# IS A FIXED CHRONOLOGY OF EGYPT BACK TO c. 2000 B.C. MISTAKEN?

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Scientists should always check the reliability of their instruments. Examples of what happens from failure to check are well known. At one time several astronomers believed that they had found rings around some of the outer planets besides Saturn, but an optical defect in their telescopes was involved. Again, Huxley's "Bathybius" arose from a flaw in techniques.

Creationist scientists use Scripture as an instrument, so to speak. Scripture is taken to be reliable. If any error was found in Scripture, then some doubt could be cast on other parts. This would be especially true were errors to be found in the historical and chronological parts of Scripture.

Such errors have been claimed, on the grounds that the chronology of Scripture disagrees with other chronologies, especially that of Egypt, which many claim has been determined by astronomical methods. It is shown here that there is abundant reason to believe that the Scriptural chronology is valid, and that chronologies which disagree are really based, not on astronomy, but on questionable assumptions.

### Introduction

According to current views on archaelogy, the chronology of Egypt is regarded as "astronomically fixed" to a date c. 2000 B.C. for the beginning of the XIIth Dynasty and again at c. 1580 B.C. for the beginning of Dynasty XVIII. Chronology for the intervening and subsequent periods are then set to meet the demands of such fixation as needed to meet certain proposed synchronisms.

With Egyptian history thus fixed, incidents in Scripture, such as the Exodus, the Oppression and the Conquest, are given positions in Egyptian history which are based on either (1) an acceptance of the 480-year period between the Exodus and the fourth year of Solomon (I Kings 6:1), or (2) a rejection of this figure in favor of a date for the Exodus about 150 years later to allow recognition of Rameses II as the pharaoh of the Oppression.

Many discrepancies rise between details provided in Scripture and interpretations of archaeology required by either of these placements of the Exodus. The writer has gleaned a list of over 25 such discrepancies, which are either in direct contradiction to Scripture, or which lead necessarily to acceptance of views which compromise the Scriptural accounts.

Until recently, scholars were certain that the chronological figures of Scripture for the reigns of the Hebrew kings could not be interpreted to make any sense. This situation was taken as evidence for the undependability of the chronological figures of the Old Testament generally. With the re-examination of these data by Thiele,¹ these problems have been clarified to the satisfaction of most scholars. Thus this basis for controverting the dependability of Biblical figures on chronology has been eliminated.

However, in spite of this development, scholars holding to the XIXth Dynasty setting of the Exodus must reject the 480-year period of I Kings 6:1 as correctly defining the interval from the Exodus to the fourth year of Solomon. On the other hand, the placement of this incident in the XVIIIth Dynasty, as held by many conservative Bible scholars, also raises questions of considerable magnitude. The belief is now almost universal among scholars that there is no further rational hope of demonstrating harmony between these two sources by either placement of the Exodus.

The roots of this problem lie far deeper than realized by many scholars who are attempting to retain an unqualified confidence in the authority of Scripture, particularly as it pertains to the Genesis account of creation. For, if it is true that there are errors and inaccuracies of such number and of such magnitude in the later Scriptures, then how dependable are these accounts, far back in the prehistoric period?

This situation evidently remains a major problem in the thinking of many Bible scholars who have felt compelled by the evidence to accept some modifications of the creation account. Popular among such is the modification which would assume that the God of Scripture used "evolution" as His method of creation. However, that view negates such a large fraction of Scripture that little of significance is left to its religious message. The problem of the veracity of these claims of error and inaccuracy in Scripture in its historical and chronological teaching is thus one of first importance in arriving at a truly defensible answer to the problem of life origin.

The writer contends that the conflict between Scripture and archaeology is not a conflict between Scripture and the facts of archaeology; it is rather a conflict between Scripture and the "authoritative" interpretations of the obscure evidences of archaeology, just as is so true for the conflict between Scripture and interpretations of geology.

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There is no genuine basis for presuming that the teachings of Scripture must be modified to meet these interpretations, but there is abundant evidence for the faulty and erroneous interpretations of archaeology. It is the writer's further contention that the facts of archaeology are being interpreted on the basis of premises that have never been established as valid. These interpretations are no more certain than can be shown for the premises on which the interpretations rest.

It is the very foundation premises of archaeology that require re-examination as to their validity. When this is done, it will be found that the facts of archaeology are susceptible to an altered interpretation, within the limits of such altered premises, which confirm the reliability of the Old Testament Scriptures to a degree far beyond anything previously recognized.

