

# Chapter 6

## Solving the Exodus Mystery

### Archaeological Finds and the Date of the Exodus

The Bible tells the story of Moses, who led the Israelites in their Exodus from Egypt, where they had been enslaved for about 100 years. They then wandered in the desert for forty years and then invaded and conquered the land of Canaan, which was their Promised Land. This land is now called Israel. This chapter proves that the Exodus and the conquest did happen. Although most experts would disagree, the attacks on the reality of the biblical Exodus from Egypt and the ensuing conquest have been answered. Indeed, there is more and more evidence brought forth each year.

This chapter starts with archaeological evidence for the Exodus. It also shows how that evidence points to a certain date. It then shows that the Bible gives the same date. It dates the Exodus to 1447 B.C. and the conquest from 1407 to 1401 B.C. This was during the Late Bronze Age I on the standard chronology. But archaeology proves that the Exodus and the conquest did not occur during that age. The standard chronology dates the solid evidence for the Exodus much earlier to around 1700 B.C. and the solid evidence for the conquest to about 1660 B.C. This was during the Middle Bronze Age IIB. These two events are dated much too early on the standard chronology to support the Exodus and conquest accounts.

The way to resolve such contradictions between history and scripture is through alternative Egyptian chronology (since ancient chronologies are keyed off of the Egyptian). Experts with the proper credentials (e.g., David Rohl and Peter James) have published much evidence for up to about a 350-year revision of Egyptian chronology (achieved by reducing the length of the Egyptian Third Intermediate Period). This lowers the dates for the archaeological evidence for the Exodus and the conquest to align them with the biblical dates for those two events. This revision shows that the Exodus and conquest did happen.

The revised Middle Eastern chronology places the sojourn of the Israelites in Egypt during the late Twelfth to late Thirteenth Dynasties—where there is abundant evidence for it. The revised chronology then places the Exodus near the end of the Thirteenth Dynasty. This was during the reign of Pharaoh Dudimose I. The problem though is that the standard chronology dates his reign at about 1700 B.C. This date is about 250 years before the Exodus. The 1447 B.C. date for the Exodus on the standard chronology was during the Eighteenth Dynasty, although some scholars date the Exodus to the Nineteenth Dynasty. But no solid evidence for the Exodus is dated to the time of those dynasties.

In 1995, David Rohl's groundbreaking book *A Test of Time: The Bible—From Myth to History* was published. It shows that the Thirteenth Dynasty needs to be lowered by about 250 years and the Eighteenth Dynasty by about 350 years. It also presents evidence that the Egyptian Third Intermediate Period should be shortened by about 230 years. His chronology is even supported by Sothic and lunar dates. His books give solid evidence that the biblical stories of Abraham, Joseph, and Moses are true and that the Bible in general is in harmony with archaeology, history, and linguistics.<sup>1</sup>

Again, David Rohl and Peter James have the credentials to be taken seriously by the academic community. They have both paved the way for this book. These two scholars of

ancient Near Eastern history should eventually show scholars in general that the Bible is historically accurate (even if they do not accept its accounts of miracles). This book though shows that the entire Bible is true.

David Rohl has a degree in Egyptology and ancient history. He is one of the foremost professionals in revisionism today.<sup>2</sup> His revised chronology is documented in the many books he has written and in his scholarly articles. For instance, he outlines his revised chronology in “A Test of Time: Rediscovering Ancient Israel,” which is found on the ISIS Archive online and is a good introduction for those who want to learn more.<sup>3</sup> The case for his revised chronology is indeed impressive.

Likewise, Peter James has a degree in archaeology and ancient history from Birmingham University and has pursued postgraduate work in the area of ancient history at London University. He refers to himself as a Near East/Mediterranean generalist.<sup>4</sup> He is the main author of *Centuries of Darkness*. He wrote it with a team of four other scholars, and two-dozen scholars then critiqued the manuscript before publication. It shows that the Greek Dark Age should be reduced by about 250 years. The standard chronology dates it from about 1200 to 800 B.C. The book also shows that the Egyptian Third Intermediate Period should be reduced by about 230 years. The standard chronology dates it from about 1070 to 665 B.C.<sup>5</sup>

Earlier attempts at revision were doubted because they were made by people who lacked the proper credentials. And not only that, their theories were usually full of errors. Such was the case with a revisionist named Donovan A. Courville and also with Roger Henry, who wrote *Synchronized Chronology*, which relies heavily on the writings of Immanuel Velikovsky. Clearly, the work of Rohl and James is far superior to that of these revisionists.

Although professional revisionists disagree about some minor aspects of revision, they agree about its main arguments. Thus the hope is strong that the leading revisionists will read each other's work, debate their ideas in a respectful manner, and then come to the same conclusions. It is likely that in the future a revised chronology will be agreed upon by a majority of qualified scholars.

## **The Middle Bronze Age IIB**

Rohl and James have shown that the date of the Middle Bronze Age IIB (MB IIB) should be lowered by about 250 years. These revisions place the Exodus at the end of the Egyptian Middle Kingdom. That is where there is abundant evidence for the Exodus. Lowering the chronology of ancient Egypt actually lowers the other Near Eastern chronologies, as well. This is because, as touched upon, most of them are keyed off of the Egyptian.

The beginning of the MB IIB has been dated to about 1700 B.C. on the standard chronology. Professional revisionists place it at about 1440 B.C. As mentioned, the Bible dates the Exodus to 1447 B.C. This was at the end of the Middle Kingdom, when mainstream archaeology tells us a collapse of the Egyptian state happened, as would be the case after the plagues and the drowning of pharaoh and his military under the waves of the Reed Sea. The Ipuwer Papyrus gives a first-hand account of the biblical plagues from an Egyptian perspective, and it dates to the end of the Middle Kingdom. Thus it confirms that the Exodus occurred at that time.<sup>6</sup>

It is now known that the Israelite conquest occurred during the MB IIB Period. There are many reasons why this must be the archaeological age in which the conquest occurred. For instance, MB IIB destruction layers have been found at the very cities (such as Jericho) that the Bible says were destroyed by the invading Israelites. In the past, no suitable archaeological

evidence for the conquest could be found dated to 1407 to 1401 B.C., which is when the Bible states it happened. If the end of the MB IIB could be lowered by about 250 years, it would be one of the most powerful evidences for the Bible so far.

### **The Third Intermediate Period**

As touched upon, this revised chronology is documented in *A Test of Time* and in *Centuries of Darkness*, which show there were more overlaps of dynasties in the Third Intermediate Period (TIP) than the standard chronology allows. Professor Kenneth Kitchen claimed in 1991 that such overlaps are ruled out “by a mass of evidence.” However, other scholars have since proposed fifty (Aidan Dodson) or even seventy-five (Graham Hagens) year reductions to the length of the TIP on the standard chronology.<sup>7</sup>

Impressive evidence that the length of the Egyptian Third Intermediate Period should be lowered by about 230 years comes from: The number of Apis bulls interred in the Lesser Vaults of the Serapeum; the genealogies of Khnemibre, Nespaherenhat, and the Memphite High Priests of Ptah; the burial of Djedptahefankh in the Royal Cache; the tombs of Pharaohs Osorkon II and Psusennes I at Tanis; and ancient inscriptions from Byblos. David Rohl documents this evidence in detail in *A Test of Time*.<sup>8</sup>

### **Babylonian Chronology**

Until recently, one of the main reasons the Bible conflicted with history and archaeology was the misdating of Babylonian history. But now that has finally changed. Wayne Mitchell has shown that the standard Babylonian chronology given in the *Cambridge Ancient History* should be lowered by about 300 years. This revision helps to show that the Bible is true.

There are good reasons to lower Babylonian chronology by about 300 years. For instance, astronomical retro-calculations show that the first year of the reign of Ammisaduga (Hammurabi’s great-great-grandson), king of Babylon, occurred in 1419 B.C. This date is far superior to the date of 1582 B.C. (the date favored by archaeologists) as well as 1646 B.C. and 1702 B.C. (two other dates derived from retro-calculations). The 1646 B.C. date has eleven lunar month mismatches, the 1582 B.C. date has seven, the 1702 B.C. date has five, but the 1419 B.C. date has only two. This revised date for Hammurabi also lowers the date for Pharaoh Neferhotep I. This is because, according to the Yantin Relief, Neferhotep I was a contemporary of Hammurabi.<sup>9</sup>

### **The Eighteenth Dynasty Eclipse Date**

The burned remains of a palace in ancient Ugarit gives further support for the revised chronology. A tablet was discovered there that mentions an eclipse of the sun at sunset in April or May. Calculations show that for the entire thousand-year period from 2000 to 1000 B.C. only one eclipse visible from Ugarit fit the requirements described upon this tablet. Because this same eclipse is also mentioned in a letter written to Akhenaton by Abimilku, who was the ruler of Tyre, we now have a way to determine an absolute date for Akhenaton’s reign. The only date possible for this eclipse is May 9, 1012 B.C. This thus demands that Akhenaton’s reign should be lowered by more than three centuries. This indicates that he was a contemporary of King David.<sup>10</sup>

## **Pillars of the Standard Chronology**

The main pillars of the standard chronology are carbon-14 dates, Sothic dates (e.g., the Ebers Calendar Sothic Date), the Year 52 lunar date of Ramesses II, synchronisms between Egyptian and Mesopotamian chronology, dendrochronology, dates derived from astronomical retro-calculations, and the claim that Shoshenk I is Shishak. So, do these pillars disprove all of the revised chronologies including those of David Rohl and Peter James? Well, the answer is no.

## **Egyptian Lunar Dates**

The standard chronology dates Amenemhat III to the late nineteenth to early eighteenth centuries B.C. But no date for his reign during those two centuries has more than twenty-one out of thirty-nine lunar month length matches as found on the el-Lahun papyri. The revised chronology date for his reign though has thirty-seven out of thirty-nine lunar month length matches.<sup>11</sup> This is excellent evidence for the revised chronology. The lunar dates for Thutmose III and Ramesses II also support the revised chronology.<sup>12</sup>

## **Egyptian Sothic Dating**

Ancient Egyptian scribes sometimes recorded the day of the year when they saw the star Sirius become visible again right before dawn after it was obscured by the sun for about two months. When such documents are discovered, it allows archaeologists to then calculate the possible dates when those heliacal risings occurred. Sothic dating is based on the fact that the star Sirius during any given century became visible again just before sunrise each year on one of two dates. For instance, during the sixteenth century B.C. it fluctuated between June 30 and July 1 from the perspective of one at Memphis in Egypt. These are Gregorian dates.<sup>13</sup> But because the ancient Egyptian calendar did not take leap year into account, such heliacal risings occurred one day later every four years on the Julian calendar, and so, after 1,456 years it would become visible once again right before sunrise on the same calendar day and the cycle would then repeat.

## **Egyptian Calendar Reforms**

One of the requirements for the standard Egyptian chronology to be accurate is that there were no calendar reforms in Egypt throughout the period for which Sothic dates are available. This section proves though that there were three calendar reforms—one each during the Second and Third Intermediate Periods and one during the Greco-Roman Period. This is significant because it proves that the Sothic cycle used to calculate the standard chronology is broken.

Nevertheless, accurate Sothic dates can still be determined. The Egyptian calendar began in about 2780 B.C. The Egyptians began their year then on the first new moon after the heliacal rising of Sirius. They used this lunar-solar calendar until about 2595 B.C. They then made the first day of their year fall on the day of the heliacal rising of Sirius. This was during the Second Dynasty. This new calendar had twelve 30-day months and five days at the end of each year. But it did not add one day every four years. Thus the beginning of the year occurred one day earlier every four years.

