



Figure 3. This is a close-up of a female bullfrog. Clearly the female has a much smaller ear than the male. Photograph by E. Norbert Smith.

Wynne-Edwards has convincingly stated^{4,5} that the call of the bullfrog is an epideictic display shared by a multitude of other species—the function of which is simply a head count or census. Evidently by means of the census, recruitment rate and finally density of the species are regulated. In a test⁶ of a prediction by Wynne-

Edwards, the primary function of the bullfrog's call has been found to be territorial, resulting in a parcelling out of living space so common among passerine birds.

Research Problem Suggested

The hypothesis relating bullfrog reproduction and the hearing of other bullfrogs calling could be tested by comparing density and reproductive success of two groups of frogs. One group could be artificially (and humanely) deafened or made mute and the control group left intact. Even in creation research "the fields are white unto harvest."

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EVOLUTION AND ARCHAEOLOGICAL INTERPRETATION

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The few hundred years after the flood are crucial years for anyone who believes in a young earth; for in that time populations had to increase and disperse, and the arts and crafts of civilization had to be taken up again, after the destruction of the former order. The author shows that, in fact, the interval need not have been very long. In particular, no more than about 200 years need be allowed between the flood and the beginning of the dynastic period in Egypt.

Introduction

Evolution is commonly thought of as the counter-idea to the concept of creationism. This is altogether true, but evolution is more than this. Acceptance of evolution entails denial of the factual nature of the Noachian Flood.

Also interpretations in the field of archaeology, a discipline that involves the later history of man's existence, have been greatly influenced by the principle of uniformitarianism. A failure on the part of many creationists to recognize this situation has undoubtedly been a significant factor in not submitting archaeological interpretations to a critical scrutiny before acceptance, when such interpretations result in compromise of the dependability of Scripture.

Because of this situation, proponents of creationism have been in an inconsistent and indefensible position. The number and magnitude of such discrepancies between Scripture and archaeological interpretation are now so great as to give substance to the claims of some archaeologists that Scripture is not a reliable historical source.

If Scripture does contain repeated errors and inaccuracies for the later period of history, then a basis remains for questioning the dependability of the Genesis accounts of creation and the flood. Without doubt, because of numerous compromise interpretations, many people, who would prefer to retain a confidence in Scripture, have turned to such views as theistic evolution and a pre-Adamic creation; or have resorted to acceptance of an extended time period for man's existence which is far out of line with Biblical teaching.

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In order for the creationist's position to merit an evaluation as consistent, there is a dire need for effectively meeting this remaining deterrent to an unqualified recognition of Scripture as a dependable historical source for the post-diluvian period encompassed by archaeological methods. It should be obvious that it is not possible to *prove* dependability for each and every historical statement in Scripture.

But it is possible to demonstrate that the various claims of error in Scripture represent discrepancies between Scripture and the *interpretations* of archaeologists and not between Scripture and the *facts* of archaeology. The writer has undertaken such a task in a more complete work.¹

The aim in this article is to demonstrate (1) that the popular interpretations of archaeologists about the predynastic and early dynastic periods in Egypt are based on the same uniformitarian assumption that is basic to evolutionary thinking; and, (2) that when freed of the pressure of this unestablished assumption, there is no genuine demand for a time period between the Noachian Flood and the beginning of the dynastic period that is in significant excess of two centuries.

Evolutionary Interlude

During the critical period when scholars were attempting to organize archaeological evidences of man's past into epochs, popular thinking leaned heavily in the direction of recognizing evolution as the controlling factor in the rate of development of man's intelligence. The rate of intellectual development was in turn regarded as the controlling factor in the development of the culture observable at the opening of the dynastic period.

Millions of years of presumed geologic time were hypothesized for the development of an intelligence which could be clearly recognized as representing a pre-eminence over man's assumed beast ancestors. Evolutionary archaeologists started their story with the appearance of locally built fires and the production of crude flint tools and weapons as the earliest evidences of such pre-eminence. Their story is continued usually as follows:

(a) Up to about that point, man was supposed to have obtained his food from wild vegetation and from such animal sources as the remnants of his animal instincts permitted. This epoch is referred to as the epoch of "food gathering," a term roughly equivalent to what is called the Mesolithic Age.

(b) This was followed by the Neolithic Age during which man presumably learned to cultivate his own food and produce weapons for greater efficiency in hunting down more elusive game. With such developments, man

could limit his area of living and build protective structures for himself.

(c) With the multiplication of the population, families united in groups with protective walls. Eventually, he learned how to make pottery for the storage and preservation of his food.