### Need of Corrections, Evidence Source

It has been the aim of the writer in his recently published work under the title *The Exodus Problem and Its Ramifications*<sup>2</sup> to:

- (1) point out the insecurity of certain basic premises of archaeology,
- (2) review the pertinent facts of archaeology in terms of the corrected premises,
- (3) demonstrate that when this is done, harmony is attained between Scripture and the pertinent *facts* of archaeology,
- (4) demonstrate that at the same time numerous difficulties that characterize the current views, but which are unrelated to Scripture, are eliminated simultaneously, and
- (5) show that all this is accomplished without the disregard of any established synchronism among the peoples of antiquity; rather, numerous anachronisms are eliminated and a whole new series of synchronisms appear that have not been previously recognized.

It is not feasible to encompass the evidence in support of this range of accomplishments in this article. The present discussion is limited to a demonstration that a major error has been made in setting up the traditional chronology of Egypt, leading to similar errors in the chro-nologies of other peoples of antiquity whose chronologies are tied to that of Egypt. The error has been in the acceptance of a chronological structure as "astronomically fixed," which represents an actual gross expansion of the time period involved. The net result has been that of setting the incidents of Scripture against totally crroneous backgrounds; the discrepancies are then being pointed to as examples of errors or inaccuracies in Scripture. This situation holds until one reaches a relatively late date in Old Testament history.3

Even Bible scholars, who are attempting desperately to find solutions to these problems, have assumed that it is impossible to alter the conventional chronology of antiquity to the degree needed to restore harmony without introducing far greater difficulties than those now recognized. This conclusion is here challenged.

The term "astronomically fixed dates" is a deceptive one. To be sure, astronomical data are used in the method for arriving at these dates, but the premises on which the interpretations depend are open to the most severe sort of criticism.<sup>4</sup>

In the limited space available, it is proposed to show here, by means of scientifically recognized principles, that a gross error has been made in setting up this chronology, and that the error is in the direction of a grossly expanded structure. It must be left for subsequent discussions, or to reference to the writer's more complete work, for data on the manner in which such a condensation can be attained.

# Error of "Pottery Dating Scheme"

The error can be traced to the use of the dating method which is known as the "pottery dating scheme." This dating method and the manner in which it was devised can be described briefly.

In ancient times, particularly in Palestine and in Mesopotamia where stone for building is scarce, constructions of buildings or walls were of sun-dried mud brick. Unlike stone, when a structure was destroyed for any reason whatever, bricks were not conveniently reusable. It was easier to simply level off the ruins and make the new construction on top of the old. Sometimes dirt was brought in to cover the ruins, sometimes not. In any case, the repetition of this practice over centuries and millenniums resulted in the formation of mounds at the sites of ancient occupation.

When archaeologists dig into such a mound, remains of past occupations are found in reverse order of their existence. Hence these occupation levels have a significance in terms of the *relative* chronology of the site. A relative chronology is gained since archaeologists deduce that any given occupational level is older than the one above it and younger than the one below it. Thus a sequence of levels may be recognized. But a sequence is not a chronology unless the various points in the sequence can be defined in terms of some scheme for expressing elapsed time in years from some common definable date.<sup>5</sup>

The B.C. time scale is such a scheme. But this scale was not devised until centuries into the Christian era. Hence dates in Bible history are given in terms of elapsed time from some stated incident or in terms of the year in the reign of

a given king. The same method was adopted by ancient historians.

Unfortunately, not a single written inscription has been found in a definable level of a Palestinian mound which provides an *unequivocal* clue as to the date to be assigned in terms of the ruling king at the time. Such data are not available until very late in Palestine history. Thus the assumed dates for these levels have been deduced necessarily by other methods—methods that are susceptible to error at every turn.

It was in an effort to overcome these difficulties that the pottery dating scheme was devised. Credit for the origin of the scheme is given to Petrie. The scheme was corrected and refined by subsequent investigators.

The idea behind the pottery dating scheme was to observe the changes in pottery types as one digs downward (moves backward in time) in a mound site. By such a method, it was theoretically possible to set up a pottery index by which a level in one mound could be correlated in time with a level in other mounds which revealed the same pottery types. But unfortunately, as with the setting up of the fossil index for a similar purpose in geology, no single mound was ever found that contained all of these pottery types uncovered in various mounds in Palestine.

Hence to gain a complete sequence, types were inserted into the sequence from various sites, the positions being deduced from recognizable types found below and above. But in so doing, the pottery index no longer represented necessarily a sequence; since proponents assumed that two types of pottery could not be in use contemporarily in different mound sites, an assumption which cannot be proven, and which would be open to severe question according to common sense reasoning.

If this weakness in the scheme is called to the attention of an archaeologist, he will defend the system as having eliminated, by other methods, any but minor errors. The common method for making such a check is based on the occasional find in Palestine mound levels of pottery items and other objects which can be dated to the reign of a given Egyptian king or at least to a given dynasty of kings. Similar finds have been made of items from other areas, such as Greece and Crete.

