

The Biblical Chronologist

WHAT HAS BEEN IS REMOTE AND EXCEEDINGLY MYSTERIOUS. WHO CAN DISCOVER IT?
(Ecclesiastes 7:24)

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Wood's Jericho Tumbles

The beleaguered and aging conservative Biblical archaeology regiment had been fighting a losing battle to hold the line for Biblical historicity for decades. All would-be champions had so far failed, but Bryant G. Wood, a relatively young man and new recruit, had been polishing his weapons for several years and was eager to have a go at it. He felt he knew how to save the day—how to recapture Jericho.

They had lost Jericho, the coveted high ground, a quarter of a century previously. Though originally seized for them in the late thirties through the exploits of British archaeologist John Garstang, their glory and seeming security on the mound had been short-lived. In a stunning turn of events they had been utterly routed from Jericho by further excavations there by British archaeologist Kathleen Kenyon in the fifties.

Since then, very much on the defensive, they had struggled to hold the line from their trenches and foxholes off the mound. But attrition was slowly doing them in. The situation was clearly desperate when . . . enter archaeologist Bryant G. Wood.

Yes, and also enter—stumbling into no-man's-land from off to the side somewhere; relatively oblivious (like most conservative Christians) of the modern battle over Jericho; surprised to find shots being fired at him from both sides—chronologist Gerald E. Aardsma.

In the March/April 1990 issue of *Biblical Archaeology Review* conservative Biblical archaeologist Bryant G. Wood argued for a redating of the destruction of the so-called "City IV" at Jericho.¹ The consensus of modern scholarship dated this destruction to ca. 1550 B.C., but Wood shrugged

¹Bryant G. Wood, "Did the Israelites Conquer Jericho?" *Biblical Archaeology Review*, March/April 1990, 44–58.

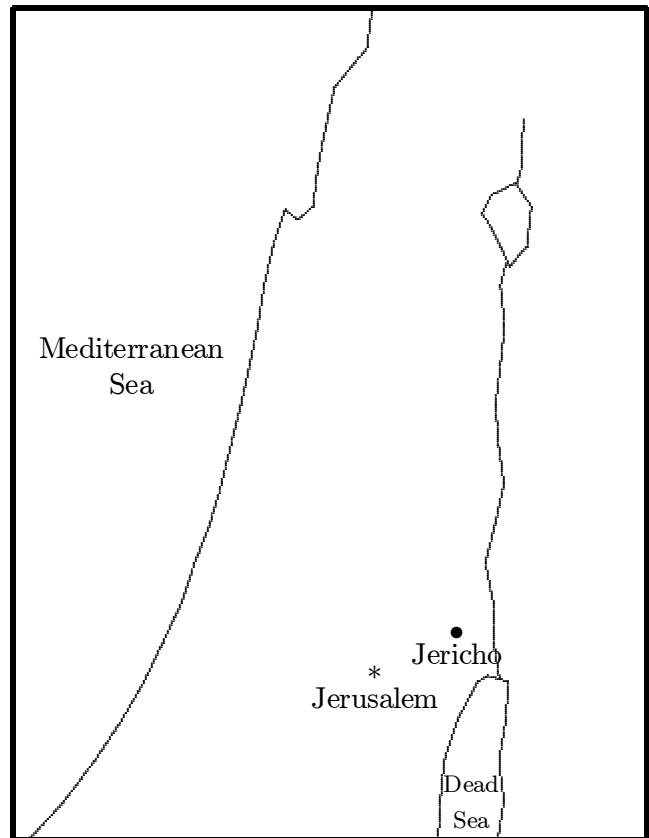


Figure 1: Location of ancient Jericho.

the consensus aside. Wood's desire was to bring this destruction into temporal coincidence with the Biblical account of the destruction of Jericho by Joshua² at the traditional Biblical date of the Conquest of ca. 1400 B.C. (Figure 2).

Wood was trying to solve a serious problem in his bid to redate this destruction of Jericho. He described the problem thus:³

Kenyon concluded that her field work confirmed her earlier review of Garstang's

²Joshua 6.

³Bryant G. Wood, "Did the Israelites Conquer Jericho?" *Biblical Archaeology Review*, March/April 1990, 49.



Figure 2: When was City IV Jericho destroyed? The consensus is roughly 1550 B.C.; Wood says roughly 1400 B.C.

work. ... The destruction of Garstang's City IV, which he had dated to about 1400 B.C.E., occurred, according to Kenyon, at the end of the Middle Bronze Age, about 1550 B.C.E.

In short, there was no strongly fortified Late Bronze Age city at Jericho for Joshua to conquer. The archaeological evidence conflicted with the Biblical account—indeed, disproved it.