(d) At the beginning of the dynastic period men supposedly united in larger groups governed by a common ruler. For this series of cultural developments, archaeologists imagine some 20,000 years, more or less.

This "narrative" of cultural developments is illustrated archaeologically *only* at the site of Jericho among all the sites thus far investigated.² Nevertheless it is not feasible to deny a cultural development through *some such* sequence. It is extremely doubtful, however, that developments were the same in variant areas, or even that there was any necessary coincidence of developments in various areas. In fact the opposite direction is deducible from the evidence. Actually, there are peoples yet today who are living in the Neolithic period culturally.

Predynastic Archaeological Interpretations

Nothing should be more obvious than the impossibility of converting observed cultural changes to elapsed time in years. Whether man *gathered* his food for 5000 years or 5 years before undertaking cultivation is pure guess work based on one's starting premise. The same is true for the elapsed time to the invention of pottery making.

The most that can be said for assumed long periods of time for the predynastic is that they are roughly consistent with the starting premises of evolutionists based on the concept of uniformitarianism. But, even so, one may look askance at the deduction that many centuries separated man's ability to make a fire or a flint arrow head from the discovery of pottery making.

In spite of the vehement claims to the contrary, evolutionary change as a starting premise, has never been established. Further evidences in contradiction to that premise are now of such magnitude that there is a notably diminished inclination on the part of evolutionists to further debate the premise. That evolutionary thinking *was* the basis for assigning these long periods for the predynastic is clear from the writings of early archaeologists. Petrie reasoned thus in his interpretation of observed graves of early Egypt:

It appears, then, only reasonable to grant the evidence of the numbers of graves as dating the prehistoric graves to 8,000 to 10,000 B.C. To be asked to end them with the Ist dynasty at 5,500 B.C. is as late as we can ask geology to grant, and we may well put the beginning of that age to 8,000 or 10,000 B.C.

In any case, the suppositions which would bring the 1st dynasty to 3400 B.C., and crowd the prehistoric into a few centuries of time before that, would seem to be quite irreconcilable with the geologic scales of time action.³

The reader should understand that Petrie was not suggesting that the *beginning* of the predynastic age could be dated as late as 8,000 or 10,000 B.C. The graves all contained pottery and the invention of pottery was a notably later development of the predynastic period. One can recognize in the statements of Petrie the conflict of opinion between those who interpreted their data on the basis of evolutionary principles and those who attempted to retain some degree of confidence in the chronology of Scripture. A similar and earlier view was expressed by Budge at the opening of the century:

On early Egyptian chronology opinion was hopelessly divided, the principal reason being that many investigators attempted to confine the whole period of Egyptian dynastic history within the limits assigned by Old Testament history by the impossible system of Archbishop Usher. Those who did this lost sight of the fact [sic] that they were not allowing sufficient time for the rise and growth and development of Egyptian civilization, and they wrote as if they thought that the wonderfully advanced state at which the religion, and art, and sculpture, and architecture, and education, and government of ancient Egypt had arrived at the beginning of the IVth Dynasty [pyramid age] had been reached after the lapse of a few centuries.

No system of chronology which may at present be devised can be accurate in the modern acceptation of the term, and none can ever, with truth, pretend to be approximately so, except in respect to isolated periods of time of relatively limited duration. But the system which will have the best chance of survival, and at the same time be the most correct, seems, judging by the evidence before us, to be that which will take into due consideration the extreme antiquity of civilization of one kind and another in the Valley of the Nile, and which will not be fettered by views based upon the opinions of those who would limit the existence of civilization of ancient Egypt to a period of about 3000 years.⁴

Dates by Creationists Inconsistent

The figures proposed by Petrie and by Budge are as inconsistent with the concept of creation as is the concept of evolution. It is thus strange that many proponents of some form of creationism continue to quote figures for man's origin,

which have a strange resemblance to those given by Petrie and Budge.

The difficulties facing creationists when they attempt to support Scripture as historically reliable for the later period can be traced to this error. Acceptance of the principle of uniformitarianism can be demonstrated clearly as the basis for interpretation of archaeological data in the later period, just as has been true for the predynastic period.⁵ Therefore, as long as the figures for the predynastic period are accepted by creationists, there is little basis for challenging the claimed fixity for later dates.

The net result of accepting this insecure chronology for the later period is that the incidents of Scripture are then set against faulty backgrounds. Obviously discrepancies between Scripture and archaeology will result in such a case. Such discrepancies are then being pointed to as errors and inaccuracies in Scripture.