But this reply only moves the problem back an additional step. If one asks how the dates of the kings and dynastics of Egypt are known to permit such usage, the answer is given that certain dates have been "astronomically fixed." Then, from these fixed dates, dates for the intervening kings and dynastics can be calculated with no more than minor possible errors. This answer is usually sufficient to suppress any further questions, since those who accept it infer that dates thus determined are not susceptible to alteration, except as one presumes to be able to show that the movements of the heavenly bodies cannot be depended upon for constancy.

As noted previously, this is the point that is challenged by the writer. The basis for this challenge has no relation to the constancy or inconstancy in the motions of the heavenly bodies. It is rather on the basis that the premises used in the interpretation of data have never been established and can be shown to be susceptible to severe question as to their validity.

The aim of this discussion is to demonstrate, by means of acceptable scientific method, that in spite of the pretentious nature of the label, the acceptance of the results from this dating method has led to a gross error in setting up the chronology of antiquity and that the error can be traced to the use of this method which does not merit the confidence placed in it.

# Principles of Reasoning Considered

There is a scientific principle that has been used to great advantage in many different disciplines for arriving at truth. It has been used to excellent advantage in providing impressive support for creationism. This principle may take either of two forms which may, at first glance, seem to be unrelated but which are in reality but two forms of the same principle. One may state the principle thus: the greater the amount of disparate (dissimilar or unrelated) data that can be brought to bear in support of a given theory, the greater is the probability of its correctness.

It follows that when an enormous amount of such unrelated data can be brought to bear, as has been done in support of the creation account of origins, this theory approaches a demonstration of its correctness. As with the asymptotic curve of mathematics, which approaches closer and closer to a straight line but which never touches the line theoretically, so perhaps the Bible account of creation must remain unproven, from a scientific standpoint, in spite of this mass of supporting evidence.

However, the principle may be stated in another manner which applies to the problem of recognizing an error of reasoning rather than providing support for a theory. For this purpose, the principle may be stated thus: an error of reasoning may sometimes become apparent from the consistency of the inconsistencies that result upon application.

To illustrate, let the reader imagine himself driving along a country road looking for a specific location, which for brevity of reference might be called place X. After some difficulty

in locating X, information is requested of a gas station attendant as to how to get to X. The attendant tells you to continue straight ahead, take the fourth road to the *right*, and proceed about one-half mile to place X.

With complete confidence in the veracity of the instructions provided, you continue down the road. But the first road turns off to the *left*; there is no road turning off to the *right*. And the roads continue to turn off to the left; there are no roads turning to the right. With each successive discrepancy, your suspicion grows that the station attendant made a mistake. When the two mile road and three mile roads also turn only to the left, your suspicion reaches a point of virtual certainty.

How could this be verified or negated? You could return to that fourth road that turned to the left and drive down the road about half a mile. If location X was found, what deduction could be made relative to the instructions provided by the gas station attendant? How much additional data would it take to convince you that your deduction was correct? It is to be noted clearly, that the reason for the mistake could not be deduced. One can deduce that a mistake was made and you can define clearly the nature of the error.

Now, this same principle can be applied to the problem of claimed discrepancy between Scripture and archaeology which has led many people to deduce that Scripture is not dependable, since it contains numerous errors and inaccuracies in its historical details.

# Application to Reports of Jericho

Archaeologists are in virtual agreement. They claim emphatically: "most certainly, there are major errors and inaccuracies in Scripture in its historical phases." Truth value for this claim is based supposedly on archaeological reports of investigations at the various Palestinian sites that involve Biblical history. Archaeologists will also caution that Scripture was not reduced to writing until centuries or millenniums after the incidents occurred, hence discrepancies should be expected, since it is very reasonable to suppose that in the oral transmission of the accounts over such an extended period, the introduction of such errors is inevitable.

But is there an alternate interpretation to the reports of archaeologists? One could read reports about Jericho. Jericho was the first target of the Israelites in their conquest of Palestine after crossing the Jordan. The Scriptural account (Joshua 6) contains a number of details which could be found archaeologically if the accounts are dependable. The reader should note carefully that no assumptions are made at this point as to the dependabliity of these details.

According to the account, a selected fraction of the Israelite army marched around the city once each day in silence for six days. On the seventh day, they made the circuit seven times. With the completion of the seventh circuit the people shouted, the priests blew their trumpets, and the walls fell flat down the sides of the mound so that each man in the army could move into the city from his position in the circuit. The city was destroyed and burned. A curse was pronounced on the one who should attempt to refortify the site, the abortive attempt to be at the cost of the lives of the two sons of the attempting rebuilder. Such an attempt by Hiel in the days of King Ahab is reported in later Scripture (I Kings 16:34).

