CHAPTER V

THE CHRONOLOGY OF THE ANCIENT NEAR EAST IN THE SECOND MILLENNIUM B.C.E.

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Introduction

THE CHRONOLOGICAL FRAMEWORK of the Ancient Near East in the 2nd millennium B.C.E. extends over two main periods, between which the 16th and 15th centuries form the line of demarcation. The 16th century saw both the end of the Hyksos period in Egypt (of which few records are extant), and the beginning of the Eighteenth Dynasty (for which sources are numerous). Similarly, the 15th century witnessed the close of the undocumented "dark age" which had descended on Mesopotamia after the Kassite conquest of Babylon, towards the middle of the second millennium. The central problem of the former period is the dating of the First Babylonian Dynasty; that of the latter period is the coordination of the chronological data on the kings of Assyria, Babylon, Egypt and Hatti, data which combine to form a single, overall pattern, the mainstay of which are historical synchronisms between the rulers of these countries.

A. The Date of the First Babylonian Dynasty

1. History and Methods of Research

The chronological research at the end of the last century centered around the dating of the First Babylonian Dynasty, whose 6th king was Hammurabi. This question is decisive since the dates of the kings of Sumer and Akkad, of the various dynasties of the several Mesopotamian cities, and the dating of the early archeological strata are all based on dates of the First Babylonian Dynasty. The date proposed for Hammurabi was in constant modification, for new historical material was constantly coming to light. Thus, a contemporary scholar has suggested 1806 B.C.E. for the founding of the First Dynasty, as against 2506 or 2425 put forward by a number of scholars at the end of the last century.

As to the present century, up to the end of the thirties the beginning of the

First Dynasty was usually assigned to the 22nd, 21st or 20th century B.C.E. Research at that time was based mainly on the following factors: data in the Babylonian king-lists on the regnal years of the Babylonian dynasties; chronological data in the inscriptions of Babylonian kings concerning their predecessors; Assyro-Babylonian synchronisms based on Babylonian chronicles; and (in a few chronological systems) on chronological data of Berosus.

After 1912, most systems took into account the probable dates based on "astronomical" observations of Venus in the days of Ammizaduqa (10th king of the First Dynasty); in the course of time these latter even became a chronological cornerstone. These observations had been drawn up by the royal astronomers in the 8th year of Ammizaduqa's reign and record Venus' disappearance before sunrise and its reappearance after sunset. Since this planet reappears on the same day of the month every 275 years (less 8 days), as well as every 56 or 64 years (less 28 or 32 days), the dates of these observations can be assigned to several years — with a difference of 275, 56 or 64 years between them. Therefore, such astronomical data offer mere alternatives between which a scholar must decide on the basis of independent historical criteria. A further difficulty is the fact that there are only late copies extant of the original tables on which the observations were recorded. Assuming that ancient "astronomers" erred or that later copyists corrupted the original, the data can be used only after suitable corrections have been brought to the text.[1]

The discovery of the Mari documents and their preliminary publication (in 1937) made it known that Shamshi-Adad I, King of Assyria, was a contemporary of Hammurabi. Since Shamshi-Adad I reigned in the 19th century, scholars were compelled to adjust the date of Hammurabi accordingly, lowering their original figures by some 100-200 years.[2] Only then was the true significance of an economic text from Sippar, published long ago, fully appreciated.[3] This document is dated to Hammurabi's 10th year and the witnesses swore by both his life and that of Shamshi-Adad; hence the latter was still alive in the Babylonian king's 10th year. Thus, a minimal synchronism, previously not sufficiently paid attention to, was established between these rulers. In the meantime, several documents were published, clearly demonstrating that Shamshi-Adad was for several years Hammurabi's contemporary.

The historical and chronological re-evaluation, which relied largely upon conclusions drawn from several excavations carried out in the thirties in the Khābūr region and in Syria (see section 9, below), resulted in the adoption of new chronological systems for the beginning of the 2nd millennium.

In 1940, Albright, Sidney Smith and Ungnad simultaneously published

studies suggesting, each on the basis of his system, that Hammurabi was to be dated to the beginning of the 18th century (see note 5, below). The latter two suggested an exact date — 1792 B.C.E., i.e. the lower astronomical alternative of the Venus observations.

The publication in 1942 of the Assyrian king-list discovered ten years previously, in the excavations at Khorsabad (see note 7, below), brought further suggestions for the date of Hammurabi. Albright changed his views by accepting the chronological data in the king-list, and took a lower astronomical alternative than the Venus observations in the days of Ammizaduqa, thus assigning Shamshi-Adad to ca. 1750 and Hammurabi to 1728 — which is 64 years later than suggested by Smith and Ungnad. Cornelius arrived at the same conclusions, though for different reasons. A different position was taken by Böhl and Weidner, who accepted the data of the Khorsabad king-list at face value; they proposed to date Hammurabi to the end of the 18th and the beginning of the 17th century, thus freeing themselves of dependence upon the Venus observations. Neither does Landsberger's penetrating study published in 1954 use these observations in arriving at his far-reaching suggestions on Hammurabi's date: ca. 1900 B.C.E.

There are other astronomical data which could lead, in the views of their various proponents, to the adoption of one or the other of the systems for establishing the date of Hammurabi: the lunar eclipse in the month of Tammuz which portended the downfall of the last king of the Gutians; another in the month of Sivan in the days of one of the kings of the Third Dynasty of Ur; yet another in the month of Adar which presaged the downfall of Ibbi-Sin, the last king of Ur III.[4] But these cannot contribute substantially toward the solution of the problems at hand, for most of them would fit almost any of the prevailing chronological systems, and thus each system could, in fact, select from the numerous alternatives of complete or partial lunar eclipses any particular date that would suit it.

The various systems put forward since 1940 for establishing the date of Hammurabi and of the First Babylonian Dynasty can be summarized in five basic suggestions:[5]

a) Landsberger: First Dynasty — ca. 2000–1700 B.C.E. (Hammurabi — ca. 1900–1850).

b) Thureau-Dangin; Goetze: the "higher chronology," First Dynasty — 1950–1651 B.C.E. (Hammurabi — 1848–1806).

c) Smith; Ungnad: the "middle chronology," First Dynasty — 1894–1595 B.C.E. (Hammurabi — 1792–1750).

d) Albright; Cornelius: the "lower chronology," First Dynasty — 1830–1531 B.C.E. (Hammurabi — 1728–1686).
e) Böhl; Weidner: First Dynasty — 1800–1507 B.C.E. (Hammurabi — 1704–1662).

2. The Chronological Value of the Assyrian King-list

Any enquiry into the date of Hammurabi of Babylon and his contemporary Shamshi-Adad I of Assyria must rest to a great extent on the Assyrian king-list. However, a complete Assyrian king-list was discovered only in 1932/33 in the excavations at Khorsabad (Dūr-Sharrukin). Before this, scholars had merely a very fragmentary copy of the king-list from the city of Ashur (and named after its editor as "the Nassouhi king-list"), as well as several small, odd fragments from Ashur.[6] A detailed study and a partial transliteration of the Khorsabad king-list were published by A. Poebel in 1942–1943, but the full publication came only in 1954, by I. J. Gelb.[7] A further copy of the Assyrian king-list, from a private American collection (known as the "*SDAS* list") was published together with it. All these lists are copies of one canonical Assyrian king-list compiled at the beginning of the 10th century B.C.E. or perhaps even earlier. This list enumerates the Assyrian kings from the earliest period known to its compiler, and is divided into four parts. Three parts deal with 32 kings whose regnal years are not stated, while the main, fourth part, begins with Erishu(m) son of Ilushuma, the 33rd king who reigned at the beginning of the 2nd millennium B.C.E. The copy from Khorsabad ends with Ashur-nirari V (no. 107), Tiglath-pileser III's predecessor, who died in 746, while *SDAS* ends with Sargon II (721–705).

Before proceeding to discuss the chronological details of the Assyrian king-list, we must first consider the sources and editorial procedures of the ancient compilers.

In Assyria the regnal years were reckoned according to the so-called eponyms (*limmu*) by whose names the years were known. To facilitate administration, lists of eponyms were drawn up for the life of each king. In the course of time, however, there was apparently felt a need to summarize the *limmu*-lists of several kings. Since it was an established usage, at least from the 11th century on, for a king to assume the office of a *limmu* in the first year (and at a later period, in the second year) of his reign, the number of years between the eponymous years of the successive kings should indicate ideally the length of their reigns.[8] This method does not differ basically from that of counting according to the "name of the year," a system employed in the Sumerian cities by the kings of Akkad,

Isin, Larsa and, later, in Babylon during the First Dynasty. According to this latter method, each regnal year was named after a specific event; already in a king's lifetime the years were arranged and, after his death, they were summarized and recorded as "regnal years" in the king-lists. Similarly, in Assyria, in the extant lists of eponyms — from the 11th century onward — the summaries of the eponyms between the *limmu*-year of a king and that of his successor indicate, in fact, the length of reign.

The method of chronological reckoning based on the number of eponyms presupposes a stable government in the capital and continuity of tradition. It may, however, be assumed that in times of crisis, when government was slack, or deficient, the continuity of the chronological tradition was also affected, resulting in chronological gaps.

Another important source from which the compilers of the Assyrian king-list gathered material were the historical chronicles.[9] Though so far the earliest extant fragments of these chronicles are from the 14th century B.C.E.,[10] there are sufficient grounds to assume that they were kept already in the time of Shamshi-Adad I, and that the compiler of the Assyrian king-list excerpted his data from them on the exact date (i.e. the name of the *limmu*-year) for the accession of Shamshi-Adad I: "Shamshi-Adad son of Ila-kabkabi went to Karduniash [= Babylon] at the time of Naram-Sin. In the eponymy of Ibnī-Adad, Shamshi-Adad came up from Karduniash, Ekallāte he seized and three years in Ekallāte he resided. In the eponymy of Ātamar-Ishtar, Shamshi-Adad came up from Ekallāte, Erishu son of Naram-Sin he deposed from the throne, the throne he seized and 33 years he reigned."[11]

These chronicles also gave the compilers of the Assyrian king-list their information on both the usurpers and the legitimate kings who reigned in times of political turbulence and who had never served as eponyms. In one case the chronicles even record the reign of one month only, for a king named Ashur-shaduni (no. 64).[12]

The events related in the chronicles were dated according to the respective eponyms.[13] It seems that at the end of the reign of each Assyrian king the chronicler would state its exact duration, as well as that of the reign of the Babylonian contemporary.[14] In addition, it should be noted that not only the compilers of the king-lists but also those who composed the chronologically arranged historical inscriptions of several Assyrian kings (namely Enlil-nirari and his brother Arik-den-ili — 14th century, and Tiglath-pileser I and his son Ashur-bel-kala — 11th century) drew their information, sometimes verbatim, from the chronicles.[15]

Returning to the chronological data of the Assyrian king-list, if it were

certain that not a single name had been omitted, the Assyrian king-list could well be the mainstay of Assyrian chronology from Shamshi-Adad I to the latest Assyrian kings. But there are difficulties arising from the source itself. In all the extant copies, the regnal years of two 15th century kings, Ashur-rabi and Ashur-nadin-ahhe (nos. 65–66), are broken off, while the reigns of eight other rulers are indicated by the obscure sentence "*ṭuppišu šarrūta ipuš*": "he ruled in accordance with his *ṭuppu*." Effective chronological use of this source is dependent on the explanation of the latter term and on the restoration of the defective portion. Various suggestions have been made to restore the missing years of kings nos. 65–66. These range from less than one to as much as 40 years, and include an intermediate suggestion of 22 years which assumed an average of 11 years for each Assyrian king in the period under discussion.

