

# Chronological Framework of Ancient History. 3: Anchor Points of Ancient History

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## Abstract

Having triangulated the dates for Babel and the Dispersion in the previous paper the authors triangulate the dates for 27 major events in ancient history. These include the date for the Trojan War, the War of Unification by Menes and Narmer, the reigns of Semiramis I and II, the end of Dynasties 6 and 8 of Egypt, the Fall of Akkad to the Gutti, the Krita Yuga, Kali Yuga, and the Saptarshi Cycle. This paper is the third in the CFAH series and continues the process of systematizing the chronology of the Ancient Near East (ANE) using the durations given by the ancient chroniclers.

**Keywords:** Ancient History, Egypt, Trojan War, Semiramis, Menes, Hermes, Thoth, Kali Yuga, Krita Yuga, Saptarshi Era, Hermes

## Introduction

Before delving into uncertain dates of the distant past, we must first determine which are the oldest strongly confirmed dates that we can rely upon. If the chroniclers give durations from known events, then we can use them to triangulate the dates of the older and less certain events. Our method, as described in CFAH-1 (Griffith and White 2022a), is to find the bookends of history and then fit the histories of the various kingdoms in between using triangulations of durations. Therefore, we will find one bookend in the well-documented period of Antiquity from the Era of Nabonassar downward, and the other bookend will be the Dispersion in 2192/2191BC. Several well attested anchor points can be found in between. Anchor points are listed in the second tab of the CFAH Data Spreadsheet available in the Supplementary Material (at the link provided at the end of this paper), and indexed here in the form AP-[index].

In each paper in this CFAH series as we triangulate the dates for events, we number them as anchor points. This tab in the spreadsheet lists the anchor points in the order they are determined for the first five papers, and lists the paper in this series as CFAH-X where X is the paper. You are currently reading CFAH-3. We will release updates to the spreadsheet with each set of papers until the series is complete.

## Known Dates

As a result of extensive cuneiform texts and historical references, late Assyrian and Neo-Babylonian dates from 747BC onward are reasonably well known and are nearly universally accepted. Likewise, the Persian Empire is a continuation of said data, which is well

known and nearly universally accepted from 538BC onward (Griffith and White 2021).

Greek history, based on annual archon lists and extensive historical documentation of their epic clash with Persia, is well known and nearly universally accepted from 499BC onward. However, due to extensive historical research during the Golden Age of Chronology in the eighteenth and nineteenth centuries, dates from 776BC onward are considered reasonably well known and accepted.

Likewise, we accept Roman history from 753BC onward because we have more confidence in the materials available to Varro than those materials available to us today.

Assyrian history, which most scholars consider reasonably solid even before the eighth century, is on a weaker footing, and cannot be taken for granted. Dates from 722BC to 608BC will be considered sufficiently well established to be treated as known dates within this investigation. However, some erroneous assumptions have been made by mainstream scholars even for this time frame.

## AP-5: Alexander Conquers Egypt: 14 November, 332 BC

The campaign of Alexander the Great resulting in the conquest of Egypt, Babylon, and Persia is one of the best dated events of the ancient world. His proclamation to be king of Egypt on November 14, 332BC was the most precisely dated event of Alexander's life.

Alexander conquered Egypt about one year before the conquest of Babylon. Egypt welcomed him as a liberator and he founded the city of Alexandria. He was declared king on Julian Day 1,600,478. However, he also went through the formal Egyptian coronation ritual about four to six months later, after his visit to the oracle of Amun at the Siwa Oasis.

Alexander conquered Babylon the following autumn, in October of 331 BC. Babylonians, who dated the years from the first of Nisan, which was the new moon after the vernal equinox, and also used accession-year dating, counted 330 BC as the first year of Alexander, as recorded in the Royal Canon. Until around the seventh century *anno domini*, many historians in the Roman Empire dated events from Alexander's reign.

**AP-6: VAT-4956: 568/567 B.C.—  
Thirty-seventh Year of Nebuchadnezzar**

Jonsson states: "The most important astronomical text from the Neo-Babylonian era is a so-called astronomical 'diary,' a record of about thirty astronomical observations... This tablet . . . (designated VAT 4956), establishes 568/67 B.C.E. as the absolute date for the 37th year of Nebuchadnezzar... VAT 4956 is one of the best preserved diaries" (Jonsson 1998, 84–86).

VAT-4956 is dated based on a set of observations that are very precise and "...fit no other situation which occurred either thousands of years before or after that date!" (Jonsson 1998, 159).

"More importantly, Berossus' Neo-Babylonian chronology, . . . is of the same length as that given by the many documents contemporary with the Neo-Babylonian era itself" (Jonsson 1998, 164).

*Ptolemy's and Eratosthenes' Chronologies Confirmed*  
VAT-4956, Diodorus, Ptolemy's canon, Eratosthenes' chronology, and Berossus' chronology all confirm the currently accepted chronology of Persia. "In the opinion of Dionysius, 'Eratosthenes used accurate canons' in his *Chronography*" (Robertson 1788, 94–95).

Rawlinson says "The 'Canon of Ptolemy,' which contained an exact Babylonian computation of time from B.C. 747 to B.C. 331, is generally allowed to be a most authentic document, and one on which we may place complete reliance" (Rawlinson 1873, 152–153).

Furthermore, Jonsson says "...that the whole of Neo-Babylonian Chronology is firmly established by at least 17 different lines of evidence" (Jonsson 1998, 77).

That being said, Gertoux has argued that there is one flaw in Ptolemy's Royal Canon, which we may admit is probably correct. He says the death of Xerxes was placed ten years later than it actually occurred, based on evidence from contracts, and the life of Themistocles from Thucydides (Gertoux 2018). This apparent error is negated by the subtraction of ten years from the reign of Artaxerxes II, thus preserving the integrity of the Royal Canon over the majority of its length, despite being ten years in error for the reign of Xerxes, and placing the accession of Artaxerxes ten years late.

A second possible "error" is placing the last year of Shalmaneser V in 722 BC. The Royal Canon lists 13 years for Esarhaddon, who ruled only 12 years. As the Assyrian King List (AKL) ends with the fifth year of Shalmaneser, any shift in that date shifts the entire AKL. We will explore this problem in detail in the paper on Assyrian chronology, CFAH-14 (Griffith and White forthcoming).

Despite these two caveats, the Royal Canon appears to be chronologically accurate at both termini as well as for important dates in the middle.

**AP-7: Era of Cyrus (Persian Empire): 560/559 B.C.**

"...the duration of the kingdom of Persia to 230 years; and as such would be its duration according to Diodorus..." (Urban 1858, 619). The Persian Empire ended in 330 B.C., thus 230 years yields 560/559 B.C. for the beginning of the Persian power.

**AP-8: Battle of Pelusium: 525 B.C.—  
Persian Conquest of Egypt**

Cyrus reigned for 30 years prior to Cambyses coming to the throne. The conquest of Egypt at the Battle of Pelusium in May of 525 B.C. occurred in the fifth year of Cambyses' reign. Subtracting five and thirty years from the Era of Cyrus in 560 B.C. yields 525 B.C. for the Battle of Pelusium.

This event triangulates with the Egyptian data in Manetho. Summing the reigns of dynasties 27 through 31 and adding to the date of Alexander's conquest of Egypt in 332 B.C. gives a range between 536 and 523 B.C., depending on whether we use the numbers of Africanus or Eusebius.

**AP-9: Era of Nabonassar: 747 B.C.**

"...a passage in Syncellus (p.28), where, giving an abstract of the beginning of Berosus' history... [Berossus states] that the records of many events were preserved in Babylon with great care, embracing a period of above 150,000 years. Now 150,000 days, as Bailly says, following Gibert (p. 375), are 410 years, 8 months, and 3 days..." (Hare 1832, 42). Ptolemy claimed he had access to all these records (Steele 2000, 27).

One hundred and fifty thousand days appears to be rounded to the nearest 10,000 days, though it may be more precise than that. The error in 10,000 days is  $\pm 5,000$  days, which is 13.69 Julian Years. One hundred and fifty thousand days prior to Alexander taking Babylon places us within six years of the beginning of the Era of Nabonassar in 747, well within the error of 13.69 years.

However, if counting from 336 B.C., the year Alexander came to the throne, the duration is exact. Thus, this duration triangulates with the Era of Nabonassar for either of the two possible termini.

Therefore, we conclude that this duration was a reference to the Babylonian civil calendar, known as the “Era of Nabonassar” at the time Alexander came to the throne.

#### **AP-10: Era of the Olympiad: 776/775 B.C.**

Speaking of Cambyses, Clinton states “His conquest of Egypt is fixed to the fifth year of his reign by the concurrent testimonies of Herodotus, Diodorus, and Eusebius. Diodorus places it in Olymp. 63.3. [526/5 B.C.]” (Clinton 1824, 288).

“The reign of Cyrus began, according to Diodorus, Thallus, Castor, Polybius, and Phlegon, . . . in the first year of the 55th Olympiad, corresponding to the Julian years, B.C. 560, and B.C. 559. He reigned in all, 30 years, . . .” (Hales 1830, 90).

These two durations confirm 776/775 B.C. for the first Olympiad, 525 B.C. for the Battle of Pelusium, and 560/559 B.C. for Cyrus, synchronizing the chronologies of Egypt, Greece, and Persia.

#### **AP-11: Era of Rome: 753 B.C.**

“P. Cato placed the building of Rome in the first year of the seventh Olympiad, 432 years after the Trojan war” (Robertson 1788, 113, 114). The “accuracy of . . . the Stromata of Clement, is confirmed by a passage of Dionysius Halicarnasseus, . . . four hundred and thirty-second year after the destruction of Troy . . . [is] the first year of the seventh Olympiad.” (Robertson 1788, 95)

Eratosthenes also places Rome in the four hundred and thirty-second year from the Fall of Troy. An ordinal number given for a duration, such as “in the four hundred and thirty-second year,” is actually 431 full years plus some fraction of the four hundred and thirty-second year. For example, 1184/1183 minus 431 full years yields 753/752 B.C.

As seen in each of the above quotes, the founding of Rome was the first year of the seventh Olympiad. However, Velleius Paterculus, a Roman historian places it, “In the sixth Olympiad, two and twenty years after the first establishment of the Olympic games, Romulus . . . founded the city of Rome” (Paterculus 1924, Book 1, 19).

Olympic years originally began at the full moon after the summer solstice, while Julian Year of Rome began on first of January. Therefore any conversion from one system to the other will have an error of six months.

An event falling “in the Xth Olympiad” falls in the four years prior to the completion of that Olympiad. The years of the sixth Olympiad would therefore be 21–24. Paterculus places the founding of Rome in the year 754/753 B.C. with an error of six months. This is close enough to confirm 753 B.C. for the founding of Rome.

#### *Era Dating Confirmed*

Censorinus (238, 21–33) dated his book in seven different Eras:

- 1st Olympiad: 1,014 years [yields 776 B.C.]
- Year of Rome (YOR): 991 years [yields 753 B.C.]
- Nabonnagarius: 986 years [yields 747 B.C.]
- Philippic: 562nd year [yields 323 B.C. (death of Alexander)]
- Julian: 283rd year [yields 44 B.C. (death of Caesar)]
- Augustin: 265 years [yields 28 B.C.]
- Sothic: 100 years [yields 136–139 A.D.]

Censorinus’ durations confirm that each Era corresponds to the dates widely accepted today. Those who count in terms of eras tend to keep an accurate count due to debt contracts being recorded in the year of the era. Usually the start date of an era has been calculated carefully. However, the start date for both Olympiad and YOR dating is likely to be less accurate since it was established about 450 years later, just like the era of Christ may be off by up to three years.

Censorinus also appears to have played with the 100 years since the return of the Sothic Cycle in order to honor his patron’s birthday (Cullimore 1833b; Luft 2006, 312; O’Mara 2003, 25).

Greek and Roman historical documentation was poor compared to that of the Babylonians, yet multiple chroniclers independently arrived at consistent dates for Troy, the Olympiads, and Rome. We have used Eratosthenes’ dates inasmuch as he appears to have carefully set his Greek and Egyptian chronologies within the context of the accurate Babylonian documentation.

#### **Reasonably Known Dates from the Second Millennium**

##### **AP-12: The Fall of Troy: 1184/1183 B.C.**

Most ancient chroniclers place the destruction of Troy at 1184/1183 B.C. (Robertson 1788, 112–114). Eratosthenes, Dionysius Argivus, Cato the Elder, Dionysius of Halicarnassus, Diodorus Siculus, and Tatian make it 407 years before the first Olympiad; Eusebius, Apollodorus, and Solinus, make it 408 years from the fall of Troy to the first Olympiad; and seven other chroniclers make Troy’s fall to be about this time. Four hundred and eight years added to 776/775 B.C. yields 1184/1183 B.C. for the fall of Troy (fig. 1).