The detail relative to the fallen walls is most unique. The normal procedure for conquering a walled city by an enemy is not by tearing down the entire city wall but rather by concentrating efforts on one or a few of the more vulnerable points such as at the city gate. Only occasionally is a destruction of a city marked archaeologically by evidences of total burning. A further detail of significance is the statement indicating that the city was not to be rebuilt for a significant period of time. Hence if the Scriptural account is altogether correct in these details, the city level meeting the first two of these unique details should be followed by evidence of a prolonged hiatus of occupation, and evidences of the later abortive attempt at refortification.

#### Actual Findings Confirm Scripture

What, then, do archaeological reports on the site of Jericho contain? Evidence for the fallen walls was observed by early investigators. A concerted attempt to examine the mound was made by John Garstang in the 1930's.<sup>6</sup> He rediscovered the evidence for the fallen walls and this evidence was photographed by him and by subsequent investigators. True to the Scriptural account, the evidence revealed clearly that the walls fell outward.

Scholars were skeptical. There was no room in their thinking for the concept of interference of a Supreme Being in the affairs of mcn as comprised the basis for the report in Joshua: the walls must have been undermined from the outside by a conquering army.

Garstang returned to the site and reexamined the footings of those walls. He found the foundations tilted outward at a rakish angle but with no evidence of undermining. The walls must then have been shaken down by an earthquake!

But there was the evidence of a total and violent burning of the city to be accounted for. Evidence was found indicating that brush had been brought in from outside the city to add to the conflagration, leaving ash heaps as deep

as five feet in places. This burning was certainly intentional, not accidental as from an earthquake.

The destroyed city was the latest fortified city to occupy the site, also in agreement with Scripture. There were evidences of occupation in an unwalled area at a much later time, but this only confirmed the attempt by Hiel to rebuild the city. There were also evidences of a revetment type wall belonging to this later period, but no evidences for a reconstruction of the city walls or gates.

On the basis of evidence found in graves from an adjoining area, Garstang deduced a date c. 1400 B.C. for the destruction of the city, which date was in agreement with an Exodus dated c. 1445 B.C. as demanded by the statement in I Kings 6:1. While most scholars of this era seem to have been convinced that there was no way to avoid the identification of the fallen walls and the destroyed city with the account in Joshua, the more widely accepted date for the Exodus demanded a date for the Conquest in the mid-thirteenth century B.C. The remaining controversy was thus over the date to be assigned to the evidence, not to its identification.<sup>7</sup>

To settle this problem, a further investigation was carried out in the 1950's under the direction of Miss Kathlene Kenyon.<sup>8</sup> A reexamination of the pottery in association with the destroyed city led to a necessary revision of Garstang's date. On the basis of the then more refined pottery index, the pottery in association with the destroyed city was found to be datable to the twenty-first century B.C., 600 years or more prior to the era of Joshua!

The logical deduction would have been to suspect that the dates assigned to the pottery index types had been misdated. But such an admission was out of the question since the chronological structure had been "fixed astronomically," and such a redating was considered impossible.

There was also the problem of accounting for the fact that this destroyed city was the latest city on the mound. If this belonged to the era 2100 B.C., then what happened to the remains of the city destroyed by Joshua? Did the Israelites carry these remains off to some distant spot and bury them to confuse any one who might later examine the mound? At this point the reader can begin to understand the lengths to which leading archaeologists will go to avoid the obvious, if they do not want to believe the obvious.

It was proposed, and is still accepted by archaeologists, that the remains of this 600-plus years of occupation have been washed off the mound by rain. But if this were the case, then the remnants of that 600 years should be apparent from an examination of the sides of the mound. Even if one assumes that the mud bricks had deteriorated again into soil, there should at least be evidences of the indestructable pottery remnants. Intensive investigations have failed to reveal any such evidence.

