THE EXODUS HAPPENED 2450 B.C.

GERALD E. AARDSMA, Ph.D.
Institute for Creation Research
10946 Woodside Avenue N.
Santee, California 92071

KEYWORDS: Biblical chronology, date of Exodus, date of Flood

ABSTRACT

The Exodus of the Israelites was immediately preceded by an outpouring of God's power in judgement upon Egypt. This judgement took the form of a series of devastating national disasters. By the time it was over the crops and herds of Egypt had been decimated, the firstborn sons were dead, the pharaoh and his army had been destroyed, the slave labor (i.e. Israelites) had gone, and they had carried away all the wealth of the land with them. The obvious implication of these Biblical facts is that the nation of Egypt must have suffered a most severe setback, if not complete hiatus, as a result of the Exodus.

Such a pronounced setback should be an easy thing to locate in the standard, secular history of Egypt. However, nothing remotely resembling the Biblical Exodus is discernable in the secular history of Egypt anywhere near the traditional Biblical date for this event (i.e., 1450 B.C.). In fact, roughly the opposite of what one would expect of the Exodus is observed at this date; this was a period of unprecedented prosperity and power for Egypt.

Interestingly, a full millennium before this traditional date (i.e., at about 2450 B.C.) Egypt's secular history fits the Biblical description of the Exodus extremely well. This suggests the possibility that traditional Biblical chronology may have accidently lost 1000 years between the Exodus and the commencement of the Israelite monarchical period. This suggestion is found to work out very well when explored in depth, allowing much secular historical and archaeological data to be harmonized with the Biblical record from Abraham to Samuel for the first time.

This discovery raises the minimum age of the earth from 6000 to 7000 years, and the minimum elapsed time from the Flood to the present from roughly 4300 years to 5300 years. This additional millennium significantly impacts the time scale of such post-Flood dynamical processes as the development of a post-Flood ice age, dispersion of animal life and man over the globe, growth of radiocarbon in the atmosphere and oceans, etc.

PROLEGOMENON

In a perceptive invited paper for the December 1986 issue of the Creation Research Society Quarterly, Erich A. von Fange [6, page 97] wrote:

"Creationists ought to encourage the responsible study of chronological problems. The final answers are not as yet in for this immensely complicated problem of dating the ancient world. To a large extent we must play a waiting game and hope that in future excavations some incontrovertible synchronism will be found that will put at rest the present uncertainty about dating the Exodus and other issues. One conclusion seems safe. No side or faction has yet to come up with a satisfactory solution to dating the Biblical world before 1000 B.C. ..."

Though this work has been supported in part by the Institute for Creation Research, the views which are expressed by this paper are those of the author and do not represent any officially endorsed ICR position.
I discovered a radically new possible solution to this well-worn problem of how to date "the Biblical world before 1000 B.C." in the summer of 1990. Following extensive critical investigations of this solution -- of an archaeological, historical, and Biblical sort -- I have come to believe that it is the correct solution. If I am correct, we need play von Fange's waiting game no longer.

Indeed, I am now questioning why we ever supposed we needed to play this game in the first place. It now seems to me that the " incontrovertible synchronism" which von Fange suggested might solve the problem has existed for at least the last eight decades. I refer here to the Exodus. It now seems to me that anyone who was familiar with the Biblical account of the Exodus and also the secular history of Egypt (no doubt there are many here whose education in science, like mine, has not served to familiarize them with this fascinating history), and who was prepared to take both seriously, could not fail to see that the collapse of the Old Kingdom of Egypt, as recorded in secular history, and the Exodus event, as recorded in the pages of Scripture, must, in fact, coincide.

INTRODUCTION

This small paper is a defense of the claim, expressed by its title, that the Exodus of the Israelites from Egypt happened ca. 2450 B.C., at the end of the Old Kingdom of Egypt, as opposed to the traditional view that this historic event should be dated to ca. 1450 B.C., during the New Kingdom. I have briefly discussed this assertion previously within the much broader context of Biblical chronology from Abraham to Samuel [2]. There I elaborated the hypothesis that traditional Biblical chronology has accidentally dropped out a full millennium between Solomon and the Exodus, and showed how Biblical history in the period before Samuel immediately finds many supporting evidences from secular history and archaeology when this lost millennium is restored.