Apollodorus, quoting Eratosthenes, lists 848 years as the duration from the fall of Troy to the death of Philip (336/335 B.C.), yielding 1184/1183 B.C. for the fall of Troy (Robertson 1788, 94–95).

Diodorus gives 1,138 years from the Fall of Troy to the death of Julius Caesar in 46/45 B.C. (Diodorus 1936, preface). Diodorus followed Apollodorus, so it is not really independent support; yet Diodorus

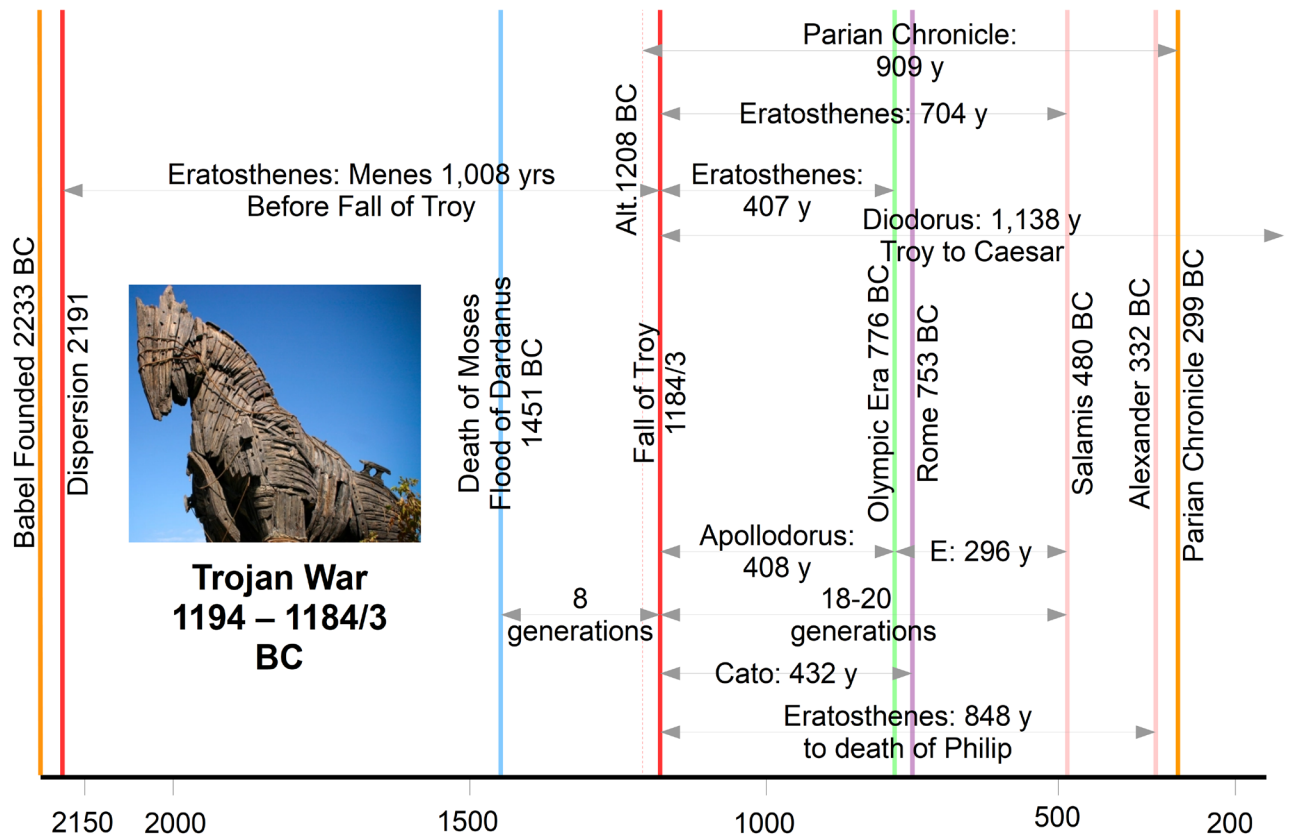


Fig. 1. Durations to the Trojan War.

had many chronologists to pick from, but chose to follow Apollodorus as the one he considered the best chronology.

Revisionist critics say that this placement was entirely the doing of Eratosthenes, as the majority of later chroniclers depended on his work. However, we have another related date which is independently confirmed by four civilizations.

According to Greek legend Dardanus experienced the last of the four great floods. The Mediterranean Sea rose and flooded the region around Samothrace, and overflowed into the Black Sea. Dardanus then founded the settlement that became the city of Troy. According to St. Cyril Dardania was founded the year after the death of Moses (Raleigh 1829, 140). Using Ussher's chronology, this occurred in the year 1451 B.C., which is confirmed by the Indian and Tamil records that the sea level rose and drowned the city of Dwarka, as well as the Tamil School in Sri Lanka. According to the Hindus this occurred the year after Krishna died. Hamilton (1820a, 127–129, 114, 180; 1820b, 217) argues that the Hindus remembered Moses under the name Krishna, as his years of birth and death match Ussher's chronology for the Masoretic Text (MT): 1571 and 1451 B.C.

Aeneas was the seventh generation from Dardanus, and he was in his prime period of life when Troy Fell. Thus, the Fall of Troy was about eight generations from the Flood of Dardanus. Using the Greek estimate

of three generations per century, this would place the Fall of Troy about 266 years after the Flood of Dardanus, which is to say, 1185 B.C. This comes within two years of the date given by other chroniclers.

The king Leonidas of Sparta who died at the Battle of Thermopylae in 480 B.C. claimed to be the fifteenth successor of King Eurysthenes, who began to reign two generations after the Fall of Troy. Thus the Fall of Troy was about 18 to 20 generations prior to the Greco-Persian War. Using 20 generations gives an average generation of 35.5 years, or using 18 generations, 39.5 years. These values seem a bit high for an average generation. Yet, the date given for the Trojan War by Eratosthenes would be in the period of the Judges of Israel. King David, who was born about a century after the Fall of Troy, was the sixth generation from the Exodus when Nahshon was the leader of Judah (1 Chronicles 2:10–15). This gives an average generation of 69.3 years!

We might suppose that kings and clan leaders had a tendency to make diplomatic marriages later in life, at the peak of their power. Thus their children by a high ranking mother would be born toward the end of their lives. This resulted in men with noble pedigrees having a much higher generational length than commoners.

Conflicts: The Parian Chronicle (Rotstein 2016) and Castor of Rhodes place the fall of Troy about 25 years earlier. This minority position is important to

Young's defense of Thiele's 968/967 B.C. date for the founding of Solomon's Temple. Young and Steinmann argue that the source for the Parian Chronicle was the city archive of Athens (Young and Steinmann 2012, 230).

However, the extra 25 years may have been a local tradition in the Cyclade islands. Castor, who lived in Rhodes, appears to have followed the chronology of the Parian Chronicle, which preceded him by nearly two centuries, and was found on the nearby island of Paros.

Of our 11 sources for Fall of Troy in 1183 B.C., only Eratosthenes was contemporary with the author of the Parian Chronicle, with the rest writing at least a century later. Most of the later sources followed the authority of Eratosthenes.

Eratosthenes was born in Cyrene while Carthage still stood, he studied in Athens, and later served as the head of the Great Library of Alexandria. Given his reputation for exactness and accuracy, as well as access to both the state archives in Athens and the Great Library, we consider Eratosthenes to be the most reliable source for the correct date of the Fall of Troy.

Revisionists will object that we cannot lower the Late Bronze Age to the eighth and ninth centuries without lowering the Fall of Troy to the eighth century as well. However, that argument is based on the assumption that the Trojan War occurred at the dawn of the Mycenaean Age, simply because Agamemnon was King of the city of Mycenae.

Our chronology indicates that the Trojan War occurred several centuries before the archaeological Mycenaean Age, during the Minoan Era. Keep in mind that the Minoan Culture was not a country or even an ethnicity, it was simply a similar style of pottery and other goods of civilization found over a broad area of the central Mediterranean region.

We date the start of the archaeological Mycenaean Age to the ninth century before Christ, as Torr did, but the Fall of Troy occurred three centuries earlier. Lascelles and Crowe make a strong case that the actual location of Homer's Troy was the city later known in the Bible as Pergamos, not Hissarlik (Crowe 2011; Lascelles 2021).

#### **AP-13: Xerxes' Invasion of Greece: 480 B.C.**

The Second Persian Invasion of Greece occurred in the first millennium but we needed to establish the anchor point for the Fall of Troy first.

Eratosthenes gave two durations to the invasion of Greece by Xerxes. He said it was in the first year of the seventy-fifth Olympiad, which would be 296 years after the First Olympiad in 776 B.C. Summing his durations also gives 704 years after the Fall of Troy, which was 1183 B.C. (Robertson 1788, 94–95).

776 B.C. First Olympiad; minus,  
296 Eratosthenes: 296 years after the First Olympiad; gives:  
**480 B.C. Xerxes invades Greece**

1183 B.C. Fall of Troy; minus,  
704 Eratosthenes: 704 years from Fall of Troy; gives:  
**479 B.C. Xerxes invades Greece**

The Second Persian Invasion of Greece ended in June 479 B.C., about 15 months after it began (fig. 1).

#### **AP-14 End of the Eighth Dynasty of Egypt: 1233 B.C.**

Rhyolt's restoration of the fifth column of The Turin Papyrus contains the following entry after Dynasty VIII: "from Meni, their kingship, their years, and a lacuna thereto: 949 years, 15 days, and a lacuna of 6 years... Total: 52\* kings amounting to 955 years and 15 days" (Lundström 2023, 5.15, 5.16 Rhyholt 2000, 89, 94ff; .) In Griffith and White (2022b) we demonstrated that Menes established the first cities in Egypt in 2188 B.C. Thus, the Eighth Dynasty of Memphis ended in 1233 B.C, 955 years from the founding of the first city by Menes. We have found there are at least two, and probably three start dates for Menes used by various Egyptian sources. Therefore this date may range from 1236 B.C. to as late as 1209 B.C. Anchor Point 16 will further triangulate this date to 1233 B.C.

#### **AP-15: Semiramis II: 1232/1231 B.C.**

Based on the dates given for their reigns, the Greek chroniclers referred to three different women as "Semiramis" and seem to have at times conflated them with one another. We will refer to them as Semiramis I, II, and III. The first Semiramis was the wife of Ninus, the legendary founder of Nineveh, whom the early church fathers considered to be the same person as Nimrod (fig. 2).

The second Semiramis was an Assyrian queen said by Berossus to have ended the Arab Dynasty of Babylon a generation before the Trojan War, and is credited with building the walls of that city. She is conflated by Diodorus with the first Semiramis, except for the dates of her reign. Eusebius and Ctesias record that she was the daughter of Assyrian Belus, and name her Atossa, Tratres, and Achurard, saying she reigned for 17 years (fig. 3).

The third Semiramis was Shamurammat the wife of Shamshi-Adad V, who reigned as co-regent with her minor son Ashur-Nirari III at the end of the ninth century B.C. She is mentioned by Eusebius who gave a duration from the first Ninus to the second Ninus, by which he refers to Shamshi-Adad V. She is probably the only one of the three who was actually named Semiramis in her lifetime.

