

EGYPTIAN AND RELATED CHRONOLOGIES – LOOK, NO SCIENCES, NO POTS!

*Kenneth A. Kitchen**

§1.

At the end of the day, the chronology of the Ancient Near East/Ancient East Mediterranean has to depend on written sources for the periods when and where these exist. In their absence, archaeological sequences of assemblages using stratigraphy give us sequence, but not absolute dates. During last century, highly ingenious “scientific” procedures have been developed to try to overcome the problem of fixing absolute dates, especially when explicit written records are lacking, including use of astronomy, radio-carbon, tree-rings, ice-cores, and so on. However, each of these is subject to various flaws that prevent attainment of absolutely reliable results, so far.¹ Therefore, it may here be of service to indicate where we stand, if one makes careful use of our written historical evidence on its own, until the other methods can be freed of the problem of inherent sources of error.

§2.

Let us start with Alexander the Great, seemingly well fixed at 336–323 BC. In 331, he ended the Persian Empire with the death of Darius III Nothus. From the traditional sources of Ptolemy’s Canon, the Saros Canon and tablet, and other classical references, it is possible to set up dates BC for the entire Achaemenid Empire from Cyrus II down to Darius III. What is specially important is that these figures can be confirmed almost throughout, from the take-over of Babylon by Cyrus (539 BC) down to the accession of Artaxerxes III in 359 BC, using a whole series of date-lines of accessions and deaths (in their last regnal years) of these kings from original documents. Thus, earlier local regimes ended in 539 BC, of Neo-Babylon (Nabunaid), and in 525 BC of 26th-Dynasty Egypt (Psamtek III). For direct data in Babylonia

during 626–359 BC, see listings in PARKER and DUBBERSTEIN 1956, 10–24 and 25–47. On Cambyses in Egypt from 525, see DEPUYDT 1996, and on Ptolemy’s Canon during 747–30 BC, see DEPUYDT 1995. No change is required in the dates here.

§3.

Beyond 539 and 526 respectively, we can go back appreciably further in both Mesopotamia and Egypt, using principally first-hand sources and good-quality records (such as the Babylonian chronicles, Assyrian eponym lists, etc.), without any recourse to the natural sciences. Let us visit Mesopotamia first.

Thus, the reigns of the Neo-Babylonian Empire from the eclipse of Nabunaid back to the accession of Nabopolassar in 626 BC² are correctly given in the Canon (omitting only the few months of Labashi-Marduk), as is – again – demonstrated by the attestation of the beginnings and ends of their reigns in original business tablets of the time in each case. Before 626, in both sources (Canon; and ancient, especially the Babylonian chronicles) the enigmatic Kandalanu and a brief interval between him and Nabopolassar total 22 years, 648–626 BC. The year 648 saw the fall of Shamash-shum-ukin to his brother Assurbanipal of Assyria, after they had both reigned 20 full years to that point, after their parallel accessions in 669 BC at the death of Esarhaddon. The Years 18, 19 and 20 of Shamash-shum-ukin occur in business tablets (cf. MILLARD 1964, 29, with references). For Kandalanu’s reign-end and Years 21/22 “after Kandalanu”, see PARKER and DUBBERSTEIN 1956, 11.

At this point, Assyria takes the lead. The Eponym Canon (well-transmitted back in time, for the years 649 to 910 BC) enables us to date the reigns of all Assyrian kings back to Adad-nirari II, whose 21

* University of Liverpool

¹ On the elimination of Egyptian lunar and Sothic dates as invalid because of the problems of observation, see WELLS 2002.

² In this paper, we use true accession-dates for all

Mesopotamian rulers, not the misguided modern convention of ignoring accession-years and counting only from Year 1 (in pointless imitation of the book-keeping usage of ancient lists, not applicable today).

years of reign (in the Assyrian king-lists) ended in 891 BC, and thus began in 912 BC; for the eponym lists, see MILLARD 1994. In the 10th year of Assur-dan III, which thus fell in 763 BC, *using exclusively our historical sources*, the Eponym canon records an eclipse of the sun (MILLARD 1994, 2, 58). Our astronomers believe that just such an eclipse happened on 15/16 June (Julian) in 763 BC – how nice, that our ancient historical sources can now prove by independent calculation that our modern astronomers actually got it right!

