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The Concept of Eras from Nabonassar to Seleucus

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Seleucid history and ancient chronology formed the warp and woof of the late Elias J. Bickerman's many scholarly interests. It thus seems fitting to dedicate to his memory an investigation into the origins and background of the Seleucid Era.¹

The eras of the great monotheistic religions are a tremendous convenience for dating purposes, but they are relative newcomers in the arsenals of chronology. The Christian Era was introduced in the early sixth century by a monk, Dionysius Exiguus, living in Syria.² The Moslem Era was inaugurated in the first half of the seventh century, traditionally under the Caliph Omar (A.D. 634–644).³ The Jewish Era of Creation is first mentioned in texts and on tombstones of the eighth and ninth centuries.⁴

All these denominational eras were anticipated by various dynastic and provincial eras of more limited scope, and all of them ultimately go back to Hellenistic precedent and more particularly to the Seleucid Era whose "epoch" or starting-point was either the fall of 312 B.C. (in Syria) or the spring of 311 B.C. (in Mesopotamia and Palestine), depending on a variety of local circumstances and preferences.⁵

Among Jews (and Syrians), the Seleucid Era was known as "the dominion of the Greeks"⁶ or as the "counting of (years for) documents."⁷ It remained the preferred system of dating among the Jews until the introduction of the Era of Creation—and in

1 The substance of this paper was presented to the American Academy for Jewish Research (New York) on November 20, 1983, under the title "The Concept of Eras in the Ancient Near East." For an earlier version of some of the themes struck here, see Hallo, "Dating the Mesopotamian Past: the Concept of Eras from Sargon to Nabonassar," *Bulletin of the Society for Mesopotamian Studies* 6 (1983), 7–18. My thanks to David B. Weisberg for a critical reading of the manuscript.

2 Cf., e.g., Daniel J. Boorstin, *The Discoverers* (New York, 1983), 597.

3 Franz Rosenthal, *A History of Muslim Historiography* (2nd ed., Leiden: Brill, 1968), 11f. and 378–88: "The introduction of the Muslim era."

4 Judah M. Rosenthal, "Seder Olam," *Encyclopaedia Judaica* 14 (1972), 1091–93.

5 Cf., e.g., Elias J. Bickerman, *Studies in Jewish and Christian History* (Leiden, 1980), 2:142–44 for some of the details.

6 *basileia Hellênōn*; cf. I Macc. 1:10. For the "Era of the Greeks" among the Persians, see Hildegard Lewy, *JAOS* 64 (1944), 199, n. 26 (end).

7 *minyān š'jārōt*; cf. above, n. 4.

some cases even thereafter. For in certain Near Eastern communities, Jewish and other groups continued to date by the Seleucid Era well into medieval or even modern times.⁸

For all its long and widespread attestation, however, we are curiously in the dark as to the origin of the Seleucid Era. Much attention has been paid to the precise "epoch," or starting date of the Era.⁹ But other questions remain open. Did it originate by accident or design? Was it wholly a new invention or did it have antecedents? Was it the inspiration for all other experiments in starting up Near Eastern and Classical eras, or did it in fact imitate one or more of them? Not all of these questions have even been raised in the past, let alone satisfactorily answered.

One scholar who has raised them is Bickerman. In numerous studies, he has not only addressed the vexing question of the precise beginning of the Seleucid epoch, and of subsequent years in the Seleucid Era in any given part of the Hellenistic world,¹⁰ but also suggested some possible answers for the questions we have raised. In his opinion, the reason for the adoption of the Seleucid Era was "a technical one" and he outlines it in detail.¹¹ But there may have been other and deeper reasons.

One possible underlying cause may be sought in the gradual spread of astronomical knowledge in the Hellenistic world. The so-called Metonic cycle which was, in fact, a Babylonian invention,¹² provided the uniform year which, as Bickerman noted, is the prerequisite to an era system.¹³ As recently as 330 B.C., this had been replaced by the Callippian Era, but both these systems were primarily employed in astronomical reckoning, and were largely useless for dating purposes in the daily life of the Greek-speaking world as long as they did not correlate with the calendars in actual daily use.¹⁴

Another possible source of inspiration may have been the local eras counted from the foundation (*ktēsis*) of a city. But these were so strenuously local in application that they were by definition useless for wider purposes.