However, we find that Semiramis II is one of the most well-dated individuals in ancient history. Though she is claimed to be unattested by

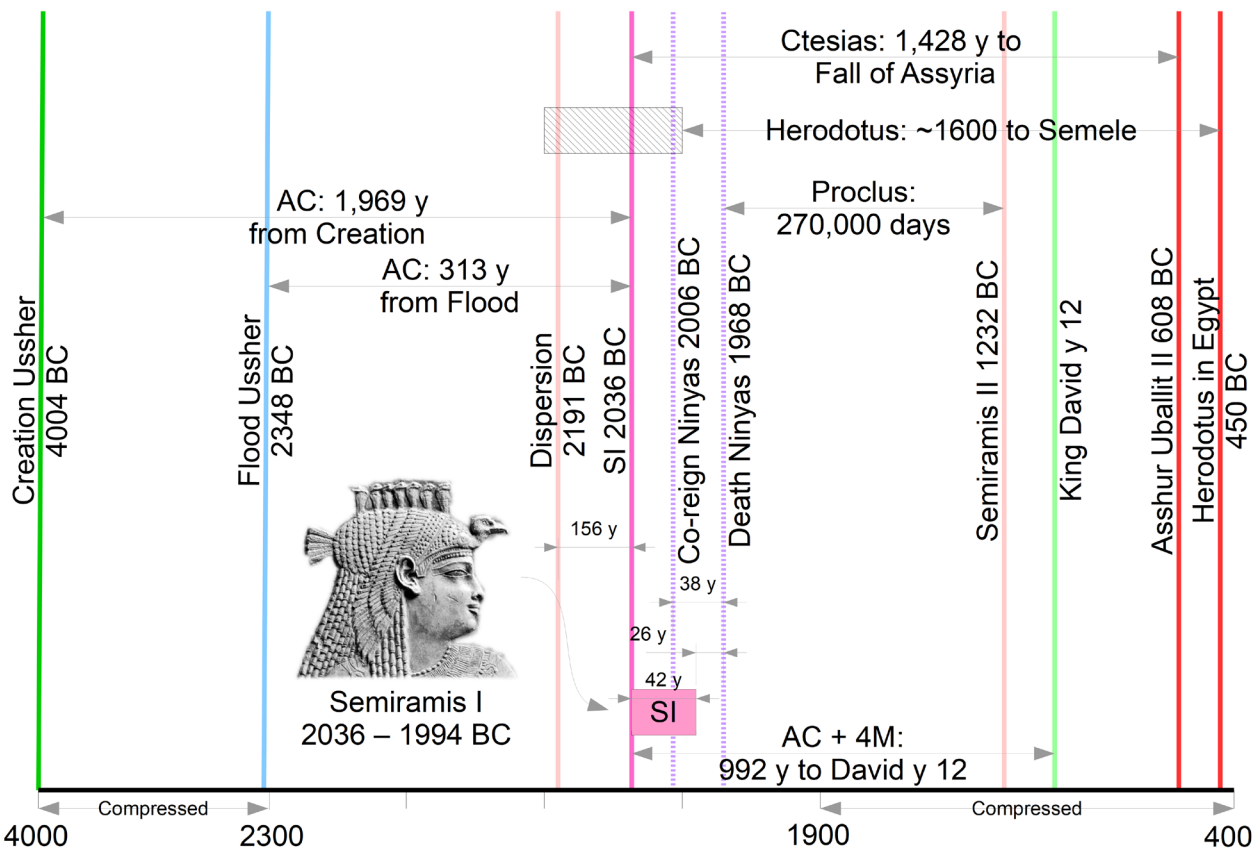


Fig. 2. Durations to Semiramis I.

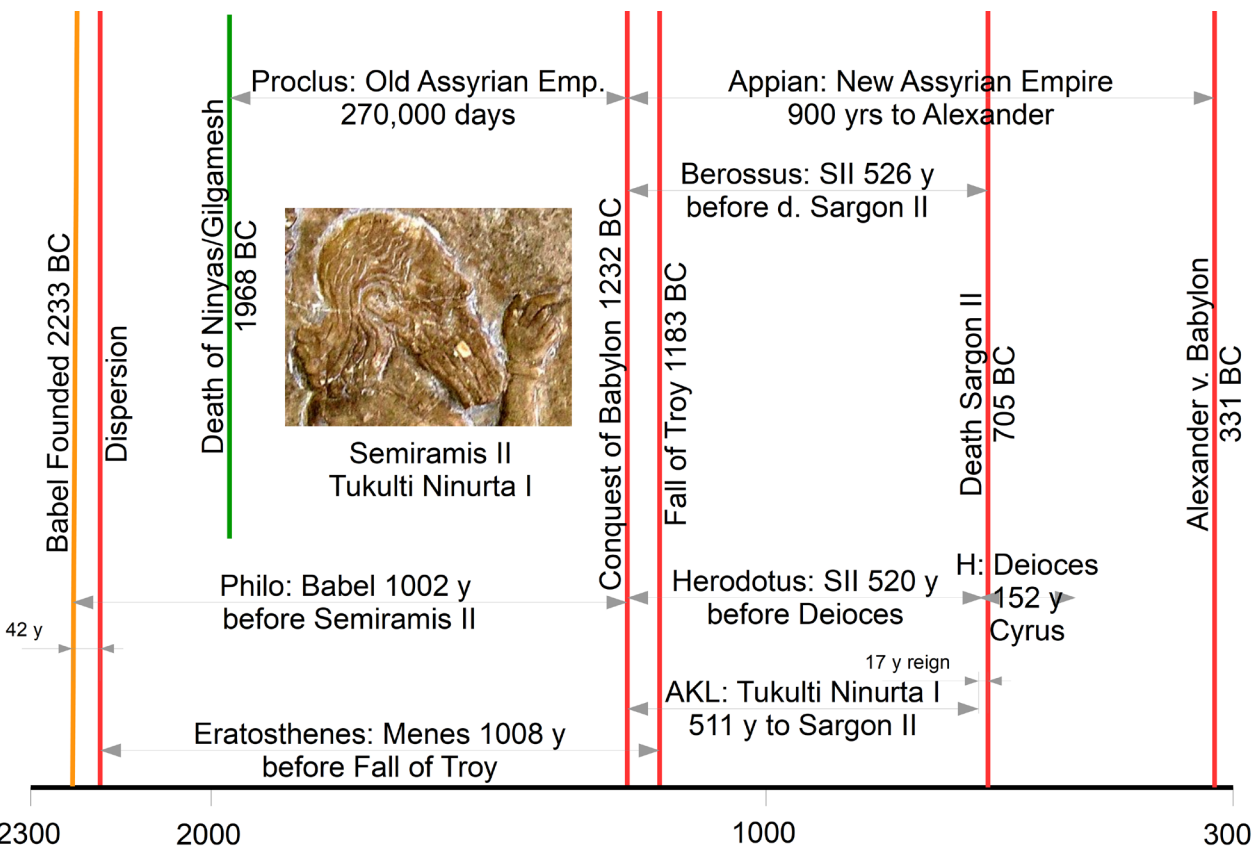


Fig. 3. Durations to Semiramis II.

archaeology, we contend that she is extremely well attested but has simply not been recognized as the person the chroniclers spoke of. Her reign and deeds match quite closely with those of Shalmaneser I and Tukulti-Ninurta I (fig. 4).

An accurate date for Semiramis II is essential for placing Berossus' Babylonian dynasties in proper chronological position; therefore a detailed review is required. All comments in this section refer to Semiramis II.

1. Philo of Byblos states that Semiramis ruled just prior to the Trojan War. The Trojan War took place from 1194/1193 to 1184/1183.
2. Herodotus: 1231 B.C. "According to the statement of Herodotus the Assyrian empire had lasted 520 years before the revolt of the Medes, . . . : it follows that he conceived the Assyrian empire to have lasted from the year 1231, till 711 B.C." (Knight 1866, 607). This number may be rounded, making the error  $\pm 5$  years. As will be shown in CFAH-5 (Griffith and White forthcoming), Herodotus appears to have been counting to the first year of the reign of Deioces. That king appears to have been the perpetrator of the second Median Revolt, but the revolt did not begin until the ambush of Sargon II in 705 B.C., which was six or seven years into the reign of Deioces.
3. "Appian says that the Assyrians, Medes, and Persians successively ruled Asia 900 years. But the Persian Empire ended with the death of the last Darius, B.C. 330, from which, counting backwards, 900 years, we get the commencement of the Assyrian dominion, B.C. 1230, as before" (Russell and Wheeler 1865, 364). This duration refers to the first Assyrian Dynasty of Babylon, whom Berossus said was founded by Semiramis after the defeat of the Arabs. (See CFAH-5 (Griffith and White forthcoming) for a more thorough treatment.) Being a round number, the error could be  $\pm 50$  years, or  $\pm 5$  years depending on how much rounding.
4. Sanchoniathon was cited by Apion and Eusebius as a contemporary of Semiramis (Eusebius 2002, vol. 1, 484–485). "Sanchoniathon was quoted by Porphyry (b. A.D. 233) the opponent of Christianity, in his attack on the writings of Moses. Porphyry says, Sanchoniathon was a contemporary of Gideon" (Anstey 1913, 16–17). Jones dates the reign of Gideon from 1258 to 1218 B.C., (Jones 2005, Chart 5) which we find to overlap the reigns of Shalmaneser I and Tukulti-Ninurta I, according to the Assyrian King List.

Conflicting Information: Castor of Rhodes differs, suggesting that Semiramis started her reign in 1364/1373 B.C. (843 B.C. + 526/520 years). This conflicts with the abovementioned witnesses by some 130 years (Stronk 2017, 34–35).

However, Castor built a chronological system based on an erroneous identification for the Sardanapallus mentioned by Berossus which resulted in 843 B.C. for the end of Dynasty Six (Assyrian) of Babylon. The death of Sargon II in 705 B.C. followed by the Median Revolt in 700 B.C. appears to be what Berossus actually meant, while Castor calculated back to the start of the co-reign of Ashur-danin-pal in 843 B.C. This error of 138 years distorts most of Castor's ancient chronology and all other chronological systems based on Castor, such as that of Eusebius.

### ***Durations from Semiramis II back to the Founding Eras***

The importance of establishing the date of Semiramis is seen by the following durations from her conquest back to the founding dates of Babylon and Assyria (table 1).

5. "Philo-Byblius, according to Stephen, made Babylon to have been built 1002 years before Semiramis, whom he considered contemporary with, or a little anterior to, the Trojan War" (Rawlinson 1873, 189). From the founding of Babel in 2234/2233 B.C. (Griffith and White 2022b, AP-1) this duration places Semiramis II in the year 1232/1231 B.C..
6. Polyhistor identifies the duration from Berossus' Second Dynasty of Babylon to Semiramis' conquest as 975 years (Clinton 1824, 113; Palmer 1861, 933–934). 2191 B.C.–975 B.C. gives 1216 B.C. The Second Dynasty of Babylon commenced with the Dispersion, which we pinpointed to 2191 B.C. in CFAH-2 (Griffith and White 2022b). As this duration is 20 years high, we wonder if a scribal error turned 955 into 975 years.
7. According to Berossus, Semiramis was the daughter of the second Assyrian Belus, who ruled in about the seven hundred and twenty-second year of the Old Assyrian Empire (Cullimore 1833a, 175). When Assyrian chronology is reviewed, (CFAH-5 [Griffith and White forthcoming]) it is found that the death of Ninyas was 1968 B.C. Seven hundred and one years from 1968 B.C. is 1267/1266 B.C., and a generation of about 33 to 40 years later is 1234/1226 B.C. This suggests that Shalmaneser I was the father of Semiramis II.
8. Proclus records that the true period of the Old Assyrian Empire was 270,000 days or 739 years (Cullimore 1833a, 161, 176; Hare 1832, 42). Seven hundred and thirty-nine years from 1968 B.C. yields 1229 B.C. for Semiramis, who marks the start of the New Assyrian Empire by ancient Greek reckoning. (Modern Assyriologists consider Tukulti-Ninurta part of the Middle Assyrian Empire.)
9. Semiramis was the nineteenth monarch of the Old Assyrian Empire according to Eusebius,



**Fig. 4.** Tukulti Ninurta I. Osama Shukir Muihammed Amin FRCP. [https://commons.wikimedia.org/wiki/File:Detail\\_Assyrian\\_king\\_Tukulti-Ninurta\\_I\\_stands\\_and\\_kneels,\\_13th\\_century\\_BCE.\\_From\\_Assur,\\_Iraq.\\_Pergamon\\_Museum.jpg](https://commons.wikimedia.org/wiki/File:Detail_Assyrian_king_Tukulti-Ninurta_I_stands_and_kneels,_13th_century_BCE._From_Assur,_Iraq._Pergamon_Museum.jpg). CC BY-SA 4.



**Table 1.** Summary for Semiramis II.

Date B.C. for Semiramis II	Duration (Years)	Start Date (B.C.)	Source
1232/1231	1,002	2234/2233	Philo of Byblos
> 1194/1193			Philo of Byblos
1219/1218	920	299	Parian Chronicle
1229			Hellanicus
1231	520 (rounded)	711 B.C. (Est.)	Herodotus
1230	900	330	Appian
1237	975	2212	Polyhistor
1233	Contemporary of	Gideon	Sanchoniathon
1234/1226	706 + 33	1968	Ctesias
1229	270,000 days		
739 years	1968	Proclus	
1242	nineteenth Reign * 38	1968	Ctesias
1233	955	2188	Turin Papyrus
1369	526	843	Castor

(Cullimore 1833a, 175) which began with the death of Ninyas. Averaging the figures of Syncellus who gives 1,460 years for 41 generations and Ctesias who gives 1,306 years for 31 generations gives 38.4 years per generation. Six hundred and ninety-one years (18\*38.4y) from 1968 B.C. is 1277 B.C., which comes within a generation of 1232 B.C.

Of the first four durations from known dates, Herodotus is the most precise. Therefore, we will accept 1232/1231 B.C. for the conquest of Babylon by Semiramis. Additional triangulations with more ancient dates in the second set of durations confirms this.

Having triangulated the reign of Semiramis II to have begun around 1232 B.C., let's reconsider her historicity. Her primary accomplishment is said to have been extinguishing the Arabian Dynasty of Babylon, beginning the first Assyrian Dynasty of that city, and building its walls.