The Egyptians decided in 1313 B.C. to move the date of the heliacal rising of Sirius (as seen

from Thebes) to the first day of the tenth month. This moved the first day of their year backwards to about the middle of flood season. The first day of the year then shifted forwards 125 days to about two months after the end of flood season after 503 years. This is because, as stated, the ancient Egyptian calendar did not take leap year into account. The first day of the year was then shifted backwards 120 days to again place it in about the middle of flood season. This was done to always keep about two to four of the four flood months within flood season. This is the most natural and balanced way to reset the flood months with flood season.

The five days at the end of the Egyptian civil year were between month twelve and month one. This required the calendar shift to be 125 days. The Egyptians learned that after 503 years Sirius moved forward 129-130 days on the Egyptian calendar. They thus added four months after 503 years to realign the flood months with flood season. But nine to ten extra days were still left. After another 503 year cycle, there were then nineteen or twenty extra days. The solution was to wait sixty-five or sixty-nine years when there were then thirty extra days and to then add an extra month. This shifted the heliacal rising of Sirius back to the first day of the tenth month. The cycle could then be repeated.

The native Egyptian Sothic dates after 1313 B.C. are as early as the first day of the tenth month and as late as the first day of the second month. This proves that each calendar reform was at least four months. This is good evidence that there were 120-day calendar reforms every 503 years and then one thirty day calendar reform sixty-five or sixty-nine years later. The next two 120-day calendar reforms after 1313 B.C. were in 810 and 307 B.C. The thirty day calendar reform was in 238 B.C. The heliacal rising of Sirius fell again on the first day of the first month in A.D. 139.

## **Egyptian Sothic Dates**

The date of a Wagy Feast held during the reign of Neferefre is “month 3 day 28.” This was on the 365-day Egyptian calendar. These feasts happened seventeen days after the first new moon after the rising of Sirius. Thus the star rose during that year on “month 3 day 1.” This is the earliest Egyptian Sothic date. The heliacal rising of Sirius had thus moved forward sixty days since the 365-day calendar was instituted. This points to 240 years after 2595 B.C. This dates Neferefre to 2355 B.C.<sup>14 15</sup> Furthermore, the heliacal rising of Sirius during the seventh year of Senuseret III was on “month 8 day 16.” The heliacal rising of Sirius had thus moved 226 days since the 365-day calendar was instituted. This points to 904 years after 2595 B.C. This dates the seventh year of Senuseret III to 1691 B.C. These two Sothic dates help to show that Sothic dating is reliable. They also support the revised chronology.

The Ebers Papyrus gives an important Sothic date of “Year 9 month 11 day 9” for Amenhotep I of the Eighteenth Dynasty. The date on the standard chronology is 1517 B.C. But the date on the revised chronology is 1161 B.C. This has been documented by David Lappin. This is based on the fact that the heliacal rising of Sirius was shifted to the first day of the tenth month in 1313 B.C. This also aligns the Sothic date for Thutmose III with the revised chronology.<sup>16</sup>

The heliacal rising of Sirius dated to 1313 B.C. that began a 503-year cycle was seen from Thebes. The heliacal risings of Sirius dated to the reigns of Ramesses II and Merenptah that are listed in the next paragraph were seen from Pi-Ramesses. The heliacal risings of Sirius occurred there five or six days later than at Thebes. The heliacal risings of Sirius dated to the reigns of Ramesses III and Ramesses VI that are listed in the next paragraph were seen from Thebes. The

fact that the heliacal risings of Sirius moved forward four or five days in relation to the true solar year every four to five centuries must also be accounted for.

The Sothic date for Ramesses II is “Year 41 month 1 day 22.” This was a 102 day shift on the calendar since 1313 B.C. (about one day every four years). The forty-first year of Ramesses II was thus in 903 B.C. The Sothic date for Merenptah is “Year 4 month 1 day 29.” This was a 107 day shift on the calendar since 1313 B.C. The fourth year of Merenptah was thus in 884 B.C. The Sothic date for Ramesses III is “Year [x] month 1 day [x].” This was a 112 to 115 day shift on the calendar since 1313 B.C. This was between 863 and 853 B.C.<sup>17 18</sup> The Sothic date for Ramesses VI is “Year [x] month 2 day 1.” This was a 112 day shift on the calendar since 1313 B.C. This was in 849 B.C.<sup>19</sup>

The Sothic date for the Libyan Pharaoh Takelot II (or III) is “Year 11 month 5 day 1.” This shows that the Libyan Pharaohs did not reform their calendar. The eleventh year of Takelot II (or III) was thus about 694 B.C. The Libyan Pharaohs were the descendants of the Fourteenth Dynasty Pharaohs who ruled in the western Delta when the Theban Pharaohs reformed their calendar in 1313 B.C. This confirms that the 2595 B.C. start date for the first 1456 year Sothic cycle is correct. The native Pharaohs then reformed their calendar again in 810 B.C., 307 B.C., and 238 B.C. These last two calendar reforms were done when Egypt was under Greek rule.

This shows that Sothic dating is valid. These Sothic dates would not fit the revised chronology down to the very year if Sothic dating were not valid. This is amazing because David Rohl did not use Sothic dates to devise the revised chronology. David Lappin did propose that the Egyptians reformed their calendar every 360 years. These Nineteenth and Twentieth Dynasty Sothic dates though rule out a calendar reform around 950 B.C. about 360 years after 1313 B.C. The dates of floods given in Nilotic texts also confirm that a calendar reform in 1313 B.C. moved the day of the heliacal rising of Sirius to the first day of the tenth month.<sup>20</sup>

## **Radiocarbon Dating and Dendrochronology**

Radiocarbon dating and dendrochronology (tree ring dating) must be addressed next. This must be done to prove the revised chronology. It can be seen that calibrated carbon-14 dates do not prove the standard chronology, as previously thought.<sup>21</sup>

Because of the difference in centuries between uncalibrated carbon-14 dates and the standard chronology, calibration with tree rings was invented. This was because after extensive comparison of tree ring dates derived by counting rings and tree ring dates derived by carbon-14 dating those same rings, scientists found that the two dating methods did not match up. For instance, counted tree ring dates from the fifteenth century B.C. were about 300 years older than the uncalibrated carbon-14 dates for those same rings. There were similar discrepancies for other dates, as well. It was thus because of this fact that scientists decided to use tree ring dates to calibrate carbon-14 dates. In other words, the carbon-14 dates were calibrated to match the dates given by tree rings, instead of using the carbon-14 dates to calibrate the tree ring dates.

The calibration of carbon-14 dates is deemed accurate because the amount of carbon-14 in the atmosphere has for the most part steadily decreased over the last 11,400 years, and thus uncalibrated radiocarbon dates before 500 B.C. are too young. The reason carbon-14 generally decreased in the atmosphere over this period was due to an increase in the strength of the earth’s magnetic field, while short and mid-term fluctuations were due to changes in solar activity.

It must be understood that acid spikes in ice-cores correlate well with narrow tree rings. Also,

carbon-14 dates of varves match the dates derived by counting them. It is unfortunate that in the past most radiocarbon dates have been inferior and also that many carbon-14 dates have been pushed aside that support Rohl's and James' chronologies. The dates that fit the standard chronology instead make it into publications.<sup>22</sup> Still, despite the obstacles, James' and Rohl's research should eventually disprove the standard chronology and usher in a new age of archaeology.

### **Radiocarbon Dates and the Revised Chronology**

The following table compares the revised chronology with the latest standard radiocarbon dates. The first anchor date in the table is the accession year of Pharaoh Ahmose to the throne in 1202 B.C. This date was arrived at by counting back from the 1012 B.C. date of an eclipse during Akhenaton's reign. The second anchor date is the year for the destruction of Jericho at the beginning of the Israelite conquest. The third anchor date is the accession year of Pharaoh Amenemhat I to the throne in 1803 B.C. This date was arrived at by counting back from the astronomical date of 1692 B.C. for the seventh year of the reign of Pharaoh Senuseret III. The other dates are less precise but still accurate.

As you can see, the standard Egyptian chronology is overextended by about 350 years at the beginning of the reign of Pharaoh Ahmose. These Egyptian radiocarbon dates are probably too old mainly because of the release of old carbon from the Mediterranean Sea. This old carbon came from stagnant deep and perhaps intermediate waters that gradually reached the surface over thousands of years. This stagnation began at the end of the last ice-age. Although radiocarbon dates suggest this old carbon first reached the surface in significant amounts around 4500 B.C., this date must be far too early due to that old carbon. The correct date is probably around 2900 B.C. This old carbon continued to be emitted in significant amounts until a few centuries after 1000 B.C. This old carbon affected dates in the areas of the Near East downwind from the Mediterranean Sea. This is a rare but documented phenomenon.<sup>23</sup>

### **Radiocarbon Dates and Old Carbon**

	<b>standard <sup>14</sup>C</b>	<b>revised dates</b>	<b>old <sup>14</sup>C</b>
<b>Ramesses XI</b>	1116-1090 B.C.	828 B.C.	275
<b>Ahmose</b>	1570-1544 B.C.	1202 B.C.	350
<b>Fall of Jericho</b>	1606-1576 B.C.	1407 B.C.	190
<b>Shamshi-Adad</b>	2012-1692 B.C.	1580-1547 B.C.	290
<b>Amenemhat I</b>	1998-1952 B.C.	1803 B.C.	180
<b>Merenra</b>	2369-2277 B.C.	2185-2165 B.C.	150
<b>Khufu</b>	2629-2558 B.C.	2480-2440 B.C.	135
<b>Khasekhemwy</b>	2725-2633 B.C.	2600-2565 B.C.	100
<b>Den</b>	2945-2904 B.C.	2720-2680 B.C.	225
<b>Aha</b>	3218-3035 B.C.	2871-2688 B.C.	347
<b>The Flood</b>	ca. 2900 B.C.	none	< 50

**Note:** The standard calibrated <sup>14</sup>C dates shown in this table are all within the 95% confidence range.<sup>24</sup> The dates for the Egyptian pharaohs indicate the year of their accession. The revised dates are the standard dates minus the extra

years due to old carbon. Each amount of old carbon is based on the mean radiocarbon date.

The changes in the levels of old carbon from the twenty-ninth to the ninth centuries B.C. were probably caused by things like changes in temperature and an increase in earthquake activity along the fault line running under the Mediterranean Sea. The Anatolian tree ring master sequence has been cited to rule out a carbon-14 offset between ancient northern European radiocarbon dates and ancient Near Eastern radiocarbon dates. The truth though is that Anatolia is not downwind from the Mediterranean. And even if it were, the Anatolian master tree ring sequence has serious flaws that presently make it unreliable.<sup>25</sup>

Another argument is that carbon-14 dates are too old because of extra rings and errors in overlapping older and older trees. But that claim should be wrong since the published data seems to prove that the tree ring chronologies are correct. This issue should be resolved once much more of the data is published.<sup>26</sup>

The claim that the decay rate of radiocarbon has changed significantly over the centuries is irrelevant since carbon-14 dates are calibrated by tree rings. The most likely thing that is making Egyptian dates too old is old carbon. The evidence for the revised chronology shows that this must be why the Egyptian carbon-14 dates are too old. New research has even found other sources of old carbon besides the ancient Mediterranean Sea that also might have helped to make early Egyptian and Mesopotamian radiocarbon dates too old. Those sources include groundwater from rivers and marshes. Also, the northern and southern hemispheres have different amounts of carbon-14. This causes radiocarbon dates of samples from the northern hemisphere to vary by about forty years on average from radiocarbon dates of samples from the southern hemisphere.<sup>27</sup>

### **Shishak is not Shoshenk I**

Another pillar of the standard chronology is the dating of the reign of the early Twenty-second Dynasty Pharaoh Shoshenk I from 945 to 924 B.C. Most archaeologists and Egyptologists believe he is the same person as Pharaoh Shishak, who is mentioned in the Bible (1 Kings 11:40; 14:25; etc.). However, professional revisionists have shown that these were actually two different pharaohs. (Shoshenk I is mentioned in Egyptian records, but until recently the only known references to Pharaoh Shishak were those in the Bible.) The revised chronology dates the reign of Shoshenk I from 822 to 802 B.C.—about 100 years later than on the standard chronology—while the reign of Shishak is dated to about 943 to 877 B.C. This dating along with more parallel dynasties during the Third Intermediate Period allows the revised chronology to date the MB IIB about 250 years later than it is on the standard chronology.

