

Correlation of Select Classical Sources Related to the Trojan War with Assyrian and Biblical Chronologies

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Archaeological findings have added greatly to the credibility of Josephus's citations of Tyrian records, in particular the list of Tyrian kings and their lengths of reign from 1000 to 786 B.C. and then from 593 to 532 B.C. Considerable skepticism remains, however, regarding the accuracy of another chronological datum that Josephus found in the Tyrian records, namely that Tyre was (re)founded 240 years before construction began on Solomon's temple. The present study cites Pompeius Trogus/Justin and other classical authors that placed the refounding of Tyre immediately before the end of the Trojan War, thus bringing into harmony the date given in the Parian Marble for the fall of Troy, 1208 B.C., with the date for Tyre's refounding as calculated from Josephus. Essential to this reasoning is the argument for the independence of the various sources that date these two events to the last decade of the 13th century B.C. Their independence, yet essential agreement, is compared to the weakness of the reasoning for the traditional date of 1183 B.C. for the end of the Trojan War. The precision of these various arguments is based on the firmness of the regnal dates of Solomon and his successors, as derived from biblical texts.

KEYWORDS: *Old Testament Chronology, Josephus, Solomon, Hiram of Tyre, Tyrian King List, Trojan War*

ISSUES RAISED BY COUCKE'S SUCCESS IN DERIVING
CHRONOLOGICAL BENCHMARKS OF ISRAEL'S
KINGDOM PERIOD FROM CLASSICAL SOURCES

An article published in 2010¹ presented the innovative approach of Valerius Coucke in determining chronological benchmarks in the histories of the Hebrew kingdoms.² The article highlighted Coucke's extensive knowledge of classical authors, and his use of that knowledge to establish two fixed dates in the Hebrew kingdom period: the end of the Judean monarchy in 587 B.C. and the beginning of construction on Solomon's temple in 967 B.C.

In Coucke's methodology, the date for the destruction of Jerusalem by the Babylonians was set by determining from Ptolemy's *Canon* the accession year for Amel-Marduk (the biblical Evil-Merodach), and then referring to 2 Kgs 25:27, Jer 52:31, and Ezek 33:21 to place the fall of Jerusalem 25 years earlier, in the summer of 587 B.C. Subsequent archaeological findings have verified the basic soundness of this approach. More surprising was Coucke's reference to the Tyrian King List found in Menander/Josephus³ as one of two methods used to determine that construction began on Solomon's temple in the spring of 967 B.C. After this derivation was done from classical sources, Coucke referred to the biblical data in 1 Kgs 6:1 and 11:42 to date Solomon's last year to 932t.⁴ These dates for Solomon, one year earlier than Thiele's,

1. Rodger C. Young, "The Parian Marble and Other Surprises from Chronologist V. Coucke," *AUSS* 48 (2010): 225–49.

2. V. Coucke, "Chronologie des rois de Juda et d'Israël," *RBén* 37 (1925): 325–64; idem, "Chronologie biblique" in *Supplément au Dictionnaire de la Bible*, ed. Louis Pirot, vol. 1 (Paris: Librairie Letouzey et Ané, 1928), cols. 1245–79. An annotated English translation of the latter is available from www.rcyoung.org/papers.html (cited 8 May 2012). Valerius Coucke was chief librarian at the Grootseminarie Brugge (Grand Séminaire de Bruges) in the 1920s. After the *AUSS* article cited above was written, the seminary's present chief librarian, the Reverend Stefaan Franco, was contacted for further information about Coucke. This was kindly provided after a search of parish records and records of the seminary. This information was used to create a page in Wikipedia containing what is known about Coucke's life (entry "Valerius Coucke"). A search by Reverend Franco for other publications of Coucke found nothing beyond the two articles cited.

3. *Ag. Ap.* 1.17/108; 1.18/117–126.

4. A year determined by the calendar of the southern kingdom, in which regnal years began in the fall month of Tishri, is represented by the B.C. year in which the regnal year started followed by a small 't'. For the northern kingdom, the regnal year started in Nisan and a year reckoned by this calendar would be represented by the B.C. year followed by a small 'n'.

agree with the dates calculated for Solomon in a 2003 *Journal for the Evangelical Theological Society* article,⁵ where the reasoning was based on different criteria; Coucke's contributions in this matter were not known at the time. Coucke also assumed that the division of the kingdom took place after the midpoint of the year 932t, so that he dated the division of the kingdom to sometime after Nisan 1 of 931 B.C. and before Nisan 1 of 930 B.C.

Coucke's date for the division of the kingdom is in exact agreement with the date that Thiele derived some years later from Assyrian and biblical data. Thiele was unaware of Coucke's research when he initially published his findings. Also unaware of Coucke's work were several scholars who later used the Tyrian King List in the same way that Coucke did to derive the date for the beginning of construction of Solomon's temple. Their studies followed the publication, in 1951, of an Assyrian inscription showing that the List's figure of 143 years from when Hiram of Tyre sent material for the construction of the temple until Dido's departure from Tyre, after which she founded Carthage in North Africa, were consistent with Dido's departure in 825 B.C.⁶ These later scholars agreed that the Tyrian data gave the date of 968/67 for the start of temple construction. Although this was the same date that Coucke had derived from the Tyrian King List in the 1920s, no reference was made to his work. Coucke had been forgotten.

A slight refinement should be made to the work of Coucke and the later scholars who correlated Tyrian chronology with the date when construction began on Solomon's temple. Josephus relates that Tyrian records show that it was in Hiram's eleventh year (so *Ant.* 8.3.1/62), or twelfth year (so *Ag. Ap.* 1.18/126), that construction began on the temple. (Since *Against Apion* is a later work than the *Antiquities*, the twelfth year should be preferred.⁷) The Bible gives a precise date for the beginning of construction: it was the second of Ziv (Iyyar) in the fourth year of

5. Rodger C. Young, "When Did Solomon Die?" *JETS* 46 (2003): 589–603.

6. See the discussion, with citation of the relevant studies, in Rodger C. Young, "Three Verifications of Thiele's Date for the Beginning of the Divided Kingdom," *AUSS* 45 (2007): 179–87. These studies, along with the archaeological finds on which they were based, have been instrumental in verifying the historicity of Dido (also called Elissa), who had been considered as an entirely mythical figure by some classicists.

7. The twelfth year is also to be preferred because Josephus, in *Ag. Ap.* 1.18/126, says that it was in the twelfth year of Hiram's reign that Temple construction began, and also that Hiram began to reign 155 years and eight months before the foundation of Carthage while the building of the Temple in Jerusalem began 143 years and eight months before the foundation of Carthage. The redundancy in Josephus's account has safeguarded the figures given (the 155 years, the 143 years, and their difference as 12 years) from the errors of copyists.

Solomon (1 Kgs 6:1; 2 Chr 3:2), that is, in the spring of 967 B.C.⁸ However, it seems likely that this is not exactly what would have been commemorated in the Tyrian archives. For Tyrian recorders, writing from a Tyrian standpoint, the date of interest would be when the rafts of logs and carts or shiploads of stone were dispatched from Tyre or from its holdings on the mainland. This material must have been delivered to the site before construction work began. But sending rafts of logs by sea is a risky business, not to be undertaken during the winter months, and probably not in the early spring either. Although it could be argued that the Tyrians invented just-in-time delivery by sending their log flotillas to the shore of Israel in late winter or very early spring,⁹ hoping that the following overland journey would get the material there just before the second of Ziv, it is more reasonable to assume that the rafts were assembled and sent during the summer or early fall of the preceding year, before the storms of October/Tishri (Acts 27:9). That the assembly of materials took place well before the start of construction is indicated by the account of preparation for building the temple given in 1 Chr 29:1–9, where v. 2 specifically mentions the collection beforehand of timber as well as a great quantity of fine stone and marble. It is therefore reasonable to assume that the Tyrian accounts cited by Josephus recorded the dispatch date of the material (timber and fine stone), rather than the date that construction began on the temple.¹⁰ If the log rafts and carts of

8. Thiele's chronology would give the spring of 966 B.C., but his choice of putting Solomon's death after Tishri 1 of 931 B.C. instead of in the months preceding Tishri 1 (but still preserving 931 as the year of division of the kingdom) led to a one-year discrepancy in the reigns of the first rulers of the southern kingdom that was never reconciled in his publications. See the discussion in Young, "Three Verifications," 169–72. Recent publications that include this one-year correction for the reigns of Solomon through Athaliah, thus placing the start of temple construction in the spring of 967 B.C., include Bryant G. Wood, "The Rise and Fall of the 13th-Century Exodus-Conquest Theory," *JETS* 48 (2005): 477, 488; Douglas Petrovich, "Amenhotep II and the Historicity of the Exodus Pharaoh," *MSJ* 17 (2006): 83; Leslie McFall, "The Chronology of Saul and David," *JETS* 53 (2010): 533 (chart); Andrew E. Steinmann, *From Abraham to Paul: A Biblical Chronology* (St. Louis: Concordia, 2011), 133–34, 138.