Wood argued that Kenyon had misdated the City IV destruction and that Garstang had been right all along. He claimed that detailed excavation reports, which had only recently become available, subsequent to Kenyon's death, showed that her date for the final destruction of City IV Jericho was flawed. He argued that: a reanalysis of pottery shards excavated from City IV; stratigraphic considerations; scarab evidence; and a single radiocarbon date all converged "to demonstrate that City IV was destroyed in about 1400 B.C.E., *not* 1550 B.C.E. as Kenyon maintained".⁴

As I recall, Wood's claims found their way into the popular press. They occasioned considerable rejoicing and shouts of victory in some conservative sectors.

But Wood's fellow-archaeologists were not impressed. In a subsequent issue of *Biblical Archaeology Review*, Piotr Bienkowski attacked Wood's arguments and then summarized his assessment of Wood's claim as follows:⁵

⁴Bryant G. Wood, "Did the Israelites Conquer Jericho?" *Biblical Archaeology Review*, March/April 1990, 53.

⁵Piotr Bienkowski, "Jericho Was Destroyed in the Middle Bronze Age, Not the Late Bronze Age," *Biblical Archaeology Review*, September/October 1990, 46.

Wood has attempted to redate the destruction of Jericho City IV from the end of the Middle Bronze Age (c. 1550 B.C.) to the end of the Late Bronze I (c. 1400 B.C.). He has put forward four lines of argument to support this conclusion. Not a single one of these arguments can stand up to scrutiny. On the contrary, there is strong evidence to confirm Kathleen Kenyon's dating of City IV to the Middle Bronze Age. Wood's attempt to equate the destruction of City IV with the Israelite conquest of Jericho must therefore be rejected.

Wood responded to Bienkowski in the same issue with a more detailed discussion of pottery shards. He charged:⁶

Bienkowski's attempt to explain away the evidence for lowering the date of the destruction of Jericho is misguided and void of substance. Assertions made without data to back them up are unconvincing. His discussion is superficial, at best, lacking both depth and precision.

And so the battle raged in 1990.

I was unaware of this battle—and much else having to do with Biblical archaeology—in 1990. At the time I was entirely focused on radiocarbon dating and its implications for the date of Noah's Flood. I had graduated from a Ph.D. program in nuclear physics in 1984. My Ph.D. program had emphasized the application of nuclear instrumen-

⁶Bryant G. Wood, "Dating Jericho's Destruction: Bienkowski is Wrong on All Counts," *Biblical Archaeology Review*, September/October 1990, 45.

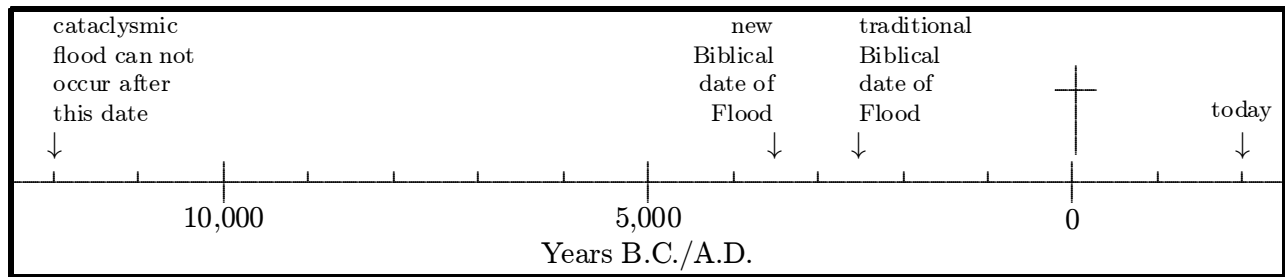


Figure 3: Disparity between Biblical date of Noah's Flood and latest possible date for a cataclysmic flood. Several lines of chronological evidence converge to show that a cataclysmic flood could not have occurred any more recently than about 12,000 B.C.

tation to measuring rare isotopes such as radiocarbon. Disparities between radiocarbon and traditional Biblical chronology had become my absorbing concern.

In 1987 I joined the faculty of the Institute for Creation Research Graduate School. There I had opportunity to research these chronological concerns, at the delicate and often volatile interface of science and religion, for several years.

The Institute for Creation Research (ICR) takes the position that Noah's Flood was not only worldwide, but also a cataclysm—a violent geologic change of the earth's surface marked by overwhelming upheaval and destruction. ICR holds to the idea that a significant portion of the geologic column was formed as a direct consequence of Noah's Flood.

I had asked the research question, "What would such a cataclysm do to radiocarbon dates?" I had derived a two parameter, analytic model for the expected temporal behavior of radiocarbon following such an event, and I had shown that this model could successfully fit available radiocarbon measurements on very long tree-ring series.⁷

Two important conclusions resulted from this research. First, it became clear that modern, tree-ring calibrated radiocarbon dates were trustworthy at least back to 3000 B.C. Second—and this was a *big* surprise—I found that a global, cataclysmic Flood could not have occurred any more recently than about 12,000 B.C.