The meaning of the obscure expression *ṭuppišu šarrūta ipuš* is a much more difficult matter; as part of a complete sentence, it denotes the regnal years of two 12th century rulers (nos. 84–85) and six earlier ones, all of them usurpers (nos. 42–47) and successors of Ishme-Dagan the son of Shamshi-Adad I. This expression, which usually occurs in various combinations in administrative documents, most probably refers to a brief span of time, the precise duration of which was unknown to the ancient compiler.[16]

While rulers nos. 84–85 apparently reigned for an extremely short period, their reigns therefore having been included in that of their predecessor Ashurdan I (no. 83 [see B 2, below]), the length of the six usurpers' rule cannot be ascertained. In any event, it is quite impossible to assume (as Poebel does) that the accession and deposition of all these kings took place within a year. The upheavals following the death of Ishme-Dagan, the son of Shamshi-Adad I, apparently lasted many years. And indeed, it is not surprising that the main chronological gap in the Assyrian king-list is in the period of Ishme-Dagan's successors. A fragment of a king-list from Ashur (KAV 14) enumerates three names after that of Ishme-Dagan: Mut-Ashkur the son of Ishme-Dagan; Rimusha his son; and Asinu, apparently the son of Rimusha — all of whom are entirely missing from the canonical king-list. (To complicate matters, this fragmentary list,[17] in turn, omits the names of twelve other rulers included in the Khorsabad and parallel versions.) Another ruler omitted from the king-list is Puzur-Sin,[18] who deposed Asinu, the last descendant of Ishme-Dagan.

Hence, the chronology of the Assyrian kings might be established from the 15th century onward, while the dating of the rulers before this period

depends on the restoration of the broken-off regnal years of kings nos. 65–66, and on estimating the gap in the historical tradition under the successors of Shamshi-Adad I.

To use mathematical terms, if the regnal years of the two kings Ashur-rabi and Ashur-nadin-ahhe are represented by x; the length of the six preceding kings' rule (referred to as *ṭuppišu*) by y; and the gap in the historical tradition for the period after Ishme-Dagan by z; then the date of the latter's father, Shamshi-Adad I, is 1726 (= the sum of the successive regnal years in the king-list) $+ x + y + z$. On the assumption that Hammu-rabi ascended the throne in Shamshi-Adad's 23rd year, and that he reigned 11 years during the latter's lifetime, Hammurabi should be dated to $1726 + x + y + z - 23$.

The length of x should seemingly be put at about 40 years, at least.[19] This estimate of the gap is based on the fact that the kings of the two generations before and the two generations after Ashur-rabi and Ashur-nadin-ahhe reigned for a comparatively short time. The length of y and z total possibly several dozen years, for the upheavals after the days of Ishme-Dagan I apparently continued for some time, during which ten kings ruled, in either one or several centers. According to the middle and higher chronologies, $y + z$ totals 50 and 110 years, respectively. A gap of 110 years, however, appears to be too long a period, although not impossible. The assumption of a 50-year gap seems preferable at present.

We now turn to the other sources which can shed light on the date of Shamshi-Adad I and Hammurabi. These consist mainly of chronological data from the inscriptions of Assyrian and Babylonian kings on their predecessors, as well as Babylonian king-lists.

3. Statements of "Time-Spans" by Assyrian Kings on their Predecessors

These data, contained in royal Assyrian building inscriptions commemorating the renovation of temples, give the time that had elapsed since the erection or repair of the sanctuary by an earlier Assyrian king. Several such chronological statements have been found.

a) The statement of Shalmaneser I (1273–1244), the earliest of this type, is associated with the repair, at the beginning of his reign, of the temple of Ashur.[20] This inscription states that 159 years had passed between the repair of the temple by Erishu(m), King of Assyria, and that by Shamshi-Adad I, and another 580 years since then (i.e. its repair by Shalmaneser I). It does not state whether Shamshi-Adad's reign (33 years) is included in

the 580 years, but if so, then, according to this tradition, he ascended the throne in 1853 and ruled until 1820. The former date is, however, somewhat too low for the proponents of the higher chronology, which would date Shamshi-Adad's last year to 1837 (= Hammurabi's 11th year [see 7 b, below, and note 37]); on the other hand, it is too high for the adherents to the middle chronology. If Shamshi-Adad's 33 years are not included in the 580 years, then he should be dated to 1820 (i.e. 1273 + 580−33), which is very close to the date assigned to him in the middle chronology: 1815 B.C.E.

b) The statement of Tukulti-Ninurta I (1243–1207), the son of Shalmaneser I. He states in his building inscriptions that 720 years intervened between himself and Ilushuma the father of Erishu(m) I.[21] Ilushuma's reign is thus to be assigned to 1963. This does not agree with Shalmaneser's data, according to which Erishu(m) the son of Ilushuma reigned 159 + 580 years before him, that is, in 2012. These 720 years have apparently to be taken as a round figure, the product of 12 × 60, and hence as a round and simplified cycle of years — and not to be used in any chronological calculations.

c) The statement of Tiglath-pileser I (1115–1077). In the first edition of his annals (= the Ashur Prism), dating from his 6th regnal year, it is stated that the temple of Anu and Adad, built by Shamshi-Adad I, had fallen into decay in the course of 641 years.[22] Ashurdan I (1179–1134) started its restoration but did not finish; 60 years later Tiglath-pileser again began repairs — at the very beginning of his reign. By his 6th year the task was accomplished.

Now, if the 641 years are considered as an exact number referring to the period between Shamshi-Adad's accession and that of Ashurdan I, and the 60 years as a round figure — to be emended to 64 (= the span of time between Ashurdan and Tiglath-pileser according to the Assyrian king-list) — then, the date arrived at for Shamshi-Adad will be 1820 (= 1115 + 641 + 64). Surprisingly enough, the year 1820 is exactly that arrived at on the basis of the evidence of Shalmaneser I (see 3 a, above). This coincidence, if not merely fortuitous, may indicate that there was, in the Middle Assyrian Period, a fixed tradition concerning the date of Shamshi-Adad I.[23]

On the other hand, it should be remembered that the proponents of the lower chronology consider the 641 years as referring to the period between Shamshi-Adad's accession and Tiglath-pileser's 6th year (= 1109, when the Anu-Adad temple was completed). The 60 years between Ashurdan I and Tiglath-pileser are included — for the sake of that calculation — in

the 641 years, and the date arrived at for Shamshi-Adad I would then be 1750.

d) According to the statement of Esarhaddon (680–669), which is more detailed than the earlier ones, 126 years separated the renovation of the temple of Ashur (in the city of Ashur) by Erishu(m) I from that by Shamshi-Adad, a further 434 years had elapsed until its restoration under Shalmaneser I, and another 580 years (or 586 in a parallel version) until it was restored by Esarhaddon.[24]

The first part of this chronological statement involves no difficulty, as it is quite apparent that the 126 years between Shamshi-Adad and Erishu(m) do not include the former's 33 regnal years, which are, however, included in Shalmaneser's statement on the same interval of time (159 years). The difficulty lies in the latter part of Esarhaddon's statement, concerning the length of time between Shamshi-Adad and Shalmaneser I: 434 years, which represent too short a period even for the proponents of the lower chronology. Even if one accepts the assumption that 434 is a mistake for 494, it is far from clear how Esarhaddon's scribes arrived at this calculation and what their source for it was.[25]

4. The Chronological Significance of the Babylonian King-lists

A Babylonian king-list enumerating the regnal years of the kings of Babylonia, starting with the First Dynasty, is extant only in a late, fragmentary copy from the Persian Period, known as the "Babylonian King-list A". The Babylonian king-list is incomplete but can be partially restored on the basis of two other king-lists: list B, which gives the names of the kings of the First and Second Dynasties, and list C, published by Poebel in 1955, which preserves the names of the kings of the Fourth Dynasty (= the Second Dynasty of Isin).[26] According to King-list A, the Second Dynasty (called the "Dynasty of the Sea-Land") ruled for 368 years and the Third (the Kassite) Dynasty for 576 years and 9 months. It is generally agreed that the kings of the Second Dynasty, who reigned on the shores of the Persian Gulf ("the Sea-Land") rather than in the city of Babylon, were in part contemporaneous with the last kings of the First Dynasty (from Samsuiluna's 8th year) and in part with the early Kassite rulers (until the time of Agum III). Therefore, the 368 regnal years of the Second Dynasty — which figure is generally regarded as exaggerated — are of no value to the present chronological discussion. More problematic are the 576 regnal years of the 36 kings of the Kassite Dynasty who gained control of the city of Babylon after the First Dynasty. This number of years, often

TABLE I

BABYLONIA ca. 1900–1600 B.C.E.

King no.	*First Dynasty*		*Third (Kassite) Dynasty*	*Second (Sea-Land) Dynasty*	*Eshnunna*
1	Sumuabum	(14 years) : 1894			
2	Sumulael	(36 years) : 1880			
3	Sabium	(14 years) : 1844			
4	Apil-Sin	(19 years) : 1830			
5	Sin-muballit	(20 years) : 1812			Dadusha
6	Hammurabi	(43 years) : 1792			Ibalpiel ca. 1785
			Third (Kassite) Dynasty	*Second (Sea-Land) Dynasty*	
7	Samsuiluna	(38 years) : 1749	1 Gandash	1 Ili-man (or Ilima-ilum) 1742	Şilli-Sin
8	Abi-eshuh	(28 years) : 1711	2 Agum I		
9	Ammiditana	(37 years) : 1683			
10	Ammizaduqa	(21 years) : 1646		6 Gulkishar 1590	
11	Samsuditana	(31 years) : 1625	9 Agum II 1590		

TABLE II

ASSYRIA AND MARI ca. 1900–1700 B.C.E.