Beyond 612 BC, the Assyrian king-lists carry us reliably back still further, to the accession of Tiglath-pileser I's father, Ashur-resh-ishi I, in 1133 BC.³ Before that, there are (briefly) problems ancient and modern. Between Ashur-resh-ishi I and Ashur-dan I are listed two kings with no regnal years, labelled *tuppi-shu*, a remark not yet fully understood. The practical effect is that they both are assigned zero years, and the reign of Ashur-dan I then immediately precedes Ashur-resh-ishi I, chronologically. Most scholars accept 46 years for Ashur-dan I, rather than the 36 years possibly in the Nassouhi list and preferred by BOESE and WILHELM 1979. Immediately before him, Ninurta-apil-ekur also shows a 10-year discordance, at either 3 or 13 years, the higher date being accepted by most authorities. Either way, as BOESE and WILHELM (1979, 28–29, §V) point out, the joint total of the two kings together is 49 years (3 + 46; or 13 + 36). This is comparable with similar variants (but only of 1 year) of 35 + 33 years varying with 36 + 32 years, for Assur-uballit I plus Adad-nirari I respectively (BRINKMAN, 1973, 311, n. 29). Thus, we have a possible 10-year margin of error, depending on whether we adopt the two higher figures (13 + 46 years = 59 years total) for Ninurta-apil-ekur and Ashur-dan I, or else treat the variants as cumulative evidence for 49 years for the two reigns combined (13 + 36, versus 3 + 46). So, before 1192/82 and 1179/69 BC, we now have a 10-year margin of error for all earlier Assyrian dates; we will give here both options at this stage.

Going further back in time, there are consistent figures for Ninurta-apil-ekur's precursors back to Enlil-nasir II, from 1431–1425 (or: 1421–1415) in the

later 15th century BC.⁴ We thus gain maximum and minimum dates for Assur-uballit I as 1364–1328 BC (or: 1354–1318 BC). This result is important, because this king had correspondence with two pharaohs: Akhenaten (Amenophis IV) reigning 16 years, and Tutankhamun at 9 years (thus skipping the very brief reign of Smenkhkare, 1 year of sole rule, before the last-named). So, Akhenaten could not die before 1364/1354 BC, and Tutankhamun could not accede to the throne later than 1328/1318 BC, a point of possible importance below (cf. §13).

§4.

So much for Assyria; what of Babylonia? Here, before 669 BC, we have a continuous series of kings with year-dates back to Nabunassar (Nabonassar) of 748–734 BC, resting upon a combination of Ptolemy's Canon, Mesopotamian king-lists, and other sources. Before him 17 kings are known, but not their reign-lengths, and two more before these, reigning 36 years and 8 months respectively, from the beginning of the "Dynasty of E". Before all that, the Second Dynasty of Isin and three lesser lines (partly contemporary) have figures preserved, but fixed dates BC cannot yet be established. Before this lot, we have the remarkable Kassite Dynasty of "36 kings, (for) 576 years". Here, things are somewhat better, because lengths of reigns can be largely established for kings 18–36, covering the early 14th century down to the mid-12th century BC. Here, we have a double problem: (i) the figures from the king-list are often one year more than the highest year yet found in contemporary economic tablets (so, for Kurigalzu II, Kadashman-Turgu, Kudur-Enlil and Shagarakti-Shuriash), and in one case (Nazi-Maruttash) 2 years more. Thus, if we had a base-line date for the end of the Dynasty, then the king-list-based figure for the period back to the accession of Burnaburiash II would give dates 6 years higher than trusting to the economic texts on their own. This Burnaburiash (within his reign of 27 attested years) corresponded with three pharaohs: Amenophis III, Akhenaten (Amenophis IV) reigning 16 years, and Tutankhamun at 9 years (thus skipping the very brief reign of Smenkhkare,

³ Not 1134; and so Tiglath-pileser I acceded in 1115, not 1116 BC; this comes from recognition that Tiglath-pileser II reigned 32 years, not 33, cf. BRINKMAN 1973, 310.

⁴ Assur-nadin-apli's 4 years can occur as 3 (BRINKMAN 1973, 311, A.2), but the impact of this 1-year variant is minimal, and can be largely set aside. Thus, our result for Assyria

before 912 BC comes out as identical with that in the table computed by BRINKMAN 1976, 31, with 13 years for Ninurta-apil-ekur (1192–1179). At this point, we keep open the 3 years option for that king (1182–1179), which entails merely subtracting 10 years from all preceding Assyrian royal dates, should it prove to be correct.

1 year of sole rule, before the last-named). Which has consequences, if we can date either him or these three kings. Just over 50 years after Burnaburish II there reigned Kadashman-Turgu for either 17 years (contemporary tablets) or 18 (king-list). He at one point volunteered to help Hattusil III by marching with him against Egypt – such hostilities would have been unthinkable, after the Egypto-Hittite treaty in Year 21 of Ramesses II, and therefore pre-date it; this may be a useful control factor to add to the others.

§5.