On the face of it, then, it might appear that the Seleucid Era inaugurated a truly novel departure. In 312 B.C. Seleucus (I), after Ptolemy's victory over Antigonos' son Demetrius at Gaza, was sent by Ptolemy to wrest Babylon from Antigonos, ostensibly for Ptolemy but in fact to rule the eastern satrapies in his own right.¹⁵ In Syria, he "began his official reign in the autumn of 312, shortly after he had taken Babylon."¹⁶ But in Babylonia itself, "the fiction of the royal house of Macedonia continued"¹⁷ and

8 Cf. already F. K. Ginzel, *Handbuch der mathematischen und technischen Chronologie* . . . , II (1911), 59f. Yemenite Jews and the Syrian church use the Seleucid Era to this day.

9 Cf., e.g., E. Cavaignac "Le début de l'ère des Séleucides," *RA* 23 (1926), 5-11.

10 See simply his *Studies* (2 vols., 1976-80); e.g., I 116; II 142-44, etc.

11 "Notes on Seleucid and Parthian chronology," *Berytus* 8 (1973), 73-83.

12 Below, at notes 76-79.

13 *Chronology of the Ancient World* (London, 1968), 70f.

14 Cf. Alan E. Samuel, *Greek and Roman Chronology* (*Handbuch der Altertumswissenschaft* I/7, 1972), 44-51; Kubitschek, "Ära," *Pauly-Wissowa* I (1893), 618 (X).

15 For a detailed review of the evidence, see Joachim Oelsner, "Keilschriftliche Beiträge zur politischen Geschichte Babyloniens in den ersten Jahrzehnten der griechischen Herrschaft (331-305 v.u.Z.)," *Altorientalische Forschungen* I (1974), 129-51. Oelsner comes to slightly different conclusions from the general consensus, dating Seleucus' effective control of Babylon from 311 B.C.

16 R. A. Parker and W. H. Dubberstein, *Babylonian Chronology 626 B.C.-A.D. 75* (Brown University Studies 19, 1956), 20 (= 3rd edition of *Babylonian Chronology 626 B.C.-A.D. 45*, *SAOC* 24, 1946, 18).

17 *Ibid.*

cuneiform texts which had for some four years (315–311 B.C.) been dated to Antigonus (though not as king but as *rab uqu* or “commander of the army”)¹⁸ were now dated in the name of Alexander IV, son of Alexander the Great, even though this last scion of the royal Macedonian line had already been assassinated (by Cassander) perhaps as early as 310 or 309 B.C.¹⁹ It was not till 307 or 306 that Seleucus finished his struggle for Babylonia with Antigonus.²⁰ And it was only in 305 or 304 B.C. that cuneiform tablets from Babylonia began to be dated in Seleucus’ own name.²¹ The latter year, however, was designated as his eighth, thus implying that, as in Syria, his actual and independent reign had already begun in 312. Like Ptolemy in Egypt,²² indeed probably to some extent in imitation of and concert with him (since he had spent much time with Ptolemy and continued as his ally),²³ Seleucus thus moved very slowly to assert his claims in Babylonia and did so, when at all, in the traditional manner of previous rulers in that ancient land.²⁴ The notion that he himself introduced a new Seleucid Era into the chronographic system of the Hellenistic world, although sometimes casually averred,²⁵ is not supported by the evidence. F. E. Peters is thus properly cautious when he says no more than that “the entire Seleucid Empire marked as the beginning of its official chronology Seleucus’ entry into the city of Babylon after the battle of Gaza in B.C. 312.”²⁶ Bickerman put it still more circumspectly when he said: “The first ‘era’ came into being . . . when Seleucus I began to count his regnal years according to the Babylonian calendar and Antiochus I continued the counting of his father’s years.”²⁷

In point of fact, the real change from the traditional Babylonian system of regnal years to the era system probably did not take place until after the death of Seleucus I, and then more by accident than by design. In keeping with the practice of many of the successors of Alexander the Great,²⁸ the first Seleucus associated his son with him during his lifetime in order, presumably, to pave the way for the latter’s smooth succession upon his own demise. In the case of Seleucus, a further motive may have been to put the administration of Babylonia and the other eastern provinces into loyal hands.²⁹ From 292 B.C. (20 S.E.) on, accordingly, Antiochus I appeared in the cuneiform documents as king (*šarru*) not (crown) prince (*mar šarri*),³⁰ and cuneiform texts were

18 Perhaps the equivalent of Greek *strategos*; cf. Oelsner, “Beiträge,” 130 and n. 5; Timothy L. Doty, *Cuneiform Archives from Hellenistic Uruk* (Ph.D. Thesis, Yale, 1972), 6 and 341, n. 15.

