

CHAPTER 7 - Mesopotamian Chronology and the Exodus

Introduction

An Exodus in the Middle Bronze implies that the conventional Middle Bronze Egyptian dates must be lowered and/or the conventional biblical dates must be raised. In order to correct these chronologies we need a different standard to adjust the dates - i. e. another chronology. The only other chronology that reaches back to the Middle Bronze is the Assyrian chronology based on the Assyrian king lists. Theoretically, it is possible to link the Middle Bronze Egyptian 12th Dynasty in the south to the First Babylonian Dynasty (also called the Old Babylonian era) in the east and then link the dates of the Old Babylonian kings to Shamsi-Adad I of the Assyrian king list. The two empires and their worlds can then be synchronized. This proved harder than first thought.

High, Middle, Low and Ultra Low Chronologies

King Hammurabi was the greatest king of the Old Babylonian Dynasty. He was the Babylonian king who created a set of laws that were found on a famous stone monument, called the Stele of Hammurabi. The stele is about 8 feet high and the cuneiform is cut into black diorite stone. A copy was originally discovered in Elam but several other copies have been found at Old Babylonian sites. These laws were well known to Hammurabi's countrymen. The laws are cut on 4000 lines, the longest known cuneiform inscription. The stele shows the sun god Shamash handing these laws down to the king.

These laws were of great interest to biblical scholars because they showed remarkable similarity to those in the Mosaic code in the Pentateuch. There were laws against theft and murder but also sorcery, desertion of duty, striking a parent and overcharging. One might infer therefore that the two, Hammurabi and Moses, were not far removed in history. In the generally accepted chronology they are 350 years apart but it will soon become evident they are much closer than that.

Babylonian astronomical texts recorded some observations of Venus in the reign of Samsi-ditana. They were thought to provide an opportunity for absolute dating for the Old Babylonian Dynasty and the reign of the famous Babylonian King, Hammurabi. The motion of Venus through the skies repeats itself every 8 years. With good observations these 8-year cycles can be distinguished from one another within a 64-year period. If the correct 64-year cycle could be identified the astronomical data could provide exact dates. This proved harder than first thought. The Venus observations had errors - estimated up to 20% of the observations appear suspect. Whether the errors are

in the copying or observing is unknown but they do not always fit the calculated motions.

After Assyriologists had unearthed king lists of Assyria, they were able to establish that King Hammurabi was a contemporary of Shamsi-Adad I. Unfortunately some of the reign lengths were missing and some king lists had small conflicts. The best estimate of the date of the reign of Shamsi-Adad I was the mid-18th century.

This should have lowered Egyptian dates but the evidence was just not tight enough. Eventually, scholars proposed 3 supportable views on the dates for King Hammurabi according to their best astronomical analysis: the High (1848-1806 Generally Accepted Dates), Middle (1792-1750 GAD) and Low (1728-1686 GAD). Later an even lower or Ultra Low Chronology was proposed [Gasche et al, 1998]. From Table 2 one can see that Hammurabi reigned either in the late 12th Dynasty or early 13th Dynasty according to conventional dates.

Table 2 - High, Middle, Low and Ultra-Low Chronologies of Hammurabi

High, Middle Low	Hammurabi Dates	Egyptian Dynasty	Dates
High	1848-1806	12 th Dynasty Amenemhet III	1842-1797
Middle	1792-1750	Early 13 th Dynasty	1786-1750
Low	1728-1686	Mid- 13 th Dynasty	1750-1700
Ultra Low	1696-1654	Late 13 th Dynasty	1700-1660

Items dating to the era of Hammurabi were found in Ugarit in Middle Bronze IIA strata with tombs dating to the latter part of the Egyptian 12th Dynasty. To overlap Hammurabi with the 12th Dynasty meant accepting the High or Middle Chronology. On the other hand, Old Babylonian cylinder seals have been found at Nuzi and Arrapha in Mesopotamia in 15th century strata [Smith 1940, p. 16]. This means that the Babylonian Dynasty ended near 1500 BC. These two dates are incompatible. Moreover, in the latest Assyrian chronology, the authors argued that the Middle Chronology was difficult to justify because it required that the three reigns of unknown length would have to be over 100 years. It seemed very unlikely as Assyria was unstable at that time. They concluded that Hammurabi reigned Ultra Low 1696-1654 GAD [Gasche et al 1998].

One can understand the debate of High, Middle and Low Chronology if one focuses on three simple relationships (see Figure 6.1).