In the present paper I focus on the Exodus alone. My thesis here is that what we know about the Exodus from the Bible and what we know about the history of Egypt from secular sources is sufficient to establish 1. that 1450 B.C. cannot possibly be the correct date for the Exodus, and 2. that 2450 B.C. must surely be the correct date. I will argue that the only point in Egyptian history which can possibly accommodate a truly Biblical Exodus is at the end of the Old Kingdom, and that the proper date for the end of the Old Kingdom is ca. 2450 B.C.

(I feel it is unnecessary to explicitly address the alternative view, unique to the more recent decades of the Christian era, that the Exodus should be dated to ca. 1210 B.C., as this view implicitly denies a literal, plain sense, approach to the interpretation of Scripture, and it seems unlikely that many who adhere to such an approach would be found at a conference such as this. Notice, however, that it is implicitly denied by the second part of my thesis above. For the same reason it seems unnecessary to discuss the current "mainstream" view, that the Exodus is a theological story only, for which one should not expect to find any real-life evidence.)

The date of the Exodus is a major landmark in the chronology of the Old Testament. It constitutes a major link in the chain of Biblical numbers which must be used to compute the date of any Biblical event prior to the Exodus, such as the Tower of Babel or the Flood. Thus, the date of the Exodus is quite important to Biblical chronology.

Biblical chronology is, in turn, important to scientific creationists. Chronology is the backbone of history. Obviously, we need to get our chronology right if our current efforts to build a Biblically sound, quantitatively defensible model of earth history from the Flood to the present are to succeed.

WHAT THE BIBLE DEMANDS

It seems to me that there are several parallels between the way many conservative Christians treat the Biblical Exodus account and the way the Biblical Flood account is often treated. In both cases there is a tendency to completely overlook what the natural outworking of such events would be in the real world.

In the case of the Flood, for example, it is generally acknowledged by conservative Christians that the Flood really happened, and that it accomplished God's purpose of judging the world. But, often, that's where thinking stops. Only when it is explicitly pointed out that a global Flood would, for example, necessarily bring about much erosion and deposition of sediments do many Christians begin to recognize this fact and wonder where these sediments are to be found.

So it is with the Exodus. It is generally acknowledged that it really happened, and that it accomplished God's purpose of setting the Israelites free from Egypt, but that's where thinking tends to stop. I suggest that just as surely as we can assert that the global Flood must have left behind large sedimentary layers, we can also assert that the supernatural outpouring of God's power which accompanied the Exodus must have crushed the nation of Egypt, and must have done so to such an extent that this singular event could not possibly be hid from the historian's eye. There is every reason to suppose that the Exodus should provide an easily discerned point of reference in the secular history of Egypt, facilitating synchronization of the secular and sacred histories.
The only way I know to bring this point home is to ask the reader to imagine what the outcome would be if the plagues which God inflicted upon Egypt at the time of the Exodus were to be inflicted upon the United States of America today. This is not a perfect analogy, of course. In particular, the global ties and rapid global communication and transport which exist today give the U.S. a potential resilience not paralleled in the case of ancient Egypt. But I think it is adequate, nonetheless, to open our eyes to the utter ruin which the Exodus must have entailed for Egypt.

We begin by imagining that all of the rivers, lakes, and reservoirs in the U.S. are turned to blood (for this is how the plagues which preceded the Exodus began) so that their water is useless for drinking and irrigation, and all their fish die. There is no water to drink, and none for the crops, and people are scrambling everywhere to put in wells. (In some portions of the U.S. there is enough natural rainfall to offset the felt impact of such a disaster. This would not be the case in Egypt which has a desert climate and is completely dependent upon the waters of the Nile for drinking and irrigation.)

Seven days later there is a national epidemic of frogs. Frogs everywhere -- in the houses, in the beds, in the ovens, in the factories, in the schools -- everywhere. These die off (miraculously) and are heaped in stinking piles all over the country. Nothing like this frog epidemic has ever been seen before, and it takes a toll on the nation's self-confidence. But this is no sooner over than a new epidemic breaks out. This time it is gnats (or lice) -- everywhere. In your hair, in your eyes, in your mouth. Prior to this the country's scientists (analogy of the Egyptian magicians) felt they could handle the situation; now they throw up their hands in despair and acknowledge that the supernatural hand of God is at work.