9. A likely Julian date for the second of Iyyar in 967 B.C. is April 18/19 (see a calculation of this type in footnote 30).

10. Katzenstein cannot believe that the building of Solomon's temple would have been mentioned in the state archives of Tyre (H. Jacob Katzenstein, *The History of Tyre from the Beginning of the Second Millennium B.C.E. until the Fall of the Neo-Babylonian Empire in 538 B.C.E.* [Jerusalem: Schocken Institute, 1973], 82–3). Such skepticism is unwarranted. Phoenician merchant-princes were very interested in the inventory of material sent to their customers and the date of sending, as shown in the records retrieved from his archives by Zakar-Baal, prince of Byblos, a little over a century before the time of Hiram (*ANET* 27).

stone were dispatched in the summer preceding Ziv/Iyyar of 967 B.C., this would synchronize Hiram's twelfth year with Solomon's third year, not with his fourth year (the year in which temple construction began).¹¹

The regnal years of Hiram were probably reckoned from Tishri, similar to those of Solomon.¹² Coucke observed that in the time of Solomon, Hebrew month names were identical to Phoenician month names, so it was logical to assume that Tyre began its regnal year at the same time as did Jerusalem, on the first of Tishri. Coucke's assumption in this matter has found support in records from Ugarit, where a yearly coronation ritual was observed on the first of Tishri.¹³ According to W. F. Albright, there was a common Canaanite/Phoenician culture, including artifacts, language, religion, and customs, from Ugarit in the north to Southern Palestine,¹⁴ so that it is to be expected that Tyre observed the same calendar as did Ugarit. This is one of several areas where Coucke's theories, seemingly somewhat bold when propounded in the 1920s, were verified by later research and archaeological findings.

Assuming then that the logs to aid in building Solomon's temple were sent several months before construction began in order to avoid the winter and early spring storms in the Mediterranean, the year that the rafts of logs were dispatched would be 969t. From this date as a starting point, the Tyrian data cited in Josephus gives the time when Dido fled from her brother Pygmalion, 143 years later,¹⁵ as $(969t - 143) = 826t$. This is in agreement with the statement of the Roman author Pompeius Trogus (18.6.9) that placed Dido's flight (which he or his epitomizer Justin conflated with her founding of Carthage¹⁶) in the year beginning

11. The assumption that the Tyrians sent their material to Jerusalem in the same year that temple construction began has been implicit in all studies that tied the Tyrian King List to the chronology of the reign of Solomon. This includes the two most recent studies (Young, "Three Verifications," 186; idem, "The Parian Marble and Other Surprises," 235).

12. For the demonstration that Judah's regnal year began in Tishri, see Edwin R. Thiele, *The Mysterious Numbers of the Hebrew Kings* (3d ed.; Grand Rapids, MI: Zondervan/Kregel, 1983), 51–2.

13. KTU 1.41:50–55.

14. W. F. Albright, *Archaeology and the Religion of Israel* (New York: Doubleday, 1969), 71–2, 114–18; idem, *Yahweh and the Gods of Canaan* (New York: Doubleday, 1969, p. 115).

15. *Ag. Ap.* 1.17/108, 1.18/117–126.

16. The date usually given for the founding of Carthage is that of Timaeus, 814 B.C. J. M. Peñuela has argued, based on ancient texts describing Dido's activities after she left Tyre but before the people of North Africa granted her permission to build a city, that eleven

on March 1, 825 B.C., 72 years before the founding of Rome on April 21 of 753 B.C., as measured by the early Roman March-based calendar. The overlap of these two calendar systems, the Tyrian and the Roman, places Dido's flight at some time between March 1 and the first day of Tishri, 825 B.C.¹⁷

The year in which Hiram sent material for building the temple in Jerusalem can be used to calculate another date used by Coucke, namely the year Tyre was refounded.¹⁸ According to Tyrian records as cited in Josephus (*Ant.* 8.3.1/62), this happened 240 years before the Tyrians helped Solomon build the temple, in the eleventh year of Hiram. As mentioned above, Josephus made a correction in his later work *Against Apion*, stating that Tyre's aid was given in Hiram's twelfth year, so a corresponding correction would make this the 241st year of the refounded city of Tyre. The rebuilding of Tyre then may be dated to $(969t + 240) = 1209t$ or $(969t + 241) = 1210t$. Pompeius Trogus/Justin (18.3.5) related that Troy fell one year after Tyre was built, which would place the fall of Troy in either 1208t or 1209t, assuming a fall-based calendar.¹⁹ The latter of these years agrees with the Parian Marble's date for the fall of Troy: June of 1208 B.C.

Except for a cursory introduction given in the 2010 *AUSS* article, later scholarship has failed to deal with Coucke's use of this information

years elapsed between her flight and the foundation (or possibly, dedication) of the city, thus explaining the apparent discrepancy between Trogus and Timaeus in this matter. J. M. Peñuela, "La Inscripción Asiria IM 55644 y la cronología de los reyes de Tiro," *Sefarad* 14 (1954): 28–29 and nn. 164–67.

17. For authors who assumed that the 143 years are measured from when construction actually began on the temple in Jerusalem, the years would be measured from 968t and the overlap with the 72-year figure of Pompeius Trogus would place Dido's flight in the period from Tishri 1 of 825 B.C. to the last day of February, 824 B.C.

18. *Supplément*, col. 1251. Coucke's reasoning was the reverse of what is found here, because for him the date that needed to be calculated was the date when construction began on Solomon's temple, which he could then use as his starting place in providing the years of the Hebrew kingdom period. For additional details, including the discussion of the refounding of Tyre as a consequence of the Sea People invasion in the reign of Pharaoh Merenptah, see Young, "The Parian Marble and Other Surprises," 232–35.

19. Justin's epitome gives no date for either event (the fall of Troy or the founding of Tyre) in terms of ancient chronologies, merely stating that the king of Ashkelon defeated the Sidonians, and the Sidonians then "took to their ships and founded the city of Tyre the year before the fall of Troy." It can be demonstrated that some of the chronological schemes in Trogus/Justin are incorrect, but the simple statement that one event took place a year before another event can be true, and remembered correctly, even though the author may not have known the correct absolute chronology for either event. Another, apparently independent, source that also places the fall of Troy one year after the founding of Tyre will be discussed below.

that connects an entry in the Parian Marble with the date when Tyre sent aid for the building of Solomon's temple. Coucke used as his starting place the Parian Marble's date for the fall of Troy and went on from there, using only classical sources and no biblical data, to say that the year in which Hiram of Tyre sent aid to Solomon to start building the temple must fit in the narrow time range of 969 to 967 B.C. As shown above, this agrees with the date derived from the Tyrian King List, as measured upward from Dido's fleeing Tyre in 825 B.C. It also agrees with the dates of Solomon derived from Assyrian and biblical sources by later scholars who were not aware of Coucke's work. However, Coucke's logic relied on the Parian Marble's date for the end of the Trojan War, which is 25 years earlier than the date of Eratosthenes that was widely accepted by ancient writers after the time of Eratosthenes and Apollodorus (i.e., after the beginning of the first century B.C.). Eratosthenes' date was also widely accepted by modern classical scholars until quite recently, so that Katzenstein wrote as late as 1973, "The date of 1183, established by Eratosthenes of Alexandria, is now almost generally accepted (*CAH I* [1970], 246-247)." ²⁰ The disagreement with the popular date given for Troy's fall may account for the oblivion into which Coucke's argument fell. To his contemporaries, Coucke's choice of the Parian Marble's chronology for the Trojan War, versus the more commonly accepted chronology, must have seemed entirely arbitrary and not worthy of comment.