19 Parker and Dubberstein, *Babylonian Chronology*³, 20 = 2nd ed., 18.

20 Bickerman, “Notes,” 75, and n. 13.

21 The first published text is CT 4:29d, dated I/3/8 = April 16, 304 B.C. For this text, see most recently Oelsner, *ZA* 61 (1971), 160.

22 S. A. Pallis, “The history of Babylon 538–93 B.C.,” *Pedersen AV* (1953), 275–94 (p. 284).

23 Oelsner, “Beiträge,” esp. 143f.

24 In terms of dating usage on cuneiform documents, this may be illustrated by the example of the text noted above, note 21, which is subscribed *iti-bar u₄-3-kam mu-8-kam* ‘Si-il-lu-uk lugal.

25 E.g., *The Encyclopedia Americana* 10 (1982), 465 s.v. “Era.”

26 *The Harvest of Hellenism: A History of the Near East from Alexander the Great to the triumph of Christianity* (New York, 1970), 234.

27 *Chronology*, 71.

28 Margarete Rutten, *Contrats de l’Époque Séleucide* (Paris, 1935) (reprinted from *Babyloniaca* 15), 10.

29 Cf. most recently S. M. Sherwin-White, “Babylonian Chronicle fragments as a source for Seleucid history,” *JNES* 42 (1983), 265–70, esp. p. 265f.

30 *Ibid.*

dated in the names of both Seleucus I and Antiochus I, beginning with a tablet from Uruk of that year subscribed as follows: "20th of Kislimu, 20th year of Seleucus and Antiochus the kings."³¹

Seleucus I was assassinated in Europe in 281 B.C. (31 S.E.) according to general opinion,³² though it should be noted that as late as January 279 (32 S.E.), a newly published cuneiform text, probably from Babylon, still named Seleucus and Antiochus as co-regents.³³ But before the end of that (Seleucid) year, Antiochus I became sole ruler, or rather he associated his own son Seleucus with him as co-regent³⁴ (though the latter died before long, certainly before 273).³⁵ Antiochus could not refer to the balance of the year 31 S.E. as his "accession year," for this technical detail of traditional Babylonian usage had already been abrogated by Alexander the Great or Philip III.³⁶ Nor did it make sense to claim it as his first year, since he had already served as co-regent for a dozen years. To have claimed it as his thirteenth year by counting from the beginning of his co-regency (though common practice in Egypt)³⁷ lacked all precedent in Mesopotamia. Thus the scribes simply found it convenient, it would appear, to continue the numbering of the years in unbroken succession so that a text from Uruk in the next year (279 B.C.) could be dated as follows: "10th of Tashritu, 33rd year, Antiochus and Seleucus."³⁸

Greek scribes soon followed suit. "The earliest appearance of the Seleucid era in a Greek document is, by general scholarly agreement, a reference to a 44th year in a Greek inscription from Pergamum, OGIS 266 line 10, 44th year = 269/8 B.C."³⁹

So far, then, the evidence suggests that the Seleucid Era was not the conscious invention of Seleucus I in the late fourth century but rather the practical solution devised by the cuneiform scribes of his successor early in the third.

But once in place, the new system quickly proved its worth. At a stroke, the cumbersome king lists which the older regnal-year system required could now be dispensed with for dating purposes—though they continued to be useful in their own right and at least one Hellenistic king list has survived with all the Greek royal names written out in cuneiform and identified by their length of reign exactly in the time-

31 *BRM* 2:3: mu-20-kam ¹Si-lu-ku u ¹At-ta-i-ku-su lugal-meš.

32 Doty, *Hellenistic Uruk*, 342f., n. 23.

33 *CT* 49:103: iti-ab u₄-8-kam mu-32-kam ¹Si-lu-[ku] u ¹An-te¹-i¹-ku-su l[ugal-meš]. Cf. also *BRM* 2:5 for both names on a text dated to 10.IX.31 S.E. = 2 December 281.