And if the mud bricks were still apparent from walls dated 600 years earlier, then how does one explain the absence of such bricks for the period 600 years later? Commenting on this enigma, G. E. Wright, then editor of the *Biblical Archaeologist* journal, wrote:

. . . It is unfortunate though true, that these results antiquate most of the recent treat-ments of the problem of the conquest of Canaan. We now have to say that we know practically nothing, from an archaeological point of view, regarding Joshua's conquest of Jericho. The evidence is too scanty for us to know when it was or the nature of the city conquered. An inference would be that whatever was there at the time was not the imposing city which we had previously envisioned from the earlier excavations. The radical denudation of the site and the failure to find the expected materials washed down the slopes of the mound are very puzzling facts indeed. If the settlement there in Joshua's time had a fortification wall at all, it would almost have to have been a re-use of the last Middle Bronze Age bastion, though of such re-use there is no evidence.9 (Emphasis

In terms of the illustration on road directions, the reader is at the point where the first road does not turn off to the right as expected from the directions given, but rather in an opposite direction. In the case at hand, evidences corroborate each of the unique details provided in Scripture and were so recognized by earlier investigators, but the date demanded by popular chronology is centuries too early. Thus there is a basis for an *initial* suspicion that a mistake has been made in assigning dates to the various pottery types in the pottery index. But at this point, there is only a suspicion, so attention will now be directed to the site of ancient Ai.

#### Attention to Reports on Ai

Ai was the second target of the invading Israelites. Again, from the Biblical account, there are several details that could be found archaeologically. According to the account, the city was a walled city (for it had a gate), <sup>10</sup> and its destruction as a walled city was so thorough that it was to remain a "heap" forever. <sup>11</sup> The date for the destruction of Ai, as indicated by the associated pottery should be the same as for the destruction of the Jericho site.

Archaeological research of the site revealed the heap of rocks. The reports actually emphasize the uninteresting nature of the investigations of the rock heaps in contrast to the more interesting investigations of neighboring sites.12 As at Iericho, so at Ai, the evidence of a later occupation was found, but in an area which had not again been refortified. The pottery in association with the destroyed city is of the same era as that of the destruction at Jericho (late Early Bronze), 13 though specific dates cannot be defended in either case. The reader is now at the point corresponding to the second road turning to the left, rather than to the right. Thus suspicion grows that a mistake has been made in the assumption of a fixed chronology, and that the difficulty lies in a misdating of the pottery types in the pottery index.

In fact, at this point in his investigations, the writer directed an inquiry to a leading Biblical archaeologist as to why no serious consideration was being given by archaeologists to the possibility that the real difficulty lay in misdating of pottery. The archaeologist explained that while such a solution might solve the problems at Jericho and Ai, this was not true at other sites in Palestine. So, again there is only a suspicion of error, but attention will now be shifted to the site of Shechem to see whether or not this inconsistency remains consistent.

# Attention to Reports on Shechem

According to Judges 9, Abimelech, son of Gideon the previous judge, murdered all save one of his 70 brothers and usurped the judgeship. Abimelech lived at Shechem. The people of Shechem revolted at his method of securing the judgeship.

Abimelech retaliated by raising an army, slaughtering the people who were working outside the city walls in the fields and besieging the city, since the gates had been closed against him. Defense of the city gate was assigned to a group of men who took positions in a tower adjacent to the gate, evidently to enable them to hurl stones down on anyone who attempted to force the gate entrance.

Eventually, the men in the tower were no longer able to hold the defense and fled, with the people still inside the city, to "an hold of the house of the god Berith." The roof of the hold was burned down over the heads of those taking refuge there, and the city was completely destroyed. (Destruction was evidently by fire since this was the stated method for gaining entrance through the city gate and in gaining entrance to the hold in the conquest of the neighboring city of Thebez.)

And what do the reports of the archaeological research of the site contain? One of the early

discoveries was that of a massive building with walls seventeen feet thick at the extant foundations. Evidences of cult objects in the court made imperative an identification of the massive structure as a temple. Some of the investigators objected; temples were not erected with walls seventeen feet thick; the structure must have been an internal fortification of some sort. The director of the investigations was adamant in his contention. He wrote in his report:

Consequently, there seems to be no need for further quibbling. The evidence from the court shows that two sacred standing stones and an altar are almost as old as the building itself. It is therefore a temple, and originally built as a temple.<sup>14</sup>

But there was the enigma of the seventeen-foot thick walls. The answer to the enigma was found in the Scriptural account which referred to a structure that was "an hold" as well as being a "house of the god Berith." The agreement with this most unusual detail led the director to maintain as a "must" the identification of this massive structure with that of the Abimelech story, a view that was retained through most of the period of excavations at the site.

However, other investigators did not agree with this deduction. Investigators in the area of the city gate and tower had observed evidences of violent destruction by burning, datable to the tenth century B.C., and again in the sixteenth century, but no such evdience at any point between these dates. There was rather a smooth transition across the area to be assigned to the twelfth century which, by Bible chronology, must be assigned to Abimelech.