This unfortunate situation will be eliminated when, *and only when*, creationists recognized that it is not Scripture that needs to be brought into line with archaeological interpretations; rather the interpretations of archaeologists must be brought into line with Scripture. But the attainment of such harmony is impossible so long as a chronology is accepted that is off-set from Bible chronology.

Thus creationists find themselves in increasing difficulty in their attempt to explain why one should have confidence in the creation story, if Scripture cannot be depended upon with regard to the later period of history.

Early Views Reexamined

Strangely, during the interim since the above quotations were written, scholars have been compelled, because of more recent evidence, to revise the date for the beginning of the dynastic period to dates in the era 3300-2850 B.C. The error in the earlier dating of Mena and the beginning of the dynastic period amounts to something over 2000 years.

Hence the question must be raised as to what confidence should be placed in the currently accepted chronology, based on the same principles of interpretation, if such a premise led to an unrecognized error of this magnitude. Actually the earliest of the dates by this more recent dating of Mena is *later than the latest* date regarded as allowable on the basis of the geologic time scales.

What has happened to these geologic scales of time action? The writer has heard nothing about any abandonment of this premise for the interpretation of either geology or archaeology.

Worthy of note is the fact that all of the 2000-year correction of the date for Mena was made by condensing the period previously allotted to

the first eleven Egyptian dynasties. This strange type of correction was necessary because of the assumed "fixity" of the date for the beginning of Dynasty XII.

But if an error of 2000 years or more was made in assigning elapsed time for the first eleven dynasties, then what confidence is to be placed in a chronology for the subsequent period for which *no* error was recognized? This error is greater than for the total period of Egypt's history from the XIIth Dynasty to the fall of Egypt to the Persians in 525 B.C.

In point of fact, the currently accepted date c. 2000 B.C. for the beginning of Dynasty XII is *not* fixed, astronomically or by any other means.⁶ The combined inability of modern scholars to devise a satisfactory chronology of antiquity may be traced to this error of assumed fixation of certain dates. This "fixation" is on the same level as is the assumed "factual" nature of evolution.

Factors Limiting Predynastic Period

As noted in a preceding section, the only limiting factor to the *assumed* rate of cultural development during the predynastic period was the time necessary for the development of man's intelligence, as based upon accepted scales of geologic time. In making the correction for the date for Mena necessitated by data from the newly introduced carbon-14 dating method, an abbreviation of the time allotted to the predynastic was not necessary, since the evidence from this period is obscure in any case. The real pressure on "geologic time" became apparent with the necessary reduction of the period to be allotted to the first eleven Egyptian dynasties, and more specifically for the period of the three dynasties preceding the pyramid age.

With the date for Dynasty XII accepted as "fixed," and with the demand of the evolutionary time scale for maximum time prior to the beginning of the pyramid age (see quotation of Reference #3 above), scholars would evidently have preferred to take all of the 2000 year correction from the time allotted to Dynasties VI to IX. This was not feasible since hardly this amount of time had been allotted to these dynasties.

Hence, a floating chronology has been adopted generally for the early dynastic period which is not at all specific as to time periods to be assigned to individual dynasties. At best, the time squeeze on the evolutionary time scale is of such magnitude as to confirm as rational the concept that the rate of development of man's intelligence was *not* a factor in defining the necessarily allowable time for the period from the flood to the dynastic era. It is thus not surprising that scholars have been exceedingly reticent in recognizing the further reduction of half a millennium in the chronology as proposed by Scharff.

A more recent appreciation of the exceedingly high level of intelligence required to design and construct the Great Pyramid at Giza has not made this evolutionary interpretation of the data any more respectable from a scientific standpoint. Evidently the pyramid builders were quite on a par intellectually with modern man, if not actually excelling the present level of intelligence.⁷

From the creationist point of view, factors limiting the rate of cultural development were in no way related to an increasing intelligence. Man's intellectual abilities had been *deteriorating* since the fall. There is no reason for believing otherwise than that a significantly high level of intellect survived the flood in the persons of Noah and his family.

Furthermore, any scholar should recognize that one cannot possibly judge elapsed time, even as an approximation, on the basis of assumed rate of cultural progress.⁸ Hence, with the rejection of the concept of evolution by creationists, there remains no reason why this group should continue to think in terms of extended time for the predynastic period, beyond the maximal demanded by such factors which *did* control the rate of the observed developing culture.