34 The text cited for this assertion by Kugler, *Von Moses bis Paulus* (Muenster, 1922), 312, has, however, never been published. Cf. now, however, *OECT* 9:7, a text from Uruk dated iti-gan u₄-24-kam mu-32-kam ¹At-ti-i-ku-su u ¹Si-lu-ku [lugal-meš], i.e., 24.IX.32 (reference courtesy of Ronald Wallenfels).

35 A. T. Clay, *BRM* 3 (1913), 11f.

36 Parker and Dubberstein, *Babylonian Chronology*³, 19, n. 4 (= 2nd ed., 17, n. 3); J. van Dijk, "Die Inschriftenfunde," *UVB* 18 (1962), 39-62, and pls. 27f.; esp. p. 58 and n. 189. Cf. already A. T. Olmstead, "Cuneiform texts and Hellenistic chronology," *Classical Philology* 32 (1937), 1-14, esp. p. 4 n. 15. On Philip III see also below, at n. 60.

37 Otto Rubensohn, *Elephantine Papyri* (Berlin, 1907; reprint Milan, n.d.), 22f.; Samuel, *Ptolemaic Chronology* (Münchener Beiträge zur Papyrusforschung 43, 1962), 11-24: "Retroactive dating."

38 VAS 15:23: Uruk^{ki} iti-dul(!) u₄-10-kam mu-33-kam ¹An-ta-ku-su u ¹Si-lu-ku lugal-meš.

39 Naftali Lewis, private communication (2-17-84), citing W. D. Dittenberger, ed., *Orientalis Graecae Inscriptiones Selectae* (Leipzig, 2 vols. 1903-5). The Greek dates normally omit the royal name or names, but sometimes speak simply of the "nth year of the Greek kings" (Morton Smith, orally).

honored manner of the Babylonian king-lists.⁴⁰ The new system bridged over the individual reigns and, potentially, it could even bridge different dynasties and aspire to universal applicability. Its first effect, however, was not universal adoption but, on the contrary, widespread emulation!

In point of time, the first imitation has been dated precisely to 267 B.C. in Ptolemaic Egypt. There the great rivals of the Seleucids also indulged the practice of co-regency. But Philadelphus, the second Ptolemy, chose to arrogate to himself the two years of his co-regency with his predecessor Ptolemy I (Soter) and, in the process, inaugurated a new "Dionysian era" which took as its epoch the first year of his co-regency, 285 B.C.⁴¹

Next we may mention the so-called Olympic Era. The first use of this era for historiography is sometimes attributed to the Sicilian Greek Timaeus, a historian who died ca. 260 B.C., but it was first systematically employed by Eratosthenes (ca. 275–194 B.C.), librarian at Alexandria from 246 B.C. on. Although this era was not normally used for actually dating documents, it provided a continuous chronological framework based on the quadrennial Olympic Games which were calculated as having begun in 776 B.C.⁴² It seems reasonable to see in this Era too a reaction to the recent introduction of the Seleucid Era.

The same may be posited of the Roman Era based on the alleged founding of Rome in 753 B.C. (*ab urbe condita*). Again we are not dealing with a regular system of dating in everyday use, but again there is evidence that it was introduced in the late third or early second century B.C.⁴³

A fourth case is that of the Arsacid or Parthian Era. The Parthians introduced this era during the reign of Tiridates I (ca. 248–211 B.C.), probably in his eighth or ninth year, choosing as their epoch his accession in 247 B.C.⁴⁴ After the Parthians seized Babylon in 141 B.C. (= 171 S.E.),⁴⁵ cuneiform documents from Babylonia adopted a double dating system attested equally on archival,⁴⁶ astronomical,⁴⁷ and literary texts.⁴⁸ In its most explicit form, it sounded as follows: "Year 107 of Arsaces the king which is the year 171 (i.e., of the Seleucid Era)."⁴⁹ The royal name here is probably not an allusion to the founder or eponymous ancestor of the dynasty, but to the reigning

40 A. J. Sachs and D. J. Wiseman, "A Babylonian King List of the Hellenistic period," *Iraq* 16 (1954), 202–12 and pl. lii.

41 Samuel, *Ptolemaic Chronology*, 25–28; *Greek and Roman Chronology*, 52; Kubitschek, "Ära," 619f. (XII).

42 Bickerman, *Chronology*, 75f.

43 *Ibid.*, 76; Samuel, *Greek and Roman Chronology*.