The evidence consisted of fourteen successive floors, beginning long before the twelfth century and continuing to a point much later, yet with no indications whatever of any such disturbance as that expected from the Abimelech story.<sup>15</sup>

With the discovery of additional evidence that the massive structure could not have survived to the era assigned archaeologically to Abimelech, and with the finding of evidence at several locations on the mound of violent burning and datable also to the sixteenth century, there was no choice but to abandon the identification of this massive structure with that in the account of Abimelech; an identification which had been regarded as a "must," because there was agreement in such a remarkable manner with details of Scripture. Yet according to leading archaeologists, evidences of violent destruction must be assigned to this earlier era and attributed to the Egyptians.

. . . The tower was violently destroyed and the guardroom filled with burned brick, charcoal, broken jars, dishes and rubbing stones for grinding grain, pestles and the bones of at least three different people, all mixed in wild disorder, so that little could be pieced back together again. The pottery dates from the period called "Middle Bronze IIC"; it is clear that the destruction was a very violent one and the evidence points to the Egyptians as the cause.<sup>16</sup>

This situation forced the placement of the Abimelech story at a point archaeologically where there were no evidences of destruction in the tower area. This placement also left the investigators with virtually nothing to represent the rebuilding of the city by Jeroboam as stated in I Kings 12:25.<sup>17</sup> As at Jericho and as at Ai, the evidences corroborated details provided by Scripture, but these evidences must be dated centuries earlier according to leading archaeologists.

The reader is now at what corresponds to the third road in the illustration on road directions, a third inconsistency which is consistent with the suspicion that the dates assigned to the pottery types of the pottery index are in gross error. Suspicion of such an error increases. So attention will now be given to the site of Samaria.

### Attention to Reports on Samaria

The point of interest at the Samaria site is the reference in I Kings 16:24 about King Omri of Israel who bought a hill from Shemer and built his new capital on the site, calling it Samaria after the name of the previous owner. The incident is of particular interest archaeologically, because one might infer that the capital was built on a previously unoccupied site, since it is doubtful that Shemer owned an entire city.

If such reasoning is valid, then the lowest evidences of occupation should be datable to the early ninth century B.C. The pottery associated with the lowest occupation should then be that of the ninth century, and should serve as a check on the accuracy of the dates assigned to pottery types in the pottery index.

Investigators at the site, however, quickly ran into trouble. 18 Foundations of recent structures were laid so deeply into the soil that there were no definitive archaeological levels that could be recognized. Also, the area was being used agriculturally and had been plowed and replowed so that items from all levels were found even at the surface. The situation, nevertheless, was not hopeless. On the basis of the pottery index, pottery types comparable to the oldest in the index should be like that datable to the early ninth century elsewhere, if the types had been correctly dated. This position was stated in the reports of the investigations and all questions as to the validity of the index for dating purposes were eliminated. Or were they?

As other scholars examined this pottery, some significant questions were raised as to the correctness of these datings to the ninth century. Albright, as informed an archaeologist as any then living, examined an intact vase from the excavations and was obliged to assign it a date in the eleventh century B.C. <sup>19</sup> As for the sherds, some of these were dated as far back as the thirteenth century! It would seem that there was a signicant amount of "wishful thinking" in the assignment of the dates as reported.

Because of these developments, I Kings 16:24 was reinterpreted to mean that King Omri did not purchase an empty hill, but a hill with a "small village on it." However, doubt was cast on the validity of this interpretation. Eventually, some foundation blocks from the lowest city were found still in their original position.<sup>20</sup> The masonry was of an unusual type, examples having been noted at several other places. Unfortunately, in most cases, the masonry could not be dated since there were no associated pottery remnants. But in one case it could be dated, namely at Ras Shamra, where the same peculiar masonry type could be dated to the thirteenth century!

Four inconsistencies in the matter of dating, all consistent with the deduction that the dates assigned to the pottery index are in gross error, have been identified. Dating of materials at the cities of Jericho, Ai, Shechem, and Samaria has been questioned. And since dates were assigned on the basis of correlation with a chronological structure regarded as "astronomically fixed," it follows that a mistake has been made in the acceptance of such dates as final and that the method of dating does not merit the confidence placed in it.

### Still Further Examples of Errors

I will now provide still further examples which will place the suspicion of dating errors according to the "pottery dating scheme" on the level of virtual certainty. The case of the chronology of the Hittites will serve as an additional example.

According to Scripture, the Hittites lived in the area of Hebron, south of Jerusalem, from the time of Abraham (Gen. 25:9, 10). Early scholars had denied the very existence of the Hittite people, since no evidence had been found for their existence from the era assigned to Abraham in the Twelfth Dynasty, and no reference to such a people had been recognized in the ancient inscriptions. Later, however, people known as the Hatti were identified in the Assyrian inscriptions, and as the Kheta in the Egyptian inscriptions were also identified indeed as the missing Hittites of Scripture.