But (so far) we do not have a base-line for these Babylonian rulers. Instead, we have to turn to synchronisms with Assyria. From the “Synchronous History”, one may derive a long series of synchronisms between pairs of named Assyrian and Babylonian kings; see ROWTON 1959, 7, for a list. The dating of the Kassite Dynasty depends on its links with the Assyrian kings, not on the defective dates for Babylonia during c. 1160–748 BC, as clearly pointed out by BRINKMAN (1976, 29–30, nn. 85, 86). We may use these links at both ends of the second half of that Dynasty, to gain usable dates from c. 1400 to about 1150 BC. First, the earlier phase, with Assur-uballit I at c. 1364–1328 (high dates; low, 1354–1318). He had married-off his daughter to the reigning Babylonian king earlier in life, and they had a son, Kara-hardash. At the death of Burnaburiash II, this son succeeded him, and began pushing back hostile tribes, settling fortresses, etc., when he was suddenly overthrown and killed, a local usurper briefly replacing him until his enraged Assyrian grandfather Assur-uballit I swept down with an army, killed the interloper, and put another prince on the throne, namely Kurigalzu II. Clearly, young Kara-hardash was already old enough to command or send out army-forces, organize public works, etc., at his accession; he was not a babe in arms. The picture would well suit a young man of about 25 or so. If so, he would be born early in the 27-year reign of Burnaburiash II, and his princess-mother sent to that king by an Assur-uballit already reigning, ultimately for 36 years. These figures give us a bracket for the relative dating of the two monarchs, as Burnaburiash II's reign had to have ended within that of Assur-uballit, for the latter to avenge his swiftly-murdered grandson. The difference in reigns is 9 years. At the upper extreme, one might assume that Burnaburiash II ascended his throne about the same time as Assur-uballit, or even shortly earlier, receiving the girl in alliance soon after the latter

king's accession. In which case, Kara-hardash could have been born soon after, in about Year 2 of his father's reign, to succeed him 25 years later; that would leave 8 years' minimum interval from his death and due succession of Kurigalzu II (1336 or 1326 at latest) to the death of old Assur-uballit I himself (1328 or 1318). The opposite solution is to place the whole episode only a year or so before the old Assyrian king's own death (1328/1318), and date father and son accordingly. Thus, Burnaburiash II would reign at c. 1364–1337 (or slightly earlier), high dates; or 1354–1327 (or slightly earlier) on low dating, for the higher option. On the lower option, he might be set at c. 1356–1329 (high dates) or c. 1346–1319 (low dates).

We now turn to rulers much later, nearer the Kassite Dynasty's end. Its 32nd king, Adad-shuma-usur (or, -nasir) reigned for 30 years, and so was a contemporary of five Assyrian rulers: (i) the last years of Tukulti-Ninurta I, (ii) 4 years (unless just 3) of Assur-nadin-apli, (iii) 6 years with Assur-nirari III, (iv) 5 years with Enlil-kudurri-usur, and (v) with Ninurta-apil-ekur (who reigned either 13 or 3 years, hence our 10-year variants for the Assyrian dates before him). From the death of Assur-uballit I (1328/1318) down to the accession of Ninurta-apil-ekur totals 10+12+32+30+37+4+6+5 years, *i.e.* some 136 years all told, to which some overlap with the last-named must be added. If we accept the likeliest figures for the Babylonian kings from the accession of Kurigalzu II to the death of the long-lived Adad-shuma-usur (30 years), we have some 146 years in total, as follows. Kurigalzu II, 25 years; Nazi-maruttash, 26 years (King-list; only up to 24 in contemporary tablets so far); Kadashman-Turgu, 18 years (17 in tablets); Kadashman-Enlil II and Kudur-Enlil, 9 each; Shagarakti-Shuriash, 13 years (last one, only days); Kashtiliash IV, 8 years; no separate rule of Tukulti-Ninurta I over all Babylonia, only in certain districts(?); then Enlil-nadin-shum and Kadashman-harbe II, 1 year each; Adad-shuma-iddina 6 years; and finally the 30 years of Adad-shuma-usur; total, 146 years. The 10 years' difference from the Assyrian total (136 years) can then cover (i) some overlap needed between Ninurta-apil-ekur at the end, and (ii) between the accession of Kurigalzu II and the last years of Assur-uballit I at the beginning. With Brinkman, one could split these years evenly, with 5 to give overlap between the first years of Ninura-apil-ekur (1192 ff.) and the last years of Adad-shuma-usur (consequently, 1217–1187). The other 6 years can then push back into Assur-uballit I's reign, to set the reign of

Burnaburiash II at c. 1360–1333 BC. On a 3-year reign of Ninurta-apil-ekur, Assur-uballit I would reign c. 1354–1318, and the Babylonian dates reduce by 10 years, from Burnaburiash II (1350–1323 BC) down to Adad-shuma-usur (c. 1207–1177 BC), the Kassite line ending 1155/1145 BC. But for other possibilities, cf. §17 below.

§6.