This second conclusion was quite disturbing. Traditional Biblical chronology places the Flood at *ca.* 2500 B.C., nearly 10,000 years later than my ra-

diocarbon analysis allowed (Figure 3). Something was surely wrong.

I asked several other scientists to review my radiocarbon model, but they could find nothing wrong with it.

I decided I had better scrutinize traditional Biblical chronology to see if somehow something major had been overlooked there. I had always previously assumed the general validity of traditional Biblical dates back to Abraham. I decided it was time to be more thorough.

I quickly discovered that traditional Biblical chronology harmonized with secular chronologies only back to about 1000 B.C.—prior to that time Biblical and secular data seemed to be telling entirely different stories about history. Could a large block of time have somehow been omitted from traditional Biblical chronology just prior to 1000 B.C., producing the observed disparity with secular history and explaining why a cataclysmic Flood should be so ancient?

For a brief period, at the beginning of 1990, I attempted to interject the 10,000 years I needed to suit a cataclysmic Flood at this point. I soon had to reject that idea, however, as I found it was archaeologically impossible to expand Biblical chronology just prior to 1000 B.C. by such a large amount.

But in the process of examining that idea I had begun to study the archaeological data at Jericho for the first time. I was amazed at what was known from Jericho, and I was excited by the wealth of data pertinent to the question of the antiquity of humanity which it proffered in its well-stratified remains.

I rapidly acquainted myself with the sequence of towns and destructions which the archaeologists

⁷This work was published as ICR technical monograph #16 in 1991 with the title *Radiocarbon and the Genesis Flood*. It is now out of print.

had exposed at Jericho. And one evening, as I was ruminating on what I had learned about Jericho, it suddenly struck me that one destruction, which had occurred at about 2400 B.C., was a tidy 1,000 years prior to the traditional Biblical date. And this thought was immediately followed by the realization that this might be the long-sought destruction wrought by Joshua if the present “480 years” of 1 Kings 6:1 had, in the autograph, been “1,480 years”. And so the missing millennium thesis was born.

When I wrote my book about the missing millennium thesis in 1992, I discussed Wood’s claim regarding Jericho only briefly.⁸ There was no point in saying much. Basically, Wood’s redating of the destruction of City IV Jericho was irrelevant to my thesis. My thesis sprang from a quite different, much earlier destruction at Jericho (Figure 4). Even if Wood’s redating of the destruction of City IV to *ca.* 1400 B.C. should turn out to be correct, he would still have to show that destruction was due to *Joshua* before my thesis would be impacted.

But there *was* an interesting implication for my missing millennium thesis should Wood turn out to be wrong. Wood’s redating of City IV was the last possible hope for the traditional, 1400 B.C., Conquest date at Jericho. If it should be proven wrong, then my thesis would be the only remaining way of harmonizing the archaeological data with the Biblical record of Jericho’s destruction by Joshua.

Was there any way of determining whether Wood’s redating was right or wrong? Yes. Radiocarbon.

Wood’s thesis is essentially a *chronological* one: Wood says City IV was destroyed *ca.* 1400 B.C., the scholarly consensus is that City IV was destroyed *ca.* 1550 B.C. (Figure 2). Such chronological theses can be tested today using modern scientific dating methods. Wood’s thesis is, in fact, a prime candidate for radiocarbon analysis.

Destruction layers involving burning are generally well-suited to radiocarbon dating. Radiocarbon requires organic (once living) samples; charcoal, from burned timbers, or other charred plant remains provide just the sort of samples radiocar-

⁸Gerald E. Aardsma, *A New Approach to the Chronology of Biblical History from Abraham to Samuel*, 2nd ed. (Loda IL: Aardsma Research and Publishing, 1993), 88–89.