44 Bickerman, "Notes," 79–83; Doty, *Hellenistic Uruk*, 375f., n. 220.

45 Neilson C. Debevoise, *A Political History of Parthia* (Chicago, 1938), 21–25.

46 Gilbert J. P. McEwan, "Arsacid temple records," *Iraq* 43 (1981), 131–43; cf. Oelsner, *ZA* 61 (1971), 163 (6).

47 Cf., e.g., Abraham Sachs, "The latest datable cuneiform tablets," *Kramer Anniversary Volume (AOAT* 25, 1976), 379–98, and pls. xv–xix, esp. p. 384:10', as understood by Sachs.

48 Cf. esp. George A. Reisner, *Sumerisch-Babylonische Hymnen nach Thontafeln griechischer Zeit* (Berlin, 1896).

49 VS 15:37: mu-l-me-7 1A-ri-šak-ka-a' lugal šá šu-tu₄ l-me-71; cf. Oelsner, "Ein Beitrag zu keilinschriftlichen Königstitulaturen in hellenistischer Zeit," *ZA* 56 (1964), 270. Sometimes the order of the eras is reversed; cf. *ibid.*, 263.

Arsacid, since all Parthian kings used the name Arsaces as a title,⁵⁰ this is implied by an isolated reference to a co-regency.⁵¹ The effect nonetheless was that of a true era, since all Arsacid dates from Babylonia used the same royal name.⁵²

Clearly all these eras used an event before, and sometimes long before, the time of their introduction as the epoch or starting-point for their calculations. It was left for the second century B.C. and later to inaugurate eras with a contemporaneous event, but now they became so commonplace that, to quote A. E. Samuel, "The number of eras which came into use and then expired to be replaced by yet other eras during Hellenistic and Roman times is probably not infinite, but I have not been able to find the end of them."⁵³ It will suffice here to cite the Jewish examples. Thus, according to the First Book of Maccabees, "In the year 170 [of the Seleucid Era, i.e., 142 B.C.], Israel was released from the Gentile yoke. The people began to write their contracts and agreements, 'In the first year of Simon, the great high priest, general and leader of the Jews'."⁵⁴ And again in the revolt of A.D. 66 and 132, the era of "the Freedom of Zion" or "the Redemption of Zion," respectively of "the Redemption of Israel" or even "Year One of the Redemption of Israel by Shim'on bar Kosiba, prince of Israel" was used for dating purposes; the sages who did not recognize Bar Kochba's claims preferred to date by "the Freedom of Israel."⁵⁵

Was there in fact some preference in Israel for an era system of dating, some earlier precedent for the Seleucid Era? Intimations to this effect have been sought in the Biblical dating "by the exile of Jehoiachim"⁵⁶ or "by our exile."⁵⁷ But there is no evidence that this dating practice was in use in archival documents; the Jewish papyri from Elephantine in Persian times, for example, used the standard regnal year system.⁵⁸

So we return to our original question: was the Seleucid Era the first era in actual practical use? Was there really no precedent for it, Near Eastern or otherwise? The answer to this question remains uncertain for the present, but it may lurk in the pages of Ptolemy's *Almagest*, that compendium of the second century A.D. which summed up the Hellenistic world's understanding of earlier Babylonian astronomy, mathematics and calendaric lore, among other things.⁵⁹ Here we find an Era of Philip, i.e., Philip III Arrhidaeus, half-brother of Alexander the Great, which begins after the death of

50 Debevoise, *Parthia*, 9f. and nn. 36 and 40.

51 *BRM* 2:53: mu- x¹Ar-šak-a' u¹Ri-'in¹-nu ama-šú lugal-meš. On this text see Clay, *BRM* 2 (1913), p. 13; Debevoise, *Parthia* 26, n. 114 and 29 with n. 2; Oelsner, "Ein Beitrag," 270 and n. 28.

52 The personal royal name was used only when there was a rival claimant to the throne, according to Olmstead, "Cuneiform texts," 14.

53 *Greek and Roman Chronology*, 246.

54 I Mac. 13:41f., with Ginzel, *Handbuch* I, 60f. But Bickerman thinks this is just a case of (double) dating, i.e., dating by the Seleucid Era and equating it with a date based on a local eponym, as in I Mac. 14:27; see *Studies* II 142. Cf. also NEB (1976), *ad loc.*: "This first year was that of Simon's high priesthood and not the beginning of a new era, as the author thought."