Now, the Bible says that Pharaoh Shishak invaded the Southern Kingdom of Judah, took its fortified cities, and then plundered both the temple and the palace at Jerusalem. However, despite what most scholars believe, there are reasons why he could not have been Shoshenk I. For instance, the Bubastite Portal reliefs at Karnak list the cities involved in Shoshenk I's campaign, and Jerusalem is not one of them. We know this because the place in the list where Jerusalem should have appeared is well preserved.

Furthermore, the Bible says that Shishak was an ally with Jeroboam of the Northern Kingdom of Israel and an enemy of Judah. But, in contrast, other historical sources say that Shoshenk I attacked the Northern Kingdom and completely avoided the Southern Kingdom of Judah. Thus the two pharaohs are not identical.<sup>28</sup>

Next, evidence is given that identifies the historical pharaoh whom the Bible calls Shishak. First, a linguistic connection is given between the name *Shishak* and one of the names given to Pharaoh Ramesses II. This is true, although some scholars claim that there is no such connection.<sup>29</sup> This linguistic correlation suggests that Ramesses II and Shishak are the same person. Second, non-linguistic evidence is given that also supports this claim.

Now, the name Ramesses is not phonetically correct. This is because ancient Egyptian names written in hieroglyphs usually cannot be translated into English the way they would have been pronounced. His name though is written in Akkadian on an ancient clay tablet.<sup>30</sup> This tablet shows that his name was pronounced *Ria-ma-shesha*, and from this is derived the shortened and more common form of Ramesses II's name—*Sysa*. (This name is called his hypocoristicon.)<sup>31</sup> Since Bible writers often replaced foreign names with Hebrew names that sounded similar, for the Hebrews, a fitting name for this militaristic pharaoh was Shishak, since the Hebrew word *Shashak* means “he who rushes upon the spoils of war.”<sup>32</sup>

The Bible states that Solomon married the daughter of an Egyptian pharaoh, after which that pharaoh gave him Gezer as a wedding present. According to the standard chronology, this pharaoh would be Siamun. Yet he is not one of the more powerful pharaohs, and there is no evidence that he conquered Gezer. This city is just twenty miles from Jerusalem, yet both David and Solomon were unable to control it. The pharaoh who conquered Gezer must have been quite powerful. Most scholars claim that Merenptah is the only pharaoh who conquered Gezer. If that were true, it would make Ramesses III Shishak.<sup>33</sup> Rohl though shows that it was actually Haremheb who conquered Gezer and that the record of this event is depicted on the walls of his tomb at Sakkara.<sup>34</sup> Ramesses II then must be Shishak.

The Bible states that Shishak invaded and looted Jerusalem. Proof that Ramesses II did so comes from an inscription on his mortuary temple at western Thebes.<sup>35</sup> And then there is the fact that Gabriel Barkay of Tel Aviv University discovered in Jerusalem the ruins of the palace that Solomon had built, “up from the city of David,” for his Egyptian wife (2 Chronicles 8:11). These ruins date to the late Eighteenth to early Nineteenth Dynasties. This is thus more evidence that this princess's father was Pharaoh Haremheb. And, again, this means Ramesses II is Shishak.<sup>36</sup>

This section has shown that Shishak was not Shoshenk I. The truth is that Shishak should be dated to the second half of the tenth century B.C., whereas Shoshenk I should be dated to the second half of the ninth century B.C. The standard chronology dates Solomon to the Iron Age IIA. Yet the archaeological evidence shows that he could not have built the temple and have had his great wealth and palaces during that archaeological age. The revised chronology though dates Solomon to the Late Bronze IIA and IIB. This period was when Megiddo and Hazor were at their peak architecturally, and it was generally marked with prosperity and high culture. Thus the evidence dates Shishak, Solomon, and the building of the first Israelite temple to the Late Bronze Age.<sup>37</sup>

### **Evidence that Joseph lived during the mid-Twelfth Dynasty**

In the Book of Genesis, the Bible tells the story of a prophet of God named Jacob, who later became the father of the nation of Israel. Jacob, also called Israel, had twelve sons, the second youngest of which—who was his favorite—was named Joseph. Genesis 37 tells how Joseph's jealous brothers sold him into slavery for a price of twenty shekels. Thus begins the famous story of how Joseph was taken as a slave to Egypt, where he eventually became vizier to pharaoh, and of how the children of Israel then entered Egypt, after which they were enslaved by a later

pharaoh who did not know Joseph (Genesis 37; 39-47; Exodus 1).

The price Joseph was sold for is evidence that he lived during the Twelfth Dynasty. Twenty shekels is the average cost for a slave between about 2025 and 1595 B.C. (standard chronology), according to ancient records from that time period. This was between about 1805 and 1365 B.C. on the revised chronology and thus during the Twelfth Dynasty. Thus the Bible dates Joseph to the seventeenth century B.C., as documented in Appendix A. This fits perfectly within this time period. Earlier than this period the price would have been less, while later than this period the price would have been more.<sup>38</sup>

So, the story tells us that after Joseph was sold as a slave he ended up in Egypt where he became a servant to Potiphar, the captain of the palace guard. Then, after spending some time in prison for being falsely accused of adultery, Joseph became vizier to pharaoh after correctly interpreting some dreams, one of which was pharaoh's. Pharaoh's dream was about seven years of plenty and seven years of famine. The Bible does not say what pharaoh this was. Still, there are enough clues to figure it out.

David Rohl has shown that Egyptian records indicate there were seven years of plenty followed by seven years of famine during the reign of Pharaoh Amenemhat III. This must be the seven year biblical famine, as famines were rare in Egypt. During the seven years of abundance, grain was collected just as the Bible describes, after which much of it was stored at Beni Hasan. This was then followed by seven years of famine. This was when much of the Middle East was experiencing severe drought. The wealth of Egypt then greatly increased under Amenemhat III's rule after he sold the grain to other nations in the area. We also know that a lake was dug during his reign, so that it could be used to store the excess water from the high floods. This lake was called Lake Moeris, and not surprisingly, the canal dug to carry water into it was called *Bahr Yusef* meaning "Joseph Canal."<sup>39</sup>

It was in the third year of this famine that Joseph's family entered Egypt in 1659 B.C. Egyptian records show that the Israelites were then enslaved over 100 years later during the reign of Sobekhotep III. For instance, the Brooklyn Papyrus, which dates to the early Thirteenth Dynasty, records the names of ninety-five Egyptian slaves, and 50 percent of them are Semitic (e.g., Hebrew)—including names found in the Bible. For instance, the name Shiphrah, a Hebrew midwife mentioned in Exodus 1:15, is on this list.

The Bible says that a pharaoh "who knew not Joseph" killed many of the male Israelite babies (Exodus 1:8-22). This too is confirmed by this papyrus, which gives the ratio of women to men as 3:1. Each slave on the list is even given an Egyptian name as the Bible says happened with Joseph (Genesis 41:45). There is also a tomb painting at Beni Hassan dated to the mid-Twelfth Dynasty that depicts Asiatic merchants wearing colorful clothing. So, since Hebrews were Asiatics, this supports the Bible's claim that Joseph wore a "coat of many colors."<sup>40</sup>

### **Evidence for the Exodus: Late Twelfth to Late Thirteenth Dynasties**

As mentioned, the standard chronology dates the Exodus to the Eighteenth or Nineteenth Dynasty. Yet there is no archaeological evidence that a large Asiatic population (the Israelites) lived in Egypt during that time. However, there is solid evidence that such a population of Asiatics lived in Egypt during the Twelfth and Thirteenth Dynasties. The Bible says that the Israelites lived in the land of Goshen (Genesis 45:10; 47:27). The Septuagint calls it the "land of Kessan." A city named Faqus is in the right location to be within this land. The ancient Egyptians called this city Pa-Kes, which means "the Kes." It was the capital of an ancient

Egyptian district. These things suggest that the land of Goshen was named after this city.<sup>41</sup>

From the mid-Twelfth Dynasty till the end of the reign of Pharaoh Dudimose of the Thirteenth Dynasty, a large Egyptianized Asiatic population lived near Faqus at Tell el-Daba, as ample evidence shows. There is even stratigraphic evidence for the entrance of the Israelites into Egypt in layer H at this site and of their exodus in layer G/1. These two layers are thus dated to 1659 and 1447 B.C., respectively, on the revised chronology.<sup>42</sup> As shown next, this was the biblical city of Ramesses, which was built by the Israelites under an early Thirteenth Dynasty pharaoh (Exodus 1:11). This is supported by the fact that after what used to be a small village at the site was abandoned the next earliest remains at the site date to the late pharaohs of the Twelfth Dynasty.

Many scholars claim that Pharaoh Ramesses II built the biblical city of Ramesses. This is because the city and the pharaoh have the same name. Yet the name Ramesses could have been chosen because Ra was the most honored god during the Twelfth Dynasty. The name could also be anachronistic, because an editor of the Pentateuch gave it a later name to help a later audience to locate it.

It is also likely that Tell el-Rataba is the biblical city of Pithom (Exodus 1:11). Pithom is Hebrew for Pi-Atum, which is an Egyptian word meaning "House of Atum." Therefore, since the full name of the sun god was "Atum-Ra," it is possible that the store city of Pithom was honored with his first name and Ramesses was honored with his second. An inscription on a Roman milestone found at Tell el-Maskhutah states that the "House of Ero" (Greek for "House of Atum") was nine miles away. Tell el-Rataba is exactly nine miles from this site. It was even constructed during the Middle Kingdom, which was comprised of the Eleventh to Thirteenth Dynasties. These facts, then, show that Tell el-Rataba must be the biblical city of Pithom.<sup>43</sup>

Excavations at the town Kahun gave more evidence that Hebrew slaves were in Egypt during the early Thirteenth Dynasty. This town was founded during the Twelfth Dynasty by Pharaoh Senuseret II, and it had a population of about 3,000 to 9,000 people.<sup>44</sup> Much of it was even occupied by Asiatic slaves during the Thirteenth Dynasty. It was abandoned after the reign of Pharaoh Neferhotep I yet before the end of the Thirteenth Dynasty.

Josephus wrote that the Egyptians had the Israelites build pyramids. This is significant because the slaves at Kahun built at least one pyramid out of bricks made of mud mixed with straw. In fact, during the early to mid-Thirteenth Dynasty, other pyramids, along with tombs and other buildings, were constructed using mud bricks as the Hebrews were forced to do (Exodus 5:7-8).<sup>45</sup>

There was also a surprising number of infant burials found beneath the floors of houses at Kahun. It was not an Egyptian custom though to inter bodies in this manner. These burials could contain the remains of many of the Hebrew infants that Exodus 1:22 says were killed at pharaoh's command. Likewise, at Tell el-Daba, the biblical city of Ramesses, 65 percent of the burials were of children less than eighteen months old. Therefore, since a normal infant mortality rate would have been about 20 to 30 percent, this too fits the biblical account of how Hebrew babies were slaughtered soon after Moses was born.