Now, we return to Egypt. There is no reason to doubt the date of 664 BC for the commencement of the 26th Dynasty with Psamtek I, after Tantamani of Nubia had slain his (Ps I's) father Necho I, and raised general revolt against Assyria, resulting in Assurbanipal's fierce punitive campaign in 663. The year 664 also saw the death of Tantamani's predecessor Taharqa after a full 26 years of reign, which thus began in 690 BC, a date which should now be given equal status with 664, and to all intents and purposes with 525. In 716, Sargon II took tribute from the east-Delta ruler, Shilkanni of Egypt, who was Osorkon IV, last of the name. Thus, the Nubian 25th Dynasty did not secure 'permanent' control of Egypt until after that incident. Between 716 (*i.e.*, from 715 at earliest), down to Taharqa's accession in 690, we have two kings senior to him: Shabako, with a 14-year reign, and his successor Shebitku (Shabataka) of 3+*x* years; for details, see KITCHEN 1996, updates to 1995. Thanks to Sargon II's Tang-i-Var text, we now know that Shebitku was ruler of Nubia by 706 BC, before he succeeded Shabako.⁵ The synchronism of Sennacherib's campaign in Palestine against Hezekiah of Judah in 701 BC found the latter backed by "Tirhakah, king of Kush" – NOT of Egypt (as most of us had mistakenly considered). Just as Shebitku had been ruler of Nubia for Shabako, so in turn Taharqa was ruler of Nubia under Shebitku, who evidently sent him to war against Assyria in 701. On the stela Kawa IV, Taharqa tells of Shebitku ordering him to bring an army north to himself in Memphis. To bring an army (not a mere platoon!) of several thousand men most of 2,000 miles from Upper Nubia to Memphis and the Delta is a major undertaking, not done for fun! It could only be done for a war about to be waged. And 701 is the time the only relevant one happened. Thus, we may date Shebitku to 702–690

with 12 years' reign [as in the Eusebian text of Manetho], which neatly accommodates Shabako's 14 years in 716–702 BC, with his taking over Egypt in his Year 2, in 715 BC (date-line of an Apis-burial in Memphis, after slaying Bakenranef, 24th Dynasty), with Osorkon IV also thus disappearing after 716.

§7.

Before 716 and Shabako, we have his predecessor Piye ("Piankhy"). That king invaded Egypt in his 20th year, commemorating this with a stela in Year 21; later regnal dates run up to Year 30. During that invasion, he found Osorkon IV in Bubastis (22nd Dyn.), and Iuput II in Leontopolis (23rd Dyn.); then, Tefnakht was Great Prince of the West, but NOT a king. Thus, Piye's Year 20 was some 10 years before Shabako's accession in 716 (in 726 or before), and preceded the 7/8-year reign of Tefnakht as king, and 5/6-year reign of his son and successor Bakenranef, which is a 12 to 14 years' span, ending in 715 BC (Shabako's conquest of Egypt, with death of Bakenranef), putting Piye's invasion at $715 + 12/14 = 727/729$ BC. Let us say 727 BC, as absolute minimum, although 728 would be safer. In 725, So of Egypt in 2 Kings 17:4 (to whom Hoshea of Israel appealed) is also Osorkon IV (despite squawks to the contrary by ignoramuses). Thus, we have 727 (better, 728), 725, 716 as datelines for Osorkon IV.

§8.

Before him, we have the entire 22nd Dynasty back to Shoshenq I in impeccable good order, which I list in almost unrealistically minimal terms at this stage: Shoshenq V, 37 years (up to Yr 38), Pimay, 6 years (up to Year 6; Apis-sequence), (the new) Shoshenq IV plus Shoshenq III, together 52 years (40+12; on Apis sequence), Takeloth II, 25 years (not less; definitely 22nd, not 23rd Dyn.); Osorkon II, up to Year 23, but 24 needed; Takeloth I, 14 years' minimum (15?); Osorkon I, 32 absolute minimum (Year 33 bandages); and Shoshenq I, 21 years. Adding up $37+6+52+25+24+14+32+21 = 211$ years unrealistically absolute minimum; from 727 = an irreducible and unrealistic bottom date of $727+211 = 938$ BC for the accession of Shoshenq I. If we allow 728 as proper date for Piye's invasion, and Osorkon IV reigning

⁵ But not then in Egypt! See briefly my remarks (KITCHEN 2000 in: M. BIETAK (ed.), 2000, 58–59, also KITCHEN 2002, 6–7, pointing out that Assyrian *sharru* of foreign potentates

did not always mean "king", but any local bigwig; and the same (for Sargon II) is most likely true here; Shebitku did not rule *in Egypt* from 706 BC, only in Nubia.

from 730 BC (and not just 5 minutes before Piye arrived on his doorstep!), Takeloth a 15th year in full, and Osorkon I, 35 years (correcting Manethonic *15), then $1+2+1+3 = 7$ years more, bringing Shoshenq I's accession to c. 945, close to maximum. A 50-year range of error, that some have suggested,⁶ is absolutely excluded. Alongside the sequence of kings, we have the dated sequence of Apis-bulls, and of a complex series of genealogies of dignitaries in both Thebes and Memphis (full details, KITCHEN 1996), which underline the reliability of the royal sequence cited here.

§9.