Since, by the Biblical account, Noah emerged from the ark to face a totally ruined world, with little or no evidence to indicate that there ever had been any previous human culture, his family was obliged to start from zero level in the development of a new culture. *The era represented archaeologically by the first evidence of locally built fires or the use of flint weapons or tools then represents the immediate postdiluvian period.* The rejection of the Noachian flood as historical obscures, in the thinking of evolutionists, the true meaning of this evidence of a near-zero cultural level.

The factors to be considered in estimating the minimal time to the beginning of the dynastic era are thus quite different from those proposed by evolutionists. Two such major factors can be noted. Any others may be disregarded since these can be accounted for within the period necessitated by these two, which are (1) the time necessary for the multiplication of the population to that demanded by the archaeological evidence at the beginning of the dynastic period, and (2) the time demanded for the rise of the ancient mounds of occupation to a point which may be correlated with the beginning of the dynastic period.

Time for Population Growth

On the basis of the stated rapid increase in population,⁹ on the basis that three generations may be allowed to a century,¹⁰ and on the basis of the stated longevity of life in that era,¹¹ multiplication of the population by a factor of ten per

generation is not at all improbable. The population could increase to 10,000,000 during a period of two centuries.

Such a population is more than adequate to account for development of all the archaeological evidence from the era of the opening of the dynastic period. Hence, as far as this limiting factor is concerned, there is no genuine demand for recognizing a period in significant excess of two centuries for the period from the flood to Mena. The small size of villages at the beginning of the dynastic period and the small number of graves for the total period of their duration is in line with such a deduction.

Mounds of Successive Occupation

More significant than population increase, that must be considered in arriving at a minimal figure for the predynastic period back to the flood, is the appearance of many mounds which clearly represent sites of occupation in antiquity. These mound sites are particularly characteristic of areas where construction was of mudbrick.

This situation holds for the areas of Palestine and Mesopotamia and perhaps to a lesser degree for the area to the north of Palestine. These mound sites, in some cases, reach the astonishing heights of 50 feet or more of successive levels of occupation before a level is reached which can be dated to the dynastic period.

At Jericho,¹² for example, a layer of some 13 feet of clay was found above bed rock composed of a series of mud floors, each marked by the mere outlines of foundations of mud dwellings. Above this were the remains of foundations of three successive constructions within the life of a city wall. Above this were the remains of successive constructions amounting, in one place, to twenty-six.

Only above all this was evidence found for the use of pottery representing two distinct cultures in succession, followed by an undefinable period of nonoccupation estimated to have been of perhaps a thousand years duration. Only then was a level reached that could be dated to the dynastic period.

An even more astonishing series of occupation levels was found at the site of Mersin in Anatolia.¹³ Such evidence is regarded as unequivocal proof for the necessary recognition of a plurality of millenniums back to any point which creationists can rationally identify with the immediate post-diluvian period. This is the evidence that creationists have not adequately explained within the limits of Bible chronology.

That these occupational levels represent a sequence is not debatable. The same holds true for the relative chronological relations between the levels. Certainly any given level is older than

the one above it and younger than the one below it.

Unfortunately, no such mound has revealed any basis by which absolute dates can be assigned. Deductions for such absolute dates, even as approximations, will depend on the starting premises.

If one starts with the premise of uniformitarianism, one may deduce these time periods amounting to a multiplicity of millenniums. By allowing a duration of from 50 to 100 years for a mud-brick structure,¹⁴ and by allowing extended hiatuses as deemed necessary,¹⁵ such extended time periods have been calculated.

But is the premise of uniformitarianism necessary to explain the conditions that existed in the predynastic period? Quite the opposite seems logical according to the evidence at hand. A major factor in the duration of a mud-brick structure is the amount and severity of rainfall. Ceram commented on the instability of such adobe dwellings in *modern* times and under conditions of *sparse* rain:

. . . The buildings which make up these villages are still constructed of bricks of unfired clay—bricks which crumble under the baking sun and slowly dissolve under the sparse rain. . . . Such adobe houses seldom last more than twenty years.¹⁶

What then would be the situation in an area that has even occasional heavier rains? Glueck described an experience while in Arabia where the rain is sparse. The occasion was a terrific *freak* rain storm of very rare occurrence.

. . . In April, 1940, a terrific rain-and hail-storm literally washed half of the mud-brick village (Aquabah) away. Many of the mud-brick walls simply dissolved. . . . Small wonder that such bricks go to pieces during the first heavy rain!¹⁷

Miss Kenyon has given an idea of the relation between rainfall and the rate of rise of these mounds.