But the discoveries caused a severe enigma; the Hatti and the Kheta belonged to an area far to the north of Palestine, which is now known as Asia Minor (Anatolia).

Since it is not known what the Indo-European people called themselves before migrating into Anatolia, the Hatti of the Assyrian inscriptions and the Kheta of the Egyptian inscriptions must refer to the composite people that resulted from the Indo-European people absorbing the name and culture of the non-Indo-European race. The mistake in interpretation was in the failure to recognize that the non-Indo-European people were the Hittites of Scripture who had recently been driven out of Palestine at the time of the conquest under Joshua.

Since there was not a shred of evidence to indicate that the "Hatti" had ever occupied so much as a square foot of territory in Palestine, the identification of this people with the Biblical Hittites presented a severe enigma. Gurney referred to this enigma in the following words:

We now have to deal with the paradoxical fact that, whereas the Hittites appear in the Old Testament as a Palestinian tribe, increasing knowledge of the history of the ancient people of Hatti has led us even farther from Palestine, until their homeland has been discovered in the heart of the Anatolian plateau. . . .

The presence of the Hittites in Palestine before the Israelite conquest thus presents a curious problem. So far from explaining it, all our accumulated knowledge of the people of Hatti has only made it the more perplexing.<sup>21</sup>

A still further perplexity became apparent from attempts to set up a tentative chronology of the Hittites. A list of their kings could be synthesized which represented a period of about 700 years. The beginning date of the list of Hittite kings was set at c. 1900 B.C. to agree with Scripture for the time of Abraham, but without reference to the enigma noted above. This called for a demise of the Hittites c. 1200 B.C. But strangely, historical references to the Hittites continued to appear, both in Scripture and in the secular inscriptions. But there was no known history of the people for the next 500 years, only evidences of their existence and of their culture to reappear after this lapse of time. Ceram commented on this odd situation thus:

As we climbed back to the expedition's camp, we talked about the mystery of this strange survival of a cultural form. . . .

At this point there is a great gap in our knowledge of history. Those 500 years between 1200 B.C. . . . and about 700 B.C., when the last Hittite city-states were absorbed by the Assyrian Empire, are at present quite obscure to us. It is very rare indeed for an empire to break down while the cul-

ture goes on persisting. . . . for 500 years among isolated racial groups surrounded by extremely different peoples and exposed to numerous alien cultural influences.<sup>22</sup>

The solution to these enigmas becomes crystalclear when it is recognized that this non-Indo-European race were the Hittites of Scripture recently driven out of Palestine by the Israelites (Exodus 23:28; Joshua 3:10), only to have their name taken over by this Indo-European race. The Hittites of archaeology should thus be identified as this composite race. Actually, it is now apparent that this people was a mixture of two peoples of distinct physical appearance.

The Hittites of Anatolia should then be related chronologically to the *post-conquest* period with a beginning dated after c. 1400 B.C., not c. 1900 B.C. This error has resulted in not only dating the Hittites this 500 years too early but also in erroneously dating all of the Chaldean dynasties, at least through the First Dynasty at Babylon.<sup>23</sup> Since Hittite chronology is also tied to that of Egypt, this same error is also reflected in a grossly expanded chronology of the Nile area.

If further examples are required, reference could be made to discovery of Greek writing in Egypt many centuries before it was found in Greece,<sup>24</sup> with the necessary recognition of an inexplicable gap of a multiplicity of centuries in Greek history.<sup>25</sup> A still further example is the placement of the XXIInd Egyptian dynasty, and those kings with Assyrian names, many centuries earlier than the era known to be characterized by the control of Egypt by the Assyrians.

#### Conclusions

This list could be notably extended. But why multiply the examples? An ample list has been presented of examples of consistency of the inconsistencies all pointing in the same direction, i.e., to an error in assigning dates which are centuries out of line with Bible chronology and the B.C. time scale. The surprising fact is not that discrepancies result from attempts to set the incidents of Scripture against the faulty background provided by such an erroneous chronological structure, but rather that it has been possible to conceal the error by means of claimed discrepancies in Scripture and by the use of so many "explanations" for difficulties that cannot be explained.

Such unsound premises and faulty reasoning should have no place in scientific discussions. Except as this gross perversion of scientific method is corrected, the chronological phases of archaeology must eventually be recognized as deserving no higher standing than mere scientism.

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In the illustration used, the suspicion of error could be supported by the simple procedure of driving down the fourth road to the left for half

a mile. When the location X was found, validation of the suspicion of error was complete.