Is there any evidence that the Parian Marble's date for the end of the Trojan War is more credible than that of Eratosthenes? The first evidence in favor of the Parian Marble is the observation that by starting with the Marble's date, Coucke was able to derive a date for the beginning of construction on Solomon's temple that has proved to be correct. ²¹ This by itself is a cogent argument, since if the Marble's date were wrong, it is difficult to explain how Coucke could derive a correct and quite precise result when using it as his starting point. Could it be that Eratosthenes's date relies on arbitrary assumptions and so is suspect,

20. *History of Tyre*, 61, n. 94. However, such confidence in the date of an event in the second millennium B.C., as derived from Greek or Roman sources, has now been replaced by a general skepticism about the reliability of any information in Greek or Roman sources that purports to describe events in the sixth century B.C. or earlier (Alden Mosshammer, *The Chronicle of Eusebius and Greek Chronographic Tradition* [London, 1979], 92-93).

21. Or, in reverse order, it may be said that the information in Josephus about the years from the founding of Tyre until Tyre sent aid for the building of Solomon's temple, plus the statement of Pompeius Trogus that Troy fell one year after Tyre was founded, is an independent means of calculating the fall of Troy, one that agrees with the date given for that event in the Parian Marble.

rather than the Parian Marble's date? Both sides of this question need to be examined: "Any study therefore that seeks to establish the Parian Marble's date over the commonly accepted date needs to consider the question of the Parian Marble's overall trustworthiness. Sources such as the Canons of Eusebius that are used to justify the 1183 date should also be examined for their credibility. The issues involved are somewhat complex, and the fuller discussion that they require has been relegated to a separate article."²² The remainder of the present study addresses this double-sided question.

THE PARIAN MARBLE

Nature of the Marble's Text: Format and Genre

The Parian Marble is essentially a chronological list that dates past events in terms of the years they happened before the base date of the tablet. The base date is written in the form 264/63 B.C. on the University of Oxford's Ashmolean Museum Web site.²³ In the extant portions of the text, each of the 107 entries includes two items of information related to the listed event: the number of years before the base date and the name of the king or archon who was ruling in Athens at the time. The only exceptions are that in nine entries, the place where the name of the archon or king is expected is no longer readable, and in 14 entries the space for the statement about the number of elapsed years has similarly been effaced. This strongly implies that the ultimate source of the information in the Parian Marble was the state archives of Athens, where it would be expected that an annalistic recording of events would list the kingship or archonship in which an event occurred, along with some more exact indication of the year. Athens apparently was keeping an *AUC* type calendar that measured the years from some event, probably the beginning of the kingship under Cecrops. From these years, the author of the Parian Marble calculated the time from his "present" date back to the date of the event being described. The Athenian provenance of the information in the tablet is important to keep in mind when its dates for the Trojan War are compared with the dates derived from the

22. Young, "The Parian Marble and Other Surprises," 236. The title of the current follow-up article has been changed from what was initially proposed in order to delineate more exactly the thesis that is being presented.

23. Text of the surviving portions of the Parian Marble is available at the Ashmolean Museum Web site ("Parian Marble," n.p. [cited 8 May 2012] www.ashmolean.org/ash/faqs/q004/q004006.html).

Tyrian King List and Pompeius Trogus/Justin above, and from other Asiatic sources below. If the Tyrian, other Asiatic, and Athenian sources are independent, and if they agree on the date of the Trojan War, that would be strong evidence in favor of the factuality of the date that they supply.

Statement of Sources in the Heading Text of the Marble

That the ultimate source of the information in the Parian Marble was the state archives of Athens seems to be contradicted by the restoration of the first line of the tablet given on the Ashmolean Web site. The English interlinear translation, with text that is restored by conjecture indicated by square brackets, is as follows:

[From] al[l the records and general accounts] I have recorded [the previous times], beginning from Cecrops becoming first king of Athens, until [_____]uanax was archon in Paros, and Diognetus in Athens.

However, the restoration of the effaced first phrase as “[From] al[l the records and general accounts] I have recorded . . .” is intrinsically not plausible. The Greek source is “[ἐξ ἀναγραφῶν (?) παν[τοί]ον [καὶ ἱστοριῶν κοινῶν (?) ἀνέγραψα...” The ἐξ of the conjectural restoration is reasonable because in this genre of writing we expect the author to report “from” where he got his information. What is dubious, however, is the restoration of the first part of the word ending in -ῶν so as to give κοινῶν—“common, general, ordinary,” which the Ashmolean Web site extrapolates to “general accounts.” The writer of an annalistic history that professes to give exact dates for events would not assure readers of his credibility by saying that his information was derived from the “common” folklore. He would instead do as Josephus did when presenting information regarding Hiram and the history of Tyre. Josephus declared that his account was authentic because it was drawn from the state archives of Tyre, as translated into Greek by Menander and Dios. For the Parian Marble, such reassurance would be given if the original word, for which the genitive plural ending -ῶν has survived, was not κοινῶν, but Ἀθηνῶν, preceded by the ἀναγραφῶν and ἱστοριῶν of the Ashmolean restoration: *all the public records and histories of Athens*.²⁴ The construction “of Athens” is found in the next phrase of the

24. In classical Greek, “Athens” is a plural noun. Felix Jacoby is apparently the source of the Ashmolean’s restoration of -ῶν to κοινῶν (*Das Marmor Parium* [Berlin: Weidmannsche Buchhandlung, 1904], vii.)

introductory text, and “king of Athens” occurs throughout the rest of the tablet, down to the time when the archonship began in 684/83 B.C. The phrase “records of Athens” is thus in keeping with the common mode of expression of the author. The introductory phrase should be restored as follows:

[From] al[l the public records and histories of Ath]ens I
have recorded [the previous times], beginning from
Cecrops becoming first king of Athens, until
[]uanax was archon in Paros, and Diognetus in
Athens.

This restoration gives the assurance of credibility that we expect in the author’s introductory sentence. It is also in keeping with the content and annalistic style of what follows. The Parian Marble is essentially a transcript of selected records drawn from the official archives of the city of Athens. Its credibility ultimately rests on the credibility of those archives.

But is it possible that Athens was keeping a written record of events that extended back to 1582/81 B.C., the date of the Parian Marble’s first entry? This would seem to be contradicted by the conventional understanding of the “Dark Ages” that followed the collapse of Mycenaean civilization in about 1120 B.C. and lasted for two and one-half centuries. The lack of Greek inscriptions that can be dated to this period has led to the assumption that all literacy had been lost. If that were the case, it would be in conflict with the idea that the Parian Marble’s dates related to this period and earlier are derived from “the public records and histories of Athens.” That Athens could not have had written records during the Greek Dark Ages is essentially an argument from silence, and therefore a weak argument. It should be remembered that an earlier argument from silence held that the Greeks had no literary abilities at all before the middle of the eighth century B.C. This consensus was shattered in 1952, when Michael Ventris deciphered the Linear B script that was in use from about 1400 B.C. to 1200 B.C., showing that its language was Greek. We learn from the examples of Linear B and Linear A that if writing was known in Athens as early as the 16th century B.C., the writing would not have been in an alphabetic script, such as the Greeks adapted from the Phoenicians, or some other West Semitic source, in the eighth century.