. . . The growth of these tells is particularly characteristic of those areas in which the local building material was mud-brick, for a destroyed building of mud-brick disintegrates into mud again, which cannot be used again in the same way that stone from a building can be. The growth of the tell is therefore more rapid.¹⁸

Garstang commented in a similar vein relative to the specific site of Jericho.

Even before the Neolithic settlement a part of the original channel [water-spring] seems already to have become covered, so the earliest floors of occupation within the excavated area were based upon a wet deposit, the traces of which rose through successive floor

levels to a height of 12 or 15 feet. This may explain to some extent why the earlier buildings are found to have been frequently rebuilt. . . . It is true that mud bricks, such as were used throughout the life history of Jericho, were peculiarly liable to decay. . . . Sometimes too, in winter, rain falls very heavily so that unless the outer walls are protected from the elements, they would be liable to perish.¹⁹

Very apparently, rainfall is a large factor in the duration of a mud-brick structure; and under conditions of heavy or frequent rainfall, rebuilding might well be required annually or even more than once a year. If such conditions in the pre-dynastic era can be identified by archaeological research, then one may deduce that the period involved in the numerous reconstructions at the Jericho site may preferably be measured in *decades, not millenniums*.

Archaeological Data on Prehistoric Rainfall

There is abundant archaeological evidence that even areas which are now desert once had adequate rainfall for cultivation of crops ample to support a significant population. Areas, like that of Jericho, which still have an abundance of rain with occasional severe rain storms, may then be presumed to have had a most hostile climate, requiring the rebuilding of dwellings frequently. Excerpts from the archaeological reports are here reproduced as examples.^{20a, b, c, d, e}

. . . It would be interesting to know just what were the changes in climate which led to the abandonment of sites like Ghassul, situated far out in the Jordan plain where the soil could not be irrigated without prohibitive effort. It seems reasonably certain that there were more lateral streams flowing into the Jordan than there are today.

. . . The abundant evidence of ancient occupation in the Baluchi hills or the Indus plain implies less exacting climatic conditions in the past than at present, and, though historical evidence implies that by the time of Alexander conditions in Baluchistan approximated to those of today, yet . . . there is good evidence for a heavier rainfall, and extensive forests in the Indus Valley in ancient times.

In his explorations in Baluchistan these problems of climate and population were, of course, much before Sir Aurel Stein's eyes, and he was able to identify a large series of artificial stone-built dams and terraces, known locally in Jhalawan as *gabarhands*, clearly designed to aid the irrigation of fields. The date of these is unknown but, as Stein remarks, they must reflect not only climatic conditions with a greater rainfall, but also a large popu-

lation to provide the necessary labour for their construction. . . . Even though the age and culture of these works are still unknown, their presence is important in indicating greater rainfall in antiquity, and it is by no means improbable that they do, in fact, date back to the prehistoric occupation of the Baluchi Hills.

. . . There remained in the Sahara and adjacent regions stream channels "not now occupied by water courses" that obviously carried great quantities of water.

And Lot lifted up his eyes, and beheld all the plain of Jordan, that it was well watered every where, before the Lord destroyed Sodom and Gomorah, even as the garden of the Lord, like the land of Egypt, as thou comest unto Zoar.

A dozen settlements of antiquity were observed along the now dry Ghaggan River in the desert area of Bahawalpur in India.²¹ Numerous scholars have observed evidences of a past exposure to torrential rains in areas of the temperate zone.

What Caused Greater Rainfall?

Evolutionists, with their denial of the Noachian Flood, have no satisfactory explanation of these evidences of a notably greater rainfall in the pre-dynastic (Neolithic and Chalcolithic) era. Evolutionists do recognize that such conditions prevailed during the so-called ice age.

However, the ice age of geology belongs back in the Paleolithic where there are no evidences of any significant population. The exceedingly meager evidences of human remains in areas involved in the "ice age," may well be but isolated cases of antediluvian remains.

Otherwise, such limited remains might be evidence of persons who migrated from Ararat into distant regions, and who were overwhelmed by a sudden climatic change in the immediate post-diluvian period. In any case, the confusion of archaeologists lies in the rejection of a world catastrophe which caused a restart from zero cultural level.

A completely satisfactory explanation to this problem is provided by Scripture when one recognizes that the era in question is that of the early centuries of the post-diluvian period. Granting the factual nature of the account of the Genesis Flood, it follows that when the flood waters subsided, the waters were *at first* retained in the natural depressions of the altered geography.