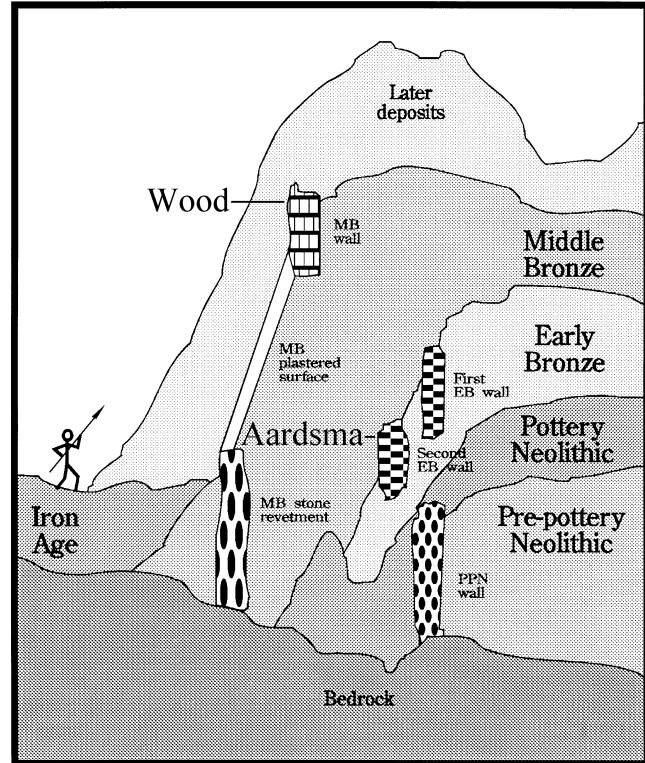


Figure 4: Schematic cross section of the mound of ancient Jericho. Wood claims the wall labeled “MB wall” is the one which fell before Joshua. He believes this wall and its associated city should be redated to the Late Bronze Age to match traditional Biblical chronology. I claim the much earlier wall labeled “Second EB wall” is the one which fell before Joshua. Its destruction dates to the end of the Early Bronze Age III, in immediate harmony with the new Biblical chronology which results when one thousand years are restored to 1 Kings 6:1. (The stick figure provides an approximate vertical proportion; the horizontal scale is compressed by about a factor of five relative to the vertical scale.)

bon requires.

Charcoal can pose a bit of an *interpretive* problem, however. The difficulty is that wood retains the date each ring of the tree was formed, not the date it was burned. It is obviously possible for a tree to have grown and been cut long before it was finally burned in the destruction of a city.

This would not be a problem at Jericho; Wood had noted that plenty of charred grain was found in the excavation of City IV.⁹ Grain grows in a single year, and is not likely to be kept around for more than a year or two after it has grown. Ra-

⁹Bryant G. Wood, “Did the Israelites Conquer Jericho?” *Biblical Archaeology Review*, March/April 1990, 51.

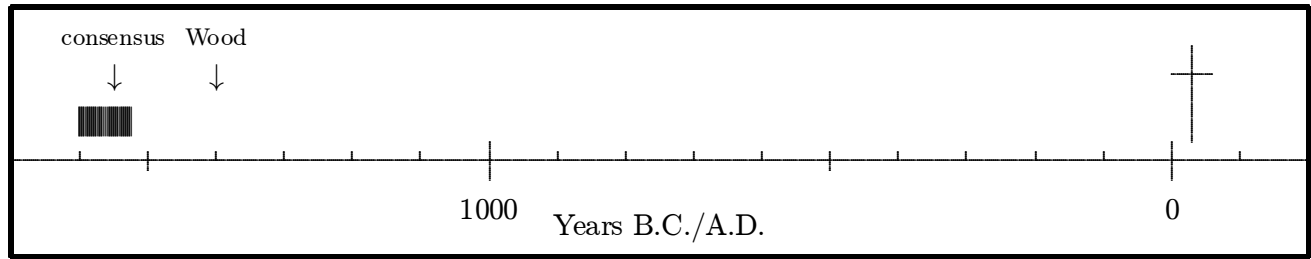


Figure 5: The black bars show the probable time during which cereal grains found within the destruction debris of City IV grew according to radiocarbon dates on the grains. Wood's proposed redating is rendered untenable by these radiocarbon results. (The radiocarbon dates are from Bruins and van der Plicht—see footnotes to article for complete reference. The bars show the calibrated 1σ range for the average of six samples.)

diocarbon dates of grain found in the destruction debris should reflect the actual date of destruction quite closely.

In the early 1990's when I was writing my book, there was only a single radiocarbon measurement available for City IV. It was from a piece of charcoal found in the destruction debris. Wood used this single sample to support his claim—it had been dated by the British Museum to 1410 ± 40 B.C.¹⁰

Unfortunately, this was one of several hundred samples whose dates the British Museum later retracted. They found their radiocarbon measurement apparatus had gone out of calibration for a period of time. The dates their apparatus gave during this period were not correct. They retracted all dates of samples measured during this period and published a corrected set.¹¹

The corrected date for the City IV sample turned out, in fact, to be consistent with Kenyon's 1550 B.C. date. Thus, this single sample no longer supported Wood's claim. But the corrected date did not falsify his claim either—the charcoal could have come from a tree that had been cut 150 years previous to the destruction. What was needed to settle the matter was a set of radiocarbon dates on grains from the City IV destruction.

In the early part of this decade no such dates existed, but just recently the necessary measurements have been made. Hendrik J. Bruins and Johannes van der Plicht have recently published

new, high-precision radiocarbon measurements on eighteen samples from Jericho.¹² Six of the samples were charred cereal grains from the City IV destruction.

Bruins and van der Plicht did not specifically set out to test Wood's thesis. Their stated purpose was to contribute "toward the establishment of an independent radiocarbon chronology of Near Eastern archaeology".¹³ However, they recognized that their results had implications for several different theories regarding the destruction of City IV, and they discussed these implications briefly in their paper. Only one sentence was devoted to Wood's theory. It read simply:¹⁴

Further, the fortified Bronze Age city at Tell es-Sultan [Jericho] was not destroyed by *ca.* 1400 BC, as Wood (1990) suggested.

