however severe, could never have produced the Biblical flood. It is certain that present atmospheric and meteorologic conditions could never be such as to produce a universal rainstorm lasting for forty days. There is only enough water vapor in the atmosphere at present to cover the lands to a depth of a few inches.

However, there is enough water in the oceans of the world to cover the entire earth to a depth of about two miles, if the terrestrial topography were smoothed to a common elevation. *It is conceivable that much of the present oceanic water was, before the deluge, stored in a great vapor canopy surrounding the earth*. It may have extended throughout the present stratosphere and ionosphere (the ionosphere is at present a vast layer above the stratosphere in which there are great numbers of atoms and molecules in an ionized state, and in which are produced many remarkable electrical phenomena), or may even have been largely outside the present bounds of these layers.

It is even conceivable that much of this water vapor could have existed in the form of dissociated oxygen and hydrogen.

There is not much known as yet about the upper atmosphere, even as it exists at present, and it is surely possible that vastly different conditions may have prevailed in the past, as seems to be implied in the Bible record.

In some way, the great canopy condensed and descended upon the earth, then, at the time of the deluge. Many hypotheses might be offered as to its physical cause, such as the possibility of the passage of the earth through a cometary train. The near approach of a comet, or large meteor, would profoundly disturb the gravitational stability of the postulated canopy, causing a high intensity of atmospheric turbulence and strong temperature differentials, as well as furnishing a supply of meteoritic dust particles which would serve as the necessary nuclei of condensation for the particles of water vapor.

If a part of the water was in the form of dissociated hydrogen and oxygen, the electrical phenomena induced by the encounter would have sufficed to bring about their union and condensation.

This great canopy of vapor, if it existed, would have resulted in just such physical phenomena as are indicated in Scripture and geology to have prevailed before the flood. It would probably have been invisible to the inhabitants of the earth, but would have intercepted and filtered out much of the short wave-length radiation that now reaches the earth, including ultraviolet and X-rays, and the mysterious and intensely powerful cosmic rays. In fact, the earth's present blanket of invisible water vapor throughout the atmosphere makes life possible on the earth by this very action. If the ultraviolet and cosmic radiation were not thus filtered before reaching the earth, it would quickly destroy all life if it could reach the earth in full strength.

Therefore, the existence of the prediluvian "**waters which were above the firmament**" would have caused a healthier physical environment than now exists on the surface of the earth.

This would be further enhanced by the fact that the canopy would have the effect of preventing extremes of heat and cold, resulting in a uniformly warm, probably subtropical, climate all over the globe. This phenomenon has already been mentioned as demonstrated geologically by the discovery in polar regions of many evidences of former warm climatic conditions there.

This uniform climate, together with a probably much different and more gentle arrangement of topography than has existed since the flood, would have caused much different meteorological conditions.

High winds, storms, etc., would have been impossible, since they result basically from temperature differences.

Indeed, it is unlikely that even rain as we know it now could have been produced, though there would have been a continuous interchange of water near the surface, from evaporation and transpiration into the air, then back to the land at night as dew and mist. This inference is also supported by the phenomenon mentioned in Genesis 2:5, 6: "**. . . for the Lord GOD had not caused it to rain upon the earth. . . but there went up a mist from the earth, and watered the whole face of the ground**."

Also, with no water except transparent water vapor in the air, the rainbow would be unknown until after the flood, when its first appearance made it a beautiful and striking token of GOD's promise to Noah.

There may also have been great underground reservoirs of water under pressure, implied in the term "**waters under the firmament**," and in the later reference to the "**fountains of the great deep**." These would have surface or underground outlets at certain places and thus maintain rivers and a subsurface water table which would support luxuriant vegetation everywhere.

It should be emphasized that these suggestions are merely suggestions; they are not specifically taught in Scripture.

However, available meteorologic and geologic knowledge, together with the various Biblical statements concerning antediluvian phenomena, all show striking harmony with the outlined theory, or some modification of it.

As we have seen in the preceding chapter, modern genetic research has well demonstrated that hereditary variation in living things is caused chiefly by gene mutations. The same research has also demonstrated that these changes are nearly always deteriorations and that the occurrence of such mutations follows statistical laws. They seem to be caused by some disorganizing medium, <u>especially short wave-length radiation</u>, entering the chromosomes of the germ cells.