These depressions may well have varied in size from relatively small inland lakes or seas to sizes comparable to some of our modern oceans. Thus distribution of land and water bodies was notably different than that which now exists.

Present conditions have resulted from the rupture of many of the land barriers that earlier confined the early water bodies, the waters having been drained to a more or less degree into what are now the oceans. This explains the many geological evidences of severe, and even violent, drainage. Many such evidences have been noted to confirm this picture.

High water marks on the mountains in the Great Salt Lake area are evidence that waters of this lake were at one time a thousand feet higher than now, and covered a vastly larger area. The same situation has been reported for the water body now known as Lake Victoria in Africa.²²

The Great Lakes seem clearly to be residues of a far more vast inland sea which once may have covered much of what is now the Mississippi Valley. Herodotus possessed legendary evidence that at the beginning of the dynastic period, Egypt was under water as far south as Lake Moeris.²³ Petrie noted evidence that even much of what is now the Sahara Desert was once covered by waters of an inland sea.²⁴

There is legendary evidence, confirmed by archaeologists, that the Persian Gulf and both arms of the Red Sea extended many miles further inland than now.^{25a-e} Evidence of an ancient lake or sea in what is now the Arabian desert has been reported.²⁶

One large factor in the amount and severity of rainfall in a given area is the proximity to water bodies of significant size. A different distribution of land and water areas following the flood may then be regarded as a major factor in producing the climatic conditions in the predynastic era. Change in temperature is also a factor related to rainfall and this factor may also be regarded as having followed the flood.

Correlations made to support the evolutionary concept of the ice ages, and to support the long time period for the predynastic period, are made principally because of the prevalent evolutionary thinking of most scholars. Without a knowledge of the prevailing conditions, it is not possible to estimate the time involved in the formation or recession of the ice flows.²⁷

Problem of Dispersion from Babel

The problem of locating chronologically the incident of the dispersion from Babel has not been given the consideration it deserves in previous attempts to deal with the period between the flood and Abraham. Since the Archaeological Ages have been defined in terms of major changes in culture, such a widespread migration of peoples, as is deducible from the Biblical account of the dispersion, could be expected, above all other such migrations, to be detectable archaeologically.

Obvious reasons for the absence of any serious attempt to deal with this problem are (1) the belief that the incident, like the Noachian Flood, was not an historical incident, or (2) that if factual, the expanded chronology of the predynastic period, as commonly accepted even by some creationists, requires placement of the incident so far back in the predynastic that it would not be detectable archaeologically.

Against the background provided by the evidence given in support of a relatively brief duration of this period back to the flood, the problem has a new significance. Against this background, evidence for the dispersion should be found at a point not significantly distant from the opening of the dynastic era.

Or, conversely, if archaeological evidence exists of an extensive migration out of Mesopotamia into the surrounding territories such as Anatolia, Syria, Palestine and Egypt, such evidence can be used to confirm not only the historical nature of the Biblical account, but also to substantiate the general correctness of deductions in this article as derived from such evidence. The fact that the incident is mentioned in the Mesopotamian inscriptions should be taken as adequate evidence for the historicity of the Biblical account. The inscription has been translated and, in part, reads:

. . . Babylon corruptly to sin went and small and great mingled on the mound. . . . Their [work] all day they founded, to their stronghold in the night entirely an end he made. In his anger also the secret counsel he poured out to scatter [abroad] his face he set, he gave a command to make strange their speech. . . . Violently they wept for Babylon, very much they wept.²⁸

The statement in Genesis 10:25 has been interpreted to refer to the incident of the dispersion dated to the birth of Peleg, a name which means *division*. The figures there given, however, would make the birth of Peleg a scant century after the flood, a period which seems rather short to allow for the necessary increase in population.

The verse has also been interpreted to refer to the division among the people as to whether to accept the decree that there would not be another flood, or to make preparations to meet a repetition of such a possible disaster by building a tower.

If this interpretation is allowable, the limitation of the period to the dynastic as hardly in excess of 200 years remains reasonable. Other scholars have claimed that the division must refer to a division in the geography of the earth. If such an interpretation is demanded, the verse has no significance to the present problem.

Archaeological Data for the Dispersion

That there occurred, late in the predynastic period, an extensive migration of peoples out of Mesopotamia into the surrounding areas of Anatolia, Syrophenicia, Palestine, Egypt and even into the islands of the Mediterranean is clearly detectable archaeologically. The migration can be dated to the so-called *Jemdet Nasr* culture of Mesopotamia, a culture that had but a brief duration.