With regard to some archaeological research, suspicion of error in dating has reached enormous proportions due to the multiplicity of examples of a common inconsistency resulting from application of the premise of assumed "astronomical fixation of dates." In contrast numerous unique details of Scripture were confirmed archaeologically. By following this clue, and devising an altered chronology of antiquity that is consistent with Scripture, all claims of error and inaccuracy in Scripture are simultaneously eliminated. Also a large number of other difficulties in the current views which are not related to Scripture are eliminated by the altered time scale. There is abundant evidence upon which to conclude that such an altered time structure is correct, at least in general outline.

Other points of discussion might include review of weaknesses and fallacies in the dating methods used and in the premises on which current views rest,26 and review of the archaeology of the pertinent sites of Palestine against such an altered chronology. The reader will find treatment of such tasks in the writer's volumes on the Exodus Problem and Its Ramifications.

There is no longer any basis or requirement that conservative Bible scholars quail before the pretentious label of "astronomically fixed dates," or before the claims of errors or inaccuracies in Scripture, or before the claim that it is not possible to alter this conventional structure without introducing more and larger problems than now

Conservative Bible scholars are now in a position to move from a defensive position to an offensive position, in the "warfare of Science with Scripture," in terms of archaeology as has been found possible in the warfare against evolutionary speculations.

(Note: The volumes on *The Exodus Problem and Its Ramifications* are available through Crest Challenge Books, P.O. Box 993, Loma Linda, Calif. 92354. Mailed post paid at \$9.95, plus tax where applicable.)

#### References

<sup>1</sup>Thiele, E. R. 1965. The mysterious numbers of the Hebrew kings. Erdmans Publishing Company, Grand

<sup>2</sup>Courville, D. A. 1971. The Exodus Problem and Its Ramifications. Crest Challenge Books, Loma Linda, CA. See note above for availability.

<sup>3</sup>Kenyon, K. M. 1960. Archaeology in the Holy Land. London, p. 32.

4Courville, Op. cit., Vol. II, Chap. IV for more complete discussion.

<sup>5</sup>Kenyon, Op. cit.

<sup>6</sup>Garstang, J. and J. B. E. Garstang. 1948. The story of Jericho. Revised edition. London. See also Tushingham, A. D. 1953. Excavations at Old Testament Jericho, The Biblical Archaeologist, XVI:46f.

7 Albright W. F. 1956 Edition. The Archaeology of Palestine. Pelican Book, p. 38. See also Biblical Archaeologist, p. 67, as given in reference 6.

8 Kenyon, K. M. 1957. Digging up Jericho. London. See also reference 2, I:64ff.

9Wright, C. E. 1953. Archaeological news and views, The Biblical Archaeologist, XVI:67.

10 Joshua 8:29.

11 Joshua 8:28.

12Callaway, J. A. 1969. The 1966 Ai (Et-Tell) Excavations, Bulletin of the American Schools of Oriental Research, 196:4.

<sup>13</sup>Kenyon, *Op. cit.*, p. 115.

<sup>14</sup>Wright, G. E. 1965. Shechem. London, p. 87.

<sup>15</sup>Campbell, E. F. and J. F. Rose. 1963. The excavations of Shechem and the Biblical tradition, The Biblical Archaeologist, XXVI, p. 10.

16Wright, G. E. 1957. The archaeology of the city [Shechem], The Biblical Archaeologist, XX:32. See

also reference 2, II:180.

17Wright, G. E. 1957. The second campaign at Tell Balatah (Shechem), Bulletin of the American Schools of Oriental Research, 148:23.

<sup>18</sup>Crowfoot, J. W., K. M. Kenyon, and E. L. Sukenik. 1942. The buildings at Samaria. London, p. 3; Wright, G. E. 1959. Israelite Samaria and iron age chronology, Bulletin of the American Schools of Oriental Research,

<sup>19</sup>Albright, W. F. 1958. Recent progress in Palestinian archaeology; Samaria-Sebaste III and Hazor I, Bulletin of the American Schools of Oriental Research, 150:22.

<sup>20</sup>Crowfoot, et al, *Op. cit.*, pp. 5-7. <sup>21</sup>Gurney, O. R. 1954. The Hittites. Pelican Book, p. 59.

p. 59. <sup>22</sup>Ceram, C. W. 1956. The secret of the Hittites. Al-fred A. Knopf, New York, p. 239. <sup>23</sup>See reference 2, II:Chapter XVII. <sup>24</sup>Petrie, F. 1935 Edition. A history of Egypt. Lon-

don, III:160.

<sup>25</sup>This gap has been the subject of comment by many writers. A number of such references with quotations are provided in reference 2, II:271.

<sup>26</sup>Reference 2, II:Chapters I-VI provide a mass of data

on these problems.