The rate of mutation in a species, therefore, depends on the rate at which such rays will penetrate the germ cells, which in turn is statistically dependent on the amount of radiation entering the

environment.

The antediluvian environment, as pictured above, would have far less such radiation than does the present one. Therefore, there must have been fewer mutations.

Everything favored the continued production of larger, stronger, longer-lived specimens of every type of creature.

This, of course, is what we have already seen the fossil record to indicate.

According to the Bible, many men lived to be more than 900 years old. However, with the vapor canopy precipitated at the time of the deluge, the mutation rate speeded up, the size and strength of the average creature deteriorated, many species became extinct, and the length of the life-span began a steady decline. These trends are still apparent today, although modern medical and sanitary science has, to a considerable extent, masked the natural trend as far as man is concerned.

This theory clarifies and makes more vivid the picturesque language of Genesis that "**. . . the windows** [literally flood gates] **of heaven were opened**." At the same time, "**were the fountains of the great deep broken up**," implying a tremendous tidal upheaval of the "**waters which were under the firmament**."

It is now easier to realize something of the gargantuan nature of this catastrophe. Certainly every foot of the earth's surface must have been profoundly disturbed and altered.

All creatures, except those at home in the water and those preserved by GOD in the ark, must have violently perished, many of them being buried alive in the whirling sediments and debris. When, a year later, Noah and his family came out of the ark, they saw a tremendously different world. No canopy of vapor filtered and diffused the sun's rays any longer and a rainbow appeared in the sky as a sign from GOD that this aqueous judgment would never again be visited on the earth (and, indeed, it could not if the upper waters were no longer there).

It is manifest that this great event, if it occurred, would be preserved not only in the rocks, but in the history and traditions of the race.

That this is actually the case is known to every student of ethnology.

Practically every country and tribe in the world has its own flood story, many of them amazingly similar to the Bible story, even in details such as the sending of the dove and the raven to search for land and the offering of sacrifices to the Deity when the waters subsided. Yet the similarity is not so marked as to permit the idea that somehow the Genesis account had penetrated to all these scattered peoples. All of the stories, save that in Genesis, have been distorted with all sorts of impossible and absurd fancies. Yet, they all obviously have arisen from the same original source.

Since most of them were handed down by word of mouth, this is exactly what would be expected. To cite only a few examples, in order to illustrate the world-wide nature of this tradition, flood stories have been found in such widely scattered lands as China, Babylon, Wales,

Russia, India, America (practically all Indian tribes), Hawaii, Scandinavia, Sumatra, Peru, Polynesia, and in fact, every region in the world save certain parts of Africa.

Geologists who dogmatically affirm that the universal flood is purely legendary seem to ignore this powerful ethnological evidence completely.

The very peoples and population of the world are a convincing testimony to their origin from a common stock at about the time and place indicated in the Biblical record.

Archaeological evidence invariably points to some point near the eastern shore of the Mediterranean as the cradle of civilization. The recorded or otherwise trustworthy history of nations elsewhere in the world always indicates either a migration from this area or else fades into oblivion at a time when Chaldea and other eastern nations are known to have been in an advanced stage of civilization.

Furthermore, assuming that the present human race sprang originally from two people, whether they were the original apelike Dawn man and his mate, or Noah and his wife, we find that the present population of the world supports the latter view and makes the former seem ridiculous. The population of the world in 1800 has been estimated at about 850,000,000. It is now about 2,500,000,000.

We can say that the population has doubled in about the past hundred years.

There is no objective reason to suppose that this rate of 100 years for the population of the world to double itself should have been greatly different at other periods in the history of the world. In 1650, the world population was only about 400,000,000. The present rate implies a considerably more rapid increase. Now, if the original population was two, we can find by logarithms that the population would have to have doubled itself exactly thirty times to produce the present number of people in the world.

If the original pair lived, say, 500,000 years ago, which is considerably less than the average evolutionary estimate, the average interval for doubling of the population would have been 16,667 years, which is absurd. If, on the other hand, all people are descended from Noah and his wife, who according to some Biblical chronologists must have lived about 4,500 years ago, then the average interval for doubling is 150 years, which is entirely reasonable.

One other phase of the flood story has often been questioned.

It is said that Noah's ark could not possibly have held two members of all the animal species in the world. However, it should be remembered that it was only necessary for Noah to provide for two members of each "kind" (with seven each of the clean animals for sacrifice).