The migration is evidenced by the appearance of this culture in widely scattered areas. This wide-spread cultural change is taken as the basis for marking the beginning of the Early Bronze Age just before the beginning of the dynastic period. Albright commented on this placement of the *Jemdet Nasr* era.

In the transitional period which led from Late Chalcolithic into Early Bronze I . . . may be placed Stages VII-V/IV on the eastern slope of Megiddo. . . . In Stage V were discovered a number of sherds impressed before baking by cylinder seals with animal and floral designs. They were first attributed by Frankfort to the Early Dynastic I or II of Mesopotamia, but in 1945 Dunand published some thirty similar impressions from the lowest urban level of Byblos which have altered the picture. There can be no question that Dunand is substantially right in correlating them with the *Jemdet Nasr* period in Mesopotamia.²⁹

The proximity to the dynastic period was sufficiently close to allow a provisional date for *Jemdet Nasr* at c. 3000 B.C., which is within the range of those determined by carbon-14 dating for Mena. It is at this very point that the evidences of an intensive migration from Mesopotamia into surrounding areas are to be found. Albright continued:

. . . Towards the end of the fourth millennium [sic] there must have been an exceedingly intensive transfusion of culture going on in the Near and Middle East. Syria and Palestine naturally became the cultural intermediates through which Mesopotamian influences streamed into Egypt in the period just before the First Dynasty, as has been demonstrated particularly by Frankfort and Scharff.³⁰

According to archaeological evidence, at this time, the beginnings of numerous cities in Palestine are a reflection of an extensive migration.

. . . and there can be little doubt but that the new city [Jericho] was founded and fortified by a people migrating either from further north in response to pressure from beyond, or from Mesopotamia itself.³¹

In his more complete work (see note at end of article for availability), the author has provided evidences of this migration from archaeological discoveries in Syria, in Anatolia, in Palestine, and in Egypt. At no other time in the history of the Near East are such clear evidences found for an extensive dispersion from Mesopotamia into these areas. Surely, this is the point of the Biblical dispersion from Babel, and just as certainly has the correctness of these Biblical accounts been confirmed. The logical corollary is that there was *no* extended time between the flood and the dispersion.

Evidence of No Long Time Lapse

In Upper Mesopotamia, remnants of occupational sites have been found that bear names that are recognizably derivable from the names Peleg, Arphaxad, Serug, Terah, Haran and Nahor.³² All these names occur in the lineage of Noah to the time of Abraham.

While cities exist for a significant time duration, there is no reason to suppose that these early sites had durations measured in millenniums. Various cultures of Mesopotamia, later than the very earliest, had pottery which can be used to define the distinction between them. So also in Egypt, in Anatolia, and even in the island of Crete, there are evidences of well-developed pottery in the early predynastic, that in Crete and Mesopotamia reaching back to the earliest Neolithic Age.

The picture is incongruous when one assumes millenniums of time at Jericho before the appearance of pottery. Only Jericho is recognized as illustrating this supposed sequence of food gathering, food cultivation and pottery making. The interpretation is more logical that, if there was a definable sequence at all, the steps followed in some time interval such that no great period of time elapsed between the earliest evidences of man at Jericho and the discovery of making pottery. Certainly a few decades is adequate for the prepottery era at Jericho as well as elsewhere.

According to the Genesis accounts, Mizraim was a grandson of Noah and hence of the same generation as Arphaxad who was also a grandson of Noah. While the age of Mizraim at death is not given, Arphaxad is stated to have lived to an age of 402 years. Granting even half this age to Mizraim, he could have been alive still at the time of the dispersion into Egypt, just before the dynastic period. Egypt and the Egyptians were named by the Hebrews after Mizraim, and legendary evidence, cited by early historians of the Christian era, has been used to identify Mena as the Mizraim of Scripture.^{33a, b}

. . . Mestram was indeed the founder of the Egyptian race, and from him the first Egyptian dynasty must be held to spring.

. . . The memory also of the Mesraites is preserved in their name for we who inhabit this country [Palestine] called Egypt Mestre, and the Egyptians Mestraeans.

Whether the identification is correct or not, it would seem that Mizraim did not belong to an era ending millenniums before the dynastic period.

Summary

Evidence has been noted that, while the predynastic period of archaeology has been popularly interpreted on the basis of evolutionary (uniformitarian) concepts, this early period was actually characterized by a climate totally different from that which now exists. The cause of this different climate is traced to the existence of a totally different distribution of land and water bodies following the flood than now exists.