But it gets worse. On the heels of the gnats come great swarms of insects, in such numbers that the land is laid waste by them. And when this plague is lifted, then another is on the way. Overnight, all of the pastured livestock die -- the cows and the steer, the sheep and the horses. And then come boils -- boils on everybody and so severe that people can't even stand. And then, continual thunder and lightening accompanied by hail over the entire country. Hail such as has never been seen before. It shatters all the trees, and strikes down every man and animal not safely indoors, and the crops ready to be harvested are ruined. The entire country is officially declared a disaster area by its top officials.

But there is more to come. Following a brief respite, come swarms of locusts. There are so many locusts that the surface of the ground cannot even be seen. They eat every green thing which remains in the land until the ground and the trees are stripped bare. And then, three days of total darkness -- not an ordinary darkness, rather one which is so black it can be felt, so oppressive that nobody dares even to rise from their place.

And then comes the death of the first-born of all yet living -- mankind and cattle. In the middle of the night great wailing is heard from one end of the land to the other, for not a house has escaped the visitation of the angel of death.

(Now it is customary for us, as we read the Exodus account, to identify with the Israelite slaves. Accordingly, at this point in the narrative we begin to feel pretty good, because we feel the long ordeal is over and we're on our way to better things. But, in this analysis, we are seeking to assess the probable impact of these events on Egypt, so we must take up the point of view of the Egyptians -- as the Israelites jubilantly walk away.)

The analogy gets a little difficult at this point, but let us do the best we can with it. The Bible tells us that when the Israelites left Egypt they "plundered the Egyptians". That is, they took most of the wealth of the land (silver, gold and clothing) with them. In modern terms, this seems roughly equivalent to the sudden loss of everyone's lifetime savings.

But, of course, it was not just the savings which were lost at this point, it was also the Israelites themselves. They were the slaves who provided the manpower to keep everything going. In modern terms, we will have to imagine that suddenly all the machinery across the nation vanishes -- all the tractors and combines, the dishwashers and clothes-washers, the factory machinery and the turbines which generate our electricity, the automobiles and railway engines, etc.

Finally, of course, we need to add to this list, after a break of just a few days, the sudden destruction of the country's choicest troops together with its political leadership.

What would such a scenario mean to the U.S. today? How would we cope if within a relatively short period of time all the waters were polluted, all the agricultural products were destroyed, the land stripped bare of vegetation, all the machinery gone, much of the money taken from the country, a large fraction of the population dead, the military destroyed, and the president dead? Is it reasonable to suppose that when it was all over one would hardly even suspect that anything had happened at all? Surely Egypt was more completely ruined than any war or single natural disaster could ever hope to accomplish. I submit that such a ruination would necessarily leave an indelible signature upon any civilization.
The following appear to be legitimate inferences from the Biblical account:

1. After the Exodus the land of Egypt must have experienced severe food shortage and probably famine.
2. An abrupt decrease in the wealth and prosperity of the nation of Egypt must have accompanied the Exodus.
3. Political turmoil and loss of centralized authority would almost certainly result from the Exodus. Confidence in the pharaonic rule must have been shattered. The ability of the pharaonic court to enforce its rule must have been severely set back by the loss of the pharaoh and "the choicest of his officers" in the Red Sea.
4. It would take years for Egypt to recover from this disaster. The infrastructure of the whole civilization had been shattered. It could not be rebuilt overnight.
5. Whatever international ties Egypt may have had would be impossible to maintain in the midst of the general debacle. Whatever degree of prominence Egypt may have had in the international scene before the Exodus would be lost following the Exodus. We would expect the nation to fall into relative obscurity for a significant period of time. (Note that the complete absence of Egypt from the Biblical record during the Wilderness Wandering, Conquest, and subsequent centuries of the Period of the Judges supports this inference.)

HISTORY OF EGYPT

The outpouring of God's supernatural power in the plagues of Egypt at the time of the Exodus was a unique affair. We would not expect to discover more than one such event in the secular history of Egypt. But we would also not expect such a singular occurrence to be difficult to spot, providing that at least the rough outline of the secular history of Egypt were known.