Her reign coincides nearly exactly with the reign of Tukulti Ninurta I (1233 B.C.) who is considered to be the second Assyrian king to have conquered Babylon. Although, we will later argue that the Ashur Uballit credited with conquering Karduniash, was not Ashur Uballit I, and therefore Tukulti Ninurta was in fact the first Assyrian king to conquer Babylon.

Shalmaneser I, Tukulti Ninurta, and Tiglath Pileser III fought three major campaigns against the Kutu/Guti, (Luckenbill 1989, 40 and 43) who appear to correspond to the Arabian Dynasty of Babylon in the history of Berossus. As the Guti conquest of Akkad is dated to the twenty-second century B.C. in the conventional chronology, we will revisit this question in CFAH-5 (Griffith and White forthcoming) on the chronology of Berossus.

The primary sources from which the Greeks dated Semiramis II were Berossus, the Babylonian priest,

and Ctesias, the Greek physician to Artaxerxes II who had direct access to the annals of the Medes and Persians.

The era of Semiramis II and her supposed actions seems to fit the reign of Tukulti Ninurta I and perhaps his father, Shalmaneser I. A close comparison of their alleged deeds and inscriptions leads us to suspect that Tukulti Ninurta was the daughter of Shalmaneser, dressing and reigning as a man. We will bring more evidence of that in the papers CFAH-5 (Griffith and White forthcoming), and CFAH-14 (Griffith and White forthcoming). However, our thesis does not depend on that identification. She could also have been the sister of Tukulti Ninurta I.

The defeat of the allied Midianites, Amalekites, and "People of the East" by Gideon around 1251 B.C. and the conquest of Babylon by Tukulti Ninurta and Semiramis II in 1232/1231 B.C. were the beginning of the decline in the allied power of the subtribes of Abraham, Aram, and Canaan, which lasted another two centuries in Egypt before their final expulsion.

Triangulation: When the 1,008 years from the Dispersion to the Trojan War, the 1,002 years from Babel to Semiramis, and the 42 year duration of Babel are combined, they form a triangulation which confirms  $[1,008 + 42 - 1,002 = ]$  48 years between Semiramis II's accession and the fall of Troy. This triangulation gives strong assurance that the dates of 1232/1231 B.C. for Semiramis II and 1184/1183 B.C. for the fall of Troy are accurate. It further supports 2234/2233 B.C. for the founding of Babel; and 2192/2191 B.C. for the Dispersion.

#### **AP-16: Nitocris Reigned from 1497 to 1479 B.C.**

Nitocris was reported by the ancient chroniclers to be the last ruler of the Sixth Dynasty of Egypt

(Manetho 1964, 55). She was a woman whose brother or husband had been a pharaoh whose sole reign lasted one year before being killed by his enemies (fig. 5).

As in the cases of Semiramis I and II, when we look for a woman ruling as king in the second millennium, we keep finding a man’s name. In this case, the name for Nitocris found in the Turin Canon is Netjerikara, which is a male name.

The First Intermediate Period began with the death of Nitocris. We find that the Arab conquest of Babylon followed only two years afterwards. While not apparently related, we will make the case that they were.

*245-year Arab dynasty of Babylon:* “The scheme of Berosus then, setting aside his numbers for the first period, is—according to the best extant authorities—as follows:…Dynasty V. of 9 Arabian kings 245 years,” (Rawlinson 1873, 151) ending when Semiramis II conquered Babylon. Thus the Arab dynasty of Babylon lasted from 1477 B.C. to 1232 B.C. The start of Arab power in Babylon was only 14 years after Ussher’s date for the Exodus. Several biblicist scholars identify the Hyksos as Arab princes. Thus Arab dynasties in Egypt and Babylon began about the same time frame (1491–1477 B.C.).

*314 years:* Africanus states that Nitocris reigned 314 years before Troy’s fall, (Williams 1789, 234) which, using the accepted date of 1183 B.C., gives

1497 B.C. for the accession of Nitocris. Nitocris is found in the Turin Canon as Netjerikare, a male name.

*[2]46 years before the end of Dynasty 8:* According to Africanus the Eighth Dynasty of Egypt had 27 kings and lasted 146 years (Manetho 1964, 59). That is an average reign of only 5.4 years per king, which is very low. This is from the same Africanus that recorded the previous duration, that Nitocris, the last ruler of Dynasty 6, reigned 314 years before the fall of Troy. Also the Turin Canon tells us that Dynasty 8 ended 955 years after Menes founded Egypt, giving 1233 B.C., which is 50 years before Troy fell. Three hundred and fourteen minus 50 is 264 years. Assuming that Nitocris reigned at least 12 years, this brings the duration to 252 years.

If a copyist mistook a 1 for 2, then Dynasty 8 lasted 246 years. Dynasty 7 is reported to have lasted only 75 days. Counting back 246 years from the end of Dynasty 8 (AP-14) in 1233 B.C. gives 1479 B.C. for the death of Nitocris, the last monarch of Dynasty 6. The reign of Nitocris was given as 12 years after the death of her husband by Africanus (Manetho 1964, 55), placing her accession in 1491 B.C. This is still six years after the date given by Africanus. If her husband had a six-year co-regency with his long-lived father, Pepi II, then the date given by Africanus may represent the year that her husband came to the throne.

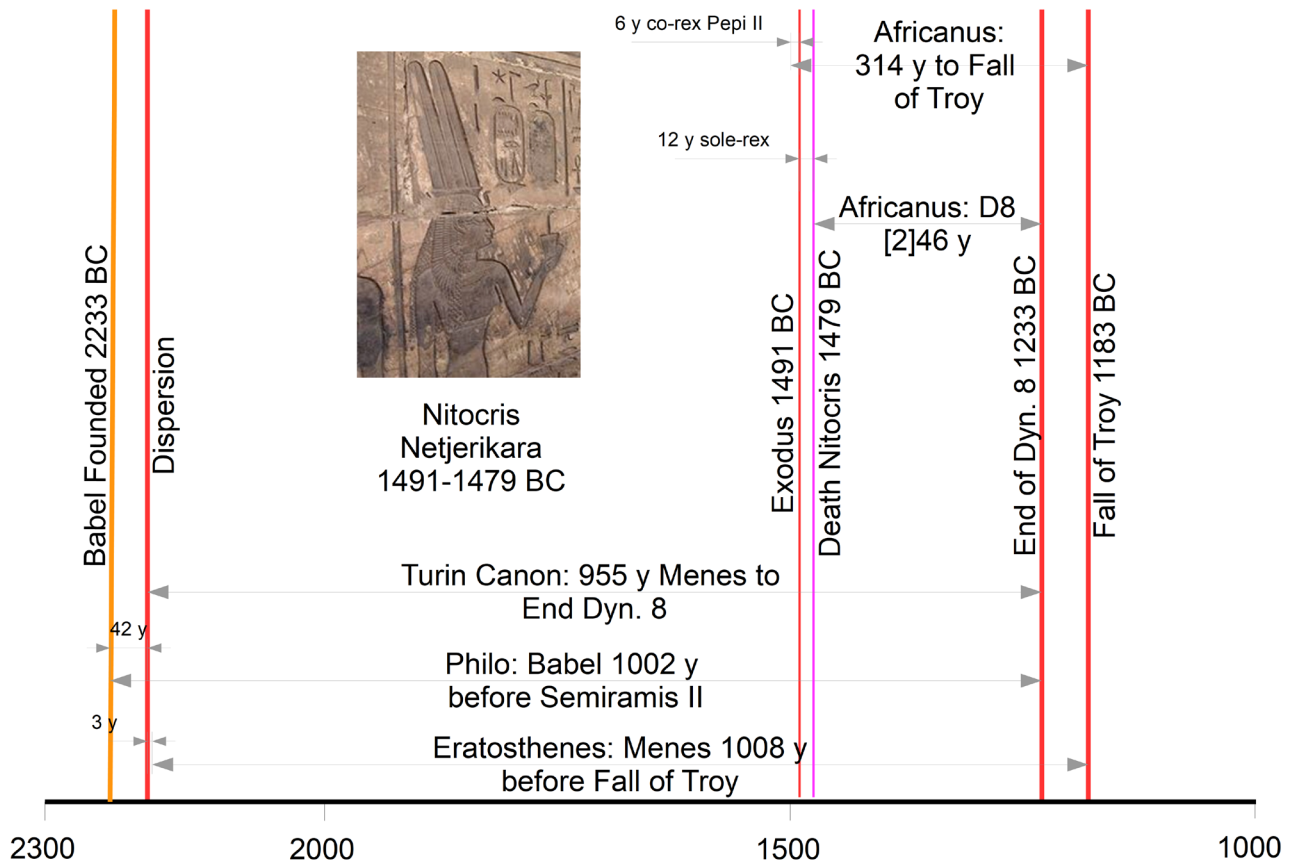


Fig. 5. Durations to Nitocris.

Given that all three of these durations for Nitocris are from Africanus, and with the correction of the copying error for Dynasty 8, they seem to triangulate with each other and with the Turin Canon, then we accept that Nitocris “reigned” from 1497, when her husband began his co-reign, became sole-*rex* after his death in 1491, and reigned 12 years until her death in 1479 B.C. The 955-year duration of the Turin Canon for the end of Dynasty 8 triangulates and ties all of these together, going back to Menes and forward to the Fall of Troy (fig. 5).

#### **AP-17: Joseph Alive in 1690 B.C.**

Twelve generations to Moeris: Pharaoh Moeris built Lake Moeris and Joseph’s Canal (Diodorus 1935, Book 1, 51); Moeris was 12 generations from Mizraim, (Diodorus 1935, Book 1, 51) a generation being about 37 years then based on the average of generations in Genesis 11 (Eusebius 2002, vol.9, 27).

According to Ussher’s chronology, Mizraim would have been born about 2336 B.C.; and the Pharaoh of Joseph’s time, Moeris, died at 177 years old when Joseph had ruled 32 years. Twelve generations and 177 years would be about 657 years. This very rough estimate yields 1679 B.C. for Moeris’ death and 1711 B.C. for Joseph’s appointment as Vizier. In CFAH-6 (Griffith and White forthcoming), CFAH-7 (Griffith and White forthcoming), and CFAH-12 (Griffith and White forthcoming) we will bring in more specific durations that pinpoint Joseph’s life to the year, though we already know this from Scripture via the Ussher-Jones chronology.

#### ***Conflicting Information:***

##### ***Herodotus Nine Centuries Below Moeris:***

Artapanus said that the name of the Pharaoh of Joseph’s Famine was King Moeris. Herodotus gives a conflicting duration in which he states he was told by the priests that King Moeris died less than nine centuries before his time (Herodotus, 2015a, Book II, chapter 13). If by this he meant his own lifetime, that would place the death of Moeris after 1350 B.C. Such a late date for Moeris seems impossible by any reckoning. However, if the priests meant nine centuries before the Olympic Era, which was “the era” or “time” of Herodotus the Greek, that places the death of Moeris around 1676 B.C., which falls only three years short of our estimate.

However, if the priests of Egypt were using the Olympic Era in 450 B.C., when Herodotus visited, this would be one of the very earliest references to that dating system. Hippias, who is thought to have been the first to calculate the Olympiads as beginning 776 B.C., was about two decades younger than Herodotus. Therefore, for the priests in Egypt to have used the Olympic Era, Herodotus would have had

to have visited there after the work of Hippias had already been published. Herodotus moved to Athens towards the end of his life, where his works were published. He was a contemporary of Hippias while there; and it is therefore possible that Herodotus converted the duration given to him by the priests to the Olympiad dating system of Hippias, which would have been known in Athens.

#### **AP-18: Egyptian Belus: Established Astronomical College 1576 B.C.**

Diodorus tells us about a figure called the “Egyptian Belus” who appears to be the same person as Sesostris, or Senuwret III, also called Sesonchosis by Dicaearchus (fig. 6). Table 2 narrows down the identity of Egyptian Belus to show this was a name for Senuwret III.

He is alleged to have sent an astronomical college of the Egyptians to the Euphrates after a nine-year campaign to conquer Mesopotamia. This was probably a way of transferring knowledge both to and from the Mesopotamian astronomers, as well as a way of planting spies in the foreign priesthood.