Some Selected Dates Given by the Parian Marble

As mentioned above, the “base date” of the Parian Marble, the year from which all entries are dated in terms of the elapsed number of years, is generally written as 264/63 B.C. In keeping with what has been said about the source of the Marble’s information, it may be assumed that the underlying calendar on which these dates are based is the archon-calendar that was used in Athens in the third century B.C. In this calendar, the year began with the first new moon after the summer solstice, i.e. on June 22 or in the 29 or 30 days following.²⁵ Alternately, it might be surmised that the calendar used would be the Macedonian calendar that was in general use in the western (Mediterranean) part of the Hellenistic world in the third century B.C. In the Macedonian calendar the year began in the fall month that was equivalent to the Babylonian and Hebrew Tishri. Although this is less likely, for the purpose of the present study it is not important to choose between these two options, the Athenian calendar vs. the Macedonian, since they both produce the same date when using the Parian Marble’s chronology for the fall of Troy (see footnote 30). Since a decision is not necessary in this regard, dates as determined from the Parian Marble will be expressed in the traditional form whereby, for instance, the base date of the Marble is written as 264/63 B.C. It should also be noted that the reckoning of when the year started in Athens may well have changed from the time of Cecrops to the third century B.C.

The earliest event recorded is when Cecrops became king of Athens in 1582/81 B.C., 1,318 years before the base date. Entries 3, 10, 12, and 14 are plainly mythological. Several entries refer to persons to whom later generations attributed fabulous exploits. One such individual was Cecrops, but the Marble’s entry only states he succeeded a certain Actica, from whom the area received its previous name. Similarly, the entries for Deucalion, who became the center of many flood-myths, simply state that he was king in Lycoreia and there was a flood in his time, from which he fled to Athens, where later his son became king.

The major analysis of the Parian Marble is that of Felix Jacoby, published in 1904.²⁶ Jacoby notes previous studies of the inscription from the eighteenth and nineteenth centuries, but these only treated the fragments taken to England, since the third fragment was not discovered until 1897. He mentions a few studies of the third fragment in the early years of the twentieth century. Jacoby generally does not discuss the

25. Alan E. Samuel, *Greek and Roman Chronology: Calendars and Years in Classical Antiquity* (Munich: C. H. Beck’sche, 1972), 64.

26. Jacoby, *Das Marmor Parium*.

accuracy of the dates given in the Parian Marble. He includes parallels from other classical sources and notes the difference in dating among all the sources, including the Parian Marble. There apparently has been no major work devoted to a study of the Parian Marble since Jacoby's monograph, although the tablet is sometimes cited with reference to its time for particular events. In particular, there is a need for a more extended study of the accuracy of the Parian Marble as checked against established dates. In one limited study, for the time range from 320 to 311 B.C., R. M. Errington found that "the *Marmor Parium* [Parian Marble] for this period constitutes a careful and accurate collection of good information by the compiler."²⁷ Going backward over three and one-half centuries, the Marble's date for the beginning of the annual archonship in Athens, 684/83 B.C., is in agreement with the commonly accepted date.²⁸ For earlier centuries, there are few reliable inscriptions or histories against which to test the Marble's dates. A certain caution is therefore justified in accepting its dates for events when it is the sole witness to that date, or for events for which other sources provide a different date. When, however, the Marble's date for an early event (thirteenth century B.C.) is in agreement with evidence from another source, and that source is independent of the Parian Marble, it is not a mark of scholarly impartiality to reject the Marble's testimony just because most classical writings related to this time are overlaid with mythological inventions, or because verification from contemporary inscriptions has not yet been found.

The present paper, the thesis of which depends on showing the independence of various traditions that place the fall of Troy in the last decade of the thirteenth century B.C., is intended to show that the Parian Marble's date for this event should be given new respect. At the same time, classical scholars may not fully appreciate the force of this argument because they are unfamiliar with the solid evidences that support one chronological marker that is essential to this line of reasoning, namely the date of 967 B.C. when construction began on Solomon's temple—a date that is fixed based on biblical texts. These biblical texts are tied eventually to astronomical dates and the Assyrian Eponym List. Additionally, it has been our experience that some classical scholars are not familiar with the archaeological evidence that establishes the essential historicity of the two Tyrian King Lists found in Josephus:

27. R. M. Errington, "Diodorus Siculus and the Chronology of the Early Diadochoi, 320–311 B.C.," *Hermes* 105 (1977): 504. Errington regards as "inexplicable," however, that the Marble assigns 312/11 to the solar eclipse that was visible at Athens on August 15, 310 B.C.

28. *OCD*, s.v. "Archontes."

the first from Abibaal, father of Hiram I in about 1000 B.C. to Pygmalion and his sister Dido/Elissa at the end of the ninth century B.C. (*Ag. Ap.* 1:18/117, 121–126) and the second covering the period from 593 to 532 B.C. (*Ag. Ap.* 1:21/156–159). The historicity of the First Tyrian King list is essential to the thesis of the present paper, and those interested in the arguments for its veracity are referred to the several studies mentioned in Young, “Three Verifications,” 179-181, particularly those cited in nn. 40 and 42.

THE DATE OF TROY’S FALL ACCORDING TO THE PARIAN MARBLE

Entry 24 of the Parian Marble states that Troy was taken 945 years before the base date, on the seventh day before the end of the month Thargelion.²⁹ The lunar month Thargelion usually began sometime in May, so that the Marble’s testimony would place the fall of the city in early June of 1208 B.C.³⁰ This agrees with the date given above by combining the Tyrian data for the date of the founding of Tyre, 1209t or 1210t, 240 or 241 years before Tyre sent material to aid in the construction of Solomon’s temple, with the statement of Pompeius Trogus that Troy fell one year later. The agreement is the more remarkable when it is remembered that Josephus derived his information from a Phoenician source, as translated into Greek by Menander and Dios, whereas the other source that provided the (same) date was a Greek account, as derived from the archives of Athens. There is no mention in the Parian Marble of the date that was crucial in the derivation of the date of the fall of Troy using the Tyrian data, namely the date when construction began on the temple in Jerusalem. Equally significant,

29. The grammar of the Greek phrase employed means that the city fell six days before the last day of the month.

30. According to the NASA table of moon phases at <http://eclipse.gsfc.nasa.gov/phase/phases-1299.html>, an astronomical new moon (conjunction) occurred at 20 minutes before midnight, GMT, on June 14, 1208 B.C., which was about 1:50 AM June 15, Greek (Athens) local time. At the latitude of Athens and in the month of June, the new crescent becomes observable about 35 hours after conjunction on the average, so that the month following Thargelion would have begun with the observation of the new moon at sunset on June 16. The daytime of June 16 would be in the last day of Thargelion, and the Parian Marble’s date for the end of the Trojan War, six days earlier, would be June 10, 1208 B.C. The same date results whether the Parian Marble was reckoning by an Athenian calendar that began on or shortly after June 22 or a Macedonian calendar that began in the fall. The exactness of this date does not prove that it is historically correct, or even that there was such a thing as the Trojan War. It is proper, however, to state that June 10, 1208 B.C. is the date for the end of the Trojan War given by the Parian Marble, and it is very probable that the Parian Marble extracted this information from the archives of the city of Athens.

Josephus could not have calculated correctly the years from his own time back to the reign of Solomon, in order to obtain the absolute (B.C.) date that was derived above for the refounding of Tyre. The knowledge of how to properly interpret the chronological data of the Hebrew kingdoms had been lost, only to be recovered in recent decades of the modern era. How then could these two independent sources give the same date for the fall of Troy? The best explanation is that Athens on the one hand, and Tyre on the other, were keeping an annalistic log of the passage of years, similar to that found in the Assyrian Eponym Lists or the consular lists of Rome. That the two sources agree on the date of closely related events in the late thirteenth century B.C. indicates that for both Tyre and Athens, the reckoning of years had started at a very early date and continued without interruption down to the time of Menander and Dius in one case and to the time of creation of the Parian Marble in the other. It is difficult to think of any other explanation that can account for the agreement of these two traditions, the Phoenician and the Athenian, on the dating of two events that happened a thousand years earlier, in 1209 and 1208 B.C.