Assyria		*Mari*
Erishu(m) I	ca. 1940	
Ikunum		
Sargon I		
Puzur-Ashur		
Naram-Sin		Yaggid-lim
Erishu(m) II		Yahdun-lim
Shamshi-Adad	(33 years) : 1813	Yasmah-Adad (Son of Shamshi-Adad of Assyria)
Ishme-Dagan	(40 years) : 1780	
Mut-Ashkur	1740–1690	Zimri-lim ca. 1795 (Son of Yahdun-lim)
Rimusha		
Asinu		
Puzur-Sin		
Adasi	ca. 1690	
Belu-bani	(10 years)	

considered to be the product of round, artificial figures, was written in the following manner: 9 × 60 + 36 years and 9 months. Its peculiar character was emphasised especially since it was preceded by another "typological" number: 36 kings (actually, in the extant copy of King-list A, the names of only 22 kings are partially or fully preserved. The others are restored from the synchronistic king-list from Ashur and from chronicles.) Since no data have been preserved on the regnal years of each of the Kassite kings, it is impossible to establish the reliability of the total of 576 years. Some scholars have, indeed, suggested that 60 years (one *šušu*) be deducted from 576 years on the assumption that the compiler of the king-list erred and wrote 9 *šušu* + 36 years instead of 8 *šušu* + 36 years, the mistake stemming from the harmonious numbers 9 and 36, which recur in the summary of the dynasty.[27] A closer perusal of the number of generations of the Kassite kings, and their contemporaries, shows that the dynasty's 36 kings apparently represent about 22 generations; at an average of 25 years per generation, the period covered by the dynasty would be approximately 550 years. For the time being, there is no real proof requiring that the total of 576 years be reduced. The average of 16 regnal years for each Kassite king, which derived from this very tradition, though also somewhat high, is not impossible.[28]

5. The Kassite Dynasty

The date of the Kassite invasion of Babylonia, and of the founding of the Third Dynasty, is a decisive factor in the quest for the date of Hammurabi. Though the dating of the beginning of the Kassite Dynasty is still a matter of discussion, its end can be dated with a high degree of certainty: it came to a close in 1159 B.C.E. (see Table I and Table VI). If, indeed, the total of 576 years as given in King-list A is followed, then Gandash, the first Kassite king, would have come to the throne in 1735 B.C.E. (=1159+576), and on the assumption that he immediately followed Samsuditana, the last ruler of the First Dynasty, Hammurabi is to be dated to 1933 — and this is too high even for the highest chronological system.

A basic and so far unsolved problem is whether Gandash began his rule in the city of Babylon or somewhere else in Babylonia, with the possibility that the early Kassite rulers reigned concurrently with the First Dynasty. Indirect support for the beginning of the "Kassite era" in 1735 B.C.E. (which is the 15th year of Samsuiluna according to the middle chronology) might be seen in the fact that in Samsuiluna's 8th year the Babylonians for the first time in their history encountered the Kassite

hordes. Details of this war are unknown, but the Babylonians apparently suffered a setback; this most probably, led to the revolt of the south and the establishment of the "Second ["Sea-Land"] Dynasty" in lower Mesopotamia. The enigma here is, where did the Kassites settle after their invasion of Babylonia (other invasions occurred later, at the start of the reign of Abi-eshuh, the son of Samsuiluna). It is generally assumed that they settled somewhere along the middle Euphrates, their kings ruling from there. Indeed, this supposition finds support in documents found at Terqa (Tell 'Ashara), the capital of the kingdom of Hana on the middle Euphrates,[29] which mention various local rulers of Hana, including Yaggid-lim, Yahdun-lim and Zimri-lim, kings of Mari (see below, 7a), as well as Ishar-lim, Hammurapih and Kashtiliash (the latter — a typical Kassite name — is either homonymous or simply identical with one of the early Kassite dynasts).

The final question is that of the beginning of the actual Kassite rule in Babylon proper. According to the middle chronology, this occurred in the 6th generation of the Kassite kings, in the time of Agum II, a younger contemporary of Samsuditana, the last king of the First Dynasty, at the end of the 16th century. Samsuditana's death and the end of the First Dynasty fit in with events described in the Hittite and Babylonian traditions, according to which the Hittite king Mursilis set out against Babylon (see 8 a, below), plundered the city and seized the statue of Marduk, taking it as booty. This predatory raid, which marks the end of the First Babylonian Dynasty, as well as the end of the "Old Babylonian Period", paved the way for the Kassite domination; indeed, it has been suggested that the Kassites were allied to the Hittites (since the latter had to cross the region of the River Khābūr and the Land of Hana in order to reach Babylon). A possible reference to some sort of relations between the Kassite king and the Hittites is found in an inscription of Agum II (extant only in a late copy) stating that Agum restores to Babylon "from the distant Land of Ḫani" (apparently a late and corrupt name for the Land of the Hittites) the statues of Marduk and his consort.[30] Indeed, according to a Babylonian epic text (also in a late copy), Marduk dwelt 24 years[31] in the land of the Hittites.[31] Hence, Agum II seems, in fact, to be the first Kassite king to have reigned in the city of Babylon after the fall of the First Babylonian Dynasty.[32]

6. Statements of Time-Spans by Babylonian Kings on their Predecessors

Like their Assyrian counterparts, the Babylonian kings occasionally mentioned in their building inscriptions the time which had elapsed between their early predecessors and themselves. Such statements do not, however, give precise chronological evidence, and are therefore of less value than similar Assyrian data; nor can any chronological system be built on them. The earliest among the statements was found on a boundary stone from the 4th year of Enlil-nadin-apli of the Fourth Babylonian Dynasty (see Table VII), stating that 696 years elapsed between him and Gulkishar, a Babylonian king of the Second Dynasty and a contemporary of Samsuditana, the last king of the First Dynasty.[33] Hence, the First Babylonian Dynasty came to a close about 1800, and accordingly Hammurabi reigned in ca. 2000 B.C.E. Obviously "696 years" must not be taken literally, but rather as a rounded figure: 700 years (= 696 years + the 4 first regnal years of Enlil-nadin-apli). It is possible that the 700 years were calculated and rounded off on the basis of the data in the Babylonian king-list, on the assumption that the Kassite Dynasty was not contemporaneous with, but succeeded the Second Dynasty.

Also chronologically valueless are the statements in the inscriptions of Nabonidus (555–539 B.C.E.) that Hammurabi preceded by 700 years Burnaburiash the 14th century Kassite king, i.e., that he reigned in the 21st century. This tradition on the part of Nabonidus was arrived at by adding up the totals of the successive Babylonian dynasties. Accordingly, 1500 years intervened between Nabonidus and Rim-Sin King of Larsa (an older contemporary of Hammurabi), and 3200 years between Nabonidus and Naram-Sin of Akkad (23rd century B.C.E.).[34]

7. The Kings of Mari, Eshnunna and Yamhad

Detailed data from the time of Hammurabi are found in the records of kings of Mari (on the upper Euphrates), of Eshnunna (Tell Asmar on the Diyālā River, north of Babylon) and of Yamhad (the capital of which was Aleppo in North Syria). Most of this material dates from the time of Zimri-lim, who regained the throne of Mari from Ishme-Dagan, the son of Shamshi-Adad I.

a) *Mari.* The Mari Letters mention Yahdun-lim, Zimri-lim's father and a contemporary of Shamshi-Adad of Assyria, who reached the shores of the Mediterranean in his campaigns, and Yaggid-lim, his grandfather, who had made a treaty with Ila-kabkabi, Shamshi-Adad's father.[35] These

documents show that Zimri-lim ascended to the throne shortly after the death of Shamshi-Adad, having deposed Yasmah-Adad, the son of Shamshi-Adad and ruler of Mari. Zimri-lim's reign appears to have ended upon the conquest of Mari in Hammurabi's 32nd year, at which time its fortifications were destroyed. Names are known for 32 years in Zimri-lim's reign, among them 6 (at least) being alternative year-names, so that Zimri-lim appears to have reigned only 26 years.[36] There is no way, however, in which these can be made to fit the period between the liberation of Mari from Assyrian rule after Hammurabi's 11th year (which was also the year of Shamshi-Adad's death) and his 32nd year. If, indeed, Zimri-lim is assigned a reign of 26 years, one of the following assumptions must be made: (1) that in the early part of his reign (from Hammurabi's 6th year), Zimri-lim ruled and had date-formulae of his own somewhere outside Mari; (2) that for several years, he continued to reign in Mari after its conquest by Hammurabi — though probably not in his royal palace — and was autonomous enough to employ his own date-formulae. In the present state of our knowledge, there is no clear-cut solution for this chronological "riddle".[37]

b) *Eshnunna.* The kings of Eshnunna, contemporaries of Shamshi-Adad and Hammurabi (namely, Dadusha, Ibalpiel his son, and Ṣilli-Sin), are known from the Mari Letters, and from documents from Eshnunna itself, from Ishchali and from nearby Tell Harmal. The list of "year names" of the kings of Eshnunna, discovered at Tell Harmal,[38] mentions several events in the days of Dadusha and Ibalpiel which would fit into the history of Assyria and Babylonia, and thus serve as synchronizing factors. These are Shamshi-Adad's death in the 5th year of Ibalpiel's reign, and the defeat of the armies of Assyria in his 10th year. On the assumption that Shamshi-Adad died in Hammurabi's 11th year, one year after the date of the "Oath of Sippar" (see note 3), Shamshi-Adad's dynastic rule in Mari would have ended 5 years later; that is, in Hammurabi's 16th year. This would, then, be the latest possible date for Zimri-lim's return to Mari (see above, a, end).[39]

c) *Yamhad* (*Ḥalab/Aleppo*). The Mari Letters mention the names of Yarim-lim and a certain Hammurabi, kings of Yamhad, contemporaries of Zimri-lim and Hammurabi of Babylon. However, several homonymous kings of Yamhad are mentioned in tablets of the Old Babylonian Period from stratum VII at Alalakh (Tell Atchana), in the region of Aleppo and subject to it.[40] Tablets from the same archives frequently mention the rulers of Alalakh: Yarim-lim, a Yamhadite prince, who established the local dynasty of kings at Alalakh, his son Ammitaqum who reigned for

about 40–50 years, and the latter's sons Irkabtum and Hammurabi.[41] As against the three generations of rulers at Alalakh, the contemporary kings of Aleppo — Abba-El, Yarim-lim II, Niqmepa, Irkabtum and Yarim-lim III — represent five (or at least four) generations. Although there is as yet no general agreement on the precise genealogical relationship within each dynasty — since some of the kings and rulers at Aleppo and Alalakh bore identical names — it is nevertheless clear that the kings of Yamhad and the rulers of Alalakh (stratum VII) were not contemporaries of the great kings of the Mari Age, but rather of the kings of the later dynasty of Babylon, from Samsuiluna onwards (one generation before the sack of Babylon by Mursilis I).[42] Thus, the time elapsed between the end of Alalakh VII and the end of the First Dynasty of Babylon cannot have been very long. Evidence for such a dating was found in a Hittite historical composition describing the wars of Hattusilis I in Syria, which mentions Zukrashi, the general of the king of Aleppo (see below, 8). This "general" was apparently identical with the Zukrashi who bears the same military rank and is mentioned in the Alalakh Tablets from the time of Ammitaqum of Alalakh and Yarim-lim III of Aleppo.[43]

Other fragmentary Hittite tablets, possibly belonging to the same composition,[44] refer to a war of Hattusilis I against Yarim-lim (III), Hammurapi II his son — kings of Aleppo — and a certain [Ir]-kabtum, whose association with the others is not clear. Most probably this war, or at least this phase of it, took place after the destruction of Alalakh.[45] These synchronisms between the Hittite king and the rulers of Aleppo fit in well with the middle chronology. Accordingly, the end of Alalakh VII would be assigned to the last quarter of the 17th century, i.e. to the days of Hattusilis I, who destroyed Alalakh in the generation before the conquest of Babylon by his grandson, Mursilis I.

8. The Evidence from Hittite Chronology

As pointed out in the preceding section, the dating of the First Dynasty of Babylon is closely connected with the date assigned to a particular major event in early Hittite history (hereforth "event *a*"): the invasion, conquest and plunder of Babylon by Mursilis I, toward the end of Samsuditana's reign (the last king of the First Dynasty of Babylon).[46] With the death of Telepinus, a late successor of Mursilis (see Table VIII below), began the so-called "Middle Hittite Kingdom", which lasted till the accession of Shuppiluliuma — the founder of the empire (ca. 1385; see below, B 3 b). This period — in essence a "dark age" — is sparsely documented, and the

TABLE III

YAMHAD (ḤALAB/ALEPPO), ALALAKH AND HATTI ca. 1800–1600 B. C. E.

