THE DATE OF PURIM AND CALENDARS IN THE BOOK OF ESTHER

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Abstract

The paper suggests that The Book of Esther contains astronomical and chronological information associated with the reign of Artaxerxes II. It further investigates a play on dates concerning an intercalary 12th Hebrew month and the eve of Passover, and possible mathematical references to Ancient Near Eastern and Jewish calendars.

Key words: Esther, calendars, astronomy, Artaxerxes, Bible, Adar, Jewish, Babylonian.

Introduction

The Masoretic Text (the canonised Hebrew Bible: abbreviation: MT) of the Book of Esther is, according to some opinions, dated to between the early Hellenistic and late Persian period, in the 5th century BCE, and between 167 BCE to 135 BCE for its final edit (Moore 1992; Clines 1984; Frohlich 1996). One of the characteristics of the Book of Esther is that there is a very clear chronology and an emphasis on the use of dates. I suggest that there is a reference to calendars which the reader is being invited to unravel.

The Esther Story

The Book opens with the information that King Ahasureus celebrated his kingship in the third year of his reign with a 180-day celebration and feast for all the noblemen of his 127 provinces. After that period he held another banquet for all the people of his citadel, Shushan (Susa) **(**Esth 1: 2-5). On the 7th day, the king summoned his queen, Vashti, to appear before the people and the noblemen wearing her crown, in order to display her beauty. Vashti refused, and the king asked his astrologers the "wise men, knowers of the times" (Esth 1:13) for their advice. They told him that he had to issue an edict throughout his all satrapies that all wives must obey their husbands, and to conduct a search for a beautiful young virgin to be queen instead of Vashti (Esth 1:16-2:4). This was done, and after an empire-wide beauty contest, Esther, the niece of Mordechai, a Jewish subject, was taken to the king. He made her his queen, but Mordechai instructed Esther to keep her Jewish identity secret. The king promoted one of his nobles, Haman, above all others. Haman ruled that all the royal officials should kneel down to him and pay him honour, but Mordechai refused. Haman planned to wipe out all the Jews throughout the Persian empire in response to Mordechai's disrespect towards him (Esth 3:1-6). In the 12th year of the reign of the king, lots, called *pur*, were cast before Haman to select a date when the extermination should take place. The lots were cast in the first month, Nisan, "from day to day and from month [to month] until the 12th month, Adar" (Esth 3:7). "On the 13th day of the first month" an edict was despatched throughout the 127 provinces that "on one day, on the 13th day of the 12th month, which is the month of Adar," all the Jews were to be annihilated (Esth 3: 12-13). Esther, her maids, Mordechai and the Jews of Shushan fasted and prayed for three days.

Esther then had an audience with the king in which she requested that he and Haman attend a banquet that she'd prepared. At that feast she requested that she and her people be spared. As the king had no idea that Esther was Jewish and therefore that she and her people had been the objects of his edict to slaughter the Jews, Haman was hanged (Esth 7:1-10). On the 23rd day of the 3rd month, Sivan, a second command in the name of the king, this time written by Esther, went out to all the 127 provinces giving the Jews permission to defend themselves on the "13th day of the 12th month, Adar," when the first order would come into force, as no edict from the king ever could be revoked (Esth 8: 7,9,12).

In chapter 9, the final chapter, we read that, "On the 12th month which is Adar on the 13th day of it," the day of destruction instigated by Haman, battle commenced (Esth 9: 1-12). Then, after the Jews killed a great number of their enemies in the Persian empire and in Shushan, Esther asked King Ahasuerus to grant permission to the Jews in Shushan only to carry out the second edict "tomorrow," (Hebrew: *machar*) as well. Also, for Haman's 10 sons to be hanged on the same day (Esth 9:12-13). The Jews of Shushan then gathered themselves on the "14th day of the month of Adar" and

killed 300 men (Esth 9:15) while the Jews in the provinces "stood for their lives, had rest from their enemies and slew 75,000 men" (Esth 9:16). On the "13th day of the month of Adar" the Jews in the provinces had rest and "on the 14th of it they made a day of drinking and celebration" (Esth 9:17). And the Jews in Shushan assembled on "the 13th of it," and "on the 14th of it" they rested, and "on the 15th of it" they made a day of drinking and celebration (Esth 9:18).