Relative Chronology	Egyptian Dynasty	Babylon
High	Late 12 th	Hammurabi
Middle	Early 13 th	Hammurabi
Low, Ultra Low	Late 13 th	Hammurabi

Figure 7.1 Fitting Hammurabi into Egyptian History

The High Chronology implies that the reign of Hammurabi occurred in the era of the late 12th Dynasty. Middle Chronology implies Hammurabi reigned immediately following the 12th Dynasty. The Low and Ultra Low Chronologies imply a gap of at least 65 years between the 12th Dynasty and Hammurabi. One site that is always involved in the efforts to resolve these dating problems is Alalakh.

Alalakh

In general, archaeological evidence using Egyptian-based dates support the Middle and High options and historical data using Assyrian dates support Low and Ultra-Low dates. Thus the central issue of the reconciliation of Assyrian and Egyptian chronology remains unresolved. Historically, the archaeologists have accepted the Egyptian dates and tried to correlate the Assyrian dates to match. Our approach is to accept Assyrian dates and to lower Egyptian dates downwards.

Alalakh was a major city in Syria during both the Middle and Late Bronze. Eastern Mesopotamian influences mixed with western Indo-European and Southern Egyptian ones. Artefacts that can be dated by both Egyptian and Assyrian chronology are found here in the same strata. It was hoped that datable evidence in the same strata at Alalakh would resolve the High, Middle or Low controversy [Gates 1987; Collon, 1975]. This proved harder than first thought.

In the 1955 Woolley published his report on the excavation of Alalakh. The Middle Bronze Levels that are of interest are Levels VIII, VII and VI. In Level VI Woolley had found pottery associated with the Hyksos and the 13th Dynasty. In Level VII he found a palace built by a prince of the Kingdom of Yamhad (also known as Aleppo and Halab). The archives of the Level VII palace contained a letter of a prince or king named Yarim-Lim who appealed to an unknown pharaoh of Egypt to come to his aid. This indicated the presence of Egyptian power in the region.

Ugarit, about 40 miles to the west, had been under Egyptian authority during the 12th Dynasty until Amenemhet III (Amenemes III) 1842-1797 GAD. Woolley concluded that the letter must have been written late in the reign of Amenemhet III. Thus Level VIII marks the “preponderance of Egypt” that endured until 1790 GAD [Woolley, 1953, p. 48]. This analysis is good except for the absolute date.

The royal archive of Level VII also revealed the names of the Kings of Yamhad, namely Yarim-Lim, Hammurabi (not the Babylonian one) and Niqmepuh. Woolley thought Yarim-Lim was Yarim-Lim I, King of Yamhad, who was a contemporary of Hammurabi, King of Babylon. Woolley concluded that Hammurabi reigned in Level VII near the end of the 12th Dynasty. He noted this was problematic for the Low Chronology, in which Amenemhet III had died 90 years earlier [Woolley 1955, p. 389].

There were other difficulties for the Low Chronology in the next stratum, Level VI. Specifically, polychrome and Union Jack pottery found in Level VI dated 50-100 years earlier in Hyksos era strata in Palestine than the implied dates for Level VI. Furthermore, the imported Cypriot Red-on-Black pottery that generally paralleled the 13th Dynasty and early Hyksos should have been found in Level VII not Level VI [Woolley 1955, p. 389]. He thus concluded erroneously that the Middle Chronology dates must apply.

Woolley's, adopted the Middle Chronology and raised Level VI and VII dates by 64 years [Woolley 1955, p. 389]. This satisfied his pottery requirements and at the same time put Hammurabi of Babylon in Level VII as a contemporary of Yarim-Lim. However, the evidence actually supported a minimum 90-year adjustment, which really demands the High Chronology.

Furthermore, archaeological evidences, which also support a High Chronology, were found at Platanus, Ugarit and Ezbet Rushdi. At Platanus Crete, ceramics have been discovered at the Middle Minoan I Palace that relate to early 12th Dynasty material. According to Matz,

"There comes from Tholos B at Platanus, a Babylonian seal of haematite which is dated to the time of Hammurabi. ... The latest finds in this context consist of Middle Minoan I a/b pottery." (2000-1800 GAD) [Matz, 1973, p. 144].

Thus only the High Chronology is satisfactory. Schaeffer states about Ugarit

"Objects belonging to the era of Hammurabi or in general to the First Babylonian Dynasty are found at a level succeeding that which contains the monuments of the time of Sesostri II Middle Bronze IIA). It is not impossible that they would be even later, in the same stratum where fragments of a sphinx of Amenemhet III were uncovered (original in French) [Schaeffer, Ugaritica I, p. 18 n. 2]."