As the flood waters receded, one could expect that the waters were first confined in natural depressions of the altered geography to form numerous inland lakes and seas. Archaeological evidences of a much heavier and wide-spread rainfall in this early era are thus explained on the basis of more uniform proximity of land bodies to water bodies of significant size.

The originally confined waters have since, in large measure, drained into presently existing oceans, as a result of rupture of the land elevations that confined them. Thus archaeological and geological evidences of severe and even violent drainage, which are observable still, are also explained.

Since mud-bricks used in the construction of dwellings and walls were readily susceptible to decay under such conditions, the rapid rise of these early occupational mounds may be accounted for within a relatively brief period, probably measured in decades rather than millenniums. A period not significantly in excess of 200 years is adequate for multiplication of the population from four families to the population that probably existed, according to archaeological evidence, at the beginning of the dynastic period.

Further evidence to this same end is to be seen in the appearance of well-developed pottery in virtually all areas back into the very early Neolithic period. The assumption that the first appearance of pottery at Jericho is an exception, and that it was preceded by millenniums of cultural development, is thus incongruous.

The belief among the ancients that Egypt and the Egyptians were named after Mizraim, grandson of Noah, and that Mizraim was the same person as Mena, first king of Egypt, is congruous with this view, as is also the discovery of sites in

northern Mesopotamia with names derived apparently from the names of the immediate descendants of Noah.

It is the author's contention that retention of a long period of time for the predynastic is inconsistent with a retention of the accounts of creation and the flood. Such views should be repudiated by all who accept the Scriptural accounts of creation and the flood.

Inconsistencies regarding the predynastic period are due to acceptance of the principle of uniformitarianism, which has been used in setting up a chronological structure for the later period. As currently interpreted, gross compromises of Scripture are practiced. As a result, the incidents of Scripture are being set against faulty backgrounds, and the resulting discrepancies with Scripture are then pointed to as evidence for the unreliability of this source historically.

This situation *can be* remedied, as shown by the author in his more complete work, but not until this later chronology is also "liberated" from the premise of uniformitarianism, and from deductions based on invalid dating methods.

Note

The more complete work referred to in the above article is available as a two-volume set under the title *The Exodus Problem and Its Ramifications* through Crest Challenge Books, Box 993, Loma Linda, Cal. 92354; price per set postpaid, \$9.95 plus tax where applicable.

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ADDITIONAL NOTES CONCERNING THE LEWIS THRUST-FAULT

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A paper, "The Lewis Overthrust," by Burdick appeared in the September, 1969 issue of the *Creation Research Society Quarterly*. Field data was reported that had been gathered in recent years from study of the so-called thrust contact along the visible exposures. The standard physical evidences for thrust or low angle faults are: 1) mylonite or ground-up rock along the upper and nether plates of the natural mill, 2) tectonic breccia, or angular fragments of rock along the contact, and 3) slickensides, or grooves made by the differential movement. In the exposures visited these criteria were missing; therefore the author concluded that the Lewis block may not be a genuine overthrust.

In the summer of 1973 geologists Malcolm Fargher and Walter Peters accompanied the field trip sponsored by the Bible-Science Association under the personal direction of Rev. Walter Lang. Fargher reported the existence of slickensides and other physical criteria in the vicinity of the thrust contact, thus perhaps causing a re-evaluation of previous conclusions regarding the Lewis Overthrust.

Accordingly a special plane was chartered to fly Fargher and Burdick to the scene in October, 1973. Geoffrey McMahon kindly offered to pilot the plane and, as it turned out, pay for a large portion of the expense of the trip.

Introduction

For some time thrust faults have been accepted as a matter of course where the evolutionary order of the fossils in the rocks was inverted, without much recourse to study of the physical criteria. This point of view is well illustrated in a book by Nicholson:

It may be said that in any case where there should appear to be a clear and decisive discordance between the physical and paleontological (fossil) evidence as to the age of a given series of beds, it is the former that is to be distrusted rather than the latter.¹

This concept of the "taken for granted" certainty of the evolutionary sequence quite permeated the science of geology. This attitude was further emphasized by Billings:

Parts of some of the great overthrusts in the Alps were so devoid of slickensides, gouge, and mylonite that they passed unnoticed and were for a time mapped as sedimentary contacts. It was only after paleontological evidence was obtained . . . that the existence of the great faults was recognized.²

Eventually some geologists recognized the illogical course others had taken, wherein certain lines of evidence were ignored.

Structural Studies

Some years ago a mechanically minded geologist and engineer by name of Field called atten-

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