THE DATE OF TROY'S FALL ACCORDING TO ERATOSTHENES

Eratosthenes (*ca.* 275–194 B.C.) used the system of Greek Olympiads to provide an absolute calendar for all events as far back as the first Olympiad, which he set in 776 B.C., a date that is generally accepted as reliable because it was established from lists of Olympic victors that the Greeks kept in multiple sources. Prior to 776 B.C., Eratosthenes depended on the list of Spartan kings, for whom he apparently had names and lengths of reign back to 1043 B.C. Before that time, there was a Greek tradition ostensibly based on an oracle from Delphi which stated that two “crops” or generations would pass from the fall of Troy until the return of the Heraclidae (descendants of Hercules) to Sparta.³¹ This may have been a *vaticinium ex eventu*; the story of the oracle could be entirely fictitious and derived from an early tradition that two generations were involved in the exile of the Heraclidae. Leaving aside the question of the oracle, what was important for Greek chronologists was the tradition of a time span of two generations. One tradition measured these two generations as 100 years.³² Strabo (13.1.3) counted 60 years, and other

31. Whether or not there was an actual person named Hercules behind the myths that became associated with his name, it is incontrovertible that certain Greeks considered themselves descendants of an early ruler of Sparta named Heracles (Roman “Hercules”). These are the Heraclids/Heraclidae mentioned in classical authors. As late as the fourth century B.C., Alexander the Great considered himself in this category.

32. *OCD*, s.v. “Heraclidae.”

authors gave different figures. Eratosthenes followed Thucydides (1.12) in giving 80 years, and then he gives another 60 years from the return of the Heraclidae to the settlement of Ionia. After that, he used the Spartan king lists. The date for the fall of Troy then becomes 1183 B.C. The existence of these rival conjectures for the time from the fall of Troy until the return of the Heraclidae calls into question the trustworthiness of Thucydides's 80-year figure that was accepted by Eratosthenes. It has been remarked that Eratosthenes, as administrator of the great library at Alexandria, would have had access to Tyrian and other sources that could provide a check on this chronology, but he neglected non-Greek authors in constructing his system.³³

Nevertheless, the system of Eratosthenes, which puts the fall of Troy in 1183 B.C., became widely accepted. It found its most important codification and expansion in the works of Apollodorus (born *ca.* 180 B.C.). The works of these and later chronographers, however, included synchronisms and dates from various sources that were often incompatible with the dates given by Eratosthenes and Apollodorus, so that Mosshammer writes, "The chronographic system of Eratosthenes and the historical chronology of Apollodorus were gradually combined with the dates of other traditions and with the unsystematic synchronisms of popular opinion. The result was an indiscriminate mix such as that transmitted by Eusebius."³⁴

THE DATE(S) OF TROY'S FALL ACCORDING TO EUSEBIUS

Divergent Dates for Troy in Eusebius's Chronological Canons

The Greek original of the *Chronological Canons* of Eusebius of Caesarea (*ca.* A.D. 260–340) has been lost, so that Jerome's Latin translation, and an Armenian version, are the primary extant sources. The *Canons* appear, on first reading, to follow the chronology of Eratosthenes for the dates of the Trojan War. An evidence of this is the entry in the *Canons* for 1191 B.C., which reads, "*Alexander Helenam rapuit et Troianum bellum decennale surrexit*": "Alexander [also called Paris] carried off

33. "It is rather surprising that Eratosthenes based his chronology entirely on Greek dates. Working in Alexandria, he should have had easy access to Egyptian documents or direct contacts with Egyptian priests. But as John Dillery has argued, he ignored even Manetho's Egyptian history written in Greek, whose chronology takes up the Egyptian king list." Astrid Möller, "Epoch-making Eratosthenes," *Greek, Roman, and Byzantine Studies* 45 (2005): 258.

34. Mosshammer, *Chronicle of Eusebius*, 164.

Helen and started the ten-year Trojan War.”³⁵ By inclusive numbering, this would end the Trojan War in 1182 B.C., in general agreement with the 1183 B.C. date given by Eratosthenes. Various other entries are consistent with this date, within the one or two years that would be expected because of uncertainty over the calendar being used or whether the years were by inclusive or exclusive reckoning. There is another source of inaccuracies of about a year or two: Jerome stated that he dictated his translation of the *Canons* from Greek to Latin in haste,³⁶ so that his scribe would have had difficulty in placing the text entries at just the correct year-figure. A perusal of any edition of the *Canons* that preserves the original two-page format would show the difficulty that the scribe, or even a modern publisher, would have in placing the text entries in precisely the correct place to display accurately the year of the event. According to Mosshammer, “A two-year shift in the *Canons* of St. Jerome is not uncommon, given the difficulties of the textual tradition.”³⁷

Other entries in Eusebius’s *Canons*, however, support the 1208 B.C. date for the fall of Troy given in the Parian Marble. One such entry is cited in the article “Phoenicia” in the 1885 edition of *Encyclopedia Britannica*.

Philistus (in Euseb., *Can.*, No. 803) gives us without knowing it the era used in Tyre and in early times also in Carthage when he says that Zorus (*i.e.* Çōr, Tyre) and Carchedon³⁸ built Carthage in 1213 B.C., or rather, according to a very good MS. (Regin.), in 1209, which agrees with the date 1208 for the fall of Troy on the Parian marble.

35. Quotations from the *Canons* of Eusebius are from Rudolf Helm, *Eusebius Werke, Siebenter Band: Die Chronik des Hieronymus* (Berlin: Akademie-Verlag, 1956).

36. *Notario uelocissime dictauerim*: “I dictated very hastily to a stenographer.” Mosshammer presumes that Jerome had his scribe first write the columns of year-dates along the edges of the pages, after which Jerome did his dictating (*Chronicle of Eusebius*, 68). The scribe would then have difficulty in writing down Jerome’s rapid Latin dictation in exactly the right place on the page.

37. *Chronicle of Eusebius*, 195.

38. “*Carchedone*” (*Britannica Carchedon*) is in one MS of Eusebius; other MSS give *chartagine* and *cartagine*. The entry, as given in Helm, is “*Filistus scribit a Zoro et Carthagine Tyriis hoc tempore Carthaginem conditam*”: “Philistus writes that Zoro and Carthagine, Tyrians, at this time founded Carthage.” The entry is obviously corrupt, probably because the editors (Philistus, Eusebius, or some prior compiler) were not familiar with the Semitic languages and did not realize that in whatever source they were using, *Zoro* (Hebrew/Phoenician צור, “rock”) and *Carthagine/Carthage* (Phoenician: *Qart-hadasht*, “New city,” here applied to Tyre) were city names, not personal names.

Philistus/Eusebius would thus seem to be a source that is independent of those already cited for the date of the founding of Tyre (called here “Carthage,” which means “New City” in Phoenician). The date of the Reginus MS for the founding of Tyre is one year before the date of the fall of Troy as given in the Parian Marble, in agreement with the statement of Pompeius Trogus—who gives no dates—that Tyre was founded one year before Troy fell.

Support for the Parian Marble’s chronology is also given by an entry in Eusebius’s *Canons* for 1206 B.C., which reads, “*Sub Tautano rege Assyriorum Troia capta est*”: “Under Tautanus,³⁹ king of Assyria, Troy is captured.”⁴⁰ The two-year difference from the Parian Marble’s date is not significant, given the uncertainties mentioned earlier in the placement of entries in the tables of Eusebius.