At Ezbet Rushdi, situated in the Nile delta next to Tell el-Daba (Goshen), Bietak uncovered a "Mittelsaalhaus", a large house with a central court, in a late 12th Dynasty stratum [Bietak 1996, p. 20]. This kind of architecture also occurred in Mesopotamia, in Mari, which Hammurabi destroyed in his 36th year. [Bietak 1996, p. 20]. These three

evidences place Hammurabi within the last half of the 12th Dynasty and favour the High Chronology. Despite this, most scholars rejected the High chronologies and opted for the Middle - the main reason being that Assyrian chronology cannot reasonably be reconciled to the High Chronology dates.

Low Chronology at Alalakh

A flaw in Woolley's report was quickly found. Yarim-Lim, King of Yamhad in the archives of the Level VII palace, was not King Yarim-Lim I, the contemporary of Hammurabi, but Yarim-Lim II, the great grandson of Yarim-Lim I [Landsberger, B. 1954]. The Yarim-Lim who had sent a letter to Amenemhet III had been a Governor of Alalakh appointed by his brother, Abban, the King of Yamhad. Governor Yarim-Lim and King Abban were grandsons of King Yarim-Lim I and thus reigned two generations later than Woolley thought. Hammurabi did not belong to Level VII but two generations earlier - either Level VIII or more probably to Level IX. However, Woolley correctly attributed the end of the 12th Dynasty to end of Level VIII. This is further confirmation that Hammurabi reigned in the latter part of the 12th Dynasty. Such a conclusion was not acceptable because it implied a High Chronology relationship.

Soon others, Kantor and Albright, pointed out a problem. The pottery of Level VI and V were contemporary with the last decades of the Middle Bronze and the first half of the Late Bronze, the 16th and 15th centuries. This was compatible only with the Low Chronology [Kantor, pp. 158-160] [Albright, W.F, 1956].

Another archaeologist, Gates, at an international symposium on "High, Middle, Low?" gave a detailed set of these correlations to support her Low Chronology interpretation. She analyzed the pottery of Levels V, and VI and dated the beginning of VI to 1575 BC. She added 75 years for Level VII to arrive at 1650 BC. Levels VIII [or IX] assigned to Hammurabi began in 1720 BC [Gates, p.75]. These dates work well with Assyrian king lists and Mesopotamian stratigraphy. But then there is the problem of Woolley's letter from Yarim-Lim I. How could the 12th Dynasty continue to exist into Level VII if dated to 1650 BC?

In the Low Chronology Level VII of King Abban, and other nobles of the Kingdom of Yamhad, existed long after the demise of the 12th Dynasty. Yet King Abban's seal shows him receiving an Egyptian "ankh" held by an Egyptian vulture from a goddess [Woolley, 1953, p. 35]. On another sealing, a member of the royal family is shown worshipping an Egyptian deity [Woolley, 1953, p. 48]. Many Egyptian motifs appear on sealings including the winged disk and the Egyptian antef crown. Where does this strong influence come from if not the 12th Dynasty?

Under the Low Chronology Gates must ascribe this influence in Level VII to the Hyksos! Collon and other Middle Chronologists also assigned the Egyptian influence

in Level VII to the Hyksos [Collon, p. 185] and the end of the 12th Dynasty was pushed back several strata. However, no evidence of Egyptian presence was found in previous strata.

According to both Low and Middle Chronologies, the Hyksos made their presence felt in Alalakh in Level VII but not at nearby Ugarit or Byblos and the 12th Dynasty made its influence felt during the Middle Bronze Ugarit and Byblos, but not at nearby Alalakh. No credibility can be given to such a position. The Hyksos never controlled any area outside Egypt and southern Canaan. Thus this is a major flaw in the conventional attempts to understand Alalakh stratigraphy.

Proposed Solution

The solution is to accept the Low Chronology dates and the archaeology that places the 12th Dynasty in Level VIII and the beginning of VII. This means lowering Egyptian dates to the point that Level VII can be dated to the 17th-16th century. Under the latest Ultra-Low Chronology, Hammurabi falls into Level IX at 1696 BC with Level VIII perhaps about 1655 BC and Level VII about 1615 BC. This is the era of Yarim-Lim's letter for help late in the reign of Amenemhet III. Thus Alalakh Level VII began about 1615 BC, which is very close to Gates' dates and ended 75 years later in the reign of Ammi-Zaduga of Babylon (1550-1529 BC in Ultra Low Chronology).