Yamhad	*Alalakh*	*Hatti*
Sumu-epuh		
Yarim-lim I ca. 1790		
Hammurabi I ca. 1760		
Abba-El		
Yarim-lim II	Yarim-lim ca. 1700	
Niqmepa	Ammitaqum ca. 1690–1640	
Irkabtum		
	Irkabtum Hammurabi	Hattusilis I ca. 1650
Yarim-lim III Hammurabi II	Destruction of Alalakh ca. 1640	
		Mursilis I ca. 1620
Destruction of Aleppo ca. 1610		
		Conquest of Babylon ca. 1595

main source for relative chronology are the so-called "sacrificial or offering lists": documents for cultic use, mostly fragmentary, listing the offering of sacrifices and libations to the statues of deceased kings, queens and other members of the royal house.[47]

A single event of chronological significance within that period ("event *b*") is the capture and destruction of Aleppo by Tudhaliya ("II"), a few generations before Shuppiluliuma, founder of the Hittite empire (see below, B 3 a). It is widely accepted that event *b* took place some years after the conclusion of the Syrian expeditions of Thut-mose III and Amen-hotep II (i.e. after Amen-hotep's 9th year) and a considerable time after the death of Saushshatar, King of Mitanni (see B 3 b, below). In terms of Egyptian chronology, this can be dated to approximately 1430 (± 10 years) (for the higher alternative for Thut-mose III, see below, B 1 b). The problem then, is what was the length of time (in terms of generations of kings and queens known from the offering lists) between events *a* and *b*. Goetze, who was the first scholar to introduce the Hittite evidence as a decisive factor in determining the date of Hammurabi — suggested that there were nine or ten kings between events *a* and *b*, representing, together with their respective consorts, at least five or possibly seven generations.[48] Following Goetze, and taking 25 years as an average generation, it would seem that about 175 years separated the two events. If, indeed, *b* is dated to 1430 ± 10, then *a* (= the conquest of Babylon by Mursilis I) should be dated to approximately 1605 ± 10 — which is very close to 1595, its date according to the "middle chronology."[49]

9. Archeological and Historical Data

a) Archeological data from the excavations at Chagar Bazar and Tell Brak (in the district of the Khābūr River in Mesopotamia) have shed some light on the period of Hammurabi. Stratum I at Chagar Bazar comprises four building-periods, many additions and repairs, representing no less than 300 years. Since the end of this stratum was dated by the appearance of "Nuzi ware" to the first half of the 15th century, M.E.L. Mallowan considered it to have begun at the latest in 1750, and perhaps even earlier. Since tablets from the time of Shamshi-Adad I were found in the early phases of this stratum, the excavational results tally with the middle chronology.[50]

b) It has been suggested[51] that additional support for the middle chronology is likely to be forthcoming from the date of the cylinder seals found in stratum VII at Alalakh, and which fit in mainly in the 18th century.[52]

c) An Old Babylonian cylinder seal, found in Tholos B at Platanos in Mesara, Crete, has been the focal point in the chronological controversy, and it was for a time thought that this evidence weighed in favor of the middle chronology. However, no firm conclusions can apparently be drawn from this find, since there is no agreement on the date of the Minoan pottery from the same tomb.[53]

d) Similarly, no precise chronological conclusions can be drawn from the discovery of four Mesopotamian cylinder seals from the end of the 3rd and the beginning of the 2nd millennium, which were found at Tod in Egypt, in a treasure dating from the time of Amen-em-het I. This discovery fits in with the middle (and according to Albright also with the lower) chronology, while Landsberger adduced proof from it for the higher chronology.[54]

e) Certain difficulty in assigning the date of Hammurabi to 1792–1750 arises from the realm of international relations in the Ancient East: Babylonian documents, especially the Mari Letters from the time of Hammurabi, make no mention of Egypt — despite the fact than in those days, at the end of the Twelfth and the beginning of the Thirteenth Dynasties, Egypt was still a very influential political and economic power. This absence of Egypt in the Mari Letters is all the more surprising since they do mention several cities in the west and south-west, such as Ugarit, Byblos, Hazor and even distant Crete.[55] This fact, then — which actually lends itself to several explanations — cannot serve as a main argument for the lower chronology, which would place the Mari Age in the days of Egypt's decline, that is, at the end of the Thirteenth Dynasty and the beginning of Hyksos rule. The question of the nature of Egyptian rule in Canaan and Syria during the Twelfth and Thirteenth Dynasties has not yet found a satisfactory definition.[56]

To sum up: There are as yet no data which could be considered as decisive proof in favor of any of the current chronological systems for the Old Babylonian Period; however, on the basis of the present evidence, the middle chronology appears to be somewhat preferable, assigning Hammurabi, as it does, to 1792–1750 (and Shamshi-Adad I to 1813–1781), and the end of the First Dynasty of Babylon to 1595. But it is not impossible that additional discoveries concerning the duration of the Kassite Dynasty and the beginning of the Kassite rule in Babylon, or the duration of the "Middle Hittite Kingdom," may introduce changes in the accepted dates.

10. The Chronology of the Twelfth Dynasty of Egypt

Egyptian chronology is not reconstructed solely on the basis of king-lists on the pattern of Assyrian and Babylonian chronology. The Turin Papyrus — the most complete of the lists which enumerate the dynasties of the Egyptian kings, from the Old Kingdom to the New — is so fragmentary as to be of little use.[57] The number of a king's regnal years is often fixed according to the highest number of years contained in the existing documents from his reign. The complete list of Egyptian kings in the works of Manetho, excerpts of which have been preserved by Josephus, or transmitted indirectly by early Christian chronographers, especially Africanus and Eusebius, presents numerous difficulties, for in the course of transmission many names have become unrecognizably corrupted, the sequence of kings distorted and the data of the regnal years confused.[58] The necessity of relying on Manetho is due to the fact that for certain periods in Egyptian history there are no other extant chronological data.

It is for this reason that various astronomical data from the Twelfth, Eighteenth and Nineteenth Dynasties are of great significance; these deal with the exact time of the appearance of the new moon and the heliacal rising of Sothis (Sirius) — a phenomenon which played an important role in the origin and structure of the Egyptian civil calendar. The special character of this calendar, and its dependence on astronomical factors, enable a calculation of the time of the various observations, thus aiding to establish the chronology of the periods under discussion.

The chronology of the Twelfth Dynasty is fixed with the aid of astronomical data contained in the al-Lāhūn Papyrus; this records a heliacal rising of Sothis on the 16th day of the 8th month in the 7th year of an Egyptian king whose name is not mentioned in the source, but who can safely be identified with Sen-Usert III. The date according to a recent calculation of R. Parker is 1870 ± 6, and in conjunction with some lunar dates (i.e. observations of the appearances of the new moon, dating from the same dynasty) it is fixed more precisely to the year 1872. The Turin Papyrus has recorded information on the duration of this dynasty: 213 years, which should be emended to 223 years. Consequently, the Twelfth Dynasty is dated by Parker to 1991–1786 B.C.E. (and see Table IV).[59]

According to the Turin Papyrus, the following, Thirteenth Dynasty comprised more than 50 kings. Of these, approximately the last 25 were contemporary with the Asiatic princes who were ruling in the Egyptian Delta after 1720/10 B.C.E. One of the kings of the Thirteenth Dynasty, Nefer-hotep I (ca. 1740–1730) still held hegemony of Byblos in the days of

'ntn (Entin), prince of Byblos, who is identified by Albright with Yantin-hammu of Byblos, mentioned in the Mari Letters.[60]

11. The Hyksos

The so-called "400 Year Stele" from the days of Ramses II, discovered at Tanis in 1863, and rediscovered in 1932 by P. Montet, records a celebration commemorating the 400th anniversary of the introduction of the cult of the god Seth (Sutekh), the chief deity of the Hyksos, in the city of Avaris.[61] This has generally been taken as chronological evidence for the commencement of Hyksos rule in the Delta. The exact date of the celebration is not specified, though most probably it took place during the later years of Hor-em-heb, the last king of the Eighteenth Dynasty (ca. 1325/20, according to the "higher" dates for the Eighteenth Dynasty; see C 1, below). Hence the establishment of the cult of Seth in Avaris, and with it the commencement of Hyksos rule in the Delta, can be dated to about 1725–1720 B.C.E. However, it may reasonably be argued that the figure 400 is rounded and possibly exaggerated, and should not be regarded as chronological evidence in reckoning the beginning of Hyksos rule in Egypt, for which other, indirect data do exist.

According to some direct and indirect evidence, Ka-mose, the last prince of the Seventeenth Dynasty, fought against Apophis, one of the last kings of the Hyksos Dynasty (Manetho's "Fifteenth Dynasty") and Ah-mose, Ka-mose's successor, captured Avaris, in approximately the 10th year of his reign.[62] If the latter event is dated to ca. 1560 (see C 1, below), then the beginning of the "Fifteenth Dynasty" would date to ca. 1670, on the basis of data in the Turin Papyrus, which assigns 108 regnal years to this dynasty.[63] The founder of the dynasty appears to have been Salitis, of whom Manetho relates that he ruled in Memphis in the days of Tutimaios (probably Dudi-mose, one of the last kings of the Thirteenth Dynasty). Khyan, one of the most famous Hyksos kings, belonged to the Fifteenth Dynasty; according to monuments dating from his reign, he ruled over the whole of Egypt, even to the south of Thebes.

The Hyksos rulers whom Manetho designates as the "Sixteenth" Dynasty were actually local rulers contemporaneous with the kings of the Fifteenth Dynasty and possibly their vassals. Data on these rulers are scant, and even their sequence and number are not clear. Samuqen and Anat-her, known only from scarabs bearing their names, were apparently among the early rulers of this "dynasty."

At the beginning of the 16th century, the local princes of Thebes

TABLE IV

EGYPT ca. 2000—1500 B.C.E.

Twelfth Dynasty

(According to R. A. Parker)

Amen-em-het I	1991–1962
Sen-Usert I	1971–1928
Amen-em-het	1929–1895
Sen-Usert II	1897–1879
Sen-Usert III	1878–1843
Amen-em-het III	1842–1797
Amen-em-het IV	1798–1790
Sebek-nefrure	1789–1786

Thirteenth Dynasty

Sehetibre	ca. 1770
Sobk-hotep	ca. 1750
Nefer-hotep	ca. 1740–1730
Dudi-mose	ca. 1675

Seventeenth Dynasty

Ka-mose	ca. 1585

Hyksos Kings

"Fifteenth Dynasty"		*"Sixteenth Dynasty"*
Salitis	ca. 1675	Anat-her
Khyan	ca. 1650	Samuqen
Apophis I	ca. 1620–ca. 1580	

End of Hyksos rule in Egypt ca. 1560

(= Seventeenth Dynasty), felt strong enough to start driving the Hyksos out of Upper Egypt. Ka-mose, the last king of this dynasty, embarked upon a campaign against the Hyksos which continued for a number of years and culminated in the capture of Avaris by his successor Ah-mose I, the founder of the Eighteenth Dynasty (see B 1 a, below).