As mentioned previously, the term "kind" is probably much more elastic than our modern "species" concept, and it is sure that there was not an excessive number of original "kinds." (Adam was able to give names to all of them in less than one day, according to Genesis 2:20.)

Only the land animals were taken into the ark, of course, and there are comparatively few kinds of land animals which are large. Most of the mammals, birds, and reptiles could have been

placed in cages and stacked in tiers. The dimensions of the ark are given in terms of the cubit, which probably at that time was about 24 inches in length. If so, then it can be quickly calculated that the ark had a capacity of some 3 1/2 million cubic feet, easily equivalent to that of over a thousand of our modern railroad cattle cars.

Its dimensions were ideal for both storage purposes and for stability in the turbulent waters of the flood.

The geographical distribution of animals was possibly quite different before the flood, but in any event Noah did not have to find and bring the animals to the ark; the Bible says that GOD caused them to come to him, possibly through some intuition of the approaching catastrophe. Thus there is nothing impossible or unreasonable about the Biblical account of the ark and its inhabitants.

The question of the age of the earth must be considered briefly before concluding this chapter.

A literal reading of the Biblical record will yield an age of only several thousand years for the earth. On the other hand, geologists usually estimate the earth to be several billion years old. This matter of geological dating is very important, both in estimating the earth's age and in fixing the absolute depositional date of the various formations. However, it is a very detailed and involved subject and one that cannot be adequately handled here in such a brief compass.

The chronometers most often used in the past have been the rate of cooling of the earth, the deposits of sediment at the mouths of rivers as compared with the sedimentary deposits of the earth's surface, rates of erosion of the earth's surface, the amount of salt and other chemicals in the ocean, and radio-activity.

Scientists now readily admit that all of these, except possibly the last, are not at all to be trusted and are of practically no value in calculating the earth's age. This admission would most certainly never have been made had not the estimates based on these methods turned out finally to be far too low to permit the present state of the organic world to have been attained by evolution.

It is true, however, that the estimate obtained by each of these methods was stretched out of all justification so that the errors caused by the weaknesses inherent in the methods themselves were of such nature as to give too large an estimate. Nevertheless, the methods were discarded when they proved unsatisfactory to the theory of evolution.

For example, probably the best and most reliable of all the methods was the one based on the salt in the sea.

The amount of salt in the sea is fairly well known and also the rate at which the rivers of the world are emptying more salt into the sea. It was then assumed that the rate had always been the same and that originally there was no salt at all in the sea. Upon these assumptions, which of course were wholly unwarranted and unreasonable, the age of the earth was estimated as, at the most, 100 million years. Since it is extremely probable that the sea contained a great deal of salt to begin with and also that the rivers once were much larger than at present and that the rate of erosion was much more rapid, this estimate is seen to be enormously too large. However, it has been discarded by evolutionary geologists as too small.

The only method that has been satisfactory to the evolutionists is the radio-activity method. It is known that metals of high atomic weight, such as thorium and uranium, are constantly being broken down into radium and eventually into an isotope of lead. The rate of this decomposition is believed to be constant. Consequently, when rocks are found containing uranium, thorium, or radium, and lead, the relative amounts of the two metals in the rocks are taken as an index of their age. However, there is no dependable way to estimate how much uranium or thorium may have been leached out of the sample. This is a common occurrence and, in fact, most deposits of radioactive minerals have actually been rejected for age determination because of the belief that this had taken place. Neither is there any way of knowing how much radiogenic lead may have been originally deposited with the uranium or later introduced in some other way from another source.

In fact, it is quite contrary to the whole tenor of historical geology to say that a deposit of radioactive metal could have remained unaffected by all the effects of telluric movements, igneous activity, ground water flow, chemical action, etc., for hundreds of millions of years or more, to be discovered near the surface in these present days.

But if the deposit was affected by any agency during those unimaginably long periods of time, then it is manifestly untrustworthy as a means of measurement. The exact original amounts of metal must be known, and so must the exact amount of material produced by radioactive disintegration during all that time, in order for the age-estimate to have any meaning whatever. But it should be very evident that it is not only impossible to know that there have never been any disturbing factors, but it actually seems quite certain that there must have been many.