Also, at Tell el-Daba, shallow burial pits were discovered dated to the late Thirteenth Dynasty, evidencing rapid burial after some great catastrophe. Could these be the mass graves of the Egyptian firstborn who died right before the Exodus (Exodus 12:29-30)? There was even something else remarkable found at Tell el-Daba. Much of the city's population left their homes en masse just as the Bible describes!<sup>46</sup>

It is true that some scholars believe the Exodus occurred at the end of the Twelfth Dynasty. It

is also true that many more scholars believe the Exodus occurred during the Eighteenth or Nineteenth Dynasty. But both ideas are confronted with major difficulties:

For instance, the Ipuwer Papyrus, the firsthand Egyptian account of the plagues before the Exodus and of the chaos right afterwards, is dated to the mid- to late Thirteenth Dynasty. Likewise, the Brooklyn Papyrus, which lists the biblical names of many Asiatic slaves, dates to the reign of Sobekhotep III of the Thirteenth Dynasty. Also, the Egyptians did not have many slaves until the early Thirteenth Dynasty. These Asiatic's ancestors who had settled in Egypt did so during the reign of Amenemhet III and had become prosperous by the end of the Twelfth Dynasty. The Egyptianized descendants of these Twelfth Dynasty Asiatics were then enslaved during the early Thirteenth Dynasty once they had become numerous. They were last mentioned during the reign of Neferhotep I, who ruled during the mid-Thirteenth Dynasty.<sup>47</sup> So the Exodus probably occurred not long after his reign since Stratum G/1 at Tell el-Daba dates the Asiatic exodus from Egypt to the mid- to late Thirteenth Dynasty. These facts rule out the claim that the Exodus happened at the end of the Twelfth Dynasty.<sup>48</sup>

Moses was eighty when the Exodus happened (Acts 7:23, 30). He was thus born in 1528 B.C. This was during the reign of Pharaoh Sobekhotep IV of the Thirteenth Dynasty. The second century B.C. Jewish historian Artapanus wrote that Moses was born during the reign of this pharaoh. This is remarkable evidence for the revised chronology. The Exodus then took place during the last year of the reign of Pharaoh Dudimose. As mentioned, this is confirmed by archaeological evidence that shows that Tell el-Daba was abandoned near the end of the Thirteenth Dynasty.

### **The Second Intermediate Period**

About one week after the Exodus, most of the Egyptian army was destroyed under the waves of the Reed Sea, Dudimose and his firstborn son were dead, and Egypt was left weak and fragmented. This is confirmed by the third century B.C. Egyptian historian Manetho. He wrote that during the reign of Dudimose a blast of God struck Egypt and that an army from the East then invaded and occupied Egypt without striking a single blow. This forced the new pharaoh to retreat to Middle Egypt.

These newcomers to Egypt, who established their capital at Avaris in the eastern delta, were the Amalekites—who were also called the Hyksos.<sup>49</sup> Their kings comprised the Fourteenth Dynasty. The fifth king of this dynasty was Sheshi. He began to reign around 1745 B.C. on the standard chronology.<sup>50</sup> According to the Bible, he fled Hebron from the invading Israelites around 1407 B.C. (Joshua 15:13-15; Numbers 13:1-3, 22). Thus this biblical date lowers the early Fourteenth Dynasty by about 335 years. This supports the revised chronology. The period of Hyksos rule in Egypt began in 1447 B.C. and ended in 1192 B.C.<sup>51</sup>

### **Was Joseph in Egypt during Hyksos rule?**

Some scholars claim that Joseph lived in Egypt while it was under Hyksos rule. But the facts show otherwise. For instance, the Bible says that pharaoh honored Joseph by giving him Asenath, the daughter of Potipherah, the priest of On, to be his wife. This suggests a time other than that of the Hyksos. This is because it is unlikely that a Hyksos pharaoh would have given him a daughter of an Egyptian priest who worshipped a god other than Seth.<sup>52</sup> Besides, a strong priesthood at On has clear ties to the Twelfth Dynasty, not to the time of the Hyksos pharaohs.

Then there is the fact that Joseph's pharaoh made him ruler over all of Egypt (Genesis 41:41-44), while a Hyksos pharaoh would have been king over just northern Egypt. Indeed, evidence that Asiatics could have been elevated to high status before the Hyksos period, as Joseph was, has been found in a tomb from the Twelfth Dynasty.<sup>53</sup>

But this is not all. Genesis 41:14 says that Joseph shaved before he went before pharaoh. However, if he were going before a Hyksos king, this would have been unnecessary, since they wore beards.<sup>54</sup> Then there is the fact that while the Hyksos were Shepherd Kings, the pharaoh under whom Joseph served saw shepherds as an abomination (Genesis 46:34). Consider also the following: Psalm 78:49 refers to one of the punishments God inflicted upon the Egyptians soon after the Exodus. The Hebrew suggests that the letter *aleph* should be removed from one word in this verse to make it read, "He cast upon them the fierceness of His anger, wrath, indignation, and trouble by sending an invasion of king-shepherds among them."

There are also other references to the Hyksos in the Old Testament, although it refers to them as the Amalekites and Canaanites (e.g., Exodus 17:8-16). There are a number of reasons for this association. For instance, the Hyksos worshipped the god Seth, and he was associated with the Canaanite god Baal.<sup>55</sup> Then there is a Hebrew legend about a man named Amalek, who took the census records (Israelite genealogical records) from the Egyptian archives and gave them to the Israelites. Ipuwer Papyrus 6:7 confirms this by saying: "Forsooth, public offices are opened and the census-lists are taken away. Serfs become lords of serfs."<sup>56</sup> Thus Amalek, and probably some other Amalekites, entered and raided the building complex of pharaoh's summer palace in the eastern delta during the turmoil after the death of Pharaoh Dudimose.<sup>57</sup>

### **Some Final Archaeological Evidences for a 1447 B.C. Exodus**

There are scenes on Ramesses II's Ashkelon Wall that show Nineteenth Dynasty Egyptians fighting Israelites who are riding in chariots. However, the Bible does not mention the use of chariots by Israel until the time of King Solomon (1 Kings 10:26). Thus chariots were not used during the conquest under Joshua or during the reign of the judges. This means that during the Nineteenth Dynasty Israel was already established solidly in Canaan (probably during the United Monarchy period or even afterwards). Thus this places the Exodus before the Eighteenth Dynasty.<sup>58</sup>

The Israelites entered Egypt during the third year of a seven year famine (Genesis 45:6-10). This was the year 1659 B.C. when Joseph was thirty-nine years old. Joseph then died seventy-one years later at the age of 110 in 1588 B.C. (Genesis 41:46; 50:22). This is documented in Appendix A. The enslavement of the Israelites began later when "there arose a new king over Egypt, who did not know Joseph" (Exodus 1:8). This pharaoh was Sobekhotep III. He is known to have overseen construction with mud bricks in the area identified as Goshen, and he was also known to have had many Asiatic slaves.

Moses fled to the land of Midian in 1487 B.C. He then stayed there for forty years (Acts 7:30), until he got word that the pharaoh and the others who had tried to kill him were dead. This probably requires, then, a pharaoh who reigned at least a decade or two. This vastly reduces the choices. Merneferre Ay ruled from about 1490 to 1467 B.C. Thus he is the pharaoh who tried to kill Moses.<sup>59</sup>

## **The Size of the Israelite Population at the Exodus**

How many Israelites were there at the time of the Exodus? Most translations of Exodus 12:37 and Numbers 1:46 state that the Israelites had an incredible population size of 3 to 4 million. But the archaeological evidence shows that the Israelites were not near that numerous. This does not mean though that the Bible is in error here. A correct translation of the Hebrew word *elef* in these two verses actually shows that the total population of the Israelites was about 20,000.<sup>60</sup>

## **The Year of the Exodus and the LXX Chronology**

The decoded biblical LXX chronology documented in Chapter 4 and the information in the next section and Appendix A shows that there were 1,463 years from the flood in 2910 B.C. until the Exodus in 1447 B.C. Indeed, the Bible and archaeology prove that those two years are correct. The amount of time between the flood and the Exodus was calculated as follows:

First, two years were added (the time from the beginning of the flood till the birth of Arphaxad). Next, 1,007 years were added (the birth of Arphaxad to the birth of Abraham).<sup>61</sup> After this, eighty-eight years were added (the birth of Abraham to the birth of Isaac) and then 154 years were added (the birth of Isaac to Jacob entering Egypt). And finally, 212 years were added (Jacob's entry into Egypt to the Exodus).<sup>62</sup> The rest of this chapter proves that the Exodus happened. It also proves that the archaeological date of about 1447 B.C. is correct. The next section gives the corrected chronology from Abraham to the Israelite conquest of Canaan. This is summarized in Appendix A.

## **The Chronology from Abraham to the Conquest**

Genesis 15:13 in the NLB states that God said to Abraham, "You can be sure that your descendants will be strangers in a foreign land, and they will be oppressed as slaves for four hundred years." This is supported by many other translations. The problem is that these translations state that the Israelites were enslaved in Egypt for 400 years. But other Bible verses show that that could not have happened.

The cantillation signs in the Hebrew here actually prove that these four hundred years refer to how long Abraham's seed (from Isaac to Moses) would be oppressed, not to their being slaves for the whole 400 years. This verse should be translated, "Then the LORD said to Abram, 'Know of a surety that your descendants will be sojourners in a land that is not theirs, and will be slaves there, and they will be oppressed for four hundred years . . .'" (RSV).

Still, the best translations of Acts 7:6 also state that the Israelites would be enslaved for 400 years. But the original probably meant, ". . . Thy seed will be a sojourner in a foreign land; and they will reduce it to servitude, and will treat it ill, during four hundred years" (Murdock). The word "during" here was thus probably lost during copying or translation.

These 400 years began when Abraham's firstborn son, Ishmael, was banished with his mother, Hagar. This made Abraham's younger son, Isaac, his heir through which came his seed. This was when Isaac was weaned at age five and mocked by Ishmael. Thus Isaac began to be oppressed in Canaan in 1807 B.C. These 400 years ended when the Israelites returned to Canaan in 1407 B.C.

As explained later in this section, all of the numbers above fifty-nine in Genesis after verse 11:23 were mistranslated. But the number “400” in Genesis 15:13 was corrected. Each *gur* in this number was probably inflated by twelve like the other numbers in Genesis after verse 11:23. This type of mistranslation was explained in Chapter 4. A later scribe then probably worked out the Genesis chronology and discovered that the number in Genesis 15:13 needed to be corrected to 400.

The mistranslations of Exodus 12:40-41 have also caused chronology contradictions. This verse in some translations states that the Israelites lived in Egypt for 430 years (e.g., NIV), while other translations suggest that these 430 years began with the birth of Jacob’s first child (e.g., NKJV). The problem with both of these translations is that they contradict Galatians 3:17. It says, “. . . The law, which came [in 1407 B.C.] four hundred and thirty years after [the promise, which came in 1838 B.C.], doth not disannul, so as to make the promise of none effect” (ASV Brackets mine).

Thus this 430 year period lasted from when God gave the promise to Abraham in 1838 B.C. until Moses completed the Law (the Five Books of Moses) in 1407 B.C. It is clear, then, that an editor added verse 41 to the original account because he believed that the 430 years ended at the Exodus. This was because the inflated numbers in Genesis 12 to 50 placed the promise to Abraham at 430 years before the Exodus. This is explained more later in this section and in Appendix A. Given the scriptural statement that the 430 year period ended at the giving of the Law, this editor assumed that the 430 year period ended with the giving of the Ten Commandments (1447 B.C.), not at the writing of the Five Books of Moses (1407 B.C.)—both of which are referred to as “the Law.”