In fact, the radiocarbon measurements of Bruins and van der Plicht strongly support Kenyon's 1550 B.C. date, and strongly reject any date later than 1500 B.C. (Figure 5).

Wood's proposed date for the destruction of City IV Jericho has been falsified by radiocarbon—City IV Jericho was not destroyed by Joshua.

¹⁰Bryant G. Wood, "Did the Israelites Conquer Jericho?" *Biblical Archaeology Review*, March/April 1990, 53.

¹¹S. G. E. Bowman, J. C. Ambers, and M. N. Leese, "Re-evaluation of British Museum radiocarbon dates issued between 1980 and 1984," *Radiocarbon* 32.1 (1990): 59–79.

¹²Hendrik J. Bruins and Johannes van der Plicht, "Tell es-Sultan (Jericho): radiocarbon results of short-lived cereal and multiyear charcoal samples from the end of the Middle Bronze Age," *Radiocarbon* 37.2 (1995): 213–220.

¹³Hendrik J. Bruins and Johannes van der Plicht, "Tell es-Sultan (Jericho): radiocarbon results of short-lived cereal and multiyear charcoal samples from the end of the Middle Bronze Age," *Radiocarbon* 37.2 (1995): 213.

¹⁴Hendrik J. Bruins and Johannes van der Plicht, "Tell es-Sultan (Jericho): radiocarbon results of short-lived cereal and multiyear charcoal samples from the end of the Middle Bronze Age," *Radiocarbon* 37.2 (1995): 218.

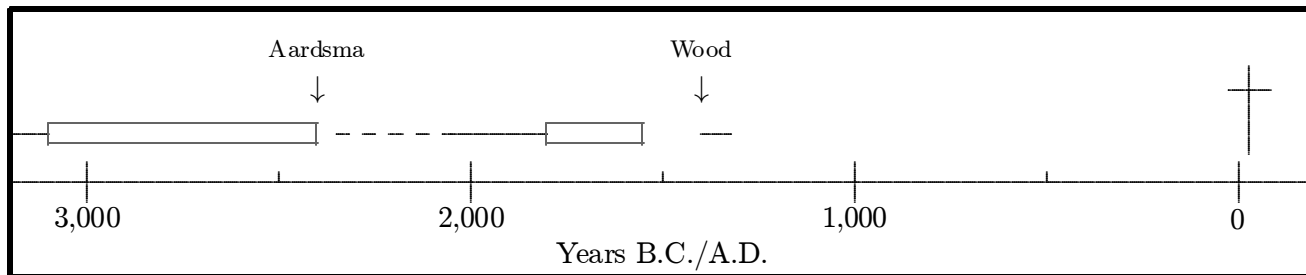


Figure 6: The history of ancient Jericho prior to the first millennium B.C. as reconstructed from archaeological excavation. The dashed line shows when the site was only used as a campsite. Single solid lines show when it was an unwalled town. Double horizontal lines show when Jericho existed as a walled city. Radiocarbon has now shown that the walled city which existed at Jericho during the second millennium B.C. was destroyed near 1550 B.C. Thus, there was no fortified city at Jericho at the traditional Biblical date (labeled “Wood”). There *was* a fortified city which was destroyed exactly 1,000 years earlier, however (labeled “Aardsma”). This is the destruction due to Joshua. It dates 1,000 years earlier than traditional expectations because traditional Biblical chronology has accidentally left out one thousand years due to an easily made copy error in 1 Kings 6:1.

For those, like myself, who believe the Bible is inspired by God, and therefore inerrant, this leaves only one rational conclusion. A simple copy error has accidentally resulted in a dropped “thousand” years from extant texts of 1 Kings 6:1. The proper Biblical date for the destruction of Jericho (and the rest of Palestine) by Joshua is *ca.* 2400 B.C., not 1400 B.C. (Figure 6).¹⁵ ◇

Readers Write

Is Imhotep Joseph?

It would certainly be fascinating to be able to identify Joseph in Egyptian historical sources; his high position in Egypt gives one high hopes of being able to do so.

I have previously broached the possibility that the Biblical “Joseph” may be the same as the vizier of king Djoser called “Imhotep” in Egyptian sources.¹⁶ But, as I have previously pointed out, this identification is complicated by secular chronological uncertainties so that it must be regarded as a tentative possibility only.

Dr. David Noel Freedman has also expressed

¹⁵For further details see my book, *A New Approach to the Chronology of Biblical History from Abraham to Samuel*.