Furthermore, it should also be obvious that it can never be demonstrated for sure that the rate of disintegration has never changed during all those tremendous periods of time. Of course, if the rate has changed, then unless the exact way in which the change has operated is known, it is quite impossible to make any kind of valid age determination. It is known, of course, that the disintegration rate cannot be varied by great extremes of temperature or pressure, or by many other influences that have been brought to bear in the laboratory.

Nevertheless, this does not prove that some other influence untried as yet might not change it.

No one knows as yet just what causes the disintegration or why some materials have much greater disintegration rates than others.

Why, in fact, the rates of disintegration of some of the stages in the disintegration of uranium itself are infinitely more rapid than other stages in the same chain.

Therefore, it is obvious that no one can know as yet just what influences might possibly affect the rate or may have affected it in the past.

As a matter of fact, it is known now that some disintegrations can be greatly hastened, and this is the basis of the atomic bomb.

Furthermore, there now exists considerable evidence that the natural rate of disintegration may be affected by cosmic radiation, and possibly by still other influences which are not reproducible

in laboratories.

In view of all these and many more difficulties with the radioactivity method that might be enumerated, it is not surprising that results obtained by the method are so erratic. It is quite common to obtain widely divergent results from different samples in the same locality. Out of all the hundreds of age determinations that have been made by this method, there are still less than a dozen from all parts of the world that are considered to be fairly dependable and to fit satisfactorily into the accepted geologic time scale. Most of them have been rejected for one reason or another, quite often simply on the basis that the radioactivity age determination contradicts the geologic time-classification already worked out on the basis of the contained fossils.

All things considered, this method of estimating geologic time, no less than its predecessors, has been vastly overrated, and has had built upon it a superstructure of geologic, astronomic, and philosophic interpretation which preponderantly overburdens it.

Thus, there is no really scientific proof yet offered that the earth is very old, and a truly objective geology would not suffer on this score either from adopting the deluge hypothesis in place of the so-called uniformitarian framework.

There are a number of natural chronometers which are much more dependable and, as we might expect, give estimates that are very much shorter than the ones ordinarily quoted. Some of these are the amount of helium in the atmosphere, the amount of material from meteors that has fallen on the earth, and the amount of juvenile water produced by volcanoes and hot springs, all of which indicate that the earth is extremely youthful as compared with the estimates of the evolutionists.

This discussion might be considerably extended, but it can safely be said in summary that no genuine proof exists that the earth is very old.

All methods of geological time measurement in current use are based on the theory of uniformity, ignoring completely the possibility of an original creation and the effects of the Noachian Deluge. We are quite justified, scientifically as well as scripturally, in maintaining the traditional position that the earth is not more than several thousand years old.

A remarkable prophecy of our times is given in II Peter 3:3-6, as follows: "**There shall come in the last days scoffers, walking after their own lusts, and saying, Where is the promise of his coming? For since the fathers fell asleep, all things continue as they were from the beginning of the creation. For this they willingly are ignorant of, that by the word of GOD the heavens were of old, and the earth standing out of the water and in the water: whereby the world that then was, being overflowed with water, perished**."

The modern doctrine of biologic and geologic uniformity is plainly indicated in this prophecy.

Note that the doctrine was to teach not that "all things continue as they were from the end of the creation," but rather, "**from the beginning of the creation**," emphasizing that creation itself was to be attributed to natural laws and processes which are still in operation.

This very idea, of course, is the basis of the theory of evolution.

Note also that the apparent scientific basis of this uniformitarian principle would have to be based on the willful denial of two great historic facts - the Creation and the Deluge.

During at least these two profoundly important periods of earth history, of course, the uniformity principle could not have been in operation.

The creation was accomplished by entirely different means than GOD now uses in His providential sustaining of the world, which are the only processes that can now be studied.

The deluge also marked a catastrophic intervention by GOD in the operation of the normal processes of nature.

Therefore any application of the principle of uniformity, based on measurements of present processes, could not possibly extend back earlier than the time of the flood at best. Consequently, earth history earlier than this cannot be discerned geologically with any assurance; revelation is required.

The prophecy also indicated the modern fruit of this unjustifiable use of the uniformity principle and its resulting theory of evolution, namely, the widespread denial of the supernatural in general, and in particular the coming judgment at the imminent return of the LORD JESUS CHRIST.

~ end of chapter 3 ~

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