B. The Chronologies of the 16th–11th Centuries in Egypt, Mesopotamia, Anatolia and Syria

1. Egypt

a) *General.* The chronology of the Eighteenth and Nineteenth Dynasties has previously been determined solely on the grounds of Egyptian data: astronomical evidence and regnal years. In the absence of king-lists for this period, the regnal years are either estimates based on the highest known dates in contemporary documents, or the figures given by Manetho (see above, A 10), which are frequently so corrupt as to be almost useless.[64] The numerous synchronisms between Mesopotamia, Hatti and Egypt in the 15th–13th centuries are also of little use, since Mesopotamian dates themselves are much disputed. It is chiefly due to M.B. Rowton's studies, after the publication of the Assyrian king-list in 1942–43, that the Egyptian chronology of the Eighteenth and Nineteenth Dynasties can be checked and re-evaluated by means of Mesopotamian synchronisms.[65] Since the astronomical data merely suggest possibilities, but offer only one decisive solution, and since the regnal years of several kings are unknown, the Mesopotamian synchronisms (as well as the Hittite) are indeed a major factor in determining Egyptian chronology.

b) *The Eighteenth Dynasty.* The chronology of the Eighteenth Dynasty depends to a large extent on astronomical evidence: the observations of the heliacal rising of the star Sothis (Sirius) in the 9th year of Amen-hotep I (the second king of the dynasty), preserved on the reverse of the Ebers Medical Papyrus. The main problem, however, is that the site of these observations is unknown. L. Borchardt assumed that the Sothic observations in ancient Egypt were made at Heliopolis near Memphis, and thus, with the assistance of Neugebauer, conducted similar observations in 1926/27, fixing the 9th year of Amen-hotep I within the range of 1544–1537 B.C.E.[66] If, however, the Sothic observations were conducted at Thebes, the royal residence during the early years of the Eighteenth Dynasty, then the date must be lowered in accordance with the lower angle of vision (*arcus visionis*), thus falling within the range of 1525–1517 B.C.E.[67] Below

are two alternative sets of dates for the early kings of the Eighteenth Dynasty:

King and Regnal Year[68]	Higher System (=Memphitic Sothic dates)	Lower System (=Theban Sothic dates)
(Amen-hotep I's 9th year)	(1537*)	(1518**)
Ah-mose (Manetho: 25 years 4 months)	1570–1547	1552–1527
Amen-hotep I (20 years + 7 months)	1546–1526	1527–1506
Thut-mose I / Thut-mose II	1525–1504	1506–1490

*According to Hayes (see note 66). **According to Hornung (see note 67).

Another crucial problem in the chronology of the Eighteenth Dynasty is the date of Thut-mose III, for which there are certain astronomical data: (1) the appearance of the new moon on the 21st day of the 1st month of the 2nd season in the Egyptian civil year. (In 1942 Faulkner suggested that the figure was miscopied and corrected it to the 20th day.[69]); (2) the appearance of the new moon on the 30th day of the 2nd month of the 2nd season; (3) a Sothic date on the 28th day of the 3rd month of the 3rd season in an unknown year of this king.

With the aid of (3), and the two lunar dates, the accession of Thut-mose III to the throne has been fixed — according to Borchardt's calculations, subject to emendations by Edgerton (see note 66, above) — to one of the following dates: (a) May 7, 1515; (b) May 4, 1504; (c) May 1, 1490 B.C.E. The first alternative is too high, since it does not leave enough time for the reigns of Thut-mose I and II (see note 68 above), and goes against the synchronisms between Akh-en-Aton and Ashur-uballit of Assyria (who ascended the throne in 1365; see below, Table VI). The second alternative, though rejected by Parker on astronomical grounds — since it does not fit the second lunar date[70] — appears to be somewhat preferable on historical grounds. The third alternative, that of 1490, was originally preferred by Borchardt and is again widely accepted by scholars, especially those who prefer the lower (Theban) Sothic dates for Amen-hotep I (see note 67).

The chronology of the period between the death of Thut-mose III (= 1450 or 1436) and) that of Hor-em-heb,[71] the end of the Eighteenth Dynasty, is marked by the problem of coregencies. So far, no documents with double dates have been found for the Eighteenth Dynasty, similar to

those found for the Twelfth. Hence, the question has arisen whether the periods of coregency — even where proven to have existed — should be taken into account in calculating the chronology here. Below are the possible cases of coregencies of chronological significance:

1. Thut-mose III and Amen-hotep II; a coregency of a minimum of 4 months and a maximum of 4 years has been assumed by various scholars.[72] It would seem, however, that this coregency lasted for somewhat over two years, and that Amen-hotep's regnal years should be reckoned from its inception.

2. Amen-hotep II and Thut-mose IV; a coregency of about two years is assumed by Aldred.[73]

3. Amen-hotep III and Amen-hotep IV (Akh-en-Aton); see below.

4. Akh-en-Aton and Smenkh-ka-Re; the three regnal years of Smenkh-ka-Re were possibly contemporaneous with the three last years of Akh-en-Aton, his father-in-law, but the evidence on this point is not conclusive and some scholars reckon his reign independently.[74]

The most debated of all the coregencies is that of Amen-hotep III and his son, Amen-hotep IV (Akh-en-Aton). Since the excavations at Tell el-Amarna, Akh-en-Aton's capital, and since the discovery of the tomb of Tut-ankh-Amon, a view has crystallized that Amen-hotep III continued to live and rule as king several years into the reign of his son, Amen-hotep IV. The length of the coregency, however, is also debated. A length of 8/9 years has been suggested, though another theory, of 11/12 years, seems to fit the evidence better. In any event, scholars studying the Amarna period are still sharply divided over the matter of the very existence of this coregency.[75]

The evidence adduced for such a coregency is taken from the monuments of the period, which depict Amen-hotep III alongside his son in a manner which can be interpreted as indicating that the father was still alive at the time; other monuments display the cartouches of both kings side-by-side. Prosopographic factors and other indirect evidence from several documents of this period lend weight to this view.

A decisive place in this controversy is held by the Amarna Letters written in Akkadian, most of which date from the reign of Akh-en-Aton. According to the coregency theory, the bulk of this correspondence between Akh-en-Aton and the kings of Mitanni, Hatti, Babylon and Assyria as well as the numerous petty kings in Canaan, should be attributed to a relatively short period, between the 8/9th or the 11/12th year of Akh-en-Aton and his 17th (and last recorded) year.[76] This, on the present evidence, does not seem likely. Some scholars, however, such as Kitchen, have

interpreted the pertinent historical synchronisms between the Amarna Letters and the Hittite archives — in accordance with the theory of coregency.[77] The matter is as yet far from being settled, and only a new and thorough investigation into the Amarna correspondence, and new prosopographic and archeological evidence, might shed some light on it, bringing some more definite solution to this extremely complex issue.

The last problem reflecting on the chronology of the Eighteenth Dynasty is the length of the reign of Hor-em-heb, its last king. The highest year attested for him is his 8th year. A "regnal year 27" in a graffito found in the temple of Ay at Thebes has been interpreted as referring either to Hor-em-heb, or to some sort of era beginning with Amen-hotep III's death, or even to Ramses II.[78] Further evidence is provided by the so-called "Mes" date: in a juridical document known as the "Mes Inscription," from the days of Ramses II, mention is made of the 59th year of the reign of Hor-em-heb.[79] The only way to retain this date is to assume, as has been done, that the scribe reckoned the years of Hor-em-heb's reign from the death of Amen-hotep III, as if claiming that Hor-em-heb was the latter's chosen successor.[80]

There is no way of knowing the number of years Hor-em-heb lived after "the year 59". Since he was middle-aged at the time of his accession, it may be assumed that this year was very close to the end of his reign, that is, his last or penultimate year. Accordingly, Hor-em-heb reigned ca. 27 years, i.e. 59 — 34 (the latter figure being the sum of the regnal years of Akh-en-Aton, Smenkh-ka-Re, Tut-ankh-Amon and Ay (17 + 3 + 10 + 4 years respectively). Recently, the validity of the "Mes" date has been challenged by J.R. Harris, who suggests a maximum of 12 years for the reign of Hor-em-heb, with a possibility of a minimal reign of 8 years.[81] If Harris' proposal be accepted, the only chronological data linking the death of Amen-hotep III with the accession of Ramses I would have to be abandoned.

Finally, the evidence of historical synchronisms in the Amarna period: It is quite evident that only the "lower chronology" of Thut-mose III admits a coregency of Akh-en-Aton with his father. According to the "higher chronology," the coregency should have begun in 1390 (= Amen-hotep III's 27th year, i.e. a coregency of 12 years) or 1386 (= Amen-hotep III's 31st year, i.e. a coregency of 8 years), and Akh-en-Aton's last year (= his 17th) would have been 1374 or 1370. Both dates contradict the well-known synchronisms between Akh-en-Aton and Ashur-uballit I of Assyria (1364–1329), attested by Amarna Letter no. 15. The synchronism between Akh-en-Aton and Burnaburiash II of Babylon (1380–1342) —

well-attested by several Amarna Letters — fits the higher as well as the lower dates for Thut-mose III.

Of special importance is the synchronism between Burnaburiash and a king of Egypt, believed to be Tut-ankh-Amon (Amarna Letter no. 9). The chronological significance of it is that it agrees only with system II below, that is, the "lower chronology" and no coregency. However, the very identification of the Egyptian king in question (named Niphururia) with Tut-ankh-Amon, though philologically proven, is rather doubtful on historical grounds, more so since there are no other known letters in the Amarna archives addressed to "Niphururia."[82]

To sum up: We have presented above the major issues involved in the dating of the Eighteenth Dynasty. The complex nature of the internal Egyptian evidence, on the one hand, and the paucity of external synchronisms, on the other hand, preclude for the time being a clear-cut chronological solution. And, indeed, no single chronological system for the Eighteenth Dynasty kings has been agreed upon by Egyptologists. Table V gives three alternative, current, systems for this period.

c) *The Nineteenth and Twentieth Dynasties.* The chronology of the Nineteenth Dynasty depends upon the astronomical evidence of the dates of the new moon in Ramses II's 57th regnal year, according to which he ascended the throne either in 1304, 1290 or 1279 B.C.E.[83] The last date is inacceptable since it can neither be coordinated with the dates of the Eighteenth Dynasty nor be fitted into the known Mesopotamian synchronisms. Opinion is divided between the two former alternatives 1304 and 1290, for the accession of Ramses — and 1237 or 1223, for his 67th and last recorded regnal year. Those who follow the "higher" dates for the Eighteenth Dynasty prefer the first, while the adherents to the "lower" dates tend — though not necessarily — toward the second date.[84]

Unfortunately, it is still impossible to establish decisively which of the two dates fits better with the well-documented, historical synchronisms between Egypt, Mesopotamia and Anatolia, from the reign of Ramses II. Of special significance is the chronological evidence inferred from an Akkadian letter of Hattusilis III, King of Hatti, to Kadashman-Enlil II of Babylon. Two mutually opposing inferences have been drawn from the historical circumstances posed by this document:[85] (a) Either Kadashman-Enlil ascended the throne a few years *before* the signing of the treaty between Egypt and Hatti, which event took place in Ramses II's 21st regnal year (1284 ["higher"] or 1270 ["lower"]); since Kadashman-Enlil began to reign in about 1280 B.C.E., the 21st year of Ramses II must be placed sometime after that date, that is, in according with the lower alternative.[86]

TABLE V

EGYPT ca. 1600–1000 B.C.E.