Sources of Eusebius’s Canons

Although the majority of texts in Eusebius favor the chronology of Eratosthenes, the presence of texts that are consistent with the dates of the Parian Marble is significant. Obviously, the sources used by Eusebius were varied and divergent. In the early 1600s Scaliger maintained that the major source of Eusebius’s *Canons* was the writings of Julius Africanus, a Christian chronologist whose five-volume history of the world was finished about A.D. 221, but of which only fragments have survived in the writings of Eusebius and others. Scaliger argued that

39. See footnote 43 regarding this Tautanus.

40. Helm, *Chronik*, 59a. Helm has a double-page format, in keeping with the format of Jerome’s work. Mosshammer, *Chronicle of Eusebius*, 63–5, argues that this also reflects the general format of Eusebius’s lost Greek original, as contrasted with the format found in Armenian versions of *Chronological Canons*. Mosshammer’s work is a valuable introduction to the literary, textual, and historical issues involved in understanding Eusebius’s *Canons*, but unfortunately it does not provide their text. The text, in Jerome’s Latin translation, is provided in Helm. An Internet resource that, like Helm, preserves the double-page format of the original *Canons*, with a translation into English, is found at http://www.ccel.org/ccel/pearse/morefathers/files/jerome_chronicle_02_part1.htm and http://www.ccel.org/ccel/pearse/morefathers/files/jerome_chronicle_03_part2.htm (cited 28 April 2012. In public domain. For printing use landscape mode.) In the double-page format, entries on the left page (“a” pages) are taken from Hebrew and Assyrian, and sometimes Sicyonian, sources. Entries in Eusebius that support Eratosthenes’ date for the Trojan War are largely found in the right or “b” pages of Eusebius, while the unnamed source in the “Assyrian” area in the left page used some other source—a source that was consistent with the chronology followed by the Parian Marble.

Eusebius was basically an excerptor or epitomizer of Africanus.⁴¹ Scaliger's idea that Eusebius was fundamentally deriving his chronology and historical notes from Africanus was refuted when the Armenian versions of Eusebius were found. The Armenian versions included the *Chronographia*, a prefatory book to Eusebius's *Canons*. Jerome had not translated the *Chronographia* into Latin, and it was not available to Scaliger. In the *Chronographia*, Eusebius named his sources. Although he used Africanus to synchronize Hebrew history with that of the Greeks, the greater part of his history was derived from the classical Greek and Roman chronologists. Mosshammer's research led him to believe that behind these various historians listed by Eusebius, the principal source of his chronology for the Greeks was ultimately the *Chronicle* of Apollodorus, a second-century B.C. work that became the standard upon which later Greek and Roman chronographers constructed their chronologies.⁴² Apollodorus, in turn, based his chronology of the early Greek period on Eratosthenes.

Reference has been made to the "indiscriminate mix" of chronological systems found in the *Canons*. Much of this mix came from Porphyry, a historian who was contemporary with Eusebius. In the list of sources for his work that Eusebius gives in his introductory *Chronographia*, he says that he derived from "Porphyry, our contemporary philosopher, an epitome from the fall of Troy to the reign of Claudius." Claudius here is Claudius Gothicus, who reigned A.D. 268–270. Eusebius is specific in saying that his use of Porphyry starts with the fall of Troy. Mosshammer identifies Porphyry as the source of the anomalous date for the fall of Troy in 1206 B.C. in Eusebius's *Canons*.⁴³

41. Joseph Scaliger, *Thesaurus Temporum* (Leyden 1606, Amsterdam 1658), v, cited in Mosshammer, *Chronicle of Eusebius*, 150.

42. *Ibid.*, 158.

43. *Ibid.*, 145. Porphyry's absolute date (i.e., in terms of years as related to the first Olympiad) would have come from the Tyrian records, while his (or Eusebius's) synchronizing the fall of Troy with a king of Assyria, Tautanus, came from Diodorus, who cited Ctesias (Diodorus 2.21.8, 2.22.2). The fixing of the absolute date, from Tyrian records, is therefore independent of the statement of Ctesias that this was in the time of Tautanus. No Assyrian king is known with this name. Neither is there any correlation between the other kings of "Assyria" listed in the *Canons* just before and after Tautanus with names known from Assyrian and other Near Eastern sources. Ctesias, a generally unreliable historian, says he derived his list of kings from Persian sources; he was a Greek who was the personal physician of Artaxerxes II Mnemon. He may have mistakenly taken a list of Persian or Median kings as a list of Assyrian monarchs. The errors of Ctesias in his king-list, however, should not be used as an argument against the placement of the fall of Troy in ca. 1206 B.C. as given in the Tautanus reference of Eusebius, since Eusebius apparently used a source independent of Ctesias to calculate the

For the major parts of the history of the Greeks, Mosshammer also presents evidence that Porphyry followed in the tradition of Castor, Eratosthenes, and Apollodorus, so that Porphyry, and Eusebius with him, were at the end of a 700-year tradition of Greek chronographers. Why then did Porphyry depart from the Greek tradition that used the date of Eratosthenes and Apollodorus for the fall of Troy, believing instead that the date that was compatible with Asiatic or Phoenician sources, and also with the date of the Parian Marble, was more to be trusted? Mosshammer provides the answer: Porphyry was a native of Tyre.

THE DATE OF THE TROJAN WAR: THE PARIAN MARBLE VS. ERATOSTHENES

It was shown above that the most commonly accepted dates for the Trojan War, 1192/91 to 1184/83 B.C., as derived from Eratosthenes and accepted widely by classical chronologists after him, relies for its accuracy on one very weak link. The weak link is the time that Eratosthenes, following Thucydides, reckoned to have elapsed between the fall of Troy and the return of the Heraclidae to Sparta. Thucydides gave 80 years for this time, but so many divergent figures have been found from classical sources, beyond the few cited above, that it could be said that for the ancients, the time elapsed was anyone's guess. There is apparently no independent witness to corroborate the 80-year figure of Thucydides. If this is so, there is no independent witness to support the dates of Eratosthenes and his follower Apollodorus for the Trojan War.

In contrast, the Parian Marble's date for the end of the Trojan War, 1208 B.C., is supported by the following sources:

- The statement in the Tyrian archives cited by Josephus that placed the founding of Tyre 240 or 241 years before Hiram of Tyre sent aid for the construction of Solomon's temple—thus 1209 or 1210 B.C.—combined with the statement of Pompeius Trogus that Troy fell the year after Tyre was founded.
- The Reginus MS of Eusebius's *Canons*, which, properly interpreted, places the founding of Tyre in 1209 B.C., thus supporting the date for that event given by Josephus's citation of

absolute date. He (or Porphyry, before him) then combined that with the information from Ctesias in order to specify who was reigning in "Assyria" at the time (see Mosshammer, *Chronicle of Eusebius*, 334, n. 31).

Tyrian records.⁴⁴ Neither Eusebius nor Josephus could have correctly calculated this date based on the datum that Tyre was founded 240 or 241 years before Hiram sent materials for the temple in Jerusalem, since the chronologies of both authors were incorrect by several decades in dating the start of temple construction. The chronology of Josephus gives 1053 B.C. for this event, and that of Eusebius, following Africanus, 1033 B.C. The Reginus date therefore comes from a source independent of both Josephus and Africanus.

- The “Assyrian” entry in the left pages of the *Canons* that dates the fall of Troy to 1206 B.C. According to Mosshammer, the source of this entry is the Tyrian historian Porphyry. Porphyry very likely obtained this information from the records of his home city, Tyre, so that this testimony to the date of the Trojan War does not depend on, nor is it derived from, the date derived from the state records of Athens as transcribed in the Parian Marble. Nevertheless, the two dates agree, within the two-year error that must be allowed because of the format of Eusebius’s *Canons*. Porphyry’s dating the fall of Troy to *ca.* 1206 B.C. is not dependent on the problematic statement of Ctesias that placed this event in the reign of an otherwise unknown Tautanes, king of somewhere.