Textual ambiguities

In Hebrew, *machar* meaning "tomorrow" or "the next day" also means "the time to come," (Brown et al 2001), as it does in English, for example, Isa 22:13: "Let us eat and drink for tomorrow we die." There is, thus, an ambiguity in the text as it is possible that this extra day ("tomorrow") (Esth 9:13) for the Jews of Shushan was in the following month, and that "the 12th month," was to be intercalated. In chapter 3, the *pur* was cast before Haman throughout the 12th year of the king's reign, "from month to month from Nisan to the 12th month, Adar" (Esth 3:7). Therefore, the command to annihilate the Jews issued on the 13th day of the first month (Esth 3:12), must have taken place in the 13th year of the king's reign. If the day of reckoning, at Esther's request in chapter 9, was the 13th day of the 13th month in the 13th year of the king's reign, the cursed date divined by Haman's *pur* in chapter 3, the 13th of the 12th month, Adar (Esth 3:13), was transformed into a lucky date: a line-up of all the 13s, resulting in political and military success (Esth 9: 17, 18).

There are different ways of reading the text. The Jews of Shushan are described as assembling and slaying 300 men on the 14th of Adar (Esth 9: 15), which is assumed to be their extra day in Adar, although it has no month number (while everyone else could only fight on the 13 th of Adar, which is Month 12). The Sushan Jews also assembed on the 13th "of it" (Esth 9:18), a date with neither month name nor number. However, the assembly on the 13th "of it," may be the extra day: that is, the 13th of the second Adar (Adar II). If the Jews in the provinces assembled and slayed on the 13th of the 12th month, Adar, (Esth 9:1), yet also rested on the 13th of Adar, without a month number (Esth 9:17), that would be Adar II. In that case, only the Jews of Shushan were fighting on the 13th of Adar II. The following day, the 14th of Adar II, the Jews of Shushan would be resting after the battle, while the Jews in the provinces, who did not have an intercalary Adar, were preparing for Passover on Nisan 14, Passover eve. In accordance with the Talmud (Megilla 6:2), Purim, the festival which celebrates this book on Adar 14 (Esth 9:21) is, in an intercalated year, celebrated in Adar II. This suggests that the alternative reading may have some foundation.

Mythology

According to Julius Lewy (1939), Artaxerexes II is the strongest candidate for the character of Ahasuerus. He argues that Esth 3-9 is based on the threat felt by the Babylonian worshippers of Marduk, the literal meaning of the name "Mordechai," by the introduction of Mithras and Anahita into the Zoroastrian pantheon of deities during the reign of Artaxerxes II. Marduk is associated with Jupiter (Van Der Waerden 1949). Jupiter translated into Hebrew, is *tsedek*, meaning the Righteous One. David Clines (1992) dismisses any linkage between Mordechai and Marduk, though Paton (1976) noted: "These similarities of names are certainly striking and can hardly be accidental." Talmudic Jewish literature connects Esther to the planet Venus (Megilla 13a). In the Septuagint (the Greek translation of the Hebrew Bible, abbreviation: LXX) Esth 2: 7 reads: "Her name was called after the bright star in Greek, Astêra."

Archaeoastronomy

Co-incidentally, in the Babylonian Astronomical Diaries, a fragment of a short diary assigned a 13th month, [an intercalary Month 12] in year 13 of a "King Artaxerxes." Abraham Sachs (Sachs et al 1988) stated that he "tentatively assigned it [the fragment] to Artaxerxes II [ruled - 404 to -358]" on the basis that it indicated that Month 12 had 29 days. "According to Parker Dubberstein this fits only Artaxerxes II… Other evidence is the full appearance of Saturn in year 13 of Artaxerxes II. No such appearances are available in year 13 of Artaxerxes III [-359 to -338] and year 13 of Artaxerxes I [-464-424]."

Computing for 13 Adar II in the 13th year of the reign of Artaxerxes II: March 12, –391 Julian calendar [13 Adar II 3369]), offers arguable astrological testimony in support of a celestial configuration that could have contributed to the symbolism of the characters in the story (although, all such interpretation is by its nature subjective, and non-scientific). Venus was the evening star, setting when Jupiter was rising just ahead of the full moon in Virgo (sun in Pisces). [1] The full Saturn

[1] On March 12 -391 Julian calendar: computed for 6pm (for Babylon) as the day begins at sunset. Purim falls on 14th Adar which is mid-month (February-March). The full moon: 20º Virgo, sun: 17º Pisces, Venus 24º Aries (37º behind the sun), Jupiter: 12º Virgo. At sunset, the date changed to Adar 14, Purim.

would have been seen before sunrise, when the moon and Jupiter were setting. At Purim, the full moon is always in Virgo, the zodiac sign possibly represented by Queen Esther, the King's favourite virgin (Esth 2: 17). (The term *betulah* meaning virgin, and Virgo, also occurs in Esth 2:2, 3, 19).