Eighteenth Dynasty	*According to Hayes*	*According to Hornung*	*According to Aldred*
Ah-mose	* 1570–1546	1552–1527	
Amen-hotep I	1546–1526	1527–1506	
Thut-mose I	1525–ca. 1512	1506–1494	
Thut-mose II	ca. 1512–1504	1494–1490	
Thut-mose III	1504–1450	1490–1436	1490–1436
Amen-hotep II	1450–1428	C 1438–1412	C 1444–1412
Thut-mose IV	1425–1417	1412–1402	C 1414–1405
Amen-hotep III	1417–1379	1402–1364	1405–1367
Akh-en-Aton	1379–1362	1364–1347	C 1378–1362
Smenkh-ka-Re	C 1364–1361	C 1351–1348	C 1366–1363
Tut-ankh-Amon	1361–1352	1347–1338	C 1362–1349
Ay	1352–1348	1338–1334	C 1355–1349
Hor-em-heb	1348–1320	1334–1306	1349–1319

Nineteenth Dynasty	
Ramses I	ca. 1317
Seti I	ca. 1316
Ramses II	ca. 1304
Mer-ne-Ptah	ca. 1237
Amenmeses, Seti II, Mer-ne-Ptah-Siptah	ca. 1228–1208

Twentieth Dynasty	
Set-nakht	1207–1206
Ramses III	1206–1175
Ramses XI	1117–1092
Heri-hor	1110–1094
Twenty-First Dynasty	1092–943

Legend:
C = Coregency

* According to new astronomical data brought by J. G. Reed in *JNES* 29 (1970) 1–11, Ah-mose was already reigning in 1579, i.e. at least 9 years earlier than the date suggested by Hayes. Reed's date for Thut-mose III is 1490.

(b) Or Kadashman-Enlil ascended the throne a few years *after* the signing of the treaty. The accession of Ramses II must, then, have preceded that of Kadashman-Enlil by at least 21 years. Hence, the higher alternative for Ramses II is the only one which would fit the circumstances of this synchronism.[87]

Additional synchronisms between Egypt and Western Asia have been provided by an Akkadian letter of Hattusilis III to a king of Assyria, thought to be either Adad-nirari I or his son, Shalmaneser I,[88] and by a Hittite letter of Hattusilis III to Tukulti-Ninurta of Assyria.[89] It has been inferred from these two letters that the accession of Shalmaneser I (ca. 1273) preceded the treaty between Egypt and Hatti in Ramses' 21st year — this in agreement with the lower dates for Ramses.[90] A more detailed analysis, however, proves that the chronological inferences drawn from these and related documents cannot be treated as totally exclusive to any of the proposed chronological schemes. Only fresh data can provide a solution of the complex synchronistic evidence for this period, and offer a satisfactory chronological result.

Additional evidence for the chronology of the Nineteenth Dynasty is found in the so-called "era of Menophres." According to the tradition of Theon of Alexandria, a new era which he called "that according to Menophres" (τὰ ἀπὸ Μενοφρέως) commenced 1605 Egyptian years (= 1604 Julian years) before 284 C.E., the beginning of the "era of Diocletian." Hence, the "era according to Menophres" began in 1320 B.C.E. No pharaoh by the name of Menophres is mentioned in Manetho, and it has been suggested that this name is a corrupt abbreviation of either Seti I's full name or that of Ramses I.[91]

It is generally held that the "era according to Menophres" began with the start of a Sothic cycle in Egypt, i.e. the cycle inaugurated by the heliacal rising of Sothis on the day of the New Year in the Egyptian civil calendar.[92] The last pre-Christian Sothic cycle, which is known to have ended in 139 C.E., began — according to modern calculations — in one of the years between 1321 and 1318, or 1320 and 1317, or — according to another method of calculation — between 1314 and 1311.[93] If Theon's tradition implies that "Menophres" was Ramses I or Seti I, then the first year of either of these two kings should be assigned to one of the above-mentioned dates. As Ramses I reigned about 12 years and 4 months, and Seti about 13–14 years (see below),[94] it follows that only the higher alternative for Ramses II (i.e. 1304–1237) could fit the "era of Menophres."

Though it is possible to establish the exact date of Ramses II (by preferring the higher alternative), the chronology of the beginning and

the end of the Nineteenth Dynasty remains uncertain. The date of its beginning depends upon the unknown quantity *x*, representing the length of time Seti ruled after his 11th known year. If *x* is 2 years, Seti's accession took place in 1316 and that of Ramses I and the death of Hor-em-heb in 1317, that is, slightly over 60 years after the death of Amen-hotep III, as required by the minimum reckoning of Hor-em-heb's reign, according to the "Mes" date; and see above.

The chronology of the Nineteenth Dynasty from Mer-ne-Ptah on, and that of the Twentieth and Twenty-First Dynasties, are determined by the data of regnal years found in royal inscriptions and in contemporary documents. The highest date for Mer-ne-Ptah's reign according to his inscriptions is the year 8; it is very possible that he died in that or the following year, so that already his 7th year saw the first preparations for the king's funeral ceremonies.[95] It is, therefore, difficult to accept Manetho's statement, quoted by Josephus, that Mer-ne-Ptah ruled 19 years; he seems to have reigned 9 years at the most (1237–1228 B.C.E.).

The last kings of the Nineteenth Dynasty, Amenmeses, Seti II and Mer-ne-Ptah-Siptah (proven to be identical with Ramses-Siptah) — including the reign of Queen Tewesret — reigned for 5, 6, 8/9 years, respectively.[96] A total of 20 years for the reign of these kings is a reasonable estimate. It follows then that the Nineteenth Dynasty ended in ca. 1208 B.C.E. The gap assumed to have intervened between the Nineteenth and Twentieth Dynasties and which, according to some scholars, lasted between 5 and 20 years, simply did not exist.[97] The two year reign of Set-nakht — founder of the Twentieth Dynasty — should then be placed in 1208/7–1206. Set-nakht's successor, Ramses III — the most famous king of the Twentieth Dynasty — ruled, then, from 1206 to 1175;[98] his 8th regnal year — the year of the great war between Egypt and the Sea-Peoples — thus fell in 1199. From contemporary documents it can be deduced that the minimal total of regnal years for the Twentieth Dynasty is about 105.[99] Manetho's total of 135 years — according to Africanus (but 178 according to Eusebius) — appears, on the present evidence, to be too high. A total of 115 years for this dynasty has been postulated by Peet and Černý.[100] If the higher figure is accepted, the dynasty will be dated to 1207–1092. The eight successors of Ramses III, from Ramses IV to Ramses XI, would then be dated to 1175–1092. Ramses XI, the last king of the dynasty, who according to the monuments reigned 27 years, would then be dated to 1119–1092. Accordingly, the seven year "reign" of the high priest Heri-hor — who ruled independently in Thebes during the years 19–25 of Ramses XI's reign and introduced his own era, the "Era of Repeated Births" (mentioned

also in the account of Wen-Amon's journey to Byblos) — would be dated to 1110–1094 (with a margin of error of ± 5 years at least).[101]

Information on the kings of the Twenty-First Dynasty is scanter even than on the previous dynasty. The order of the kings, the length of their reigns and the total figure for the entire dynasty depend — almost solely — upon the testimony of Manetho as preserved by Africanus and Eusebius. According to the most recent studies, the total rule of the six (or possibly seven) kings of the Twenty-First Dynasty lasted 151 years (according to Černý), 142 years (according to Gardiner) or 149 years (according to Young),[102] whereas Manetho's (Eusebius') total is 130 years. If, indeed, the total of 149 years is adopted, the death of Psusennes II — its last king — and the accession of Shishak I, the founder of the Twenty-Second Dynasty, would be dated to 943 B.C.E. (again with a margin of error of approximately ± 5 years).

2. Assyrian-Babylonian Chronology in the 14th–11th Centuries

a) *Assyria.* For the period under discussion, Assyrian chronology serves as the cornerstone of the absolute chronology for Babylonia, Syria and Anatolia. The Assyrian chronological data are founded on a consecutive king-list (see A2, above) and, from the end of the 11th century, on the lists of eponyms (*limmu*). A solar eclipse in the month of Sivan, in the eponym year of Pur-Sagalē (= the tenth regnal year of Ashurdan III, in the mid-8th century) has long been identified as the eclipse of June 15, 763 B.C.E.[103] This astronomical date is the starting-point in the absolute chronology of Assyria.

There are several slight discrepancies (of one year only) between the various recensions of the Assyrian king-list.[104] Moreover, there is a difference of 10 years with regard to Ninurta-apil-Ekur (no. 82 in the king-list), who lived in the 12th century and reigned 13 years according to the "Nassouhi king-list" from Ashur, but only 3 years according to the list from Khorsabad and the parallel list *SDAS*. A detailed examination of the Assyrian-Babylonian synchronisms in the 14th–12th centuries has, however, shown that the version of 13 years is to be preferred.[105] As for the chronological designation "he reigned for *ṭuppišu*" (see A2, above) in connection with Ninurta-tukulti-Ashur and Muttakil-Nusku, his brother (nos. 84 and 85 in the Assyrian king-list), designating a period of time unknown to the compiler of the king-list — it may be assumed from contemporary documents (showing that Muttakil-Nusku ruled at least 12 months)[106] and from Babylonian synchronisms, that the two brothers reigned no more than 2–3 years, and apparently did not manage to hold a *limmu* office. Their regnal years

were, in this case, included within the "*limmu* period" of their father, Ashurdan. On this assumption, the 46 regnal years of Ashurdan are considered to have included the brief rule of his sons. (For the list of the Assyrian kings and their dates, see below, Table VI.)

b) *Babylonia.* The chronology of the Babylonian kings in the 14th–11th centuries is dependent upon the Assyrian chronology and is fixed by both the data contained in the Babylonian king-list and by the numerous synchronisms with Assyria, preserved in the Assyrian and Babylonian chronicles, in the annals of the Assyrian kings and in contemporary treaties and letters.[107]

The Babylonian king-list for this period (= King-list A; cf. note 26) is only partially preserved. In some cases the number of the regnal years is broken off or hardly legible; still, it is almost the only source for the chronology of the 15 last kings of the Kassite Dynasty (from Kurigalzu II on). The data on the 11 kings of the Fourth Dynasty (= the "Second Dynasty of Isin") are preserved in a contemporary document — "King-list C" — published by Poebel in 1958.[108]

Any attempt to determine the dates of the kings of Babylon in the 14th–11th centuries must face the following problems:

(i) The names of the kings from the first half of the 14th century and their respective numbers of regnal years are not preserved in King-list A. However, the dates on economic documents, especially those from Nippur, show that Burnaburiash II — Akh-en-Aton's contemporary — reigned at least 27 years and possibly 28; and Kurigalzu II, his son, apparently for 25 years.[109] The confusion and disorder in Babylonia just prior to Kurigalzu's accession (= the brief reigns of Karahardash [or Karakindash] and Nazi-bugash) lasted apparently about 2 years, at the most.[110]

(ii) There is a discrepancy in the case of Kudur-Enlil II (king no. 26 in the Kassite Dynasty); according to King-list A he reigned 6 years, while his highest recorded year in a contemporary economic document (from Nippur) is his 9th.[111]

(iii) Another discrepancy is in the case of Shagarakti-Shuriash, the 27th Kassite king; according to King-list A, he reigned 13 years, but the existence of his 18th year, which appears on an unpublished economic tablet in the Hilprecht collection at Jena, has recently been reported.[112] However, the version of King-list A (13 years) has to be accepted for the time. The latest year for this king so far known from economic documents is his 12th, and it is very probable that he died in his 13th regnal year.[113]

(iv) A possible case of a chronological lacuna: a Babylonian chronicle ("Chronicle Pinches") records that Tukulti-Ninurta of Assyria, after de-

TABLE VI

ASSYRIA ca. 14th–10th CENTURIES B.C.E.