These evidences are not proof that the Parian Marble’s date for the end of the Trojan War is the correct date. It has been demonstrated, however, that 1208 has more to recommend it than does the 1184/83 date of Eratosthenes. The fact that two independent traditions—the Athenian (Parian Marble) and the Phoenician (Menander and Dios coupled with Pompeius Trogus, and—separately from Trogus—Philistus and Porphyry) agree on this date or on the closely associated date of the re-founding of Tyre should weigh far more than the guess of Thucydides that Eratosthenes employed to date the Trojan War. Furthermore, the statement of the Roman author Pompeius Trogus that Troy fell one year after the founding of Tyre should not be summarily dismissed as unhistorical simply because it is not consistent with some weakly supported alternate scheme, or because of Trogus’s inaccuracies elsewhere.⁴⁵ Evidence from a different source supporting the accuracy of

44. Other textual variations of Eusebius differ from this date for the founding of Tyre by only four years.

45. It should be remembered that the statement of Trogus/Justin that allowed the dating of Dido’s flight to 825 B.C. was vindicated by the Assyrian inscription that recorded the

Trogus's statement, as summarized just above, was given in the first section above (the dating of the refounding of Tyre to 1210 or 1209 B.C. from the Tyrian accounts preserved in Josephus) and also in the fifth section above (the Reginus MS dating the founding of the "New City" of Tyre to 1209 B.C.).

That these various traditions agree on important events that took place in the last decade of the 13th century B.C. leads to another conclusion: there really was a Trojan War. Of this the ancient world had no doubt. For the Greeks, the war between the Mycenaean Sea People and the Trojans marked the beginning of "real" history, as distinguished from the preceding mythical age. In contrast, for modern scholars there is a wide spectrum of belief regarding the historicity of the Trojan War. "At one end of the spectrum of opinion is the conviction that there was indeed such a war and that it was pretty much as the poet [Homer] described it," while for others, "the *Iliad* is a story about a war that never took place, fought between peoples who never lived, who used a form of Greek that no one ever spoke and belonged to a society that was no more than a figment of the imagination of a poet who never existed."⁴⁶ Hopefully the present article will reduce the credibility of the extreme skeptical position so amusingly described by Professor Bryce.

A TALE OF THREE CITIES: ATHENS, TYRE, AND JERUSALEM

It might be thought that the purpose of the present article is to vindicate the historical accuracy of the Parian Marble. That is not the case. In dating events that happened far from Athens, such as the accession year of Xerxes king of Persia, the Marble can be in error by as much as four years. Furthermore, any analysis dealing with the Marble's credibility needs to account for the mythological entries.⁴⁷ Although these issues are of some interest to the historian, the focus of the present article has been on just one datum, the date for the end of the Trojan War. The Marble's

tribute to Shalmaneser III from Dido's grandfather Balazeros/Ba'limanzer in 841 B.C. The best-attested reign lengths for Dido's father and grandfather do not allow enough time for their reigns from 841 to Dido's flight if that flight was in 814, but their reign lengths are compatible with her leaving Tyre in 825, which was the seventh regnal year of her brother Pygmalion.

46. Trevor Bryce, *The Trojans and Their Neighbours* (London and NY: Routledge, 2006), 180.

47. As stated above, the entries for Cecrops and Deucalion should not be dismissed as obviously mythological, even though many fabulous tales became associated with their names over the course of the centuries. The mentions of these individuals in the Parian Marble are prosaic and devoid of anything unreasonable.

demonstrated inaccuracy for some events does not detract from the importance of explaining how its date for the Trojan War finds corroboration from sources that are far removed from, and quite independent of, the state archives of Athens. It has been argued that the author of the Parian Marble derived his dates from those archives.

The crucial question is then whether the other sources that agree with the Parian Marble's date for Troy's fall are truly independent of the Marble's Athenian source. There is no problem in assuming that these other sources could have recorded the event in writing, since they are mainly Phoenician in origin, and Phoenician literacy in the thirteenth century B.C. is well established. But it is highly controversial that Athens could have kept written records this early, which is the natural inference from the issues that have been discussed. The question of early literacy in Athens, however, is not the primary issue for the present study. Instead, the most important issue that follows from the agreement of these ancient records is something different: their significance in supporting the authenticity and historical accuracy of the records of Tyre as preserved in the writings of Josephus.

Josephus's citations of Tyrian records fall into four general categories: (1) The mention of the time elapsed from the founding of Tyre until the building of Solomon's temple.⁴⁸ (2) The First Tyrian King List⁴⁹ dealing with the kings of Tyre from Abibaal father of Hiram I to the death of Pygmalion (*ca.* 1000 to 786/85 B.C.). (3) The Second Tyrian King List⁵⁰ recounting the kings from Ithobaal III to Hiram III (593 to 532 B.C.). (4) Various anecdotes dealing with relations between Hiram I and Solomon.⁵¹ The credibility of the first category has been dealt with at length in the present paper. For the second category: since the translation of the Assyrian inscription dealing with the tribute of Ba'limanzer (Balazeros II) to Shalmaneser III appeared in 1951, there have been several studies dealing with the authenticity of the First Tyrian King List, as mentioned in the first section above. A good survey of the evidence is

48. *Ant.* 8.3.1/62.

49. *Ag. Ap.* 1.18/117, 121–126. *Ag. Ap.* 1.17/108.

50. *Ag. Ap.* 1.21/155–159.

51. *Ant.* 8.2.6/50–52, 8.2.7/53–54, 8.2.9/57–58; *Ag. Ap.* 1.17/109–115, 1.18/116–120. The last reference also contains some information about Hiram's building activities in Tyre and his expedition against the Titians, who probably were residents of Cyprus.

found in the chapter devoted to this subject in Barnes.⁵² For the third category: the Second Tyrian King List has been mentioned only briefly, and although there are some textual problems,⁵³ it is generally accepted that its register of kings and their lengths of reign is historically accurate, so that Katzenstein writes regarding both lists, “We do not doubt that the lists are based on Tyrian sources.”⁵⁴

Consequently, in places where it is possible to correlate the Tyrian history with records or facts that are external to the Tyrian records themselves, the Tyrian accounts have repeatedly been vindicated. The most important vindications have come from a careful examination of the dates that can be derived from these accounts. When all the information is put together, the excerpts of Tyrian history found in Josephus provide a chronological system of considerable complexity. They cover almost seven centuries, from the re-founding of Tyre in 1209 B.C. until the end of the reign of Hiram III in 532 B.C. Twenty-one rulers are named, with lengths of reign for all but one of these (Abibaal, father of Hiram I). Most importantly for testing the credibility of the Tyrian data, at five places⁵⁵ it is possible to synchronize their information with dates or

52. William H. Barnes, *Studies in the Chronology of the Divided Monarchy of Israel* (Atlanta: Scholars, 1991), 29–55.

53. One problem is whether Nebuchadnezzar’s thirteen-year siege of Tyre that is mentioned in this king list started in the seventh year of Nebuchadnezzar (so most readings) or in the seventh year of Ithobaal III (so a Latin version of Josephus). The first option would start the siege in 598n, but the Babylonian Chronicle has no mention of Tyre in that year or any year until its record breaks off in 594n. The second option would date the siege from 586 to 573 B.C., plus or minus one year. It has been advocated by Benjamin Marshall, *A Chronological Treatise Upon the Seventy Weeks of Daniel* (London: James Knapton, 1725), 64; John Jackson, *Chronological Antiquities: Or, the Antiquities and Chronology of the Most Ancient Kingdoms, from the Creation of the World, for a Space of Five Thousand Years* (3 vols.; London: J. Noon, 1752), 1:473; Katzenstein, *History of Tyre*, 326; and D. J. Wiseman, s.v. “Tyre” in *NBD*. This interpretation is consistent with Ezek 26:7, which speaks of Nebuchadnezzar’s siege as yet future in September 587 B.C. (Steinmann, *From Abraham to Paul*, 168), and with Ezek 29:17–18, which shows that the siege was over at some time before the twenty-seventh year, the first day of the first month (April 26, 571 B.C.). With the seventh year of Ithobaal III set as 586 B.C., the reign lengths of the Second Tyrian King List date the reign of the last king in the list, Hiram III, as 552 to 532 B.C., The accuracy of this is substantiated by the list’s synchronization (Ag. Ap.1.21/159) of Hiram’s 14th year, 538 B.C., with the year that Cyrus the Persian came to power (in Babylon), a date that is well known from other sources.