In fact, the rough outline (and more) is known of the history of Egypt, and has been for some time now. It is summarized in modern textbooks and histories along the following lines:

1. The Predynastic Period
   (Political unification of Upper and Lower Egypt and origin of the pharaonic system of government. Dynasties I and II).
2. The Old Kingdom
   (Very prosperous and stable. Most advanced civilization in the world at that time. Pyramids built. Dynasties III - VI.)
3. The First Intermediate Period
4. The Middle Kingdom
5. The Second Intermediate Period
   (Central power subject to crisis. Civilization stable. Eventual peaceful "invasion"; Hyksos take over. Dynasties XIII - XVII.)
6. The New Kingdom
   (Hyksos expelled. Empire established to Euphrates. Period of Egypt's most widespread influence and control. Dynasties XVIII - XX.)

This outline extends from the origin of Egyptian civilization up to the time of the first kings of Israel. Thus, it must encompass the Exodus. In panoramic outline we have three periods of power and prosperity, separated by two periods of reduced fortune.

THE CASE AGAINST 1450 B.C.

The traditional 1450 B.C. date has the misfortune of placing the Exodus in an extended period of uninterrupted strength and prosperity in the New Kingdom. This period begins with the great warrior-pharaoh Tuthmosis III, and comes to its full bloom under Amenophis III, roughly 100 years later. The absolute starting and ending dates of this period are uncertain within a possible time interval of about 25 years, but in all chronologies by reputable scholars that I am aware of, 1450 B.C. -- the traditional Exodus date -- falls about 30 to 50 years into this century-long period of prosperity and power. Thus, we have considerable reason to be confident that this period of prosperity truly does encompass the traditional Exodus date, or perhaps, with much less probability, the traditional Exodus date might immediately precede this period of prosperity. But there is no sign of the Exodus anywhere during this period, and such a period of general prosperity is not what we would expect to see either immediately following the Exodus, or for a long time thereafter.

The founding warrior-pharaoh of this prosperous period for Egypt was Tuthmosis III. He conquered everything worthwhile and within striking distance of Egypt, establishing a vast Egyptian empire in the process. His empire
extended into Mesopotamia (he received tribute from Babylon, for example) and included the whole of Palestine and Syria.

Most chronologies place 1450 B.C. in the latter half of the reign of Tuthmosis III. If we look more closely at these years we find only that, having completed no less than sixteen successful international campaigns, Tuthmosis III had things so completely under control he was actually able to take it easy for awhile. Nicolas Grimal, formerly a researcher at the French Institute of Oriental Antiquity in Cairo and presently Professor of Egyptology at the Sorbonne University in Paris, in a recent book, summarizes the state of affairs in the latter years of the reign of Tuthmosis III as follows:

"The last years of Tuthmosis III’s reign were more peaceful: Egyptian supremacy was, for the time being, recognized in the Near East and relations with the Aegean region were cordial." [4, page 216]

The next pharaoh, Amenophis II, could hardly hope to compete with the scintillating career of his father, but there is no sign that the general prosperity of the nation waned during his reign.

"His [i.e., Tuthmosis III's] successor, Aakheperure Amenophis II, is remembered as a far less intellectual ruler, but he was still able to preserve the prosperity and power of Egypt." [4, page 218]

The prosperity persisted through the next pharaoh, Tuthmosis IV, and came to its full flowering under Amenophis III.

"The rule of Amenophis III was marked by peace: the only act of war was a preventative campaign waged in the fifth year of his reign. Apart from this, the relations with the Near East during his reign bear witness to the burgeoning influence of Egypt in Asia and the Mediterranean region." [4, page 222]

"When Amenophis III died he took with him an Egypt of political and religious certainties, a state that had regained strength and respect both at home and abroad." [4, page 225]

I submit that a more unlikely historical setting for the Exodus can probably not be found in the entire history of Egypt! There is no evidence of national disaster, economic crisis, political turmoil, or social chaos anywhere in this period of time -- only the opposite is seen. It is impossible to fit a truly Biblical Exodus into this period of Egypt's history. It seems to me preposterous to suppose that an event of the magnitude of the Biblical Exodus could have slipped through the cracks of history at this point somehow, or that the Egyptians somehow managed to hide the true nature of the times. It seems equally preposterous to suppose that Joshua should have conquered part of this mighty empire in Palestine, with never the slightest hint of resistance from Egypt in either the secular or the sacred histories. The Biblical Exodus simply does not belong to this period of Egypt's history.