We also have an Assyrian-backed Near-Eastern synchronism to check upon these Egyptian dates, themselves wholly derived from dead-reckoning on purely Egyptian data, other than the 702/701 synchronism for Shebitku. In the biblical 1 Kings 14:25–26, and supplementary 2 Chronicles 12:3–4, we find that Shishak (better, Shushaq) king of Egypt raided Palestine in the 5th year of Rehoboam, king of Judah. The Assyrian annals of Shalmaneser III note opposition from Ahab of Israel in 853, and the submission of Jehu of Israel in 841 BC. This 12-year span included the 2 + 12 years of two intervening kings, Ahaziah and Jehoram (Ahab's sons; 1 Kings 22:51, and 2 Kings 3:1) = 14 years. But Israel's first king, Jeroboam I, had come from Egypt, where non-accession dating was used; on that basis 2 + 12 nominal years = 1 + 11 full years; that principle ran back all the way to Jeroboam I, an interval of six kings in "84" years = 84–6, or 78 full years, putting the accession of Jeroboam I in $853 + 78 = 931$ BC – also the starting-date for his rival, Rehoboam of Judah (931/930); details on these, see KITCHEN 2003a, 26–32. The 5th year of Rehoboam (and on the opposing accession-year usage) was consequently in 926/925 BC. As Shoshenq I most likely reigned 945–924 BC (Egyptian non-accession usage), his 20th year = 926 BC, in Rehoboam's 5th. On return, in Year 21, Shoshenq I commissioned a massive celebratory building-programme (date, from the Silisila stela), including his great triumphal relief and list of places in Palestine (KITCHEN 1997, 118–120, 124–125).

Thus, we can better our absolute minimal date from 938 to 945 for the start of the 22nd Dynasty and

end of the 21st, by a mere 7 years, with the indirect Assyrian synchronism, itself the result of straight dead-reckoning, with which an eclipse happens to fit (it would be wrong if it didn't!)

§10.

In turn, the 21st Dynasty goes back beyond 945 BC. As shown long ago, it had 7 kings, *not overlapping* any other dynasty or king (cf. KITCHEN 1996, xix–xxii, §§O–T, contra DODSON 1987), with Smendes I at 26 years (cf. stela, Year 25); Amenemnisu, reputedly at 4 years (ephemeral); Psusennes I up to Years 48, 49, but possibly co-regent with his successor, hence only 46 years in Manetho; Amenemope with Years 5 and 10(?), agreeing with Manetho's 9 years; Osochor assigned 6 years (Yr 2 known); Siamun, a Year 17 known, but Manetho <1>9 years; and Psusennes II 13 to 15 years = 123 to 125 years. This total added to 945 would give a range of c. 1068 to 1070 BC, with 1069 as the mean. Let us temporarily adopt the lowest option, 1068 BC.

§11.

We now reach the New Kingdom. The 20th Dynasty on absolutely minimum figures for Setnakht and Ramesses III to Ramesses XI inclusive = $1+31+6+4+7+7+1+18+3+29$ years = 107 years basic. The probability is that Setnakht should have 2 years, either Ramesses VI or VII (or both, each) 8 years; R. VIII might merit 3 (Book of Sothis), and R. X 7 or 8 years, if not also R. IX 19 years, giving us potentially 10/11 years more, and 117/118 years total (up to c. 1185/86 BC). But these possibilities we leave aside at present; $1068 + 107 = 1175$ BC, for the barest minimal start of the 20th Dynasty and end of the 19th.

For the 19th Dynasty, we have two problems: whether or not the 3 years of Amenmesses are his sole reign, or wholly enveloped within that of Sethos II – a 3-year difference. For Sethos I, the absolute minimum is 10 or 11 years, but 14 or 15 are possible. So, we have $3+5 = 8$ years possible range above the minimum. Before 1175, that is 8 years for Siptah + Tewosret, 6 years for Sethos II, 9 years for Merenptah (10 likelier), 66 years for Ramesses II, and 1 full year for Ramesses I. Thus, in chronological order, $1+10+66+9+6+8 =$ a rock-bottom minimum of 100 years, back to *1275 BC ($-11 =$ *1264 accession

⁶ Such as sundry cranks naively cited by FINKELSTEIN 2002, 110. These are refuted by me (KITCHEN 2003b, 121–125), with further references.

of Ramesses II, his Year 5 (Qadesh) = *1260, and treaty of Year 21 = *1244 BC).

§12.

Thus a minimal end for the 18th Dynasty would be *1275 BC, on this rock-bottom basis. For Haremhab at 28 years, Ay at 4 years, Tutankhamun at 9 years, Smenkhkare at 1 year and Akhenaten at 16 years, we would have:

Amenophis III	38 years	*1371–1333
Akhenaten	16 years	*1333–1317
Smenkhkare	1 year, solo	*1317–1316
Tutankhamun	9 years	*1316–1307
Ay	4 years	*1307–1303
Haremhab	28 years	*1303–1275

These figures would then put the accession of Tuthmosis III some 90 years earlier at c. *1461, and of the 18th Dynasty (with Tuthmosis II at 3 years) some 61 years before this, at c. *1522 BC for accession of Ahmose I. But these ultra-low, theoretically rock-bottom figures may not allow (i) for essential synchronisms abroad, and also for (ii) more realistic reign-lengths where our total data are insufficiently explicit in terms of full regnal years.

§13.