Ashur-uballit	(36 years) : 1364
Enlil-nirari	(10 years) : 1328
Arik-den-ili	(12 years) : 1318
Adad-nirari I	(33 years) : 1306
Shalmaneser I	(30 years) : 1273
Tukulti-Ninurta I	(37 years) : 1243
Ashur-nadin-apli	(3 years) : 1206
Ashur-nirari	(6 years) : 1203
Enlil-kudur-uṣur	(6 years) : 1197
Ninurta-apil-Ekur	(13 years) : 1192
Ashurdan I Ninurta-tukulti-Ashur	(46 years) : 1179
Muttakil-Nusku	reigned *ṭuppišu*
Ashur-resh-ishi I	(18 years) : 1133
Tiglath-pileser I	(39 years) : 1115
Ashared-apil-Ekur	(2 years) : 1076
Ashur-bel-kala	(18 years) : 1074
Eriba-Adad II	(2 years) : 1056
Shamshi-Adad IV	(4 years) : 1054
Ashur-naṣir-apli	(19 years) : 1050
Shalmaneser II	(12 years) : 1031
Ashur-nirari IV	(6 years) : 1019
Ashur-rabi	(41 years) : 1013
Ashur-resh-ishi II	(5 years) : 972
Tiglath-pileser II	(33 years) : 967
Ashurdan II	(23 years) : 934
Adad-nirari II	(21 years) : 911

The dates refer to each king's first complete year; accession took place a year earlier. The margin of error is ± 2 or 3 years, at most.

feating Kashtiliash III (Kassite king no. 28), ruled over Babylonia for 7 years. The number 7 here might well be a round figure, and these years are not recorded in the Babylonian king-list, probably constituting a gap in the tradition of Babylonian chronology.[114]

(v) Two further lacunae are also possible: the first, a brief Elamite interregnum during the conquest of Babylon by the Elamite king Kidin-hutrash, probably after the reign of Adad-shuma-iddina (Kassite king no. 31);[115] and the second, an Elamite domination of Babylonia for some years after the end of the Kassite Dynasty.[116] Though these two Elamite interregna might have lasted several years, they were possibly included in the regnal years of the Babylonian kings who reigned after Adad-shuma-uṣur (Kassite king no. 32) and Marduk-kabit-ahheshu, the founder of the Fourth Dynasty. The close fabric of the Assyrian-Babylonian synchronisms in the 14th–11th centuries does not admit three interregna in Babylon but rather only one — that after the defeat of Kashtiliash by Tukulti-Ninurta I.

There is no astronomically fixed date in Babylonian chronology for the 14th–11th centuries B.C.E.[117] For many years it has been accepted that a fixed point could be furnished by the deaths of the Assyrian king Enlil-kudur-uṣur and the Babylonian king Adad-shuma-uṣur in the battle described in the Assyrian Synchronistic History (referred to as "the battle").[118] However, a correct interpretation of this text[119] has eliminated this fixed point, thus leaving open the question of an absolute date as a starting-point for the Babylonian chronology in this period. The tight network of the Assyrian-Babylonian synchronisms in the 14th–11th centuries has led scholars to suggest several other fixed points for the Babylonian chronology, especially from the reigns of Tiglath-pileser I, Ashared-apil-Ekur and Ashur-bel-kala of Assyria and their contemporaries, kings of Babylonia. Rowton[120] has suggested equating the two year reign of Ashared-apil-Ekur (1076–1075) with the 5th and 6th years of Marduk-shapik-zeri of Babylonia, resulting in 1080–1068 for the reign of the latter (with a margin of error of ± 5 years).

Another synchronism, however, might be used as the starting-point for the Babylonian chronology in this period: the military campaign of Ashur-bel-kala of Assyria against Babylon in his 5th year, described in the "Broken Obelisk,"[121] which most probably took place in conjunction with the removal of Marduk-shapik-zeri from the Babylonian throne and the accession of Adad-apla-iddina. According to this suggestion,[122] 1070 would be the year of Adad-apla-iddina's accession and his first regnal year, 1069. This might, then, be used as the starting-point for the absolute chronology of the Babylonian kings from Burnaburiash II until the end of the Fourth

TABLE VII

BABYLONIA ca. 1400–1000 B.C.E.

King no.	*The Third (Kassite) Dynasty*		
20	Burnaburiash II	(28 years)	: 1380
21	Karahardash or Karakindash; Nazibugash	(ca. 2 years)	: 1352
22	Kurigalzu II	(25 years)	: 1350
23	Nazi-Maruttash	(26 years)	: 1325
24	Kadashman-Turgu	(18 years)	: 1299
25	Kadashman-Enlil II	(15 years)	: 1281
26	Kudur-Enlil	(9 years)	: 1266
27	Shagarakti-Shuriash	(13 years)	: 1257
28	Kashtiliash III	(8 years)	: 1244
	(Interregnum in the days of Tukulti-Ninurta)	[7 years]	: 1236
29	Enlil-nadin-shumi	(ca. 3 years)	: 1229
30	Kadashman-harbe		
31	Adad-shuma-iddina	(6 years)	: 1226
32	Adad-shuma-uṣur	(30 years)	: 1220
33	Melishihu (Melishipak)	(15 years)	: 1190
34	Marduk-apla-iddina	(13 years)	: 1175
35	Zababa-shuma-iddina	(1 year)	: 1162
36	Enlil-nadin-ahhe	(3 years)	: 1161
	End of Dynasty		1159
	The Fourth Dynasty (= The Second Dynasty of Isin)		
1	Marduk-kabit-ahheshu	(18 years)	: 1158
2	Itti-Marduk-balatu	(8 years)	: 1140
3	Ninurta-nadin-shumi	(6 years)	: 1132
4	Nebuchadnezzar I	(22 years)	: 1126
5	Enlil-nadin-apli	(4 years)	: 1104
6	Marduk-nadin-ahhe	(18 years)	: 1100
7	Marduk-shapik-zeri	(13 years)	: 1082
8	Adad-apla-iddina	(22 years)	: 1069
9	Marduk-ahhe-eriba	(1 year)	: 1047
10	Marduk-zeri-[. . . .]	(12 years)	: 1046
11	Nabu-shuma-libur	(8 years)	: 1034

The dates indicate the first complete year of each king; accession took place a year earlier.

Dynasty (Table VII, above), with a margin of error of ± 2 years, for it is quite possible that Adad-apla-iddina's accession took place as early as the 4th or as late as the 6th year of Ashur-bel-kala.[123]

3. Anatolia and Syria in the 15th–12th centuries

The considerable evidence on the historical connections among Mesopotamia, Syria and Egypt from the end of the 15th century till the decline of the great powers of the Ancient East at the end of the 13th century creates a sound though not absolute chronological, synchronistic network between the kings of Hatti, Mitanni, Kizzuwadna, Alalakh, Ugarit, Amurru, Carchemish and other Syro-Palestinian states, and the kings of Egypt, Assyria and Babylonia.

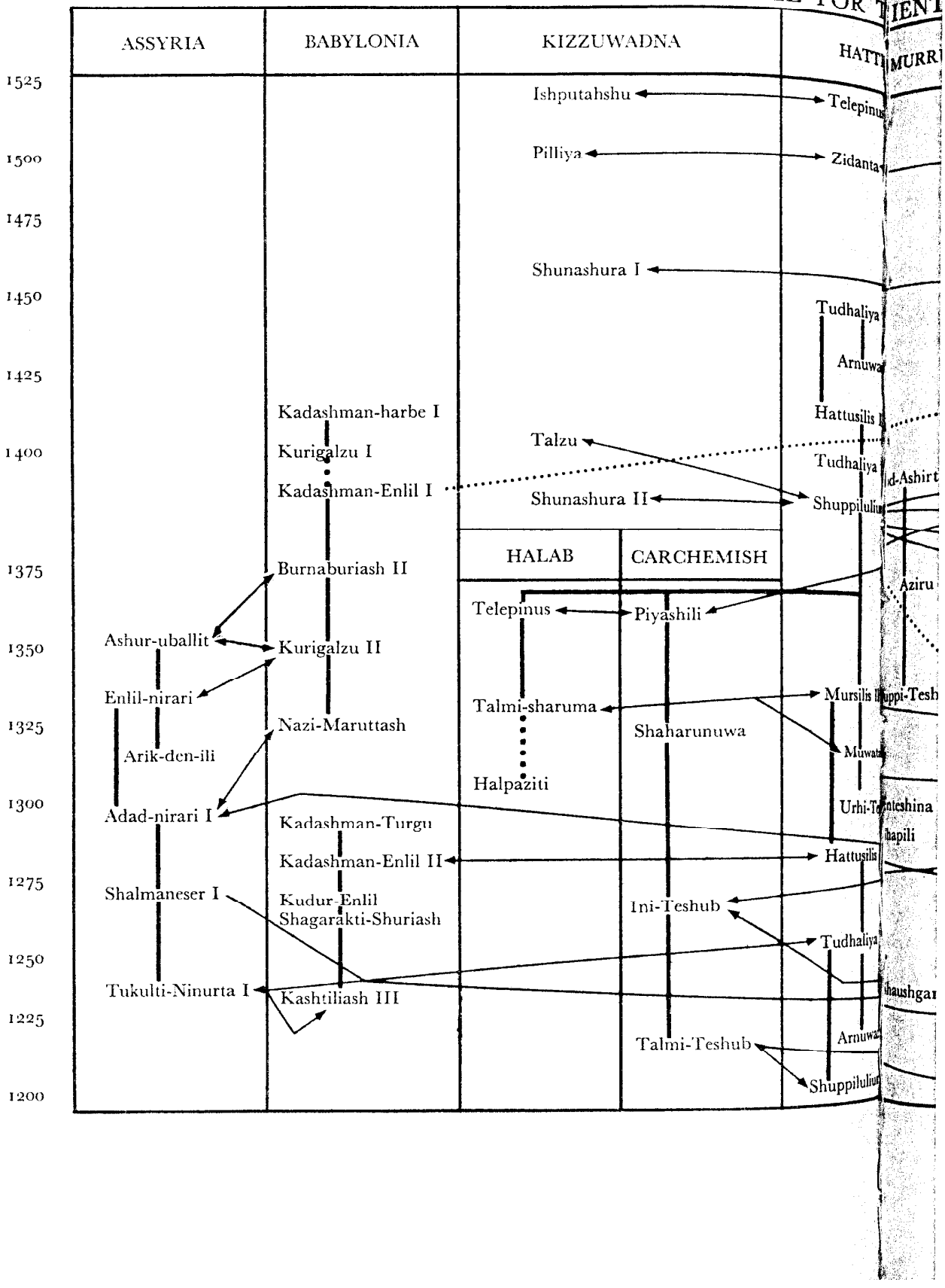
a) *Hatti.* As there is no evidence on the length of the reigns of most of the Hittite kings,[124] their estimated dates are arrived at through synchronisms with the contemporary kings of Egypt. The only date which could be fixed absolutely is the 10th year of Mursilis II. The annals of that king mention an ominous portent connected with the sun — most probably a solar eclipse.[125] Forrer has identified it with the eclipse of March 13, 1335 B.C.E.[126] Hence, the first regnal year of Mursilis was 1344. Shuppiluliuma, his father, who apparently reigned some 40 years (see note 124), would have ascended the throne in ca. 1385, or possibly a few years earlier. This date fits in with the historical evidence according to which Shuppiluliuma was a contemporary of Amen-hotep III and Akh-en-Aton. Shuppiluliuma died a few years after the death of an Egyptian king called Nibhururiyaš in the Hittite sources. This was probably Tut-ankh-Amon (— Nb-ḫpr.w-r'),[127] who died in 1303/2 or 1338 (see above, B 1 b, Table V).