WHERE THE EXODUS DOES BELONG

From the panoramic outline of Egyptian history given above it is clear that there are only two possible locations for the Exodus. It must either coincide with the onset of the First Intermediate Period or with that of the Second Intermediate Period. If we look a little more closely at these two periods it rapidly becomes clear that the First Intermediate Period suits the Biblical Exodus account extremely well, while the Second Intermediate Period does not suit it at all.

The collapse of the Old Kingdom and onset of the First Intermediate Period was sudden and very thorough, affecting all levels of society.

"The Old Kingdom ended with a period of great confusion." [4, page 89]

"It was the collapse of the whole society, and Egypt itself had become a world in turmoil, exposed to the horrors of chaos which was always waiting for the moment when the personification of the divine being -- the pharaoh -- neglected his duties or simply disappeared." [4, page 138]

"No evidence has survived of the maintenance of links with the outside world that had been established in the Old Kingdom: the trade through Syria-Palestine with Byblos and the eastern Mediterranean seems to have stopped, and the exploitation of mines in the Sinai peninsula also seems to have been abandoned." [4, page 139]

By way of contrast, the onset of the Second Intermediate Period was gradual, and seems only to have impacted the throne.

"Moreover, there is nothing to support the suggestion of an outbreak of violence like that at the end of the Old Kingdom: during the century and a half leading up to the appearance of the Hyksos rulers in Egypt,
the country does not seem to have collapsed in any way, either within or outside its frontiers. There is instead a feeling that it was only the central power that was subject to crisis, whereas the stability of the civilization as a whole remained constant." [4, page 171]

The First Intermediate Period is clearly the one of interest. Its onset shows all the characteristics one would expect to see as the natural result of the Biblical Exodus. No other period in Egypt's history is suitable to the Exodus, for no other period shows simultaneously the: 1. sudden onset of chaos at all levels of Egyptian society with accompanying famine and anarchy, 2. severe loss of centralized power and authority, 3. complete eclipse of Egypt's international prestige and influence, and 4. centuries-long struggle to regain what had so suddenly and completely been lost.

(Previously [2], I have shown that this recognition leads to the mandatory identification of Pepy II, who reigned for more than ninety years, with the pharaoh whose daughter raised Moses and from whom Moses fled, and his successor, Merenre II, whose reign lasted one year only, with the pharaoh of the Exodus. I have shown that both of these assignments suit the Biblical narrative extremely well. These historical details, and others, confirm the conclusion which we have arrived at here by a more panoramic approach, that the Exodus occurred at the end of the Old Kingdom.)

**DATES THE END OF THE OLD KINGDOM**

If the Exodus occurred at the end of the Old Kingdom of Egypt, then we can date the Exodus by simply dating the end of the Old Kingdom. The date of the end of the Old Kingdom has already been calculated any number of times by various scholars. However, their answers do not all agree, so it is necessary to review a little of the work in this area.

The well-known Egyptian scholar, James Henry Breasted, professor of Egyptology and Oriental History at the University of Chicago at the beginning of this century, placed this date at ca. 2475 B.C. back in 1914. His assigned uncertainty is summarized by the words "we may err possibly as much as a century either way" [3, page 25]. It should be noted that Breasted's computation was based upon historical data alone; radiocarbon dating would not be invented for over another 40 years. Breasted defended the sound historical basis for his chronology as follows:

"The reader will have observed that this system of chronology is based upon the contemporary monuments and lists dating not later than 1200 B.C." [3, page 26]

More recent historical scholarship has tended to move this date about 300 years toward more recent times, with typical figures in the range 2160 - 2200 B.C. The major portion of the disagreement between Breasted and these more recent computations is, not surprisingly, due to the confusion of the First Intermediate Period and the paucity of historical sources dealing with it.