While the “Euphrates” is usually understood to mean Babylon, we consider it likely that the Chaldeans, who were the astronomer priests that kept the records of astronomy from Babel down to Alexander, were geographically based in the region of Harran and Urfa from the time of Babel down until the time of Solomon, after which time a



**Fig. 6.** Senuwret III, the Egyptian Belus. Original uploader was Traciield. [https://en.wikipedia.org/wiki/Senuwret\\_III#/media/File:Senuwret\\_III,\\_ca.\\_1836-1818\\_B.C.E.\\_Granite.jpg](https://en.wikipedia.org/wiki/Senuwret_III#/media/File:Senuwret_III,_ca._1836-1818_B.C.E._Granite.jpg). CC BY-SA 3.0

**Table 2.** Identifying the Egyptian Belus.

Known about the Egyptian Belus	Osiris	Sesostris III	Thutmose III	Rameses II
1577 B.C.	NO			NO
Before Arabs—Hyksos	YES	YES	NO	NO
Second Belus not First	NO	Maybe		
Before Assyrian Belus—1262 B.C.	YES	YES		NO
Reigns 33 years	NO	YES	Maybe	NO
Conquers Middle East, Scythia, and India	YES	Maybe	NO	NO
Shortly after Moeris—Twelfth Dynasty	NO	YES	NO	NO
Reigned after Father			NO	
Before Thothmes Family	YES	YES	NO	NO

branch of them colonized the Sealand of the growing Euphrates River Delta in the Persian Gulf.

From this perspective, Sesostris need only have sent an astronomical college to the region of the Euphrates in upper Syria, which is probably a more realistic terminus of his Asian campaign and happens to be where we believe the Chaldeans lived at this epoch. It may possibly account for the reason that the Egyptians considered rightfully theirs the sacred city of Carchemish, which they called Kadesh and the Greeks called Heliopolis, and which had a temple to the sun, which was also the primary deity of Egypt.

The belief that Carchemish was the rightful possession of Egypt was manifest in the campaigns of Thutmose I, Thutmose III, Rameses II, and Necho II, all of whom lived after Sesostris III. It is also notable, though possibly coincidental, that the Assyrians referred to the region of the west bank of the Euphrates near Carchemish as the land of Musri, which is also the word they used for Egypt.

An accurate identification and date for the Egyptian Belus is important since it allows the chronological placement of early Egyptian dynasties to be made with certainty. Note that “Belus” is a title, and some five or more ancient kings were called Belus.

### *Finding the Date for the Egyptian Belus*

We have found eight durations, the last of which is precise, which enable us to triangulate the founding of the astronomical college. A ninth duration that appears related is rejected (fig. 7).

1. According to Diodorus, “the Egyptian Belus established a college of priests on the Euphrates; whom the Babylonians called Chaldeans, and who observed the stars after the manner of the Egyptian astrologers” (Diodorus 1935, Book 2, chapter 13). We suspect this college of priests was located near Carchemish, later called Heliopolis by the Greeks, because it had a temple to the sun god, after the Egyptian manner.

2. “Macrobius...assures us, that collections of observations of eclipses made in Egypt, were preserved, which presupposed uninterrupted labour for at least 1200 years before the reign of Alexander” (Cuvier 1813, 471). Thus, Egyptian astronomy predates 1536 B.C.

3. Diogenes Laertius (1972, 1 prologue 2) relates: “If we may believe the Egyptians, Hephaestus was the son of the Nile, and with him philosophy began, priests and prophets being its chief exponents. Hephaestus lived 48,863 years before Alexander of Macedon, and in the interval there occurred 373 solar and 832 lunar eclipses.”

While the period of 48,863 years must represent some kind of intercalary period, for a given location this is about the right number of lunar eclipses for 14 centuries, but solar eclipses for only 12 centuries. Thus we might conclude that Egyptian astronomical observations began between 1730 and 1530 B.C.

4. Simplicius: “...and Simplicius, in his commentary on Aristotle, affirms that the Egyptian astronomy dated 2000 years from his own time, which would ascend to B.C. 1500. Now, these improvements in astronomy are ascribed to a second Belus, who lived in the 15th century before our own era” (Bunsen 1848, 167).

5. Dicaearchus: “and the 2936 years which Dicaearchus assigns as the period intervening between Sesostris [III] and the first Olympiad, are merely the computation of the several seasons; or, in other words, years of three months each, and which, in fact, produce the 734 Julian years...to the institution of the Olympic games” (Spineto 1845, 403, 404). This yields 1510 B.C. as the time frame for Sesostris. Though we disagree with Spineto’s calculation on this point, we will save that until we have established who and when Egyptian Belus was.

6. As noted above, Hermes II was said to be the originator of the astronomical revision at the time

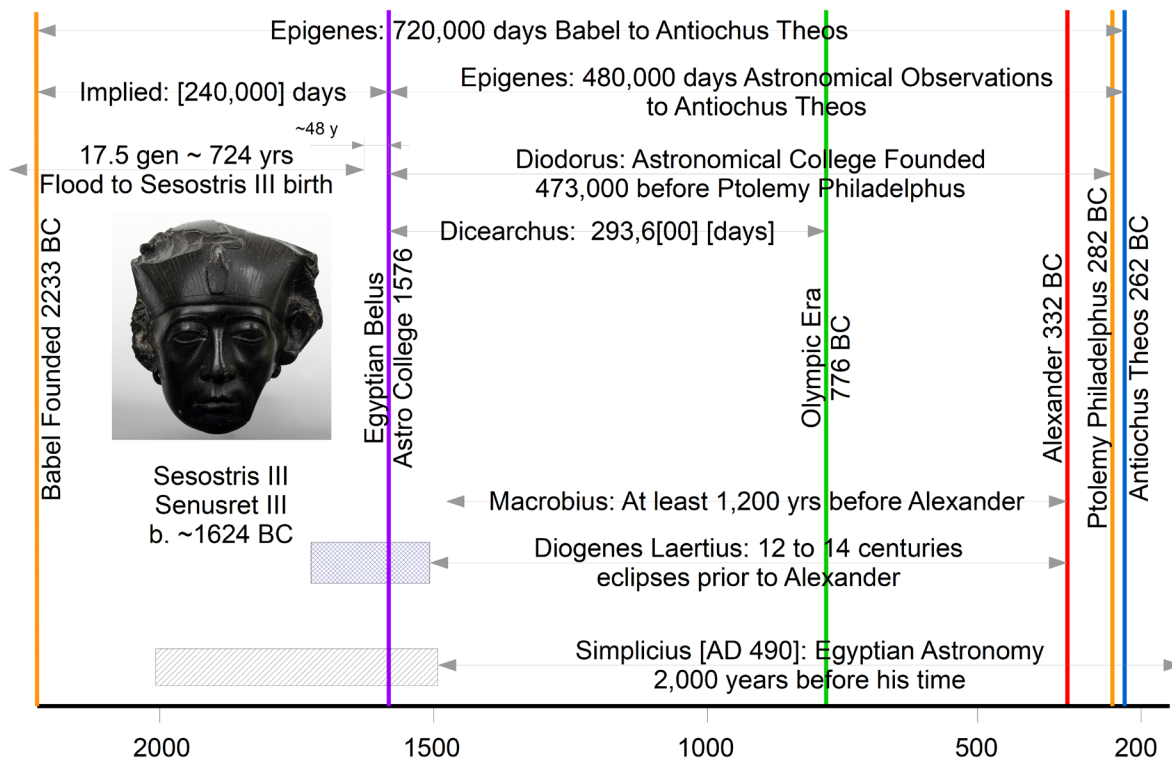


Fig. 7. Durations to Semiramis III.

of the rising of the Phoenix (von Gumpach 1850, 8–10; AP-17). Thus, the Egyptian Belus needs to be after 1690B.C., the time of Hermes II.

7. According to Diodorus, Sesostris III, whom he attributes with all the achievements of the Egyptian Belus, was the seventh generation from Moeris (Diodorus 1935, Book I, chapter 53, 1). Moeris in turn was 12 generations from Menes or Mizraim (Diodorus 60–30B.C., Book I, chapter 51, 5). In Genesis, Mizraim was the second listed son of Ham after the Flood. Therefore, Belus would have been born about 17.5 generations from the Flood.

Using the 37 years average per firstborn generation found in the Bible, the earliest that Sesostris could have been born would be about  $2348 - (17.5 * 37) = 1701$ B.C. However, the generation length for middle and younger children was significantly longer. From the Flood to the birth of Moses in 1571B.C., was 17 generations averaging 45.7 years. We might conclude that Senusret III could have been born as late as  $2348 - (17.5 * 37) = 1548$ B.C. The middle of the range for his birth would be 1624B.C.

Assuming that Senusret III took the throne around age 20, Belus fought 19 years against the Ethiopians and then took nine more years to conquer the Levant, thus 1576B.C. is a reasonable estimate for his return.

8. The following durations give us a precise date for sending the astronomical college to Babylon in the days of the Egyptian Belus.

*480,000 Day Duration* [1,314.6 years]: “In reference to the 720,000 years, or days, of the Chaldean observations, mentioned by Epigenes, it should be noted, that Pliny in the same place states that, according to Berossus and Critodemus, the period was 480,000 years” (Cullimore 1833a, 172). Four hundred and eighty thousand days makes 1,314 Julian years and two months to the accession of the king to whom Berossus dedicated his book, Antiochus Theos, in 262B.C. Thus, Cullimore asserts that the Egyptian astronomical improvements started in Babylon in 1576B.C. (Cullimore 1833a, 172–173).

*473,000 Day Duration* [1,295 years]: A 473,000 day duration is also tied to this date. “Diodorus Siculus pretends, that the Astronomical College, which was sent out of Egypt to Babylon, and continued there, had Astronomical Accounts of no fewer than 473,000 Years...” (Whiston 1734, Appendix II, 186). Four hundred and seventy-three thousand days from 1577/1576B.C. yields 283/282B.C.,  $\pm 1.4$  years, the first year of Ptolemy Philadelphus, the King of Egypt to whom Manetho dedicated his chronology book, *Aegyptiaca*.

Diodorus, writing in the time of Julius Caesar, got his information directly from the priests in Egypt, therefore it would make sense that his

Egyptian source would report on the astronomical observations prior to Manetho’s dedication of his work to King Ptolemy Philadelphus, rather than using the date of Berossus’ dedication to the competing King Antiochus of Seleucia.

These two durations from two different known dates form a triangulation for the dating of an era of both Egyptian and Babylonian astronomical observations to the year 1577/6 B.C. Given that the Egyptian Belus was reported to have founded an astronomical college on the Euphrates, that is almost certainly the event to which these durations refer.

9. The rejected ninth duration comes from Thallus who wrote that Belus reigned 322 years before the Trojan War. (Theophanes n.d.) 322 years added to 1194/1193 B.C. yields 1516 B.C., which is within 50 years of the other durations for Egyptian Belus. However, the original fragment specifically refers to the Assyrian Belus, not Egyptian. And it appears that Thallus, using the same source as Syncellus for the reigns of kings of Nineveh, summed the reigns from Tutaeus back to Bellochus II, including 17 years for Semiramis II, in order to get 322 years. His error was counting this list from Castor’s date for Sardanpalus, 843 B.C., instead of from the second Median Revolt in 700 B.C. Thus the king at the time of the Trojan war was neither Teutaeus nor Tuetamos, as reported by other chroniclers who made the same error.

*Conclusion:* There are eight good witnesses that Egyptian Belus, Sesostrius III, sent a college of astronomers to the Euphrates between 1581 and 1500 B.C. (table 3). Two of these are sufficiently precise to date this event to the year 1577/1576 B.C. The precise day counts triangulate forward to Ptolemy Philadelphus in 283 B.C., and also to Antiochus Theos

in 262 B.C., thus linking to the chronologies of both Egypt and Seleucia.

The duration given by Dicaearchus of 2,936 divided by the 800 actual years from Sesostrius to 776 B.C. gives a multiple of 3.67. If we divide 365.25 days by 3.67, we get 99.5, which is to say, 100 days, as the unit of time used by Dicaearchus, not three months, as argued by Cullimore. Recall that the Babylonians used 3,600, which is  $6 \times 6 \times 10 \times 10$  as the basic unit by which they counted time at multiple scales. We have previously encountered them using  $1/36$  of a pre-flood year, which is 10 days, therefore it would not be beyond comprehension to find them also to have sometimes used  $1/36$  of a saros, which is 100 days.

However, it is more likely that the original value given was 293,600 days, but Dicaearchus, who did not understand it was in days, dropped the hundreds. Then he subtracted his own chronology of 436 years from the Trojan War to the first Olympiad to get the 2,500-year duration from Sesostrius to Nilus, who was king during the Trojan War.

We previously saw this occur with the original numbers in Pliny being reduced by factors of 1,000 or 10,000 by copyists to make the result look reasonable in years. Two hundred ninety-three thousand and six hundred days yields 803.6 Julian years, added to 776 B.C. yields 1580/79 B.C. This triangulates with the other durations to Sesostrius III with an error of only 0.3%. However, this means the 2,500-year duration is nonsense, because he obtained it by mixing durations given in different units to subtract the 436 years to the Trojan War.