A correct translation of Exodus 12:40 states: “Now the sojourning of the children of Israel who dwelt in Egypt [and of their fathers in Canaan] was four hundred and thirty years” (KJV Brackets mine). The Samaritan Pentateuch and the LXX Old Testament support the addition of the words “and of their fathers in Canaan.”<sup>63 64</sup> Thus the first of these fathers was Abraham. The word “sojourning” in the KJV translation of this verse comes from the Hebrew word *moshab*, which usually refers to foreigners living in a strange land.<sup>65</sup> This shows, then, that the sojourning in this verse began when Abraham left Haran and traveled to Canaan (a strange land) and that it lasted until the Israelites were given the Law 430 years later.

The promise was given to Abraham in 1838 B.C. when he was sixty-two (rounded up to 63) and lived in Haran (Genesis 12:4; Galatians 3:17). (This age was corrected from seventy-five by subtracting twelve years because of how the original Akkadian was mistranslated into Hebrew. This will be explained after the next paragraph.) But this vision during which God gave Abraham the promise must not be confused with the vision of God that he had in Ur of Kaldû in northern Mesopotamia a decade earlier during which he was told to leave his land and his father’s house (Acts 7:2-7).

So, the vision he had in 1838 B.C. was the one during which God gave him the promise, or covenant. The year of the promise is calculated by adding 430 years to the 1407 B.C. date of the completion of the Five Books of Moses (the Law). It should be understood though that while exactly 430 years before 1407 B.C. would be 1837 B.C. the addition of a partial year brings it to 1838 B.C. Thus after Abraham lived in Haran for about ten years, God gave him the promise and he then left Haran and traveled to Canaan at the age of sixty-two (Genesis 12:4). This age is confirmed in the ancient record called the Book of Abraham (Abraham 2:3-13).

The numbers in Genesis after verse 11:23 were inflated by twelve. The sixty-two year age for Abraham was thus inflated to seventy-five. The numbers were first written in the Sumerian

number system called SHE-GUR-MAH. The scribe who translated that section of Genesis from Akkadian into Hebrew then assumed they were written with Old Babylonian ratios. The SHE-GUR-MAH number system began to be used about 130 years before the time of Nahor, the grandfather of Abraham. But Terah was the first patriarch to use that number system.

The number system Terah used has eight *barigs* in a *gur*, but with Old Babylonian ratios there would be ten *barigs* in a *gur*—with each *barig* being worth six. Thus in the first system each *gur* is worth forty-eight ( $8 \times 6 = 48$ ), and in the other system each *gur* is worth sixty ( $10 \times 6 = 60$ ). But scribes did not just use the wrong value for each *gur*. They also accidentally added or dropped signs from some of the numbers while copying or translating.

For instance, Genesis 11:32 in the Samaritan Pentateuch states that Abraham's father, Terah, died when he was 145. This then becomes 205 when sixty years are added to it. This is curious because the Masoretic Text of the Old Testament says that Terah died at age 205. Thus this suggests that *gur* signs were added to or dropped from some of the numbers involved, since with Old Babylonian ratios each *gur* was worth sixty.

Abraham left Ur of Kaldu with the intention of going to Canaan, but instead he settled in Haran. Abraham then left Haran after his father died (Genesis 11:31; Acts 7:4). Appendix A documents that Abraham left Haran in 1838 B.C. The restored biblical chronology shows that eleven years after Abraham left Haran his son Ishmael was born in 1827 B.C. and that Isaac was then born fourteen years later in 1813 B.C., when Abraham was eighty-eight years old. Abraham's age here was written as one *gur* ( $1 \times 48$ ), six *barigs* ( $6 \times 6 = 36$ ), and four *bans* ( $4 \times 1 = 4$ ). These signs were then given Old Babylonian ratios. This inflated the *gur* sign by twelve. This inflated his age at the birth of Isaac from eighty-eight to 100 (Genesis 21:5).

Genesis 25:26 states that Isaac was sixty when Jacob was born. But once this number is converted back into the SHE-GUR-MAH number system, it shows that Isaac was actually forty-eight. Thus Jacob was born in 1765 B.C. The original source for Genesis 47:9 stated that Jacob was 106 years old when the Israelites entered Egypt (corrected from 130). This thus happened in 1659 B.C., when Joseph was thirty-nine. This was the third year of the seven year famine during Amenemhet III's reign. The Bible also gives the same date for the third year of a seven year famine (Genesis 45:6-10). Thus this is powerful evidence that the restored biblical chronology is correct.

This section shows that the 430 years fit perfectly if they start when Abraham was given the promise and then end when the Law was given in 1407 B.C. The 400 years fits perfectly if it starts when Isaac became Abraham's heir and then ends when the Israelites returned to Canaan in 1407 B.C. The chronology just outlined shows that the time from Isaac's birth to Jacob's entrance into Egypt was a total of 154 years. It also shows that the time from Isaac's birth to the Exodus was a total of 366 years. Therefore, 366 minus 154 leaves 212 years left from Jacob's entrance into Egypt until the Exodus—a period of about ten generations (1 Chronicles 7:23-27).

The key Bible verse about the Exodus date is 1 Kings 6:1, which states, "In the four hundred and eightieth year after the Israelites had come out of Egypt, in the fourth year of Solomon's reign over Israel, in the month of Ziv, the second month, he began to build the temple of the LORD" (NIV). This verse thus states that the Exodus occurred in the 480<sup>th</sup> year before the fourth year of King Solomon's reign. The date of his fourth year is determined by counting back from the astronomical date of 853 B.C. for King Ahab's twenty-second year (1 Kings 22:37).<sup>66</sup> Counting back from there on the biblical chronology proves that 967/966 B.C. is Solomon's fourth year. This fourth year is confirmed by nine other astronomical dates of the years of some Babylonian and Assyrian kings that are linked to the years of some biblical kings.<sup>67</sup>

This section thus proves that the Israelites began to build the temple in 967 B.C. As you will see, this was the beginning of a Sabbath Year followed by a year of Jubilee. The 480<sup>th</sup> year before this thus began in the spring of 1447 B.C. This date for the Exodus is confirmed by Judges 11:26. It records part of a message from the Israelite Judge Jephthah written to the leader of the Ammonites. Dated to about 1100 B.C., it says the conquest occurred about 300 years earlier (i.e., about 1400 B.C.), in support of the 1447 B.C. date.<sup>68</sup>

However, because some translations of Acts 13:17-20 indicate there were about 580 years between the Exodus and the fourth year of Solomon's reign, some scholars date the Exodus earlier by adding about 100 years of oppression to the 480 years of 1 Kings 6:1. They claim these years of oppression were omitted because Israel was in bondage to other nations during those years. This would push the date of the Exodus back to about 1547 B.C. This was done to date the Exodus to the time of the Hyksos expulsion from Egypt.<sup>69</sup>

Thus, adding about 100 years to the 480 years is supposed to give the true number of years between the Exodus and the fourth year of King Solomon's reign. Nonetheless, 1 Kings 6:1 should be taken literally—480 years is 480 years, or about nineteen generations (1 Chronicles 6:33-37). Indeed, the correct translations of Acts 13:17-20 prove that there were no omitted years of oppression.

Some translations of Acts 13:20 say that the reign of the judges lasted about 450 years. But the correct translations do not. In the NIV, Acts 13:17-20 reads:

The God of the people of Israel chose our fathers; he made the people prosper during their stay in Egypt, with mighty power he led them out of that country, he endured their conduct for about forty years in the desert, he overthrew seven nations in Canaan and gave their land to his people as their inheritance. All this took about 450 years.

Thus Abraham and his descendants were chosen by God in 1847 B.C. The Exodus then occurred 400 years later. So, having accounted for 400 years, that leaves about fifty years from the Exodus to the division of the land of Canaan. Forty of those years were spent wandering in the wilderness. The conquest then lasted about six years (Joshua 14:6-10), and then the division of the land ended during the 447<sup>th</sup> year ("about 450 years") from when God chose Abraham and his descendants.

The Israelites began to be ruled by judges about two decades after the conquest. The reign of the judges then ended at the beginning of Saul's reign. His reign began about eighty years before Solomon began to rule. The Old Testament gives the length of reign for each Israelite judge, and if you add them up, including the years of oppression, it equals 450 years. But this would date the Exodus to about 120 years before 1447 B.C. However, the Bible states that some judges of different territories ruled at the same time. Instead of 450 years of judges, there were only about 330 years, which covered the time from the beginning of the Mesopotamian oppression in 1378 B.C. to the beginning of Saul's reign in 1049 B.C.<sup>70</sup>

Further evidence that the Exodus occurred in 1447 B.C. comes from Leviticus 25:2-10. It tells the Israelites that every seventh year and every fiftieth year they are to rest their fields and only eat what grows in them of its own accord. So every seven years they had a year of Sabbath and every fifty years they had a year of Jubilee. The first Sabbath cycle began in the spring of 1407 B.C. (on the first day of the Jewish month of Nisan). This was during the year the Israelites began the conquest of Canaan. This date for the beginning of the first Sabbath cycle is confirmed

by the known dates of Sabbath Years throughout Jewish history. This confirms that the Exodus occurred in 1447 B.C. Thus, if the conquest was complete almost six years after the spring of 1407 B.C. and the division of the land was complete early in the year 1401 B.C., this indicates the first Sabbath Year began on Nisan 1 in the spring of 1401 B.C.<sup>71</sup>

When Sabbath Years are calculated up to the Babylonian captivity with the first one in 1401/1400 B.C., they fit the known history perfectly. For instance, it aligns David's first year of reign with a Sabbath Year, and, as already mentioned, it makes the year when the building of Solomon's temple began a Sabbath Year followed by a Jubilee. This makes sense, for, because the Jews did not engage in farming during such years, they had more workers available to assist with building. Furthermore, if 1447 B.C. was the date of the Exodus: Josiah's great Passover falls within a sixteenth Jubilee; the setting free of Israelite slaves by Zedekiah falls within a Sabbath Year; and Ezekiel's vision of the temple falls within a year of Jubilee.<sup>72</sup> When Sabbath Years are calculated clear into the second century A.D. with the first one in 1401/1400 B.C., they match up with all of the known Sabbath and Jubilee years!<sup>73</sup> This helps to prove that the Exodus occurred in 1447 B.C.