55 Baruch Kanael, "Notes on the dates used during the Bar Kochba revolt," *IEJ* 21 (1971), 39-46.

56 II Kgs. 25:27; Jer. 52:31; Ezek. 1:2. Cf. also the (earlier) dating by the Exodus from Egypt: Exod. 19:1; Num. 33:38; I Kgs. 6:1.

57 Jer. 52:31; Ezek. 1:2; 33:21.

58 Bickerman, *Chronology*, 24r. and 98f., n. 22.

59 See G. J. Toomer, *Ptolemy's Almagest* (New York, 1984) for the latest translation.

Alexander, that is, for calendaric purposes, in 324 B.C.⁶⁰ There is no indication that this Era was ever in practical, contemporary use; it served solely for dating astronomical phenomena. And even in this limited sense, it was not the first of its kind. We have already noted the Metonic cycle and the Callippan Era above.⁶¹

A likelier candidate for the honor is the era which precedes that of Philip in the *Almagest*, the so-called Nabonassar Era. Like the Era of Philip, it serves there as a chronographic construct rather than as a practical dating system. But there are hints of its existence as far back as the third century B.C. in Berossus (see below). It thus appears to date back at least as far as the Olympic and Roman eras discussed above. And it resembles them in another important respect: it takes its epoch in the eighth century B.C. The question is, then: was it, like the Greek and Roman eras, another reaction to the practical successes of the Seleucid Era? Or was it, on the contrary, the model for the Seleucid Era which, moreover, actually originated at or near its starting-point?

Elsewhere I have argued that "there are no less than ten separate witnesses to the existence of a 'Nabonassar Era' in later Mesopotamian historiography."⁶² These include Ptolemy's *Almagest* and Berossus among Greek sources and, in cuneiform, the beginnings of the 19-year (so-called Metonic) cycle, the astronomical diaries, the *Chronicle of Market Princes*, the *Babylonian Chronicle*, the *Dynastic Prophecy*, the *Uruk King List* and, with considerably less probability, the 18-year-cycle text and the introduction of the *Zodiac*.⁶³ These indications of innovations connected with greater or lesser certainty to Nabonassar can already be supplemented by two others. The *Dynastic Chronicle*, edited in 1975 by Grayson as *Chronicle 18*,⁶⁴ has meanwhile been restudied by Thorkild Jacobsen⁶⁵ and augmented by important new finds published by W. G. Lambert⁶⁶ and Irving L. Finkel.⁶⁷ Although still not completely recovered, it is now seen to trace Mesopotamia's history all the way from antediluvian times down to the reign of Nabu-shum-ukkin which ended precisely in 748.⁶⁸ The same king is also the target of virulent vituperation in a newly discovered text which may likewise have emanated from the chancery of his successor Nabonassar.⁶⁹

To Berossus is attributed the tradition that "Nabonassar collected together and destroyed the records of the kings before him in order that the list of Chaldean kings might begin with him."⁷⁰ Whether he really "destroyed" them or "did away with" or

60 Samuel, *Greek and Roman Chronology*, 52; cf. Ginzel, *Handbuch* I 147; Kubitschek, "Ära," 616 (VIII). For a slightly different Era of Philip used in Arabic historiography, see H. Lewy, *JAOS* 64 (1944), 199, n. 26.

61 At notes 13f.

62 "Dating the Mesopotamian Past" (above, n. 1), 14-17.

63 *Ibid.* Documentation for all these assertions is reserved for the formal version of this article.

64 A. K. Grayson, *Assyrian and Babylonian Chronicles* (TCS 5; 1975), 139-44.

65 "The Eridu Genesis," *JBL* 100 (1981); 513-29.

66 *Symbolae* . . . Böhl (1973), 278, 280 (end); *JCS* 26 (1974), 208-10.

67 "Bilingual Chronicle fragments," *JCS* 32 (1980), 65-80.

68 His name (now lost) seems to have been the last entry in the text.

69 Egbert von Weiher, "Marduk-apla-ušur und Nabū-šum-iškun in einem spätbabylonischen Fragment aus Uruk," *Baghdader Mitteilungen* 15 (1984), 197-224, and pls. 22f. Note that von Weiher surmises that the text dates from 648 B.C.