To those synchronisms, we now turn. Burnaburiash II (1360–1333, or else 1350–1323 BC) had correspondence with Amenophis III, Akhenaten (Amenophis IV) and (by-passing Smenkhkare) with Tutankhamun. On this basis, within his 27 years, the death of Amenophis III must fall no earlier than either 1359/1349 BC, and the accession of Tutankhamun no later than c. 1334/1324 BC; in either case, the intervening 25 years is ample for the 16+1 years of Akhenaten and Smenkhkare, with 8 years leeway. Now in §12 above, we arrived at extreme low dates for these pharaohs. These set the accession of Tutankhamun in *1316 BC, which is 18/8 years too late to match the Mesopotamian data. So, such dates in Egypt would need to be raised accordingly. Tutankhamun would have to accede not later than 1334 or 1324 BC, and reign (9 years) c. 1334–1325 or else 1324–1315 BC. Ay would be 1325–1321 or 1315–1311 BC (4 years); and Haremhab's 28 years in c. 1321–1293 or else 1311–1283 BC. In turn, Ramesses I would come in 1293–1292 BC, or else 1283–1282 BC. Sethos I at 10/15 years would come within 1292–1282/1277 BC, or (low) 1282–1272/1267 BC. This would place Ramesses II's accession at within 1282/77 or 1272/67 BC, respectively. Amusingly, the

high date is around our previous 1279 BC (actually, a mean value), the low one barely a decade below it (with 1269 likewise a mean value). Then, the Battle of Qadesh (Year 5) would be within c. 1278/73 (or 1268/63), and the treaty of Year 21 be within c. 1262/57 BC or (low) 1252/47 BC (mean values, at 1275, 1259 BC, *i.e.*, dated as formerly; or (low) 1265, 1249).

§14.

At this point, we turn again to Babylon and also the Hittites. At one crisis of hostility between Hatti and Egypt, when Hattusil III was minded to wage war on Egypt, the Babylonian king Kadashman-Turgu offered his military support (*KBo* I, 1, 10; OPPENHEIM 1967, 139–146, especially 143–144). At some point *before* the Hittite Treaty, this action makes sense; *after* it, it does not. So, it is fair to suggest that Kadashman-Turgu's help was offered after Hattusil III's accession, and at least a year or two before Year 21 of Ramesses II and the treaty then. Between the Battle of Qadesh in Year 5 and the Treaty in Year 21, we have 16 years which include: (i) death of Muwatallis; (ii) 7 year-reign of Mursil III/Urhi-Tesup; (iii) seizure of power in Hatti by Hattusil III; (iv) Urhi-Tesup's escape to Egypt; (v) Ramesses II's refusal to give him back to Hattusil III; and (vi) change of attitude by both kings, and negotiations to the treaty (about 2 years?). It is possible that Muwatallis did not long survive Qadesh; dying in Ramesses II's Year 6 or so at earliest. Then Years 7 to 13 at earliest would see out the 7-year reign of Mursil III, and from Year 14 onward, Hattusil III would take over, leaving a maximum of 7 years more for quarrels and then peace-negotiations up to Year 21. On mean dates suggested here, Kadashman-Turgu's 18 years would be c. 1282–1264, or (low) 1272–1254 BC. So, Years 14–18 would be a fitting context for Kadashman-Turgu's offer of military aid, within c. 1282/64 or 1272/54 BC (mean dating). In his Year 18, Ramesses II set up a very bellicose (if vague) stela at Beth-Shan in northern Canaan (translated and annotated, KITCHEN 1996a, 27–29, and 1999, 60–63). It is possible that, expecting a Hittite attack, he went forth, but no attack came and he therefore contented himself with this generalized triumphal monument. If the Babylonian offer of aid occurred within Years 14–18 not long before that king's death, say c. 1265 or (low) 1255 BC, then Year 1 of Ramesses II would fall within c. 1282/1278 BC (high) or c. 1272/68 BC (low). The first option compares with 1282/77 and the second with (low) 1272/67 BC of §11 above, in each case very closely.

Any very early dates in the reign of Kadashman-Turgu would progressively go against both the higher and lower dates for Ramesses II and Egypt. So relatively late in the Babylonian's reign is likeliest for his offer to Hatti.

§15.

At this point, we may pull together the results so far. The high and low options of 49 and 59 years of combined reigns for Ninurta-apil-ekur and Ashur-dan I of Assyria lead to matching high and low options just 10 years apart for all the Assyrian and Kassite Babylonian kings that precede him in time, and in turn (through synchronisms) for Egypt's 18th and 19th Dynasties. Before Tutankhamun (acc. 1334/1324), the basic known reigns of the 18th Dynasty would take us back to c. 1351/41 BC for accession of Akhenaten, to c. 1389/79 BC for that of Amenophis III, and to c. 1477/67 BC for the accession of Tuthmosis III. In turn, with 13 or 3 years for Tuthmosis II, the 18th Dynasty and Ahmose I would begin at c. 1548/38 (Th II, 13), or c. 1538/28 (Th. II, 3 years).

§16.