The question as to whether a month could be intercalated for divination purposes to avoid a bad omen or prediction, turns out to have been a well-attested practice, recorded in earlier texts from Babylon. A.L. Oppenheim (1974) describes the craft of intercalation to avoid any malefic astronomical portents (Swerdlow 1998; Brown 2000; Williams 2002). Brown also argues that the Old Babylonian record of intercalary months suggests that some of the months were added for concerns other than keeping the moon on track with the sun. Possibly, he suggests, "royal whim." He observes that there is also evidence to suggest that intercalation could take place without the general population using it, therefore, possibly, not even knowing about it.

In another text, a report sent by a Balasi to the Assyrian King, there is a request for an intercalation, in part, because not to do so would be unlucky: "Let them intercalate a month; all the stars of the sky have fallen behind. Adar must not pass unfavourably; let them intercalate!" (Hunger 1992; Williams 2002). In other words, a 13th month (the second Adar) could be seen as lucky by itself, or more likely, the king was persuaded to avert a prediction of evil, which he would be told would occur if the calendar was not kept in check.

According to M.E. Cohen (1993) during the Achaemenid period, directives for intercalation came from priestly officials, whereas during the Babylonian period they came from the king. However, in Esther, reference is specifically made to the king's astronomer-astrologers ("wise men, knowers of the times," Esth 1:13). It is an open question, according to our theory, whether Esther requested an intercalary month, according to the Babylonian model, or if she knew that Adar was to be intercalated.

The logical implication is that Ahasuerus may have been agreeing to Esther's request for an intercalary month (the royal whim, for him, the line-up of lucky 13s for her) and that that would have been what the astronomer-astrologers, or the priests would have suggested he should do for good calendrical reasons, so that Adar did not, indeed, pass unfavourably. Furthermore, if intercalation could occur without people knowing about it, it would be possible that the Jews in Shushan could fight on the 14th of a month with no name (Esth 9: 18), aware of the intercalation, while Jews in the rest of the country were preparing for Passover, unaware of it. Such a scenario is in keeping with the many farce elements in the narrative.

The Achaemenid kings and intercalation

An examination of the intercalation tables compiled by Britton (2002, 2007) reveals that the 13th year of the reigns of all the Achaemenid kings from the late 6th century BCE after Cambyses II had an intercalated 12th month (XII_2). In the chart below, the 13th year from the accession of the kings from Darius to Artaxerxes III, who ruled for longer than 13 years, has been calculated from Britton's data. The fourth column shows that all of them had an intercalary 12th month in that year.

King	Accession Year	13th Year	Intercalary month
Darius I	-521	-508	XII_2
Xerxes	-486	-473	XII_2
Artaxerxes I	-464	-451	XII_2
Darius II	-423	-410	XII_2
Artaxerxes II	-404	-391	XII_2
Artaxerxes III	-358	-345	XII_2

Britton shows that the 19-year intercalation cycle in which seven years are intercalated every two or three years, began to be standardised in the 6th century BCE. From Xerxes' reign, the19-year cycle always began with an intercalated sixth month, a second Ululu (Hebrew month: Elul), a practice which continued into the Seleucid era. The exception was during the reign of Artaxerxes I, during whose rule no second Ululu appeared at all (in his reign the first years of the 19-year cycle had an intercalary Adar, instead). This was possibly because, Britton suggests, Artaxerxes I's predecessor (Xerxes I) was murdered during an intercalary Ululu.[2] That temporary calendar change echoes the idea that the intercalary month may have carried superstitious associations.

Britton's arrangement of the 19-year cycle is as follows:

1,** 2, 3,* 4, 5, 6,* 7, 8, 9,* 10, 11,* 12, 13, 14,* 15, 16, 17,* 18, 19

** Second Ululu (except during reign of Artaxerxes I)

* Second Adar

[2] Xerxes was murdered between 4-8 August –465 (Lewis 1992).