70 Stanley M. Burstein, "The *Babyloniaca* of Berossus," *SANE* I (1978), 141-81, esp. 164.

“concealed” them (the Greek verb *aphanizō* has all these meanings and others)⁷¹ may be questioned in light of the almost *topos*-like quality of the statement.⁷² More likely, he simply summarized the prior tradition in documents such as the Chronicle of Market Princes and the Dynastic Chronicle, and contented himself with “destroying” the reputation of his immediate predecessor in documents like the Uruk fragment. At the same time, he may well have made a whole new group of historiographic and astronomical texts begin with him, including the astronomical diaries, the Babylonian Chronicle and, conceivably, the Uruk King List.

Clearly the cuneiform evidence has multiplied since Kugler first summed up the case for and against the existence of a Nabonassar Era in 1924.⁷³ Basing himself on the Greek testimony, the Babylonian Chronicle (“Chronicle B”) and the eighteen-year-cycle text (so-called Saros-tablet), he concluded that, as Berossus hinted, a new era of astronomy began in Babylon with Nabonassar, and that Ptolemy availed himself of an era, beginning with Nabonassar, that already existed for astronomical purposes and that marked a more intensive preoccupation with astronomical phenomena, probably inspired by a spectacular conjunction of moon and planets at Nabonassar’s accession. But there was no new calendar and no new era for ordinary dating purposes.

These conclusions largely stand up to the new evidence. In the first place, there was no new calendar in the sense once proposed by Hugo Winckler⁷⁴ and Eduard Mahler.⁷⁵ The new nineteen-year cycle was still based on observation, not calculation, as indicated by the intercalary months now known from Babylonian texts of the eighth to sixth centuries,⁷⁶ and from royal or priestly promulgations of the sixth century.⁷⁷ But the interval witnessed various experiments with calculations of the intercalation⁷⁸ and led to the emergence of the standard “Metonic” cycle by the beginning of the fifth century.⁷⁹

Secondly, the accession of Nabonassar did not usher in a new era of peace and prosperity, whatever the hopes that might have been entertained for it. Within two years (745 B.C.) Tiglathpileser III of Assyria had to intervene in Babylonian affairs, and shortly after Nabonassar’s death he returned (731-729) more fatefully.⁸⁰

Finally, there is no evidence of the introduction of a true era system for dating purposes. There are no texts bearing a date higher than Nabonassar 14 (his last regnal

71 Cf. J. A. Brinkman, *A Political History of Post-Kassite Babylonia* (Analecta Orientalia 43, 1968), 227, n. 1436.

72 Cf., e.g., the “Burning of the Books” by the First Emperor of China in 213 B.C.; John K. Fairbank *et al.*, *East Asia: Tradition and Transformation* (Boston, 1973), 57. Cf. already Ernst Weidner, *MVAG* 20/4 (1915), 105.

73 F. X. Kugler, *Sternkunde und Sterndienst in Babel II* (Münster, 1924), 362-71: “Der Ursprung der Ära Nabonassar.”

74 Hugo Winckler, *Geschichte Babyloniens und Assyriens* (1892), 121f.

75 See the articles from 1892-1909 cited by Ben Zion Wacholder and David B. Weisberg, “Visibility of the new moon in cuneiform and Rabbinic sources,” *HUCA* 42 (1971), 227-42; p. 277 n. 3 and p. 234.

76 Parker and Dubberstein, *Babylonian Chronology*³, 6 (= 2nd ed., pl. I).

77 *Ibid.*, 1f.; Wacholder and Weisberg, “Visibility,” 230.

78 Hermann Hunger and Erica Reiner, “A schema for intercalary months from Babylonia,” *WZKM* 67 (1975), 21-28. They date this scheme to the seventh century.

79 Wacholder and Weisberg, “Visibility,” 235 and 237. But begin in 498 rather than 481.

80 See most recently R. Borger and H. Tadmor, “Zwei Beiträge zur alttestamentlichen Wissenschaft aufgrund der Inschriften Tiglathpilesers III,” *ZATW* 94 (1982), 244-51.

year), and even if such texts should still surface, they would not necessarily prove the introduction of an era, for there are cases of other eighth (and seventh) century kings whose names appear in posthumous dates.⁸¹

In conclusion, it can be argued that it remained for the Seleucid Era to provide a practical dating system that was continuous and (potentially) universal, but that this practical solution depended directly on the prior experiments with eras used exclusively for theoretical astronomical calculations, and that among these experiments the earliest by far and perhaps the most prestigious was the Nabonassar Era.

81 J. A. Brinkman and D. A. Kennedy, *JCS* 35 (1983), 13.