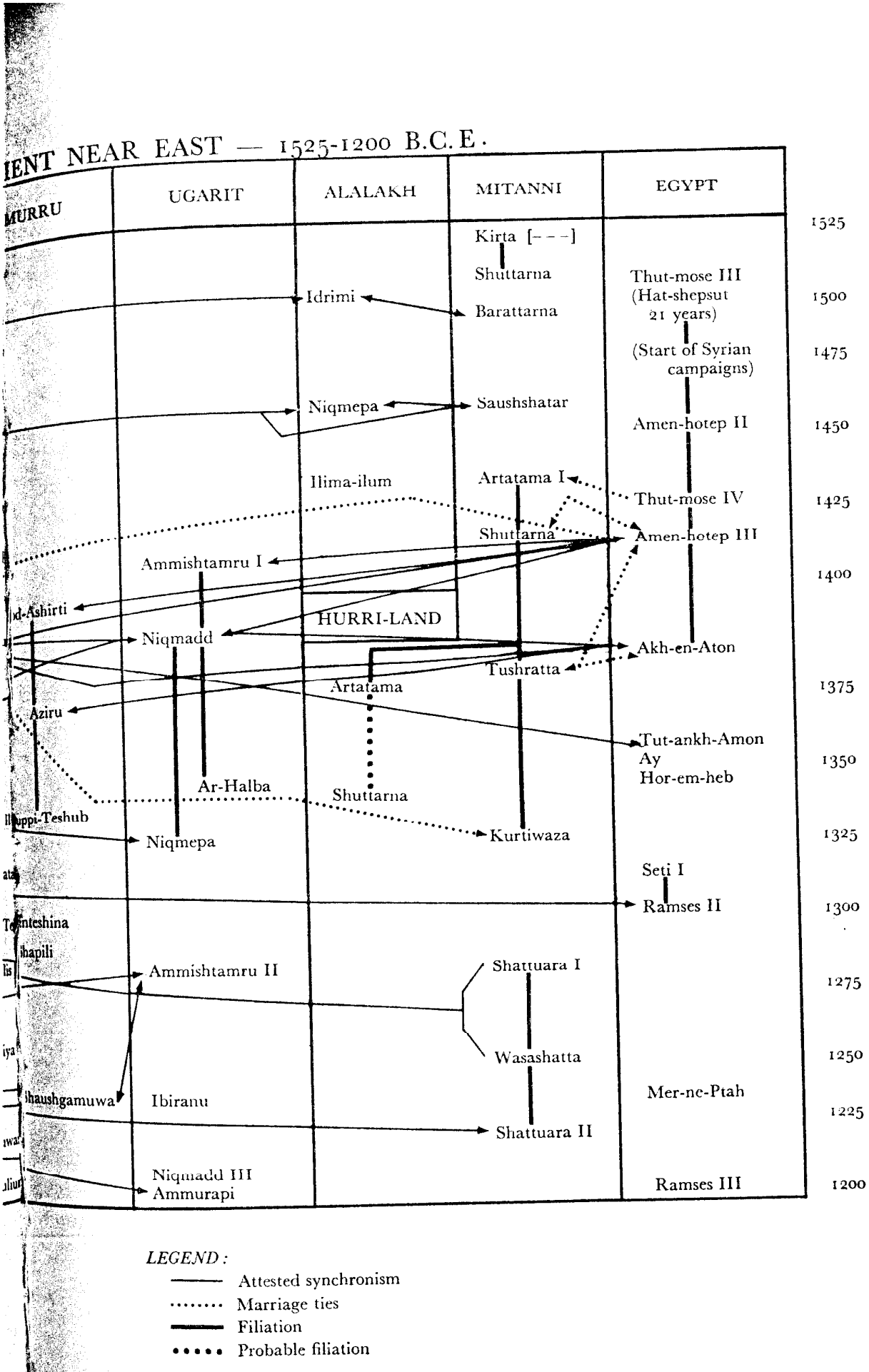
Tudhaliya, often called the "II", one of Shuppiluliuma's predecessors (possibly his great-grandfather) — the king who conquered Aleppo and briefly re-established Hittite supremacy in North Syria — should be dated to about 1440, the time of Amen-hotep II (see A 8, above) thus preceding Shuppiluliuma's accession by some 60 years.[128]

Telepinus, the very last king of the so-called "Old Hittite Kingdom," who concluded a treaty with Ishputahshu of Kizzuwadna,[129] must be placed at about 1500 B.C.E., that is, before the period of Mitannian supremacy in Syria and in Kizzuwadna under Saushshatar (see below, b).

If Mursilis II ascended the throne in 1344 and reigned about 30 years (see above, note 124), then the accession of Muwatallis his son took place in ca. 1314. In Ramses II's 5th year — 1300 according to the higher dating of the Nineteenth Dynasty — Muwatallis fought against Egypt in

A SYNCHRONISTIC TABLE FOR THE ANCIENT NEAR EAST





LEGEND :

——— Attested synchronism

····· Marriage ties

▬▬ Filiation

••••• Probable filiation

the battle of Kadesh and died, it seems, a short time after. He was succeeded by his son, Urhi-Teshub, who reigned 7 years (see note 124, above). Hattusilis III — Urhi-Teshub's uncle — ascended the throne about Ramses' 15th year (that is, ca. 1290 B.C.E. in the higher dating for Ramses II), and was thus a contemporary of Adad-nirari I and Shalmaneser I, kings of Assyria, and of Kadashman-Turgu and Kadashman-Enlil, kings of Babylon. Further, his son Tudhaliya IV ascended the throne in the days of Shalmaneser I and was also a contemporary of Shalmaneser's son, Tukulti-Ninurta I.[130]

Tudhaliya IV appears to have had a long reign; he was succeeded by his sons Arnuwanda III and Shuppiluliuma II.[131] The length of their reigns is unknown, though it is estimated that that of the latter ended close to 1200. Whether he was the last king of Hatti, or whether another king succeeded him on the eve of that kingdom's destruction by the Sea-Peoples (i.e. before the 8th year of Ramses III; see above, B 1 c), is also unknown.

b) *Mitanni and Alalakh.* The tablets from Alalakh stratum IV mention the following kings: Idrimi, Niqmepa his son, and Ilima-ilum the son of Niqmepa. The name of an earlier king, Abba-El son of Sharra-El, appears on a seal used in the days of Niqmepa.[132] Idrimi, Niqmepa's father, is undoubtedly identical with Idrimi the son of Ilima-ilum, King of Mukish, known from his inscribed statue from Alalakh.[133] Idrimi's inscription also mentions his lord, Barattarna "the mighty king, king of the Ḫurri warriors,"[134] while two tablets from Alalakh IV prove the subordination of Niqmepa to Saushshatar, the great king of Mitanni. The same two Alalakh tablets bear an earlier (dynastic) seal with the name of another king: "Shuttarna son of Kirta king of Mitanni".[135]

The historical data as a whole suggest that in the days of Barattarna and, especially, in those of Saushshatar, the kings of Mitanni extended their sway over North Syria and perhaps even over Kizzuwanda in southern Anatolia. The date of Mitannian hegemony under Saushshatar is debated; it could be assigned to one of the following periods: (i) before the Syrian expeditions of Thut-mose III, who conquered the entire Alalakh region and fought against the king of Naharina (= Mitanni) in his 33rd regnal year, that is, 1458 or 1472 B.C.E.; (ii) during the decline of Egyptian rule in Syria, in the later years of Amen-hotep II, that is, after approximately 1440 B.C.E. The second alternative is the more difficult to accept, as it is unlikely that the sudden Hittite expansion in northern Syria, and the conquest of Aleppo, took place in the days of Saushshatar.

Mitannian hegemony in North Syria under Barattarna and Saushshatar

should, then, be dated to the last years of the 16th century and the beginning of the 15th century.[136] It follows that both Idrimi of Alalakh and his overlord Barattarna of Mitanni should be dated to approximately 1525–1500, and that Niqmepa and his overlord Saushshatar to approximately 1500–1475. Barattarna's predecessor in Mitanni — Shuttarna the son of Kirta — would then be placed at about 1550–1525. If Shuttarna was the first king of Mitanni, it would appear that the establishment of Mitanni as a kingdom within the "Ḫurri-lands" is to be dated very close to the end of the Hyksos Dynasty in Egypt (ca. 1560, according to the higher dates for the Eighteenth Dynasty), and it is not impossible that there was some connection between the two major historical events.

The later Mitannian kings, from Artatama I (the father-in-law of Thut-mose IV) and Tushratta (the contemporary of Amen-hotep III and of Shuppiluliuma) down to Shattuara II (the contemporary of Shalmaneser I and the last king of Mitanni), are known from the Amarna Letters, from the political treaties, the archives of Boghazköy and from the historical inscriptions of the Assyrian kings[137] (see Table VIII)

c) *Amurru, Ugarit and Carchemish.* The Amarna Letters, the political treaties of the Hittite kings from the archives at Boghazköy (Hattusa) and especially the Akkadian (as well as Ugaritic) political documents found in recent years at Ugarit, make it possible to reconstruct a synchronistic, relative chronology for those kings, princes and rulers of the major Syrian states during the 14th–13th centuries who are mentioned in these texts. The approximate dating of the Syrian kings is dependent in part upon the synchronisms with Egypt, in part upon those with the Hittite kings and in part on internal synchronistic evidence.[138] A tentative synchronistic table of these kings is offered in Table VIII.

Judging from the pace of chronological research in the last decades, it is doubtless that future work and additional discoveries will reduce the gaps and increase the accuracy of dating in the chronology of the second millennium B.C.E. The present chapter has not touched directly upon the Hebrews — or the Aramaeans — who were still in their formative stages in the later part of the second millennium. It is only in the first millennium, with the rise of their kingdoms, that we are able to reconstruct the chronological scheme using the biblical evidence and especially the absolute synchronisms with Assyria, Babylonia and Egypt. But this is beyond the range of the present discussion.[139]