We find this to be the best explanation for this duration, thus forming a second triangulation with the other two durations in days. Dicaearchus lived only a generation before Manetho and Berossus, in whose

**Table 3.** Durations to Egyptian Belus and the astronomical college.

Date B.C. for Egyptian Belus	Duration (years)	Start Date (B.C.)	Source
1576	480,000 days 1,314.16 years	262	Pliny
1576	240,000 days 657.08 years	2233	Epigenes/Pliny
1577	473,000 days 1,295 years	282	Diodorus Siculus
before 1536	> 1,200	336	Macrobius
about 1581	about 1,250	331	Diogenes Laertius
before 1500	before	1500	Diodorus Siculus
before 1500	> 2,000	before Simplicius	Simplicius
around 1510	734	776	Dicaearchus
1579	2936[00] days 803.8 yrs	776	[Dicaearchus corrected]
after 1690	1,460	230/228	Book of Hermes
1506	322	1184	Thallus
about 1580	276	1856	Diodorus Siculus

time we know that the Egyptian and Babylonian priests were giving out such durations in days.

#### **AP-19: Phoroneus: 1753 B.C.**

*480 years:* (Rawlinson 1862, 189) “Berosus and Critodemus are said by Pliny to have made the inscribed stellar observations reach to 480 years before the era of Phoroneus; the latter date was supposed to be about the middle of the eighteenth century B.C.,...” (Smith 1876, 191).

Note that Smith and Rawlinson are using the 480,000-day duration from Pliny but misapplying it to a different event, namely, the reign of Phoroneus.

480 years after observations began at Babel (2233 B.C.) yields 1753 B.C. for Phoroneus. However, Rawlinson misquoted Pliny whose actual words are as follows:

Anticlides writeth, that one in Egypt named Menon was the Inventor of Letters, fifteen Years before the Time of Phoroneus, the most ancient King of Greece: and he endeavoureth to prove the same by monuments. On the other Hand, Epigenes, an author as renowned as any, sheweth, that among the Babylonians there were found observations of the Stars for 720 Years, written on Bricks; and they who speak of the least, as Berosus and Critodemus, report the like for 480 Years. Whereby it appeareth that the use of Letters was eternal. The Pelasgi brought their use into Latium. (Pliny 1847, Book 5, §250)

Smith and Rawlinson made two errors here. First, we know from Syncellus that these durations were originally written as myriads; thus 15,000, 720,000, and 480,000 appear to be the original values. Second, the 720,000 and 480,000 durations in this passage do not relate to Phoroneus at all. They relate to the time of either Berossus or Critodemus.

As we argued above for AP-18, and below for AP-22, it appears that in the original text all three of the numbers given by Pliny were in the form 15 myriads, 72 myriads, and 48 myriads. A myriad is 10,000. Later copyists, failing to understand the unit as days, changed these to values that seemed more reasonable by dividing by 1,000 or 10,000, depending on the case. Understanding the units to be myriads of days, all three durations are precise. Therefore, we must reject this calculation by Rawlinson and Smith as being incorrect both in the duration as well as the terminus of the duration.

However, considerable research by Henry Fynes Clinton estimates that Phoroneus began to reign 570 years before the Fall of Troy, which is to say, 1753 B.C. He reached this value by taking the 17 generations from Phoroneus to the Fall of Troy, and dividing by three generations per century, which was the standard Greek estimate in antiquity, producing

the value of 566 years, which he rounded up to 570 (Clinton 1824, vol. 1, 19; Rawlinson 1855, 222). This duration has an error of  $\pm 16.7$  years.

Therefore, we must conclude that while Rawlinson misquoted Pliny, his erroneous duration of 480 years of observations prior to Phoroneus falls, by strange coincidence, in the right ballpark for the actual number of years from the founding of Babel to the reign of Phoroneus. This would be a case of Rawlinson and Smith getting a correct answer by mistake.

*Conflicts:* Castor dates Phoroneus earlier, in 1807 B.C. (Lemprière 1833, 718). Several authors suggest that Castor was not using original data but was systematizing his chronology (Bunbury 1883, 132; Clinton 1851, 31). The credibility of Castor’s date is questionable (see AP-15).

#### **AP-20: Great War in Egypt: 1825 B.C.**

The wall of the temple at Edfu and the Palermo Stone both state that a Great War occurred 363 years after the founding of Egypt by Menes (Farman 1904, 197), which we found to be 2188 B.C. in the previous paper (CFAH-2, AP-3 [Griffith and White 2022b]). This yields 1825 B.C. for this Great War.

Donovan Courville places the War of Usurpation of the Fourth Dynasty 363 years after Menes as well, resulting in the formation of the Fifth Dynasty two years later (Courville 1971, 185, 193, 210). Summing Courville’s reigns for Dynasty V after the War of Usurpation, the total is 141 years (Courville 1971, Vol. 1, 197–198).

The Sixth Dynasty immediately followed the Fifth Dynasty, since Teti, the first ruler of the Sixth Dynasty, married the daughter of Unas, the last pharaoh of the Fifth Dynasty (Edwards 1970, Vol 1, part II, 90). Manetho states the Sixth Dynasty lasted 203 years (Manetho 1964, 55, 57). Also see Petrie’s reign durations (Petrie 1991, 99).

2188 B.C. Menes founds Egyptian cities; minus,  
363 years to the start of the Great War; minus,  
2 years of war; minus,  
141 years of Fifth Dynasty; minus,  
203 years of Sixth Dynasty; gives:  
1479 B.C.  $\pm 2$  years, death of Nitocris, last ruler of Dynasty 6 (AP-16)

Thus the Great War triangulates with Menes and Nitocris, confirming our placement of those two rulers. This will be important in placing the early dynasties of Egypt in CFAH-6 (Griffith and White forthcoming).

#### **Reasonably Known Dates from the Third Millennium**

##### **AP-21: Reign of Semiramis I: 2036–1994 B.C.**

Semiramis I is dismissed by modern scholars either as purely legendary (Nichols 2008, 19), or

identified as misplaced Shamurammāt, the wife of Shamshi-Adad V of Assyria who reigned after 824 B.C. The original Semiramis described by the Greek chroniclers appears to be much older than that. They believed they knew the duration back to her reign. We have found seven precise durations for her. She appears in the king lists of both the Middle East and Egypt, under different names, where at least two contemporary sculptures of her face have been found (fig. 8). Yet again, we find her in the king lists with male names, despite being otherwise described as a woman or goddess (fig. 2).

Many scholars before us have identified this woman as the person behind the myths of the goddesses Ishtar, Astarte, Inanna, Hathor, and Isis. There is one person who appears in the king lists of early Egypt in the same chronological position, with exactly the same length and years of reign. That is Uonephes, the Greek transliteration of the name of Uadji, or Djet, the “husband” of Queen Merneith.

The first year of Menes of the First Dynasty of Thinis in Egypt was 2188 (CFAH-2, AP-3 [Griffith



**Fig. 8.** Detail of one of the two stelae erected in front of the tomb of Queen Mer-Neith at Abydos, Umm el Qaab, tomb Y (Tomb of Queen Mer-Neith). Now in the Egyptian Museum, JE 34450. Juan R. Lazaro. [https://commons.wikimedia.org/wiki/File:Merneith\\_stele.jpg](https://commons.wikimedia.org/wiki/File:Merneith_stele.jpg). CC BY 2.0.

and White 2022b]). The rule of the fourth king, Uonephes, whom we identify as the male throne name of Merneith, began in 2036/2035 B.C. (Maceoghagan 1896, 12, 13). Manetho lists her as a man, and the tomb of Djet was also the tomb of a man. However, the few women who ruled as Pharaohs are known to have dressed as a man in each of the later cases, such as Hatshepsut.

Semiramis I was referred to with the title “Monarchess of the World” in the Irish Annals, implying there was a second attempted world government after the Dispersion under Ninus, Semiramis, and Ninyas. This is important, not only because there are durations from Semiramis to the Flood and Creation, but also for understanding the 224-year duration of the “Median Dynasty of Babylon” as given by Berossus (CFAH-5 [Griffith and White forthcoming]). We will consider the Babylonian Dynasties of Berossus in more detail in CFAH-5 (Griffith and White forthcoming) and in two papers on Assyria and Babylon (CFAH-14, CFAH-15 [Griffith and White forthcoming]).

Semele was an Anatolian name for the same person whom they deified as the mother goddess in Anatolia where Herodotus was from. When he visited Egypt in 450 B.C., the priests told him that Semele lived not quite 1,600 years earlier (Herodotus 2015a vol. 2, 145).

450 B.C. the time of Herodotus’ visit; plus,  
1,600 years back to Semele; gives:  
 2050 B.C.–50 years for Semele/Semiramis I (2050–2000 B.C.)

Using Manetho’s First Dynasty reigns from Menes to Uonephes: (Manetho 1964, 29)

2188 B.C., Menes founded Thinis  
 (CFAH-2, AP-3 [Griffith and White 2022b]); minus,  
 62 years of Menes; minus,  
 57 years of Atothis; minus,  
31 years of Kenkenes; gives:  
**2038 B.C. for the reign of Uonephes/Merneith**

Using the figures of Eratosthenes instead  
 (Manetho 1964, 215):

2188 B.C. reign of Menes  
 (CFAH-2, AP-3 [Griffith and White 2022b]); minus,  
 62 years of Menes; minus,  
 59 years of Atothis I; minus,  
32 years of Atothis II (Kenkenes); gives:  
**2035 B.C. reign of fourth king, Uonephes/Merneith**

Ashur-Uballit II, the last king of the Assyrian Empire, was defeated at Harran in 610 B.C., and attempted a siege to retake the city, which failed in



609 B.C. The forces of Nabopolassar and Cyaxares defeated the last of the Assyrian army in 608 B.C., which is generally believed to be the year that Ashur-Uballit II died.

Syncellus cites Ctesias as saying that from the reign of Semiramis to the final fall of Assyria, there were 1,428 years (Browne 1844, 559; Layard 1849, 257).

608 B.C., the defeat of last Assyrian forces; plus,  
1,428 years after Semiramis I; gives:  
**2036 B.C. for Semiramis I**

The combined testimony of the *Annals of the Four Masters*, and the *Annals of Clonmacnoise* gives 992 years from the arrival of Partholan in the reign of Semiramis I to the twelfth year of King David (Mageoghagan 1896, 14).

1055 B.C. Ussher for the first year of King David; minus,  
 11 full years; plus,  
992 years; gives:  
**2036 B.C. for Semiramis I.**

The *Annals of Clonmacnoise* state that Partholan colonized Ireland 313 years after the Flood, in the first year of Semiramis, "Monarchess of the World." Using the Ussher-Jones date for the Flood, this places her reign in 2035 B.C.

2348 B.C. Flood; minus,  
313 years to Semiramis; gives:  
**2035 B.C. for Semiramis I.**

The *Annals of the Clonmacnoise* (of Ireland) state that Semiramis began to rule 1,969 years after the Creation of Adam (Murphy 1869, 12). Using the Ussher-Jones date for Creation, this places the reign of Semiramis in 2035 B.C.

4004 B.C., Creation; minus,  
1,969 years; gives:  
**2035 B.C. for Semiramis I.**

### ***Conflicting Duration for Semiramis I: 1,000 years before Argonauts***

Eusebius (1993, 62) quotes a passage from Cephelion in which he relates that Medeia fled with Jason of the Argonautic expedition 1,000 years after the time of Semiramis. The Argonautic expedition is generally thought to have occurred in either 1263 B.C. or 1225 B.C. (Clinton 1824, Vol. 1, 139). This estimate would place Semiramis in the time frame of 2263–2225 B.C., which covers the early part of the Babel period. While there are some good reasons to think she was already alive at this time, and consort of the

king, this was about two centuries before her sole-reign according to the other sources.

### **Conclusion for Semiramis I**

The triangulation of the five durations given above pinpoints the reign of Semiramis I from 2036 B.C. to 1994 B.C., dying two years after the birth of Abraham.

We find a consistent but peculiar discrepancy when searching for female rulers in the second and third millennia before Christ. Historians tell us about Semiramis I, Semiramis II, and Nitocris, three women who ruled as kings. However, instead of women, archaeologists dig up men with similar names. We do not believe this is due to a mistake at all.

There is a strange passage in Justin where he relates that Semiramis dressed like a man, but her son Ninyas was effeminate and spent all his time in the harem (Justinus 1853, Book 1, chapter 4, 11, emphasis added).