¹⁶Gerald E. Aardsma, *A New Approach to the Chronology of Biblical History from Abraham to Samuel*, 2nd ed. (Loda IL: Aardsma Research and Publishing, 1993), 80–82; Gerald E. Aardsma, “The Chronology of Egypt in Relation to the Bible: 3000 – 1000 B.C.,” *The Biblical Chronologist* 2.2 (March/April 1996): 4–5.

the need for caution in identifying Imhotep with Joseph. After reviewing an early manuscript of mine containing this tentative suggestion he wrote to me in a personal letter dated December 2, 1991 as follows:

While there may well be parallel features in the careers and life-stories of the two men, it would be very risky to identify them. Analogies are one thing, equations are another. There is no hint anywhere that Imhotep was anything but a real Egyptian, which is exactly what Joseph was not. And Joseph’s Egyptian name [Zaphenath-paneah (Genesis 41:45)] is totally different [from Imhotep], in fact a name that doesn’t find any similarities in Egyptian onomastica before the Saite period [*ca.* 675–525 B.C.], I believe.

There is clearly reason for caution.

But this is not to say the matter is closed, by any means. What is needed at this stage are in-depth, deliberate investigations of the question using available Biblical data and Egyptian source documents in light of the new synthesis of Biblical and Egyptian history discussed last issue.¹⁷

There are several angles from which such investigations might be launched. For example, the Bible records that Joseph instituted a twenty percent tax

¹⁷Gerald E. Aardsma, “The Chronology of Egypt in Relation to the Bible: 3000 – 1000 B.C.,” *The Biblical Chronologist* 2.2 (March/April 1996): 1–9.

during his administration, which (in common with most government taxes) appears to have persisted for a very long time.

And Joseph made it a statute concerning the land of Egypt valid to this day, that Pharaoh should have the fifth;... (Genesis 47:26)

Tracing the secular history of taxation in Egypt might, therefore, be a fruitful line of investigation. One should expect to find a twenty percent tax in force in the later part of the Old Kingdom, at least. If the pharaoh or vizier could be identified under whom this taxation was instituted, one would presumably be able to identify Joseph in Egypt very quickly. (Note also that determining the latest date this custom of twenty percent taxation was in force would set a minimum date for the composition of Genesis 47:26, but that is a separate matter.)

As I lack the time to carry such investigation forward myself, I am hoping this suggestion and the following two letters, from lay readers, will encourage other readers to take up aspects of this research project and perhaps share what they learn with us in future issues.

The first letter presents information opposing the identification of Joseph with Imhotep; the second is supportive of the identification. The possibilities raised in both letters seem to me to merit further investigation.

Dear Dr. Aardsma,

There was a time when I thought Imhotep, vizier of Djoser, could have been Joseph. Further research quickly altered this view. There existed, in the Egyptian workshops, lists and family trees of the famous chiefs of works. (See Pierre Montet, *Eternal Egypt*, 1964 for background.) The name of Imhotep's father is known from these lists, as recorded by Egyptian archaeologist, Ahmed Fakhry:

We do not know where he [Imhotep] was born, but a vague and brief reference by one of the classical writers suggests that the village of Gebelein, south of Luxor, was his home. A monument giving the names of his parents dates from between 495 and 491 B.C. It is an inscription

in the Wadi el Hammamat. The oldest name is that of Ka-nefer, who was Director of Works of Upper and Lower Egypt. The second name was his son, Imhotep. (Ahmed Fakhry, *The Pyramids* (University of Chicago Press, 1961), 24-26.)

Fakhry adds (pages 4 and 5), "Imhotep was an architect, whose father also had been an architect." This fact alone rules out the identification of Imhotep as Joseph.

Pierre Montet wrote that as the King's architect, Imhotep constructed sanctuaries of stone for the gods and goddesses of Egypt—the first beneficiaries being Nekhebet, the god of Memphis, Thoth of Khnum, and Horus of Edfu. (See Peter Tompkins, *Secrets of the Great Pyramid*, Harper & Row, 1971.) An inscription in a crypt of the temple of the goddess Hathor, at Dendera, indicated it had been built according to the plans of Imhotep.

Imhotep's greatest achievement was the step pyramid, which was identical in design to the ziggurats of Babylon. There is every indication that he was a devotee of the Mystery Babylon religion, which had been adopted by the Egyptians. One of Imhotep's titles was High Priest of Heliopolis, city of the sun [god]. Joseph, the man of God, would have had no part in any of the activities ascribed to Imhotep.

Mrs. Beverly J. Neises
Rainier, OR

Dear Dr. Aardsma,

The major thesis of your monograph, *A New Approach to the Chronology of Biblical History from Abraham to Samuel*, strikes me as very convincing and important, and I wish you every success in developing and popularizing it for the glory of God.

After reading your suggestion (pp. 81–82) that Joseph, the son of Jacob and Rachel, may actually correspond to Imhotep, the vizier of Pharaoh Djoser, I became fascinated with the idea that the Egyptian name might have been adopted by Joseph at least partly because of its phonological similarity to the name his mother gave him (Gen. 30:24).

Now if Joseph were a foreign king, I suppose he would have been known in Egypt by a name

that was as similar as possible to his Hebrew name within the constraints of Egyptian phonology. In this case, his name would have had little or no significance in the Egyptian language—the Egyptians would have recognized its foreign origin, and Joseph’s older brothers would surely have suspected his identity without having to be told.