54. Katzenstein, *History of Tyre*, 326.

55. Synchronisms are: the date of the refounding of Tyre as established from the other sources mentioned in third and fifth sections above; the sending of Tyrian materials for the construction of Solomon’s temple in the 12th year of Hiram, which was the third year

events derived from sources independent of the list. This illustrates an important principle for the historian: chronology provides an effective test of historical authenticity. The chronological test can be applied whenever the source material provides more than a trivial amount of information regarding spans of time and synchronizations. This certainly characterizes the Tyrian data preserved in Josephus, even though those data were a small part of what was originally available in the writings of Menander and Dios. If these records were the creation of a late-date author or redactor, whether Josephus, Menander, or anyone else, their various statistics would not have formed a complex, coherent, and testable chronological system.

That all these numbers do fit into such a scheme indicates that Tyre had been keeping an annalistic calendar that measured the years elapsed since its rebuilding as a “New City” in 1209 B.C. by the Sidonians. This reckoning of years extended down to the Persian period, and probably later.⁵⁶ We therefore can go farther than the judgment of Katzenstein that “the lists are based on Tyrian sources,” to say that those sources, insofar as they can be checked by a basically mathematical method (a chronological system), are eminently credible.

The fourth category of Josephus’s citations from Tyrian records is not susceptible to this kind of verification. It consists of excerpts from the correspondence between Hiram and Solomon⁵⁷ and anecdotes about an exchange of riddles between the two individuals.⁵⁸ The correspondence is quite unremarkable and almost uninteresting, since most of it is nothing more than Josephus’s rather loose translation into Greek of the correspondence as recorded in 1 Kgs 5:3–9 and 2 Chr 2:3–16. Little else of interest is added except for the statement that if anyone doubted what Josephus wrote about this correspondence, he could ask the keepers of the public records of Tyre to show the Tyrian copies of the

of Solomon; the flight of Dido from Tyre 143 years later in 825 B.C., agreeing with the date of Pompeius Trogus/Justin’s conflated account for her founding of Carthage; Nebuchadnezzar’s 13-year siege of Tyre in the reign of Ithobaal III, which fits with the prophecies of Ezekiel that place the siege between 587 and 571 B.C.; and the installation of Cyrus as king of Babylon in the 14th year of Hiram III, 538 B.C.

56. Despite Katzenstein’s doubts, it is by no means incredible that Tyre could have been keeping such a calendar (*History of Tyre*, 61). According to Num 13:22, the cities of Zoan (Tanis) in Egypt and Hebron in Canaan were keeping *AUC* type calendars dated from the time of their founding, presently unknown, in the second millennium.

57. *Ant.* 8.2.6/50–52, 8.2.7/53–54.

58. *Ant.* 8.5.3/143, 148–149; *Ag. Ap.* 1.17/114–115, 1.18/120.

letters, since they were still extant in Tyre when Josephus wrote—a statement not likely to have been made if it were not true.

Josephus said that he found the anecdotes concerning the exchange of riddles between Hiram and Solomon in both Menander and Dios. The easy course is to follow Katzenstein⁵⁹ and dismiss the accounts as “legends.” Two considerations weigh against this. The first is the principle followed in courts of law (and, indeed, in everyday life) that when a witness has been found truthful in all statements that can be verified by an independent source, that witness should be assumed to be credible when speaking of events that cannot be independently verified. The second principle is that, given the fondness of the ancient world for riddles, it is not surprising that Solomon would misuse his famous wisdom in this kind of trivial pursuit. In our own day there are abundant examples of incidents where an individual, greatly gifted by God in some way, has misused that gift, often with tragic results.

Athens dated its years not from the founding of the city, as Tyre did, but from the beginning of the kingship under Cecrops. This is the conclusion that follows from the citation of Athenian records by the author of the Parian Marble. The very sparse records that have survived from these two sources, the Tyrian and the Athenian, intersect in the late thirteenth century B.C. with the mention of two events related to the depredations of the Mycenaeans: the fall of Troy and the refounding of Tyre by the dispossessed Sidonians. Here the tales of the two cities merge, and we would see much more of their agreement if Josephus was not restricting his citation of the Tyrian records to just what related to the biblical history. Nevertheless, the interconnection of the two events is illuminated by Merenptah’s inscription describing the incursions, and defeat, of the Sea People, an inscription which current scholarship dates to the pharaoh’s fifth year, *ca.* 1208 B.C.⁶⁰

The key information that allows tying together these two histories, the Athenian and the Tyrian, originated in neither city. It comes from Jerusalem, and to some extent also from the archives of the northern kingdom, Israel. This information is found in the scriptural texts that allow a precise determination of the regnal years of Solomon, in whose fourth year construction began on the Jerusalem temple. The time when temple construction began—the spring of 967 B.C.—was pivotal in establishing the credibility of the Tyrian records that dated the refounding of Tyre over two centuries before that date, and also for checking the validity of the date when Dido fled Tyre to found Carthage

59. *History of Tyre*, 99.

60. E. Hornung, R. Krauss, and S. Warburton, eds., *Ancient Egyptian Chronology* (Handbook of Oriental Studies; Leiden: Brill, 2006), 495.

almost a century and a half later. It is the firm dates for Solomon, derived from the biblical texts and assigned absolute (B.C.) dates from Assyrian synchronisms and astronomical calculations, that give credibility to the Tyrian data preserved by Josephus.⁶¹ According to the thesis of the present paper, the firmness of Solomon's dates also allows the calculation that gives credibility to the Parian Marble's date for the end of the Trojan War. This situation is analogous to the acceptance by Egyptologists of the date of the death of Solomon, as given by Thiele, in establishing dates for pharaohs of Egypt's Twenty-first and Twenty-second Dynasties.⁶² The dates of these pharaohs can be derived only approximately from Egyptian sources, but by using 2 Chr 12:2 to synchronize the fifth year of Solomon's successor, Rehoboam, with an invasion of Shoshenq I (the biblical Shishak), a precise date can be assigned to Shoshenq's invasion of Judah. Egyptologists combine this with an inscription of Shoshenq that is used to date his invasion of Judah to his twentieth year, thus giving dates for Shoshenq's reign. Shoshenq I was the first pharaoh of the 22nd Dynasty. From this fixed starting point in his reign, Egyptologists determine the dates of all pharaohs of the Twenty-First and Twenty-Second Dynasties. Given the convergence of data from the Bible, Tyrian, and Athenian sources, will classicists in the future find biblical chronology useful in determining the date of Troy's fall?

61. Perhaps it is a comment on the skepticism of some scholarly circles that Barnes (*Studies*, 54) does not derive his date for the construction of Solomon's temple from the biblical data, but from the First Tyrian King List. Using this as his starting point, Barnes constructs a chronology for the Hebrew kingdom period that was meant to replace that of Thiele, but which has not succeeded in doing so. Coucke had followed this backward way of doing things before Barnes, but Coucke wrote before Thiele's research was published.

62. Kenneth Kitchen, *The Third Intermediate Period in Egypt (1100–650 B.C.)* (Warminster: Aris and Phillips, 1973), 73. Thiele's chronology dated Rehoboam from 931t to 914t, so that his fifth year was 926t. Assuming the usual Egyptian custom of a northward campaign in the spring months, Egyptologists therefore placed Shoshenq's invasion in the spring of 925 B.C. With the one-year adjustment to Thiele's dates for Solomon through Athaliah that was discussed in footnote 8, this should be changed to the spring of 926 B.C., with a consequent one-year adjustment for the years of Egyptian pharaohs whose regnal years are measured from this date.