Semiramis, not daring to entrust the government to a youth, or openly to take it upon herself (as so many great nations would scarcely submit to one man, much less to a woman), *pretended that she was the son of Ninus instead of his wife, a male instead of a female.* The stature of both mother and son was low, their voice alike weak, and the cast of their features similar. She accordingly clad her arms and legs in long garments, and decked her head with a turban; and, that she might not appear to conceal anything by this new dress, she ordered her subjects also to wear the same apparel; a fashion which the whole nation has since retained. *Having thus dissembled her sex at the commencement of her reign, she was believed to be a male.* She afterwards performed many noble actions; and when she thought envy was overcome by the greatness of them, she acknowledged who she was, and whom she had impersonated. Nor did this confession detract from her authority as a sovereign, but increased the admiration of her, since she, being a woman, surpassed not only women, but men, in heroism.

In the chronology of Uruk, the same position as the reign of Semiramis is held by Dumuzi. The fertility myth of Inanna and Tammuz/Dumuzi says that Dumuzi died and was taken to Hades. But Inanna made a deal with the god of the underworld to let Tammuz come out for six months if she remained in his place. This was used to explain summer and winter. Inanna, or Ishtar, came out of the underworld at the start of spring, bringing the trees to life. She went back into the underworld in autumn, and Tammuz came out. Consequently, no one ever saw Inanna and Tammuz at the same time.

Strange as it sounds, we suspect that the woman Semiramis, after the death of Ninus/Nimrod, dressed as a man and took the throne as Dumuzi

in Uruk and Uadji/Uonephes in Egypt, both of which were male names. Six months of the year she dressed as a man and sat on the throne, as Justin described, and for six months she dressed as herself. Thus in Egypt there are two tombs, one for the man Uadji, and one for his wife Merneith. But, as Justin related, this was merely a ruse to allow her to hold a man's office.

This bizarre practice became tradition followed by later women who became rulers of Egypt. The next six female pharaohs, including Hatshepsut and Cleopatra, all dressed as men and wore a fake beard while sitting on the throne. Likewise, the woman remembered by Berossus, Ctesias, and Herodotus as the second Semiramis may have represented herself as a man, Tukulti Ninurta I. Thus, archaeology finds evidence of a male ruler, while historians preserve the fact that this was actually a woman ruling as a man.

#### **AP-22: Hermes/Thoth/Mercury Brings Writing into Egypt: 2164/2163 B.C.**

Surprisingly, there are several historical durations to the year in which Thoth or Mercury brought writing to Egypt.

“Varro, in Augustin, says, ‘the Egyptians were taught letters by Isis 2000 years before his time.’” (Williams 1789, 147–148). Varro was born in 116 B.C.

116 B.C., birth of Varro; plus,  
2,000 years of writing in Egypt; gives:  
**2116 B.C. ±50 years for the introduction of writing into Egypt (2166—2066 B.C.)**

“Plato, in Phædro, expressly attributes the invention, practice? of letters to the Egyptian Thoth the Hermes, or Mercurius Trismegistus, thrice-great, of the Greeks; but Thoth is understood to have been assistant and secretary to his father Mizraim and Mizraim was son of Ham” (Calmet 1814, 202).

Sanchoniatho attributes the invention of letters to Thoth the grandson of Ham “From Misor (Mizraim)” says he, “came Taautus who found out the writing of the first letters; whom the Egyptians call Thoor, the Alexandrians Thoyth, and the Grecians Hermes.” But Thoth died before Abraham entered into Canaan, and consequently Letters were before the time of Abraham.

Thoth, however, was not the inventor of Letters; for I think it demonstrable that he received the elements of this knowledge from Noah. Even Sanchoniatho himself expressly asserts, that Thoth imitated the art of picture writing practiced by Ouranus or Noah...and delineated the sacred characters that formed the elements of this kind of writing. (Oliver 1830, 117)

We find in Pliny another duration in myriads, similar to the two previous ones we found for 720,000 days to Babel, and 480,000 to Egyptian Belus creating the astronomical college. In the very same passage he writes, “*Anticlides* writeth, that one in Egypt named *Menon* was the Inventor of Letters, fifteen [myriad] Years before the Time of *Phoroneus*, the most ancient King of Greece: and he endeavoureth to prove the same by Monuments” (Pliny 1847, VII.58, 250).

Clinton estimated the rule of Phoroneus to 1753 B.C. above, with an error of ±16 years (AP-19).

Fifteen myriads is 150,000 days, or 410.67 Julian years, with rounding error of 1.4 years. Adding the error of the AP-19 gives a total error of 18.4 years for this duration.

1753 B.C. rule of Phoroneus; plus,  
411 years; gives:  
**2164 B.C. ±18.4 years that Thoth introduced writing to Egypt.**

This visit by Thoth/Mercury coincides with the War of Unification by Menes and Narmer in year 28 (after the Dispersion).

In Africanus, Manetho gives Menes a reign of 62 years in Thinis. While the *Book of Sothis* gives him a reign of only 35 years. The difference between the two is 27 years, suggesting that the author of *Sothis* counted the reign of Menes as beginning 27 years later than Manetho. We know that Menes fought a war of unification and then built Memphis as his new capital.

2191 B.C., the year Menes began to rule; minus,  
27 years; gives:  
**2164 B.C. ±1 year for the War of Unification.**

These three durations form a triangulation, which tells us that Thoth, known to the Greeks as Hermes I and the Romans as Mercury, introduced pictographic writing to Egypt from Assyria in the year 2164/2163 B.C., which was the twenty-eighth year of Menes from the Dispersion. This coincided with the War of Unification depicted on the Narmer Palette, after which Menes and/or Narmer built the city of Memphis as the new capital. In CFAH-6 (Griffith and White forthcoming) we will examine possible identities of Thoth, and why this event was foundational to Egyptian history.

#### **AP-23: Kali Yuga: February 7, 3104 B.C.**

Yuga and kalpa are ancient Aryan words used in the *Rig Veda* and *Mahabharata* to mean an epoch or age. The Chinese, Hindus, and Persians recorded four eras from the beginning of time in which wickedness increased from one to the next (table 4).

**Table 4.** Hindu/Persian/Chinese eras.

Age Name	Length in "Years"	Divided by 4,320
Satya Yuga	1,728,000	400
Trita Yuga	1,296,000	300
Dwapara Yuga	864,000	200
Kali Yuga	432,000	100
<b>Total</b>	<b>4,320,000</b>	<b>1,000</b>

Hamilton has shown that these ages were obtained by multiplying the actual number of years by 4,320, which is the number of Hindu double-hours in 360 days. And therefore, the actual time represented by the first four ages was only 1,000 years.

During the Kali Yuga, there was a change in scale in the way the Hindus count time. Despite the Kali Yuga being intended to be only one century in length, we are currently supposed to be in the five-thousand, one-hundred and fifteenth year of the Kali Yuga. Thus, the Hindus appear to have begun counting years after the start of the Kali Yuga as double hours. This effectively stretches out the fourth age of 100 years into 432,000 years.

The fourth age, Kali Yuga, is called the current age of troubles. This era began before the Flood, and as we will see in the next paper, there are several durations from this era to Creation and the Flood, as well as later historical events such as the Hijirah. While the Kali Yuga is obviously an ancient shared tradition of the Chinese, Hindus, and Persians, their cultures diverged so long ago that today they give slightly different dates for the beginning of the Kali Yuga.

Hindu: 3102 B.C.

Chinese: 3104 B.C.

Persian: 3103 B.C.

The Kali Yuga is recorded as the era of the Flood by multiple sources, meaning that the Flood occurred in the era of the Kali Yuga, not one of the three previous Yugas. However, it was conflated with the actual date of the Flood by several later scholars, which led to several errors.

Two methods by which the date of the Kali Yuga can be fixed are durations and astronomical calculation.

### Durations to the Kali Yuga

1. Three thousand, seven hundred and twenty-five years to the Hijirah in A.D. 622, yields 3104 B.C.:

Arabian astronomer *Albumazar*, or *Abu-mazar*, about the middle of the ninth century, who lived in the court of the Caliph *Al Mamum*, and carefully studied the Hindu antiquities, especially the time of the creation of the world, its duration, and the conjunctions of the planets. He represented that "the

*Hindus* reckoned from the Flood to the Hejira... 3725 years. (Hales 1830, 197)

2. The year A.D. 1815 was, by Hindu reckoning, Kali year 4917, yielding 3103 B.C. (Hamilton 1820, 26).
3. 3102 B.C., by calculation made around A.D. 520 in India:

In the beginning of the sixth century A.D., the astronomers made the Kali Yuga begin in 3102 B.C., and the authority of Aryabhata and Varahamihira was supreme enough to cause the spread of the new doctrine throughout the length and breadth of India. (Aiyer 1901, 49)

4. Hamilton recorded that "A.D. 1788 answers to anno Cali 4890," (1820a, 136) yielding 3102 B.C.
5. The Hindus date the birth of the fifth Buddha, whom they called the black shepherd of the Egyptians, to the year 1533 of the Kali Yuga. Hamilton identifies this prophet as Moses (Hamilton 1820a, 127–129). Adding 1533 to 1571 BC, Ussher's date for the birth of Moses, gives 3104 BC for the Kali Yuga.
6. The fortieth year of Akbar the Great, crowned in 1556 A.D., was Kali year 4700, giving 3104 B.C. for the Kali Yuga (Hamilton 1820a, 128).

These durations triangulate the start of the Kali Yuga to between 3104 B.C. and 3102 B.C. The one year variation in the Hindu durations to the Kali Yuga in modern times is probably due to using a different new year's day.

### Astronomical Calculation of Kali Yuga: February 7, 3104 B.C.

According to Astronomical science and Panchangas of the Hindus, the seven planets should be in conjunction in Mesha at the commencement of the Kali Era that was in 3102 B.C. (Venkatachalam 1956, 49)

Berosus recorded a similar idea:

Berosus, who thus interprets the Babylonian tradition, says that these events take place according to the course of the stars; and he affirms it so positively as to fix the time for the (general) conflagration of the world, and the Deluge. He maintains that all terrestrial things will be consumed when the planets, which now are traversing their different courses, shall all coincide in the sign of Cancer, and be so placed, that a straight line could pass directly through all their orbs. But the Flood will take place (he says) when the same conjunction of the planets shall take place in the constellation of Capricorn...— From *Seneca, Nat. Quest.* iii, 29. (Hodges 1876, 70)

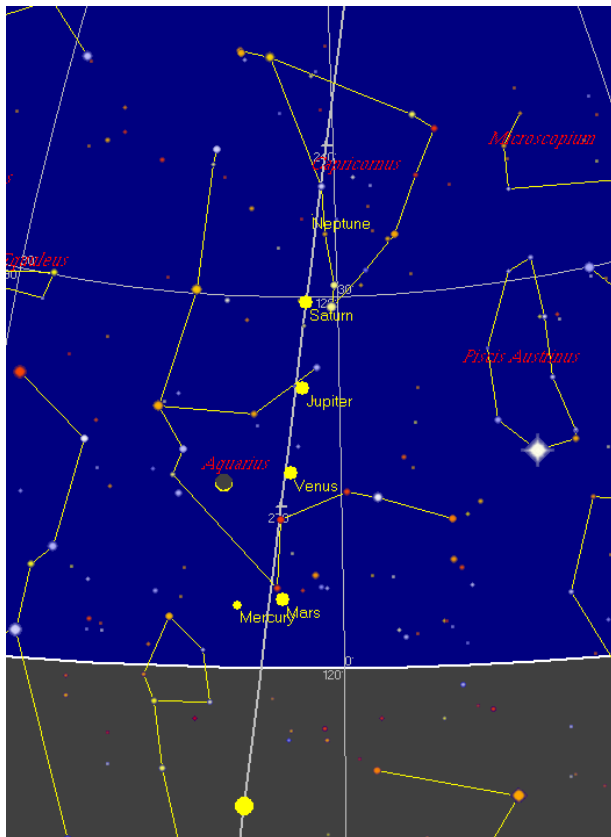
While this was first attempted by Aryabhata (Aiyer 1901) in the fifth century of the Christian Era, Abhyankar (1993, 477–479) used modern astronomical methods to calculate that the described conjunction of the planets occurred on February 7, 3104 B.C. between Aquarius and Capricorn. Fig. 9 shows the heliacal rising of the five visible planets,

plus Neptune, and the new moon on that date. Uranus was the only major planet absent from the conjunction, but the ancients do not seem to have been aware of any planets beyond Saturn.

Using SkyMapPro we determined that Jupiter, Saturn, and Neptune remained in conjunction for nearly a full year from December 3105 to December 3104B.C. Those three planets come into conjunction about once in 780 years. The smaller planets joined them three times in that period, though February 7 shows the tightest conjunction of the five visible planets and includes the moon. We hold that lunar calculations prior to the Flood using the currently measured values are likely to be in error, so the actual date by which the patriarchs reckoned that conjunction may have been at a slightly different time within that year.