Since Joseph really needed a name that would pass as quite Egyptian, perhaps an Egyptian variant of Joseph simply would not do. I think it should have been more like a case I came across recently at a Wycliffe banquet. The missionary speaker that evening was named Larry in English, but while serving in Latin America, he went by the Spanish name Hilario. That is, I propose that Joseph would have chosen a name for himself that was entirely Egyptian, yet phonologically similar to his Hebrew name. He might even have done this some time after his reunion with his family, using the name selected by the pharaoh in the interim, but of course, I can only speculate about this point.

I M H O T E P
J O S E P H

The similarity at first glance may not seem all that striking, but a little investigation reveals that there may be more to it than what is immediately apparent. First, there is a Hebrew variant of Joseph, used only in Psalm 81:5, which inserts one more consonant. *Strong’s Exhaustive Concordance* describes this variant as “a fuller form” of the usual name.

I M H O T E P
J H O S E P H

It should be mentioned that the point of articulation of H may be a bit different in the two languages, glottal in Hebrew while pharyngeal in Egyptian, but the similarity is still close enough to be striking. Note also that P and PH are both written with the same basic letter in Hebrew. Moreover, it turns out that the contrast between the T and the S may not be so great either. Loprieno (1995: 29) notes that Northwest Semitic *sōpēr “scribe” was written as <tu-pa-r> in Egyptian. Now this ṭ is a palatal (not dental) stop, but again, the similarity seems rather noteworthy. Loprieno

went on to suggest that the samekh, which occurs in both *sōpēr and Joseph “originally must have been an affricate [ṭs] in Semitic” (1995: 29). This leaves only the M without a mate in the “fuller form” of Joseph.

There is another concern that should be addressed, however. As Hurry observed, “personal names ending in the word *hṭp* and compounded with the names of certain, but not of all, gods, were common in Egypt in all periods” (1928: 190). Surely, if the Joseph we know had anything to do with it, the name would not mean “Im is pleased” in Egyptian, where Im would be the name of some pagan deity. Once again, we are not disappointed.

The name Imhotep, however, is quite differently constituted from the above god + *hṭp* compounds. In this case *hṭp* is a noun and means ‘peace’ or ‘satisfaction’. The translation ‘He who comes in peace’ is the generally accepted one, although [the initial hieroglyph] may be either the participle ‘He who comes’ or the imperative ‘Come’. (Hurry, 1928: 190)

It is admittedly a subjective and speculative piece of circumstantial evidence, but it does seem quite reasonable to me that the Joseph we know from Genesis, who was himself summoned by the troubled pharaoh to bring him peace of mind and who invited his own family to come in peace to Egypt, might have chosen such a name as *Come in Peace*, especially in view of the close similarities it bears to the name he first brought to Egypt.

Thomas James Godfrey
Blacksburg, VA

Hurry, Jamieson B. 1928. *Imhotep: The Vizier and Physician of King Zoser and Afterwards the Egyptian God of Medicine*. Second and revised edition. New York: AMS Press.

Loprieno, Antonio. 1995. *Ancient Egyptian: A Linguistic Introduction*. Cambridge University Press.

◇

Biblical Chronology 101

Rule #1

I have spent several decades working on the problem of the proper harmonization of Biblical and secular accounts of earth history. In the course of my labors I have had occasion to acquaint myself with a fairly large number of schemes and theories for how this should be done which other individuals have suggested. Some of these schemes are grand theories of everything. They purport to tell the whole story from Genesis 1:1 onward. Others are much more limited in scope, dealing, for example, with just the Exodus from Egypt, or just the Flood. But all are involved in the same basic problem of trying to synthesize Biblical and extra-Biblical data.

You have probably encountered some of these harmonization schemes yourself. You are, no doubt, aware of some of the different emphases which characterize their proponents. There are secularists and Biblicists, creationists and evolutionists, old-earthers and young-earthers, global-Flooders and local-Flooders, catastrophists and uniformitarians, and so on. From Velikovsky to Stiebing to Sagan to Ross to (most recently) Rohl to Morris to Dever to Custance to Courville to Bimson to (yes, even) Aardsma to many others, each has a different story to tell about the history of the earth, in part or in its entirety.

The difficulty, of course, is in trying to figure out who is right and who is wrong. When one reads these different authors one finds that each seems able to bolster their particular story with at least some convincing factual evidence from history. Yet no two tell the same story.

Since history actually only happened in one way, only one of these authors, at best, can be correct. The theories and stories which the others have to tell, no matter how convincing they may each individually seem, must be “pseudo-harmonizations”—stories about what happened in history which do not correspond to what actually took place.

How can one tell pseudo-harmonizations from the truth?

A major portion of the answer to this question can be found by first answering another question—

why do so many, individually persuasive, pseudo-harmonizations exist?