The exact date of Governor Yarim-Lim's letter to Pharaoh Amenemhet III within Level VII cannot be determined but is assumed to be shortly thereafter, say 1605 BC near Amenemhet III's death. Amenemhet IV, who is the proposed candidate for Pharaoh of the Exodus, reigned only 9 years. He would likely have died shortly after 1595 BC. This represents a 190-year+ lowering of Egyptian chronology. We now have the actual size of the required adjustment to Egyptian chronology for the Middle Bronze according to Ultra-Low Assyrian dates in Table 3.

Table 3 - Alalakh Strata Levels XVII to VII

GAD	Egyptian Ruler	Babylonian Ruler	Ultra-Low Date	Alalakh Levels
2100-1991	Dynasty 11	Pre-Old Babylon	1900-1800	XIV/XVII
1991-1928	Amenemhet I Senwosret I	Beg. Old Babylon	1825-1735	XI/XIII
1928-1895	Amenemhet II	Shamsi-Adad I	1735-1695	X
1895-1842	Senwosret II, Senwosret III	Hammurabi	1696-1655	IX
1842-1797	Amenemhet III	Samsu-iluna	1655-1615	VIII
1797-1725	Amenemhet IV,	Until Ammi-Zaduga	1615-1540	VII

Levels prior to IX have been dated using a 35-year average duration proposed by Gates. The Table 3 dates are similar to her proposed dates. Only the interpretation of the position of the 12th Dynasty is really different. The absolute dates of the Assyrian king lists and relative dates of the archaeological are both satisfied. The lowered dates of Alalakh strata VII agree with Mesopotamian strata dated to the Old Babylonian Dynasty and, at the same time, King Hammurabi is dated to the latter half of the 12th Dynasty, which agrees with the "High Chronology" relationship obtained from archaeology.

We can now say that the Egyptian and Assyrian dates are synchronized. We can test this relationship using genealogical and seal evidence. Yarim-Lim I, King of Yamhad was a contemporary of Hammurabi of Babylon and thus ought to be placed in Level IX. Yarim-Lim's son, Hammurabi I of Yamhad, should belong to Level VIII and his grandson, King Abban of Yamhad together with his brother, Yarim-Lim Governor of Alalakh should belong to Level VII. As King Hammurabi I of Yamhad was a younger contemporary of Hammurabi of Babylon, one might expect that both their sons, i.e. King Abban of Yamhad and King Samsu-iluna of Babylon, would be contemporaries. Is this so?

A study of the Babylonian sealings used by kings of the era of Hammurabi and Samsu-iluna revealed a style where the seal figures were thick and rounded [Porada, 1957]. Later, the figures on the sealings became narrower and straighter. Porada referred to the former as "baroque" and the latter as "rococo". At Alalakh, the end of the "baroque" occurs with the sealing of King Abban. Afterwards the time of King Abban the sealings are "rococo" [Collon, p. 140]. Thus, King Abban fits nicely into the final years of the reign of Samsu-iluna as we expected.

Furthermore, the most recent "rococo" sealings of Level VII most resemble those of the time of King Ammi-Zaduga, the second last king of the Old Babylonian Dynasty. He reigned 80 years after Samsu-iluna. Therefore, the duration of Level VII can be estimated to be 80 years according to the sealing data. This is in line with the 75-year duration of Level VII according to Gates and Collon. Thus the Old Babylonian and Yamhad genealogies fit well the time line of Alalakh in Table 3 from Level XI to the end of VII.

In addition, there is one datable item prior to Alalakh Level VII. It is a Syrian sealing found in Level XI. Porada dated it to 2000-1800 BC (Middle Chronology) [Collon, p. 4, n. 1]. Ultra-Low dates would be 100 years less or 1900-1700 BC. Table 3 above assigns Level XI to 1765-1730 BC, well within Porada's dates.

Conclusions

Under the chronology in Table 3, the dates are compatible with the Ultra Low dates of Mesopotamian sealings and historical genealogies. At the same time it puts Hammurabi's reign in the latter part of the 12th Dynasty, which matches the "High Chronology" archaeological found at Ugarit, Platanus, Crete and Ezbet Rushdi. Having satisfied both Assyrian chronology and Egyptian archaeology, we find a need to lower Egyptian dates by 190 years. The date of the end of the 12th Dynasty and thus the biblical Exodus is in the vicinity of 1595 BC. There remains 150 years unaccounted against the conventional date of the Exodus according to Bible scholars. This will be addressed in the next chapter.