### **The Ten Plagues, the Exodus Route, and Mount Sinai**

It is exciting that within the last decade science has finally confirmed the Exodus account in great detail. And although in the past there were many competing theories, there is now only one viable theory to explain the account. It involves the realization that Exodus 19:16-19 must be a description of an active volcano just as the "pillar of cloud by day" and the "pillar of fire by night," mentioned in Exodus 13:20-22, must be a description of that volcano's eruption column. That there was an eruption during the Exodus is confirmed by a volcanic acid spike in the Greenland ice-core dated to 1447 B.C.<sup>74</sup> The Israelites could have seen this eruption column from the el Tih plain on the Sinai Peninsula, so that it could have guided them towards the mountain.<sup>75</sup>

The ten plagues, described in Exodus 7:14-11:10 and 12:29-30, also have scientific explanations. It has been claimed that the eruption of the volcano Thera and its associated seismic activity caused the ten plagues. (It would certainly be a plausible cause for a plague of hail mingled with fire, although the NIV translation says it was hail mingled with lightning.)<sup>76</sup> But there are other scientific explanations for the ten plagues—just as there is a good explanation for the parting of the Reed Sea. Also, the Exodus account proves that the tsunami soon after the eruption of Thera did not cause the parting of the Reed Sea. The parting of the Reed Sea was instead caused by a strong east wind (Exodus 14:21).<sup>77</sup>

Here are some scientific explanations for the ten plagues, each listed in the order they happened: 1) during the annual flood, red soil particles and toxic algal blooms turned the Nile red, and the toxins then caused the fish to die, 2) one week later, frogs and toads were forced out of the water due to the rotting fish, 3) biting midges ("gnats") were then able to breed rapidly once their natural enemies, the frogs and toads, had died from dehydration and starvation and had thus become food for midge larvae, 4) the stable fly then bred rapidly for the same reasons, 5) the midges bit and infected livestock with the bluetongue virus and those animals died, 6) the bites of the stable flies caused boils, 7) an extreme hailstorm damaged crops in February or March, 8) winds blew clouds of locust over Egypt, and the wet sand from the hailstorm caused them to land and lay their eggs, after which they ate the crops of Egypt, 9) an extreme dust storm caused darkness in March, and 10) because the firstborn Egyptians and the firstborn livestock

were fed first, they died since the grain they ate was from near the surface of that which was in storage and was thus contaminated with micotoxins from locust feces. The Israelites though were unaffected because they lived in Goshen, which was outside the area where the plagues were occurring.<sup>78</sup>

The next thing to look at are the details regarding the Exodus route. Exodus 12:37 states that the Exodus began at Ramesses after which the Israelites traveled to Succoth, near the eastern border of Egypt. The Bible then states that they traveled “by the desert road towards the Red Sea” (Exodus 13:18 NIV). This suggests that there was only one road that went from Succoth to the Red Sea—and it was called the “desert road.” The Hebrew text actually reads “Reed Sea” here, not “Red Sea.” The idea, then, that this desert road led to the Red Sea is supported by the fact that when the Old Testament refers to the “Reed Sea” and identifies its location it always means the Gulf of Aqaba, not a lake in Egypt. For, in ancient times, reeds grew in abundance at the head of the Gulf of Aqaba. And, although reeds do not grow in salt water gulfs or oceans, this rare occurrence of reeds at the shore of a salt water gulf was made possible by the unusual fresh water spring that flowed into the head of the Gulf of Aqaba. Thus the seventy ancient scholars who translated the Hebrew Bible into Greek in Alexandria, Egypt, translated *yam suph* (Hebrew: “Reed Sea”) as the “Red Sea.”<sup>79</sup>

The next known stop on the journey from Ramesses was Etham. This was a seven or eight day journey for the Israelites as they traveled in haste along the trade route from Succoth to the head of the Gulf of Aqaba. It turns out that the only time of year when this journey was possible for a group as large as that of the Israelites was in the spring, and we know that the Israelites left Ramesses in March or April. Indeed, more evidence that this is the correct route is the newly discovered location of the ancient site called Etham.

Etham is the area around Mount Etham where there is also a wadi called Etham. Thus the surrounding desert was called the “Wilderness of Etham” in Egyptian and the “Wilderness of Shur” in Hebrew. These two words both mean “wall.” Thus two parallel mountain ranges that look like towering walls are on both sides of the head of the Gulf of Aqaba. This area also fits the details given in Genesis 25:18 for the Wilderness of Shur. This verse says that a trade route to Assyria passed through the Wilderness of Shur to the east of Egypt yet west of the Wilderness of Paran. This trade route is the well-known King’s Highway. It begins at the head of the Gulf of Aqaba and then heads north parallel to these two mountain ranges.<sup>80</sup>

At this point, the Bible says that, upon reaching the Gulf of Aqaba, the Israelites took a sharp left along the coast, and thus “turned back” (Exodus 14:2). This is confirmed by the actual topography. The army of pharaoh then trapped them next to the waters of the gulf. But then a natural phenomenon called wind setdown occurred. The wind blew so strongly throughout the night during low tide that it gradually forced the twenty to fifty feet deep waters in the northern part of the Gulf of Aqaba to part. This left an underwater ridge exposed. The water was reduced by more than eight feet, with a wall of water on either side of the exposed ridge. Then, when the Israelites reached the other side, the wind stopped, and, as high tide returned, the waters rushed back drowning pharaoh and his army.<sup>81</sup>

The Israelites crossed the gulf on the ridge that is now exposed near the head of the Gulf of Aqaba. But the ridge has since been partly destroyed. The archaeological evidence shows that the water was further up the shore by about 200 yards in ancient Roman times, and much further up at the time of Moses. The seashore in the gulf is higher now than in Mosaic times because upwelling magma underneath it has pushed the thinning crust up there, while it has pushed the two tectonic plates on either side of it apart.<sup>82</sup> The ridge was also submerged then because sea

levels were about two meters higher than they are today.<sup>83</sup>

The higher sea levels then were due to higher temperatures beginning in about 2000 B.C. that then peaked during the Minoan Warm Period from 1500 to 1200 B.C. This was the warmest period in the last 6,500 years. It was much warmer than the last decade. This has been proven by Greenland and Antarctic ice-cores.<sup>84 85</sup> This has also been confirmed by a recent Chinese sediment and pollen climate study.<sup>86</sup> The studies that suggest sea levels were about two meters lower in 1447 B.C. than they are today are wrong because the land has lowered in some places by about four meters. This makes it look like sea level has risen two meters since the Exodus.<sup>87</sup>

After crossing the Red Sea, the Israelites journeyed for three days in the wilderness, but they found no water. This fits the climate from Etham to Madian, modern al-Bad, the ancient capital of the land of Madian. According to tradition, Madian is where Moses fled to after he killed an Egyptian who was beating a Hebrew slave. Thus it is probably where Moses met Jethro, the Priest of Madian. There are even traditions that Moses traveled through nine encampments to reach Madian. And there were indeed nine encampments between Ramesses and this town. (Ancient encampments were on average about twenty-five miles apart, wherever water was available.)

From Madian, Moses undertook the seasonal journey with Jethro's flocks southeast unto Mount Sinai to find better pasture in the spring, after which he would have returned to Madian in autumn (Exodus 3:1). Because the area around Mount Sinai was rich in water and vegetation from spring to autumn, it is understandable that the Lord brought the Israelites to this very area in early May. This was also where Moses encountered the burning bush, which was probably caused by a gas fire fed by a volcanic vent beneath the bush. Thus this would have allowed the bush to burn without being consumed.<sup>88</sup>

The Israelites knew Madian as *Marah*, which means "bitter" in Hebrew. This name was chosen because "bitter" in ancient times was another way to describe "salty" water. Thus, when they reached this site, its drinking water had become salty due to the wind setdown storm that had occurred a few days previously, as mineral salts were washed down from the surrounding highlands into the well water. Thus the Arabs called this site *Maliha*, which means "salty." Here Moses turned this bitter water into sweet water by throwing a large chunk of burned wood into this well. He did this because charcoal absorbs impurities from water.

Next, the Israelites traveled to Elim, where there were many palm trees and much fresh water. This is probably the ancient oasis called Ainuna. They then traveled further southeast and camped for a second time on the coast of the Red Sea. This was at the intersection of the main trade route with a minor route that led eastward along the Wadi Tiryam.<sup>89</sup>

After this, the Israelites went east along this wadi into the Desert of Sin, which is known today as the Hisma Desert. The name "Sin" most likely refers to the moon-god Sin. He was worshipped in ancient times throughout the Middle East, including Madian. This desert thus has many unusual crescent shaped rocks, and its sand has a yellowish, moon-like color. The Bible says that the Israelites miraculously fed on thousands of quail in this desert during March or April. This confirms the historicity of the Exodus story because the annual migration of quail over Sinai and northwest Arabia occurs during March and April. But the fact that the Israelites fed on manna is also important. The truth is that it is a known substance secreted by certain trees, such as Tamarix, that were especially abundant in this area. And then there is the fact that the Israelites awoke one morning to find a layer of dew throughout their camp. This is a very rare phenomenon in the Middle East that only occurs in this desert. It must be the Desert of Sin.

After the Desert of Sin, the Israelites camped at Dophkah, which must be the mining

settlement called Shuwak, where water is abundant. The name *Dophkah* relates to the concept of mining because it is related to the words “strike” and “knock.” The Israelites then passed through Alush (possibly Wadi al-Hallas) and then Rephidim, where Moses struck a rock, which caused much water to then flow from it. This is surprisingly a natural phenomenon. It can occur on some mountains in Arabia where there are quite porous rocks that contain water under pressure because its source is higher up on those mountains. It was here that the Arabian tribe called the Amalekites who worshipped the moon-god Sin attacked the Israelites.<sup>90</sup>

The only volcano that fits the biblical description of Sinai and was active in the last ten thousand years is Mount Bedr. There are no other options. For instance, it had a stream flowing down it; it had enough water and plant life around it to sustain the Israelites for eleven months; the desolate black basalt rock it is made of and surrounded by fits the meaning of Mount Horeb, the other biblical name for Mount Sinai, since *horeb* means “desolate”; and the meaning of its present day name (*bedr*) is “full moon,” which is significant because *sinai* probably means “from or belonging to the moon-god Sin.” But it is also significant that offerings were made to Sin on the fifteenth day of each lunar month, and in Assyria the third month was the month of Sin. This was the exact day and month when the Israelites took over Mount Sinai. This may explain the conflict with the moon worshipping Amalekites.

And finally, Deuteronomy 1:2 confirms this location for Sinai because it states that, “It takes eleven days to go from Horeb to Kadesh Barnea by the Mount Seir road” (NIV). This trade route is easy to identify. And there are precisely eleven encampment sites along it from Mount Bedr to Kadesh Barnea. This does not mean the Israelites made this journey in only eleven days. It just means that it was common for travelers to take that long to make the journey.<sup>91</sup>

## **Crossing the Jordan and the Biblical Conquest**

Next, a natural explanation is given for how the Jordan River could have ceased to flow when the Israelites approached it before the conquest (Joshua 3:15-16). The Old Testament gives a clue as to how this happened by mentioning that the river was blocked at a town called Adam, which linguistic analysis has shown to be the modern town of Damia. The Jordan River actually flows above a major fault line, which runs parallel to it. There are known instances in the last thousand years when earthquakes have caused mud slides to block the flow of the Jordan River, in one instance even at this very town.<sup>92</sup>

This chapter has shown that the conquest took place during the MB IIB. In fact, it is the only archaeological age that gives evidence that the conquest happened. All nine of the located cities that the Bible says were destroyed or captured during the conquest were destroyed or captured during the MB IIB.<sup>93</sup> There is even proof that Jericho’s walls collapsed right before its destruction, as the Bible says happened.<sup>94</sup>

Of course, there have been criticisms. For instance, critics claim in contradiction to the Bible that the Edomites, Ammonites, and Moabites did not exist in Canaan during the MB IIB. There is also the fact that the cities of Heshbon, Dibon, and Aroer were not occupied during the MB IIB Period. And there is even a lack of evidence of distinct Israelite culture in Canaan between 1400 and 1000 B.C. (revised chronology). Nevertheless, biblical scholars have sufficiently answered these criticisms along with many others.<sup>95</sup>

Still, before moving on, one more piece of evidence should be given to help establish that the Exodus occurred in 1447 B.C. This evidence concerns a sign in the heavens that took place during a battle between Israel and a league of Canaanite and Amorite kings during the second

year of the conquest (i.e., 1406 B.C.). This is described in Joshua 10.<sup>96</sup> During this battle, God provided a miraculous sign to the Israelites after Joshua said, when translated correctly: “Sun, be dark over Gibeon! Moon over the valley of Aijalon!” . . . The Sun became darkened, and the moon stayed concealed, whereupon the people took vengeance on their enemies . . . There has been no day like it before or since. Yea! Yahweh hearkened to the voice of a man” (Joshua 10:12-14).<sup>97</sup>

Amazingly, this event has been scientifically verified. Planetarium programs prove that on July 14, 1406 B.C., about three hours before sunset, there was a solar eclipse visible from Jerusalem that completely covered the sun. Therefore, this modern evidence debunks the superstitious idea that “the sun stood still in the midst of heaven, and hastened not to go down about a whole day,” as Joshua 10:13 is usually translated.<sup>98</sup> This remarkable event is so unique and rare that it alone rules out all of the other seemingly viable years for the Exodus.