Mesha is the Hindu name for the constellation of Aries. The actual conjunction occurred in Aquarius-Capricorn, not Aries (fig. 9). We suspect that the belief that this conjunction occurred in Aries was due to the conflation of the Kali Yuga with the Flood by later Hindu scholars. In the next paper we will show that the ancients of many nations believed that the Flood occurred when the Vernal Equinox was on the cusp between Aries and Taurus.

All indications are that in the prediluvian era, Tishri 1, the new year, was counted as beginning



**Fig. 9.** Heliacal conjunction of Kali Yuga, February 6, 3104B.C. (Author: made using SkyMapPro).

around the time that we now consider to be the autumn equinox. Therefore, we conclude that the best fit for the Kali Yuga would be the year beginning at the autumn equinox of 3105B.C. until the next autumn equinox in 3104B.C. For simplicity we will use January 1, 3104B.C. as the Kali Yuga. The Hindu calculations giving 3102B.C. were apparently adjusted by two years in the sixth century A.D. based on inaccurate astronomical tables (Aiyer 1901).

#### **AP-24: Satya Yuga: 4004 B.C.**

Summing the three ages that preceded the Kali Yuga we arrive at the start of the Satya Yuga and the birth of Fo-Xi the first Chinese Emperor (table 4).

3104B.C. Kali Yuga; plus  
200 years Dwapara Yuga; plus,  
300 years Treta Yuga; plus,  
400 years Satya Yuga; gives:

**4004B.C. start of Satya Yuga and birth of Fo-xi.**

#### **AP-25: Era of the Saptarshi Cycle: 3176 B.C.**

The Saptarshi Era is the primary era used for dating historical events in the Hindu Deccan College. This era began in 3176B.C. and is a cycle of centuries based on the position of two stars in the Great Bear (Big Dipper), called Saptarshi by the Hindus, which move one degree per century relative to the ecliptic. Thus, the Saptarshi Cycle is reckoned by thousand year increments of ten degrees from its beginning.

Due to our suspicion that the Flood probably changed lengths of days, synodic months, and possibly even the obliquity of the ecliptic, we suspect that the Saptarshi Cycle may have been back-calculated several centuries or even a full millennium after the Flood.

However, it is curiously placed exactly halfway between Creation (4004B.C.) and the Flood (2348B.C.) in the Ussher-Jones chronology.

Sometime in the first millennium before Christ, the Hindus in certain parts of India began to reckon the “Kollam Era” from the third Saptarshi Cycle, 1176B.C.

There are several periods in Hindu history dating back to the founding of the Saptarshi Cycle or the Kollam Era, which coincides with the end of the second Saptarshi Cycle.

1. The Kollam Era began in Kali 1927, yielding 1176B.C. (Aiyer 1901, 47).
2. “that there had expired on the 14th of September, 1800, two cycles of a thousand years each, and 976 years of the third cycle” of the Kollam era, yielding 1176B.C. (Aiyer 1901, 47).
3. Quoting Aiyer (1901, 46): “the Kollam Andu was a modification of another older era current in Upper

India under the name of Saptarshaya or Sastra Samvatsara. The peculiarity of this northern era is that though it is to-day [A.D.1797] 4972, it is spoken as 72, so that omitting the hundreds it would be found to be identical with our Malabar year, except for four months beginning with Mesha.' The Saptarshi begins with the month of Mesha; but the Killam begins with Kanya in the north, and with Simha in the south, of Malabar." Four thousand, nine hundred and seventy-two years before A.D.1797 was 3176B.C.

Thus, Aiyer recognized the Kollam Andu as a modified version of the 3176B.C. Saptarshi using a starting date 2,000 years later in 1176B.C., and a different month for the new year.

#### AP-26: Era of the Grand Cycle: 3177/3176 B.C.

The Babylonians, Chinese, and Hindus all used a 3,600-year repeating era called the Grand Cycle or Grand Period, which was made up of 60 cycles of 60 years, called Chi-tran by the Malabars, Kya-tse by the Chinese, and Saros by the Babylonians.

This traditional calendar has remained in use in both oriental cultures until today. We also note the similarity to the Babylonian Saros, which we identified in CFAH-1 (Griffith and White 2022a) as a prediluvian period of 3,600 days, which is ten years of 360 days, or 60 sessoi of 60 days, but which could also be used for an epoch of 3,600 years.

We find two dates for the beginning of the Grand Cycle. Many Chinese scholars date the first cycle to 2697B.C., while other durations seem to place it around 3194B.C., which is nearly eight cycles earlier.

#### *Durations to the Grand Cycle*

1. Several durations place 2697/2696B.C. as the first year of the cycle:

that when the Chinese government admitted a new religion from India in the first century of our era, they made particular enquiry concerning the age of the old Indian Buddha; whose birth, according to Couplet, they place in the 41st year of the 28th cycle, or 1036 years before Christ. And they call him, says he, Foe the son of Moye or Maya. (Hamilton 1820, 94)

27 cycles of 60 : 1620; plus,  
40 full years : 40; gives:  
Total 1,660 years : added to

1036B.C. gives:  
2696B.C.

2. "the Spring equinox of the Christian era 1807 answered to the first of Chittera Prabava, of the 24th Chi-tran..." of the second grand cycle (Hamilton 1820, 33–34). The year 1807 ended

83 cycles. Thus, the first Grand Cycle began in 3174B.C. by modern Chinese reckoning.

3. the world by the Hindus and Chinese, and the commencement of their cycles agree, each placing the Deluge in the 47th year of a cycle,... (Hamilton 1820, 38)
4. The Kali Age was said by the Hindus to have started in the twelfth year of the preceding cycle (Hamilton 1820, 33, 340). Adding 12 and 60 to 3104B.C. for the Kali Age gives 3176B.C. for the start of the Grand Cycle.

The near correspondence of the first Kya-tse in 3174B.C. to the Saptarshi Cycle in 3176B.C. tempts us to wonder if they were originally counted from the same starting year. The Chinese Kya-tse appears to have been in constant use since its inception. However, due to the burning of books by the Emperor Qin Shi Huang in the third century before Christ, physical evidence of its use in earlier times is scarce.

As a luni-solar calendar similar to that of the Hebrews, the Kya-tse has required revisions and intercalations about every 100 years, usually ordered by the reigning emperor. It is possible that in the course of many such revisions it may have drifted due to long periods with no intercalations, or perhaps it was deliberately shifted by two years for reasons similar to the shift of the Kali Yuga by Hindu scholars in the fifth century.

The start of the Saptarshi Cycle occurs within a year of the Grand Cycle if you calculate eight cycles back from 2967B.C. Using the fourth duration, if we count one cycle and 12 years, or 72 years, down from the Saptarshi Cycle in 2176, then we arrive at 3104B.C. for the Kali Age, confirming that both dates are correct.

Therefore, we conclude that originally the Grand Cycle was most likely counted from the same year, 3177/3176B.C., as the Saptarshi Cycle, though it has drifted by two years since then.

#### Summary

Fig. 10 shows several of the most important anchor points along with durations to them. These 26 anchor points can now be used to piece together the dynasties of ancient Babylon, Egypt, Assyria, and the Hittites. But before doing that, in the next paper CFAH-4 (Griffith and White forthcoming) we will examine durations from the ancient chroniclers to the Flood and Creation.

#### Conclusions

1. The widely accepted Achaemenid chronology, supported by Ptolemy's and Eratosthenes' chronologies, is affirmed.
2. Sufficient durations were given by the ancient chroniclers to allow a consistent reconstruction of Babylonian/Sumerian, Egyptian, Assyrian, and

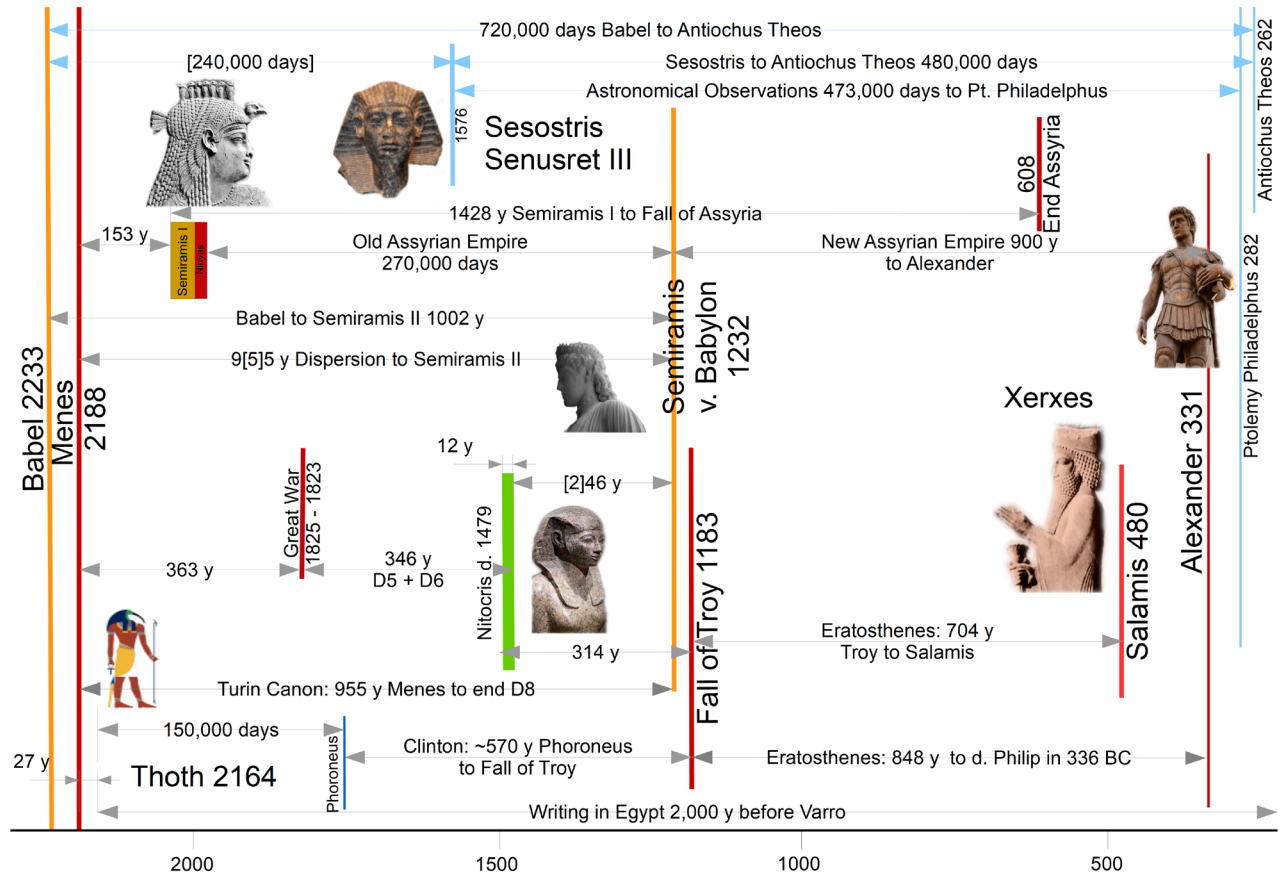


Fig. 10. Anchor points.

Hebrew chronology. For example, Semiramis II (1232/1231 B.C.), as an alter ego or sibling of Tukulti Ninurta I, is the anchor point required for establishing Berossus' Babylonian chronology, which allows us to date the Median Revolt, an essential link in reconstructing Assyrian chronology, as well as the fall of Akkad to the Gutti, which is essential to Sumerian and Babylonian chronology.

3. We have triangulated dates to events in Egyptian dynasties 1 (Thisis), 6 (Memphis), 8 (Memphis), and 12 (Thebes), which are completely different from the accepted Egyptian chronology. The triangulations for Nitocris and Sesostri III go back to the Dispersion and forward to known dates, making them both very strong.

These findings require, at minimum, that the dynasties in Thisis, Memphis, and Thebes reigned in parallel, not in sequence. Eusebius told us as much:

But if the number of years is still in excess, it must be supposed that perhaps several Egyptian kings ruled at one and the same time; for they say that the rulers were kings of This, of Memphis, of Sais, of Ethiopia, and of other places at the same time. It seems, moreover, that different kings held sway in different regions, and that each dynasty was confined to its own nome: thus it was not a succession of kings occupying the throne one after the other, but several kings reigning at the

same time in different regions. Hence arose the great total number of years. (Manetho 1964, 9)

Syncellus concurs: "Thereafter, Manetho tells also of *five Egyptian tribes* which formed thirty dynasties..." (Manetho 1964, 11, emphasis added). We will put flesh on the bones of this hypothesis in CFAH-6 (Griffith and White forthcoming).

We have used triangulations to pinpoint the known dates from which the ancient chroniclers reckoned. This will allow us to proceed with solving the puzzle of ancient history.

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#### Supplementary Data.

CFAH Data Spreadsheet with listed Anchor Points.