You may already have some insight into the answer to this question, because the groundwork has been laid for it in a previous class session.¹⁸ Recall the example I used on that occasion. I took three historical facts from a single evening and arranged them in different orders to produce different accounts of the evening. I was able to tell six different stories with these three facts: from “I ate a sandwich, I went to bed, then my tent collapsed” to “I went to bed, my tent collapsed, then I ate a sandwich.”

Starting from this example it is easy to see why there are so many pseudo-harmonizations of earth history available today. Elementary mathematics teaches us that n things can be arranged in $n!$ (read “ n factorial”) different ways. For $n = 3$, $n! = 6$ as in the example above. But as n increases, $n!$ grows very large very rapidly. We can arrange three historical facts in six different ways. How many different ways can ten historical facts be arranged?

The answer, in fact, is $(10! =) 3,628,800$. That’s right—as few as ten historical facts can, if cut loose from their chronological moorings, be arranged in over three and a half *million* different ways. That’s a lot of ways! One can tell a lot of fictitious stories about history with a few historical facts when chronological constraints have been removed.

Now history is made up of far more than just ten facts. It is no surprise, therefore, that so many pseudo-harmonizations—fictitious accounts of earth history—can be found.

But why do these pseudo-harmonizations each seem so persuasive? I believe there are two parts to the answer here. First, they each seem persuasive because they employ historical *facts*, and this use of facts lends to them an aura of veracity.

To illustrate, consider my simple example of the sandwich, bed, and tent once again. Though five of the six stories which can be told by these three historical facts do not correspond accurately to what actually took place, they can still point to the factual nature of their components to bolster their credibility. Each can say, “You don’t have to take my word for it, just look at the facts—the bed has obviously been slept in, the sandwich is gone, and

¹⁸Gerald E. Aardsma, “Biblical Chronology 101,” *The Biblical Chronologist* 1.3 (May/June 1996): 4–5.

the tent is down.”

Second, and more importantly, because real history is made up of a myriad of facts, and because one can do more things with these facts than just change their order, there is no practical limit to the number of fictitious stories which can be told about history. With such a huge number of stories to choose from, some stories are bound to exist which will look very persuasive—which will contain many apparent synchronisms between Biblical and extra-Biblical data, for example—even though they do not represent what really took place in history at all. The fact that so many persuasive pseudo-harmonizations of earth history exist is really not very surprising at all when one considers the mathematics of the matter.

So how are pseudo-harmonizations to be avoided? The answer is really very simple. The key is **chronology**. Please note that three—or even three million—historical facts can only be arranged in one way if they are first pinned to their proper places on the time line. And once they have been pinned to their proper places on the time line, that one, unique arrangement is, in fact, the way they really took place—it corresponds to true history. Pseudo-harmonizations only result when chronological constraints are removed.

These simple considerations lead to a very important procedural rule which those who would learn the truth about history, and avoid the quagmire of pseudo-harmonizations, must be careful to obey. I call this “Rule # 1”.

Rule # 1 *Chronology must precede history.*

What I mean by this rule is that we must use every available means to objectively date historical objects and associated events *before* any effort is made to use those objects and events to tell a story about history. Pin them down on the timeline first, then see what story they tell. This is the only way to avoid pseudo-harmonizations and find the truth.

And this leads directly to a simple procedure for avoiding the great majority of pseudo-harmonizations. Pseudo-harmonizations are actually relatively easy to spot. Because sound chronology is the death-knell to pseudo-harmonizations, you will find that their advocates disparage chronological data and method quite routinely. They will tell you that the Bible’s

chronological data is nonsense, or that radiocarbon is a method that only a madman would use, or that trees don’t know how to grow only one annual ring per year, or that Manetho knew nothing about the history of Egypt, or that pottery dating is obvious nonsense, or whatever else is necessary to protect their pseudo-harmonization from the (for them) unpleasant realities of the chronological data.

So before you bother to wade into yet another supposed synthesis of Biblical and secular historical data, ask yourself these simple questions:

1. Does this author have a positive and respectful attitude toward Biblical, secular historical, and physical (such as radiocarbon) chronological data?
2. Does this author give chronological data, of all sorts, precedence in his reconstruction of history (as opposed to the presentation of a mass of historical facts)?
3. Does this author exhibit knowledge of and competence in handling chronological data of all sorts?

If the answer to any of these questions is no, wade in only if you enjoy reading historical fiction. ♦

The Biblical Chronologist is a bimonthly subscription newsletter about Biblical chronology. It is written and edited by Gerald E. Aardsma, a Ph.D. scientist (nuclear physics) with special background in radioisotopic dating methods such as radiocarbon. *The Biblical Chronologist* has a threefold purpose:

1. to encourage, enrich, and strengthen the faith of conservative Christians through instruction in Biblical chronology,
2. to foster informed, up-to-date, scholarly research in this vital field within the conservative Christian community, and
3. to communicate current developments and discoveries in Biblical chronology in an easily understood manner.

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