## **Evidence for Abraham**

More evidence that the restored biblical chronology is correct comes from what we know about Abraham. David Rohl has shown that archaeological evidence supports the biblical date of 1838 B.C. for Abraham’s entrance into Canaan. It also supports the biblical date of 1447 B.C. for the Exodus. Rohl has established a revised Babylonian chronology based on the Ammisaduga tablets and the Yantin Relief. This revised chronology places Abraham into a realistic historical context.

Classical sources state that soon after Abraham came to Canaan he met with Pharaoh Nebkaure Khety IV. The standard chronology dates this pharaoh to between about 2160 and 2125 B.C. But the restored biblical chronology dates Abraham’s visit to Egypt to 1838 B.C. The revised chronology though lowers the reign of this pharaoh to include 1838 B.C. This is solid evidence for restored biblical chronology.

Genesis 14 says that Kedor-Laomer, king of Elam, conquered the cities within the plain of Jordan, after which he collected tribute from them for twelve years. These cities then rebelled the following year. But the rebellion was crushed when Kedor returned later that year with a large army. It included troops supplied by the following three kings who are named in Genesis 14: Amraphel, king of Shinar; Arioch, king of Ellasar; and Tidal, king of Goiim. Nonetheless, after these kings crushed the rebellion, Abraham led an attack on all four of them and won.

According to the restored biblical chronology, Abraham led this attack in 1833 B.C. This biblical date is established in Appendix A. It is surprising, here, that this date agrees with Rohl’s archaeological date for this war. This is excellent evidence that the restored biblical chronology is correct. The unrestored biblical chronology though dates this war to between 1876 and 1866 B.C. Thus this is decades from Rohl’s date.

The Bible says that Amraphel, king of Shinar, was the supreme ruler of the other three kings who fought against Abraham. This Amraphel is Amar-Sin, the king of the Ur III Empire, who ruled from 1834 to 1826 B.C. This identification is certain because: The Hebrew name Amraphel means “the mouth of El has spoken,” while the Akkadian name Amar-Sin or Amra-Sin means “Sin has spoken.” Thus Moses translated the Akkadian name Amar-Sin to its Hebrew equivalent, Amraphel or Amar-pi-El. Therefore, Amar-Sin and Amraphel must be the same person.

Arioch, king of Ellasar, can also be identified. Ellasar is the phonetic spelling of the Sumerian A.la.sar, which refers to Ashur, an Ur III vassal city in northern Mesopotamia. Arioch is identified as Zariku (Ariku), the governor of Ashur. Tidal, king of Goiim, is to be identified as

Tishadal (Ti[sha]dal), the ruler of Urkish. Goiim, which means “tribes,” refers to the tribes over which he ruled.

The remaining king, Kedor-Laomer, who ruled Elam, is not yet identified. Unfortunately, the Elamite King List is in poor condition, and the Ur III Empire did not allow the kings of Elam for this period to be well attested. The name Kutir-Nahhunte though does appear in the fragmentary Elamite King List. So the name Kutir-Lagamar (Kedor-Laomer) is a likely possibility since the second part of both names is that of Elamite deity.<sup>99</sup>

### **More Archaeological Support for the Old Testament**

Here are some final facts that support the revised chronology and the historicity of the Old Testament. The first evidence comes from the El Amarna letters, which date from the reign of Amenhotep III to the reign of Tutankhamen. These letters describe the trouble Egypt was having in Palestine with the Israelites during the time of David and Saul. The letters call these people the *Habiru*, which means “migrant” in Akkadian. These people were thus the Hebrews. Likewise, during the Middle Kingdom, the Egyptians called the Hebrews who lived in the land of Goshen the *‘Apiru*. The facts in this section are troublesome for the standard chronology because they show that the Israelite conquest of Palestine happened long before the Eighteenth Dynasty.

The El Amarna letters describe and name individuals who are mentioned in the Bible who lived during the eleventh and tenth centuries B.C., such as Joab, Baanah, David, and Jesse. The letters also state that many eleventh and tenth century B.C. cities mentioned in the Bible existed during the Eighteenth Dynasty. The political events described in the letters even coincide with biblical events during that time period, as well. Since it is known that the biblical figures mentioned in these letters lived during the eleventh and tenth centuries B.C., this demands that the pharaohs who reigned when these letters were written, Amenhotep III through Tutankhamen, actually reigned over 300 years later than the standard chronology allows.<sup>100</sup>

There are many other evidences that the Bible is true. For instance, the remains of Sodom and Gomorrah have been found, and they indeed were destroyed at the end of the Early Bronze Age just as the Bible describes.<sup>101</sup> This book gives just some of the evidence that supports the Bible as true history. There is not enough room to go into even half of the evidence in just one book. It has been established that the Ark of the Covenant, the crucifixion site, the tomb Christ was laid in, and more did exist. Indeed, those who want to find such information can do so in many places (e.g., bookstores, the Internet, magazines, and lectures).

Wow! Isn’t this amazing? Perhaps millions of science respecting people would flock to Christianity if they read this book and others like it. People need to know that the Bible is true. It is God’s word and salvation comes through Christ. Remember, many false traditions and interpretations of the Bible have encouraged mistaken translations that conflict with science. However, this could be avoided if we relied on God’s gift of scientific proof to assist us in the translation and interpretation of scripture.

### **Conclusion**

This chapter explains why archaeology seems to disagree with the biblical account of Abraham, Joseph, the Exodus, and the conquest. The problem is that ancient Egyptian chronology is about two to three centuries too old, and it is upon that chronology that the entire ancient Near Eastern chronology is based. When corrected, ancient Near Eastern chronology

places the archaeological evidence for Abraham, the seven year famine of Joseph, the Israelite sojourn, the Exodus, and the conquest in line with their biblical dates. The main obstacle to this is the radiocarbon dates for ancient Egypt. But it is now known that old carbon from various sources (mainly the Mediterranean Sea) has made ancient Egyptian radiocarbon dates too old.

The science of the ten plagues was explained. How the natural effect of wind setdown caused the parting of the Red Sea was explained. And Mount Sinai was shown to be the volcanic peak known as Mount Bedr. If the Bible were not true, how could the biblical accounts about Abraham, the seven year famine of Joseph, the Israelite sojourn, the Exodus, and the conquest match actual historical events? The evidence for other important Bible stories like the destruction of Sodom and Gomorrah were also mentioned. These are scientific claims because all of these Bible stories can be tested further through more archaeological research.

---

<sup>1</sup> The things just mentioned in this introduction are documented with sources throughout the rest of this chapter.

<sup>2</sup> David Rohl, *A Test of Time: The Bible—From Myth to History*, vol. 1 (London: Century Ltd., 1995), 26-27, 31, 46, 398-399.

<sup>3</sup> See: David Rohl, *A Test of Time: The Bible—From Myth to History*, vol. 1 (London: Century Ltd., 1995); *Legend: The Genesis of Civilization* (London: Arrow Books, 1998); *Lords of Avaris* (London: Arrow Books, 2008); and *From Eden to Exile: The 5000-Year History of the People of the Bible* (Lebanon: Greenleaf Press, 2009)

<sup>4</sup> Centuries of Darkness Website: <http://www.centuries.co.uk/authors.htm>

<sup>5</sup> Peter James, *Centuries of Darkness* (New Brunswick: Rutgers University Press, 1991), 223, 231-259.

<sup>6</sup> Rohl, *From Eden to Exile*, 168-169, 205-210, 240

<sup>7</sup> Centuries of Darkness Website, "Fifteen Frequently Asked Questions: Question 5"

<sup>8</sup> Rohl, *A Test of Time*, 55-117, 454-458, 470-478

<sup>9</sup> *Ibid.*, 288-297

<sup>10</sup> Rohl, *From Eden to Exile*, 316-317

<sup>11</sup> *Ibid.*, 168-169

<sup>12</sup> David Lappin, "The Decline and Fall of Sothic Dating: El-Lahun Lunar Texts and Egyptian Astronomy," *Journal of the Ancient Chronology Forum*, vol. 9, 2002, pp. 71-84.

<sup>13</sup> Ted T. Stewart, *Solving the Exodus Mystery: Volume I: Discovery of the True Pharaohs of Joseph, Moses and the Exodus* (Lubbock: Biblemart.com, 2002), 306.

<sup>14</sup> M. Christine Tetley, *The Reconstructed Chronology of the Egyptian Kings*, vol. 1 (2014), 200-202.

<sup>15</sup> Ulrich Luft and Anthony J. Spalinger (Editor), "The Date of the W3gy Feast: Considerations on the Chronology of the Old Kingdom," *Revolutions in Time: Studies in Ancient Egyptian Calendrics* (San Antonio: Van Siclen Books, 1994), pp. 39-44.

<sup>16</sup> Lappin, "The Decline and Fall of Sothic Dating: El-Lahun Lunar Texts and Egyptian Astronomy," pp. 81-83.

<sup>17</sup> M. Christine Tetley, *The Reconstructed Chronology of the Egyptian Kings*, vol. 2 (2014), 45, 429.

<sup>18</sup> Stewart, *Solving the Exodus Mystery*, 306

<sup>19</sup> Herman Joseph Heuser, "Light Upon Egyptian Chronology," *The American Ecclesiastical Review*, vol. 22, 1900, (New York), p. 213.

<sup>20</sup> Lappin, "The Decline and Fall of Sothic Dating: El-Lahun Lunar Texts and Egyptian Astronomy," pp. 81-83.

<sup>21</sup> James, *Centuries of Darkness*, 321-325

<sup>22</sup> Centuries of Darkness Website, "Fifteen Frequently Asked Questions: Question 2"

<sup>23</sup> Douglas J. Keenan, "Why Early-Historical Radiocarbon Dates Downwind from the Mediterranean are too Early," *Radiocarbon*, vol. 44, no. 1, 2002, pp. 225-237. Keenan's response to criticisms of this article is at: <http://www.informath.org/apprise/a4106.htm> 10 May 2014

<sup>24</sup> These Egyptian radiocarbon dates except for Aha and Den came from: Christopher Bronk Ramsey, et al., "Radiocarbon-Based Chronology for Dynastic Egypt," *Science*, vol. 328, June 18, 2010, pp. 1554-1557. See: supporting online material. The radiocarbon dates for Aha and Den came from: Michael Dee, et al., "An Absolute Chronology for Early Egypt using Radiocarbon Dating and Bayesian Statistical Modelling," *Proceedings of the Royal Society*, vol. 469, no. 2159 20130395, 4 September 2013, pp. 1-10. The dates for Shamshi-Adad are from: Michael G. Hasel, "Recent Developments in Near Eastern Chronology and Radiocarbon Dating," *Origins*, vol. 56,

---

2004, (Institute of Archaeology), pp. 6-11. The date for Jericho came from: Hendrik J. Bruins, et al., "The Exodus Enigma," *Nature*, vol. 382, July 18, 1996, pp. 213-214.