Of interest, is the fact that Otto Neugebauer (1955) placed the second Ululu in year 18 of the cycle (not at the beginning of the 19-year cycle, as does Britton), so, according to Neugebauer, the seven intercalary years, had a different order:

1,* 2, 3, 4,* 5, 6, 7,* 8, 9,*10, 11, 12,* 13, 14, 15,* 16, 17, 18,** 19

Neither arrangement has an intercalary 13th month. Yet, can it be chance that Darius I, Xerxes, Artaxerxes I, Darius II, Artaxerxes II and Artaxerxes III all had a 13th month in the 13th year of their reigns? It could be that the accession list was so-arranged in order for those regnal years to coincide with an intercalary Adar.

Esther's calendars

Finally, we have taken the number 127, the number of satraps in the empire,[3] and found that key dates are joined together by spaces of 127 days, if we use different calendars and intercalations. The calendars are: 1) the 360-day calendar[4] with an intercalary Ululu/Elul; 2) the 360-day calendar without an intercalation; 3) the 354-day calendar with an intercalary Adar; 4) the 354-day calendar without an intercalation. The dates 127 days apart also reflect the way different Jewish groups in late antiquity counted the days in the Jewish festival calendar (Talmon 2001), as well as the different kinds of calendars themselves. The biblical festivals I suggest, are: the 1st, 15th and 22nd day of the seventh month, Tishri – these are Rosh Hashanah, Tabernacles and the 8th day of Tabernacles (the Rejoicing of the Law) – and the different dates of the biblical festival of First Fruits, or Weeks, in the third month, Sivan (Talmon, ibid).[5] As the final editing of the Book of Esther is believed to have taken place in the second century BCE, it is possible that Esther could play with the variety of calendars that were known in the Ancient Near East and in Judasim, as well as reference the differences in calendar-keeping among the Jewish groups.

The suggested calendars in the Book of Esther, then, are as follows:

1.Sivan 23 to Tishri 1 using a **second Ululu/ Elul in the 360-day calendar**:

Calculation: 7 days (remainder of Sivan) + 30 days (Tammuz) + 30 days (Av) + 30 days (Ululu/ $Elul_1$) + 30 days (Ululu/$Elul_2$) = 127 days

2. Sivan 15 to Tishri 22 in the **360-day calendar**:

That is, 15 days (remainder of Sivan) + 30 days (Tammuz) + 30 days (Av) + 30 days (Ululu/Elul) + 22 days (in Tishri) = 127

3. Adar I 14 to Sivan 23 using an **intercalary Adar in the 354-day calendar**:

That is, 16 days (remainder of days in Adar I) + 29 days (Adar II) + 30 days (Nisan) + 29 days (Iyyar) + 23 days (in Sivan) = 127 days.

4. Sivan 6 to Tishri 15 in the **354-day calendar**:

That is, 24 days (remainder of days in Sivan) + 29 days (Tammuz) + 30 days (Av) + 29 days (Elul) + 15 days (in Tishri) = 127 days.

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[3] Esth 1.1; 8:9; 9:30; and LXX: Esth Add: 13:1; 16:1.

[4] The 360-day year, known from the MUL.APIN was used an ideal, administrative year and for astronomical calculations from the 3rd millennium BCE and was known in late antiquity. It had 12 months of 30 days each, and was the basis of our 360° circle and the zodiac wheel (Brack-Bernsen 2005; Britton 2007; Britton and Walker 1996). The question of its intercalation is a matter of scholarly discussion and debate, not analysed here. Our focus has been on calendars 3) and 4).

[5] The date for the festival of First Fruits in the 364-day fixed calendar in the Dead Sea Scrolls is Sivan 15. In the Pharisees' 354-day luni-solar calendar it is Sivan 6. The different dates are, in part, due to different interpretations of the meaning of the phrase "the day after the Sabbath" (*mi-machorat haShabbat*) in Leviticus 23:15-16.

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(uses minus signs for BCE) and the Swiss Ephemeris online zodiac programme http://www.astro.com/swisseph/swepha_e.htm . For -391 (392 BCE): (http://www.astro.com/swisseph/ae/m0300/ae_m0391.pdf and go to March).

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PURIM ŠVENTĖS DATA IR KALENDORIAI ESTEROS KNYGOJE

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Santrauka

Straipsnyje keliama prielaida, kad Esteros knygoje slypi astronominė ir chronologinė informacija, susijusi su persų karaliaus Artakserkso II viešpatavimu. Nagrinėjamas hebrajų kalendoriaus 12-ojo mėnesio interkaliacijos ir žydų Velykų išvakarių klausimas bei galimos Esteros knygoje aptinkamų chronologinių žinių sąsajos su Senovės Artimųjų Rytų ir žydų kalendoriais.

Vertė Jonas Vaiškūnas