The frank truth of the matter, therefore, is that with 1477 we are so near the old 1479 date that we should keep it for convenience (giving us a tidy 1550/40 for Ahmose I), with the consequential dates that follow on from it, all the way down to c. 1070 BC, as a “high date” series, to avoid massive confusion adopted merely for the sake of needless novelty. As a current alternative, a corresponding “low date” series can be set up, just 10 years lower, from c. 1540/30 BC (Ahmose I), c. 1469 BC (Tuthmosis III), c. 1381 BC (Amenophis III), c. 1326 BC (Tutankhamun), and so on to 1269–1203 BC for Ramesses II, and on down to c. 1070 BC for the 21st Dynasty as usual; deleting any slack would come from eliminating Amenmesses' sole reign (into that of Sethos II) at 3 years, the 4 years added to Ramesses X, the 2 extra years for R. VIII, and the odd extra year for R. IX. On that low-date basis, Merenptah = 1203–1193; Sethos II (incl. Amenmesses), 1193–1187; Siptah-Tewosret, 1187–1179; Setnakht, 1179–1177; Ramesses III, 1177–1146 (Year 8, c. 1170); R IV, V, 1146–40, and 1140–36; R. VI, 1136–1129; and R VII–XI at 59 years (8+1+18+3+29), c. 1129–1070 BC. Thereby, we can offer two alternative sets of dates, until the anomaly over two Assyrian kings (49/59 years) can finally be ironed out.

§17.

But let us go back to Ramesses II and Kadashman-Turgu of Babylon for a moment. If Year 18 of

Ramesses II's Beth-Shan stela was indeed a mark of crisis, a monument to an aborted Hittite advance (without Babylonian help, which had been refused), to which Ramesses II had initially responded by marching forces up to Beth-Shan, then we may date the Babylonian offer of help at about Year 17 at earliest. On our high dates (1282/78) and previous equivalent (1279), Year 17 would fall within c. 1266/62 BC, or previous equivalent, in 1263 BC. This all falls very close indeed to the supposed 1264 date for the death of Kadashman-Turgu, in fact straddling it. The same applies to the low-date scheme, 10 years later, with Year 17 within 1256/51 (from accession within 1272/67) or at 1252 (if accession in 1269) and Kadashman-Turgu in 1272–1254. As any date during 1264–62 (high) or 1254–52 (low) would be 2+ years too low for this synchronism, one may enact one or other of three options.

Option (i) is to raise the date of Year 17 of Ramesses II to at least 1265/1255 BC (= 1281/1271 for accession), if we keep the link with Beth-Shan. Option (ii) is to lower the dates of Kadashman-Turgu by, say, 3 years, to c. 1279–1261/1269–1251 BC. Then, Kassite dates before him would be lowered accordingly, setting Burnaburiash II, in c. 1357–1330 BC, dying just a couple of years before Assur-uballit I, whose avenging campaign would itself then come just that 2 years before his decease, and may even have hastened it, through its stress for an ageing ruler. Option (iii) is to sever any direct link between the dateline of the purely rhetorical Beth-Shan stela and the timing of Kadashman-Turgu's offer of anti-Egyptian help to Hattusil III. As pointed out above, Hattusil III could have succeeded Mursil III/Urhi-Tesup at as little as 8 years' interval after the Battle of Qadesh, by Year 14 or 15 of Ramesses II onwards. This could date the help-offer (on high dates) to within (1282/78 – 13/14) = 1269/65–64; or else (on low dates) within (1272/68 – 13/14) = 1259/55–54 BC. On 1279/1269 accession-dates for Ramesses II, this would be in 1266/65 or else 1256/55 BC, in each case safely within the high or low dates for Kadashman-Turgu (1282–1264/1272/54 BC). In such a case, the Year 18 rhetorical stela would have been erected in Beth-Shan for reasons still unknown to us (and likely to remain so, just as with the Year 56 stela from near Damascus).

On balance, it seems (to me at least) wisest to go for option (iii), dating the accession of Hattusil III to Year 14 or 15 of Ramesses II (acceding at c. 1279/1269), and thus keep the link between the Hittite king and his Babylonian ally within the mean figures for the Kassite Dynasty, and before Assur-ubal-

lit I got any too old for even vengeful campaigning. Bluntly, there is no point in going for purely theoretical, currently unverifiable and needless minor novelty just for the fun of it. Far better to await the discovery of some *real* and fresh data, either to confirm or amend these present dates, seeing that they still fit the case overall.

§18.

That being the case, and with either 1550/40 or else 1540/30 BC for the beginning of Egypt's 18th Dynasty *nach wie vor*, and without any scientific aids invoked so far, we need in closing to tackle the preceding era from the 11th and 12th Dynasties through the Second Intermediate Period. Now, long since (1987 and 1996/2000), I pointed out very clearly that one can make a very good case for estimating the length of the Second Intermediate Period (13th to 17th Dynasties) by establishing the basic succession of kings who had actually ruled over Thebes during that period. Using existing, known reign-lengths, plus analogous lengths of reign for kings of similar status, it was possible to offer a figure of some 240/250 years for the period between the 12th Dynasty and the accession of Ahmose I and the 18th Dynasty in Thebes. Here, the 240 is a decidedly minimal figure, and 250 may prove to be closer to the truth, eventually. Therefore, we may (on high datings) offer $1550/40 + 240/250 =$ either 1800/1790 or 1790/1780 BC for the end of the 12th Dynasty – the mean would be 1790 BC, and that Dynasty's 187