<sup>25</sup> Douglas J. Keenan, "Anatolian Tree-ring Studies are Untrustworthy," *The Limehouse Cut*, 30 October 2005, pp. 1-21.

<sup>26</sup> Robert M. Porter, "Carbon Dating: The Situation in 2005," *Journal of the Ancient Chronology Forum*, vol. 10, 2005, pp. 63-66.

<sup>27</sup> Malcolm H. Wiener, "Egypt & Time," *Egypt and the Levant*, vol. 16, 2006, pp. 325-339.

<sup>28</sup> Rohl, *A Test of Time*, 134-146, 175-182, 192-201

<sup>29</sup> Peter van der Veen, "The Name Shishak: Peter van der Veen replies to Carl Jansen-Winklen," *Journal of the Ancient Chronology Forum*, vol. 8, 1999, pp. 22-25.

<sup>30</sup> David Rohl, "A Test of Time: The New Chronology of Egypt and its Implications for Biblical Archaeology and History," *Journal of the Ancient Chronology Forum*, vol. 5, 1992, pp. 30-58.

<sup>31</sup> Rohl, *A Test of Time*, 183-192

<sup>32</sup> Peter van der Veen, "The Name Shishak," *Journal of the Ancient Chronology Forum*, vol. 8, 1999, pp. 22-25.

<sup>33</sup> Michael S. Sanders, "Shishak not Shoshenq!" *Mysteries of the Bible*, (1999-2007), Retrieved from:

<http://www.biblemysteries.com/lectures/shishak.htm> 22 October 2003

<sup>34</sup> Rohl, *A Test of Time*, 221-223

<sup>35</sup> *Ibid.*, 182

<sup>36</sup> *Ibid.*, 217-223

<sup>37</sup> *Ibid.*, 205-214

<sup>38</sup> Rohl, *From Eden to Exile*, 12

<sup>39</sup> *Ibid.*, 153-155

<sup>40</sup> Rohl, *A Test of Time*, 333-338, 440-441

<sup>41</sup> *Ibid.*, 308-310

<sup>42</sup> *Ibid.*, 326-328

<sup>43</sup> Stewart, *Solving the Exodus Mystery*, 202-204

<sup>44</sup> Robert Morkot, *The Egyptians: An Introduction* (New York: Routledge, 2005), 181.

<sup>45</sup> John Ashton, Ph.D., and Michael Westacott, *The Big Argument: Twenty-Four Scholars Explore How Science, Archaeology, and Philosophy Haven't Disproved God* (Green Forest: New Leaf Publishing Group, 2006), 264-268.

<sup>46</sup> Rohl, *A Test of Time*, 329, 339

<sup>47</sup> Rohl, *Lords of Avaris*, 64-72, 109-110

<sup>48</sup> James M. Weinstein, "The Chronology of Palestine in the Early Second Millennium B.C.E.," *Bulletin of the American Schools of Oriental Research*, no. 288, Nov. 1992, pp. 27-46.

<sup>49</sup> Rohl, *A Test of Time*, 341-343, 352-355

<sup>50</sup> Kim Ryholt, *The Political Situation in Egypt During the Second Intermediate Period* (Copenhagen: Museum Tusulanum Press, 1997), 409.

<sup>51</sup> Rohl, *From Eden to Exile*, 250-251

<sup>52</sup> Ahmed Osman, *The Hebrew Pharaohs of Egypt: The Secret Lineage of the Patriarch Joseph* (Rochester: Inner Traditions / Bear & Company, 2003), 80-81.

<sup>53</sup> Randall W. Younker, "An Overview of the Exodus and Conquest," Retrieved from:

<http://www.folkenberg.net/Travel%20highlights/97-Bible%20Conference/Ry-Exodus-Conquest.html> 11 February 2004

<sup>54</sup> Jack Finegan, *Handbook of Biblical Chronology* (Peabody: Hendrickon Publisher, 1998), 211.

<sup>55</sup> C. Scott Littleton, *Gods, Goddesses and Mythology*, vol. 11 (New York: Marshall Cavendish, 2005), 1284.

<sup>56</sup> John D. Keyser, "The Amalekites of the Bible!" *Hope of Israel Ministries* (Church of God), Retrieved from:

<http://www.hope-of-israel.org/amalekit.htm> 3 January 2005

<sup>57</sup> This location for the summer palace is based on: Rohl, *From Eden to Exile*, 200

<sup>58</sup> Rohl, *A Test of Time*, 202-203

<sup>59</sup> Rohl, *From Eden to Exile*, 231

<sup>60</sup> Hoffmeier, *Ancient Israel in Sinai*, 153-159

<sup>61</sup> Gaunt, *Time and the Bible's Number Code*, 190-191

<sup>62</sup> See: the Genesis 5 and 11 genealogies; Genesis 12:4; 21:5; 25:26; 47:9; Exodus 12:40; and Galatians 3:17.

<sup>63</sup> Paul J. Ray, Jr., "The Duration of the Israelite Sojourn in Egypt," *Andrews University Seminary Studies*, vol. 24, no. 3, Autumn 1986, pp. 231-248.

- 
- <sup>64</sup> Alden Bass, Bert Thompson, Ph.D., and Kyle Butt, M.A., “How Long was the Israelites Egyptian Sojourn?” *Reason & Revelation*, vol. 21, no. 7, July 2001, (Apologetics Press), pp. 49-54.
- <sup>65</sup> Stewart, *Solving the Exodus Mystery*, 32
- <sup>66</sup> Dr. Stephen E. Jones, *Secrets of Time* (Fridley: God’s Kingdom Ministries, 1996), 15-30.
- <sup>67</sup> Stewart, *Solving the Exodus Mystery*, 29-30
- <sup>68</sup> J. Carl Laney, *Answers to Tough Questions from Every Book of the Bible: A Survey of Problem Passages and Issues* (Grand Rapids: Kregel Publications, 1997), 61.
- <sup>69</sup> Barry Setterfield, “Creation and Catastrophe Chronology,” Lambert Dolphin’s Library, (September 1999), Retrieved from: <http://www.ldolphin.org/barrychron.html> 3 December 2005
- <sup>70</sup> Andrew E. Steinmann, “The Mysterious Numbers of the Book of Judges,” *Journal of the Evangelical Theological Society*, vol. 48, no. 3, September 2005, pp. 491-500.
- <sup>71</sup> R. Clover, “Chapter 2: The Tishri 1 New Year Question,” *The Sabbath and Jubilee Cycle* (Garden Grove: Qadesh La Yahweh Press, 1992, 1995), 19-26. Retrieved from: <http://www.yahweh.org/publications/sjc/sj02Chap.pdf> 10 March 2005
- <sup>72</sup> Gaunt, *Time and the Bible’s Number Code*, 136-149
- <sup>73</sup> Clover, *The Sabbath and Jubilee Cycle*, Retrieved from: <http://www.yahweh.org/publications/sjc/sabjub.pdf> 10 March 2005 (Note: 2 Kings 19:29 and Isaiah 37:30 do not refer to a Sabbath Year followed by a Jubilee. They refer instead to the year when the Assyrians had prevented the Israelites from planting their crops—Hezekiah’s 14<sup>th</sup> year—which was then followed by a Sabbath Year.)
- <sup>74</sup> Robert S. Salzman, *Mega-Tsunami: The True Story of the Hebrew Exodus from Egypt* (New York: iUniverse, 2005), 32, 39.
- <sup>75</sup> Colin J. Humphreys, *The Miracles of Exodus: A Scientist’s Discovery of the Extraordinary Natural Causes of the Biblical Stories* (New York: HarperCollins Publishers, Inc., 2004), 82-93, 169-171, 310-313.
- <sup>76</sup> Simcha Jacobovici (Writer and Director), et al., *The Exodus Decoded*, (2006), USA: The History Channel.
- <sup>77</sup> Humphreys, *The Miracles of Exodus*, 174
- <sup>78</sup> *Ibid.*, 111-149
- <sup>79</sup> *Ibid.*, 153-161, 172-205
- <sup>80</sup> *Ibid.*, 160, 206-224, 231-232
- <sup>81</sup> *Ibid.*, 236-257, 259-260
- <sup>82</sup> *Ibid.*, 189-190
- <sup>83</sup> Hubert H. Lamb, *Climate, History and the Modern World* (New York: Routledge, 1995), 114-116, 139, 149; and *The Changing Climate (Routledge Revivals): Selected Papers* (New York: Routledge, 2011), 59. See also: Pierre L. Gosselin, “Data Show Holocene Sea Levels Trending Downwards . . . 2 Meters Higher 4000 and 7000 Years Ago!” NoTricksZone, May 5, 2014, Retrieved from: <http://notrickszone.com/2014/05/05/data-show-holocene-sea-levels-trending-downwards-2-meters-higher-4000-and-8000-years-ago/#sthash.ah0WcO32.06lYP48H.dpbs> 8 July 2016
- <sup>84</sup> The Greenland evidence comes from: Ole Humlum, et al., “Identifying Natural Contributions to Late Holocene Climate Change,” *Global and Planetary Change*, vol. 79, 2011, p. 155; and from: Sigfus J. Johnsen, et al., “Oxygen Isotope and Palaeotemperature Records from Six Greenland Ice-core Stations: Camp Century, Dye-3, GRIP, Renland and NorthGRIP,” *Journal of Quaternary Science*, vol. 16, issue 4, 2001, pp. 299-307.
- <sup>85</sup> The Antarctic evidence comes from: Eric J. Steig, et al., “Wisconsinan and Holocene Climate History from an Ice Core at Taylor Dome, Western Ross Embayment, Antarctica,” *Geografiska Annaler*, no. 82A, 2000, pp. 213-235.
- <sup>86</sup> H. Zhang, et al., “Late Holocene Climate Change and Anthropogenic Activities in North Xinjiang: Evidence from a Peatland Archive, the Caotanhu Wetland,” *The Holocene*, vol. 25, no. 2, 2015, pp. 323-332.
- <sup>87</sup> Rodger Dalman, *When the Rains Failed: Studies in Climatology and the Biblical Text* (2009), 39.
- <sup>88</sup> Humphreys, *The Miracles of Exodus*, 51-81, 265-266
- <sup>89</sup> *Ibid.*, 267-279
- <sup>90</sup> *Ibid.*, 282-309
- <sup>91</sup> *Ibid.*, 310-336
- <sup>92</sup> *Ibid.*, 15-27
- <sup>93</sup> Rohl, *From Eden to Exile*, 254-257
- <sup>94</sup> Rohl, *A Test of Time*, 357-365
- <sup>95</sup> Jerry Chin, “Archaeology Confirms the Biblical Record: The Conquest of Canaan—Part 2,” Bible Issues (2002), Retrieved from: <http://bibleissues.atspace.com/history/conquest.htm> 29 August 2010
- <sup>96</sup> Philip Comfort and Walter A. Elwell, *The Complete Book of Who’s Who in the Bible* (Wheaton: Tyndale House Publishers, 2004), 335-336.

---

<sup>97</sup> Thomas F. McDaniel, Ph.D., “Chapter 10: The Call For a Blackout and the Solar Eclipse in Joshua 10:7-15,” *Clarifying Baffling Biblical Passages*, (2007), Retrieved from: <http://tmcDaniel.palmerseminary.edu/cbbp-book.pdf>  
8 April 2014

<sup>98</sup> *Redshift 5* (planetarium program)

<sup>99</sup> Rohl, *From Eden to Exile*, 130-133, 139

<sup>100</sup> Rohl, *A Test of Time*, 226-275

<sup>101</sup> Randall Price, *The Stones Cry Out: What Archaeology Reveals About the Truth of the Bible* (Eugene: Harvest House Publishers, 1997), 109-124.