It is possible, on the basis of modern radiocarbon measurements, to determine which of these two approaches is more nearly correct. However, before proceeding along these lines, I would like to point out that it is already apparent at this stage that we cannot hope to redate the end of the Old Kingdom to 1450 B.C. (in an effort to harmonize secular history with traditional Biblical chronology at this one point). Reputable chronological scholarship, based upon the secular historical data alone, seems to demand a date for the fall of the Old Kingdom somewhere between the extremes of 2575 and 2100 B.C. Note that 1450 B.C., the traditional Biblical date for the Exodus, is 650 years removed from the extreme end of this time interval. This is very much outside the range of any actual chronological uncertainties.

(I have shown previously [2] that the traditional Biblical chronological expectation of a 1450 B.C. date for the Exodus is founded entirely upon a single number found only in one verse of Scripture (specifically, 1 Kings 6:1). This number is at odds with other chronological information in the Bible, and there is much cause to suppose that it has suffered the loss of its leading digit in the process of copying at some remote time in the past. Though such copy errors are rare in Scripture, other examples of similar problems can be unambiguously demonstrated, and the existence of such problems is universally acknowledged by conservative Bible scholars. Thus, not only is there no possibility of dating the end of the Old Kingdom to 1450 B.C., there is also no pressing Biblical motivation to warrant doing so.)

The advent of physical dating methods (most notably radiocarbon) has provided a means of independently checking historically derived dates. I have previously suggested [1] one way in which radiocarbon data might be harmonized with a global Flood model of earth history. One important result of this work was the conclusion that modern, tree-ring calibrated radiocarbon dates should be regarded as reliable and accurate for at least the duration of the historic period (i.e., the last 5,000 years). As this interval of confidence includes the entire duration of the Old Kingdom, it seems appropriate to utilize the results of radiocarbon to help settle this chronological question.
As it turns out, in fact, the application of radiocarbon to Old Kingdom monuments [5] has unambiguously supported Breasted's chronology (discussed above) and refuted the more recent dates for the collapse of the Old Kingdom put forward by modern historical scholars. This does two things. First, it provides independent confirmation of the general soundness of the historical dating procedure. Second, by taking all of the presently available extra-Biblical data into consideration, it strongly urges the conclusion that the collapse of the Old Kingdom of Egypt should be dated to within about 150 years of 2450 B.C.

CONCLUSION

We have seen that it is impossible to accommodate a truly Biblical Exodus within the known history of Egypt at the traditional Biblical date of ca. 1450 B.C. We have also seen that the only place in the history of Egypt where the Biblical Exodus can possibly be accommodated is at the end of the Old Kingdom. Finally, we have seen that the end of the Old Kingdom, and, hence, the Exodus, should be dated to within about 150 years of 2450 B.C.

In this paper I have not dealt with the Biblical chronology issues raised by this redating of the Exodus, but I have done so previously elsewhere [2]. When these are taken into consideration and the Biblical chronological data given its rightful place, it is possible to reduce the uncertainty in the date of the Exodus considerably compared to what the secular chronological data by itself allows. The best current estimate of the date of the Exodus which one then arrives at is 2447 B.C., with an uncertainty of about plus or minus five years.

This new date for the Exodus immediately implies that all Biblical dates earlier than the Exodus must also be moved back 1,000 years [7]. Of particular interest to the present conference is the conclusion that the traditional Biblical dates for the Flood (which are calculated assuming there are no gaps in the Genesis 11 genealogy) must be moved back a full millennium. This means that the minimum elapsed time from the Flood to the present should be raised from its traditional value of roughly 4,300 years (2300 B.C.) to 5,300 years (3300 B.C.). This additional millennium obviously significantly impacts the time scale during which post-Flood processes can develop.

REFERENCES


[7] The broad scope of effects which this revision to traditional Biblical chronology entails is discussed in my ICR monograph A New Approach to the Chronology of Biblical History from Abraham to Samuel [2]. This monograph has recently been severely criticized by Dr. Bryant Wood of the Associates for Biblical Research (ABR) in the ABR journal Bible and Spade [6:4(1993)97-114]. I have been denied opportunity to publish a response to Dr. Wood in Bible and Spade, but am happy to make my reply, Response to Dr. Wood, available to any who request it.