years would go back to a mean date of c. 1977 BC, with top limit at c. *1987 BC, and bottom limit of c. *1967 BC. This would give a mean of c. 2120 BC for the start of the 11th Dynasty (between upper and lower extremes of *2130 and *2110 BC). On the lower datings, $1540/30 + 240/250$ would correspondingly give 1790/1780 or 1780/1770, end of 12th Dynasty, with a mean at 1780; then 187 years back to its start as *1967, between extremes of *1977 and *1957 BC. Then, for the 11th Dynasty (143 years), a mean starting point would be *2110 BC, with extremes at *2120 and *2100. Using these purely textual/archaeological data, it is piquant to note how little their results vary from the former dates of c. 2116–1973 BC for the 11th Dynasty, then c. 1973–1795 BC for the 12th Dynasty, and 1795–1550/40 and 1540/30, for the Second Intermediate Period, when Sothic and lunar dates were still in fashion. The most those could ever do was to provide “fine tuning”, but clearly we can well survive without this, even though it might be a desirable aim if really reliable means were established to permit it. But not yet!

Finally, the Archaic Period, Old Kingdom and First Intermediate period. Frankly, with almost the same general dating-horizon as previously – there is no significant difference, between *2130/10, *2116, and *2110/00! – there is simply no point in suggesting any theoretical, overall changes in the dates already suggested a decade ago, and printed only three years ago (KITCHEN, in: BIETAK 2000, 48–51). So here, we may fitly conclude.

Bibliography

- BIETAK, M. (ed.)
 2000 *The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millennium B.C.*, CChEM 1, Vienna.
- BOESE, J., and WILHELM, G.
 1979 Assur-dan I., Ninurta-apil-ekur und die mittelassyrische Chronologie, *WZKM* 71, 19–38.
- BRINKMAN, J.A.
 1973 Comments on the Nassouhi Kinglist and the Assyrian Kinglist Tradition, *Orientalia* 42, 306–319.
- 1976 *Materials and Studies for Kassite History*, I, Chicago.
- DEPUYDT, L.
 1995 “More Valuable than All Gold”, Ptolemy’s Royal Canon and Babylonian Chronology, *JCS* 47, 97–117.
- DEPUYDT, L.
 1996 Egyptian Regnal Dating under Cambyses and the Date of the Persian Conquest, 179–190, in: P. DER MANUELIAN (ed.), *Studies in Honor of William Kelly Simpson* I, Boston.
- DEVER, W.G., and GITIN, S.
 2003 *Symbolism and the Power of the Past*, Winona Lake.
- DODSON, A.
 1987 Psusennes II, *Revue d’Égyptologie* 38, 49–54.
- FINKELSTEIN, I.
 2002 The Campaign of Shoshenq I to Palestine: A Guide to the 10th century BCE Polity, *ZDPV* 118, 109–135.
- KITCHEN, K.A.
 1996 *The Third Intermediate Period in Egypt (100–650 BC)*, Revised 2nd edition, Warminster.
- 1996a Ramesside Inscriptions Translated and Annotated, Translations, II, Oxford.
- 1997 Egypt and East Africa, 106–125, in: L.K. HANDY (ed.), *The Age of Solomon, Scholarship at the Turn of the Millennium*, Leiden.
- 1999 Ramesside Inscriptions Translated and Annotated, Notes and Comments, II, Oxford.
- 2000 The Historical Chronology of Ancient Egypt, a Current Assessment, 39–52, in: BIETAK (ed.) 2000.
- 2002 Ancient Egyptian Chronology for Aegeanists, *Mediterranean Archaeology and Archaeometry* 2/2, 5–12.
- 2003a *On the Reliability of the Old Testament*, Grand Rapids.
- 2003b *Egyptian Interventions in the Levant in Iron Age II*, 203–230, in: W.G. DEVER and GITIN (eds.), 113–132, Eisenbrauns/ASOR.
- MILLARD, A.R.
 1964 Another Babylonian Chronicle Text, *Iraq* 26, 14–35 and plate VII.
- 1994 *The Eponyms of the Assyrian Empire, 910–612 BC*, Neo-Assyrian Text-Corpus Project, Helsinki.
- OPPENHEIM, A.L.
 1967 *Letters from Mesopotamia*, Chicago.
- PARKER, R.H., and DUBBERSTEIN, W.H.,
 1956 *Babylonian Chronology 626 B.C. – A.D. 75*, Brown University Studies XIX, Providence RI.
- ROWTON, M.
 1959 The Background of the Treaty between Ramesses II and Hattusilis III, *JCS* 13, 1–11.
- WELLS, R.A.
 2002 The Role of Astronomical Techniques in Ancient Egyptian Chronology: The Use of Lunar Month Lengths in Absolute Dating, 459–472, in: J.M. STEELE and A. IMHAUSEN (eds.), *Under One Sky, Astronomy and Mathematics in the Ancient Near East*, AOAT 297, Münster.

