THE CALENDARS OF EBLA PART III: CONCLUSION

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In my two preceding studies of the Old and New Calendars of Ebla (see AUSS 18 [1980]: 127-137, and 19 [1981]: 59-69), interpretations for the meanings of 22 out of 24 of their month names have been suggested. From these studies, it is evident that the month names of the two calendars can be analyzed quite readily from the standpoint of comparative Semitic linguistics. In other words, the calendars are truly Semitic, not Sumerian. Sumerian logograms were used for the names of two months of the Old Calendar and three months of the New Calendar, but it is most likely that the scribes at Ebla read these logograms with a Semitic equivalent. In the cases of the three logograms in the New Calendar these equivalents are reasonably clear, but the meanings of the names of the seventh and eighth months in the Old Calendar remain obscure.

Not only do these month names lend themselves to a ready analysis on the basis of comparative Semitic linguistics, but, as we have also seen, almost all of them can be analyzed satisfactorily just by comparing them with the vocabulary of biblical Hebrew. Given some simple and well-known phonetic shifts, Hebrew cognates can be suggested for some 20 out of 24 of the month names in these two calendars. Some of the etymologies I have suggested may, of course, be wrong; but even so, the rather full spectrum of Hebrew cognates available for comparison probably would not be diminished greatly. Considering the fact that these two vocabularies are separated by more than a millennium, this correspondence seems striking. While other Semitic languages will undoubtedly have their input into such studies, the future linguistic studies in this area probably will involve developing especially informative reciprocal relationships between Hebrew, Ugaritic, Eblaite, and Sumerian. As I understand it, there are, in the bilingual dictionaries, more Sumerian words than Eblaite that are poorly understood.

The foregoing summarizes the analyses provided in my earlier articles. In this concluding part of the series I will probe some further matters and raise some further intriguing questions regarding (1) the differences between the two Eblaite calendars, (2) possible reasons for the adoption of the New Calendar, (3) the translation and meaning of the summary for the New Calendar, (4) the significance of the extraordinary length of the New Calendar text, and (5) a fascinating parallel of its 7-year span (or cycle) with the Hebrew Sabbatical Year.

1. Differences Between the Old and New Calendars

As far as the calendars themselves are concerned, the contrast between them is sharp. Half of the month names in the Old Calendar are taken from observations on the cycle of nature, especially those features that affect agriculture, and the other half are derived from man's participation in that cycle. Not one god name appears in this list, and none of these month names taken from nature are deified. By way of contrast, half of the months in the New Calendar are named directly after gods. Wherever their functions are recognizable, they operate in the realms of nature and agriculture.

The other half of the month names in the New Calendar may be connected with these gods indirectly. I have suggested that their meanings should predicate something about the activities of the gods who participated in this cycle. This point is somewhat speculative, but it seems to me that it fits the meanings of these names and their relations to the overarching scheme of the New Calendar better than leaving them as a patchwork of intermingled natural and religious observations concerning the world. Thus, in the New Calendar the aspects of the natural world referred to as such in the Old Calendar were connected with their appropriate gods or deified. This can be seen in the following comparison:

OLD CALENDAR Month of: NEW CALENDAR Month of:

- I. Whirling (Winds)
- II. Plowing or Seeding

III. Rain

The Lord, the chief god Dagan Sacrifice to the (rain-) god Ashtabi The Coming of Ashtabi

IV.	Clouds	Sacrifice to the (storm-) god Hadad		
V.	Shadows	Hiding of the sun-god Sipiš		
VI.	Drying	Lighting of the sun-god Sipiš		
VII.	Unidentified	Coming forth of the sun-god Sipiš		
VIII.	Unidentified	Provisioning by the storehouse-god		
(Kura?)				
IX.	Man (as harvester)	The harvest-god Adama		
Х.	Cutting	Harvesting by Adama		
XI.	Sheep (?)	The goddess Asherah (?)		
XII.	Heat	Sacrifice to the god Chemosh		

2. Why Was the New Calendar Adopted?

Since the contrast between these two calendars is so striking, the question arises: Why was the New Calendar adopted? Why this shift in interest from natural to religious connections for the calendar? Texts published in the future may answer this question more satisfactorily, but even then there is no guarantee that we will ever know for sure. At present we can only speculate.

The first possibility is that there was a true religious revolution or reformation at Ebla during the reign of Ibbi-Sipiš. G. Pettinato seems sympathetic to this view. What we need in order to confirm or deny this theory is the publication of some offering texts from the reigns of the preceding kings of Ebla. Then their sacrificial lists could be compared with the four now published,¹ to see if there was a shift in the spectrum of gods to whom sacrifices were offered.

Another possibility for the shift in calendars might be a more mechanistic casuality, e.g., events in the natural world at the time. In this case, the time from which these texts come has to be established. This has been a matter of considerable debate, with Pettinato dating them around 2500 B.C. on the basis of their script, while P. Matthiae has dated them around 2300 B.C. on the basis of the Amuq I pottery found in the palace together with the tablets. At a symposium on third-millennium chronology, held at the Oriental Institute of the University of Chicago in early December

¹G. Pettinato, Culto ufficiale ad Ebla durante il regno di Ibbi-Sipiš, Orientis Antiqvi Collectio 16 (Rome, 1979).

1979, the palaeographers seemed to be more willing to yield on this point than were the archaeologists.² Working with that lower date we may note that this dynasty probably lasted for a century at least. Ebrium alone ruled for 28 years.³ With Ibbi-Sipiš as the last ruler of this dynasty, Ebrium could be dated as late as the 23rd century B.C. This dates him around the time when the Old Kingdom came to an end in Egypt and the Dynasty of Akkad came to an end in Mesopotamia. With these chronological parameters estimated, we can look at the course of events in the natural world at that time.

Egypt underwent a process of desiccation during the third millennium, as is revealed by the steady decline in the height of the annual rise of the Nile from Dynasty I through Dynasty V.⁴ This decline apparently reached a crucial level around the 22nd century, for then famine texts began to appear in Egyptian records and they continued to appear sporadically for a couple of centuries thereafter.⁵ Some of these famine conditions may well have been caused by the political instability of the First Intermediate Period, but the recurring references to low Nile levels and famine conditions connected with them indicate that not all such developments can be attributed solely to socio-political factors.

Similar conditions are thought to have developed at the same time in Western Asia. K. W. Butzer has noted that a large number of sites on the Mesopotamian steppe appear to have been abandoned after the middle of the third millennium.⁶ The conclusions of Thorkild Jacobsen and R. M. Adams from their study of soil salinity and crop types should be mentioned in this connection:⁷ (1) Around 2450 B.C. the temple surveyors of Lagash reported the development of patches of saline soil in the fields. A comparison with similar records from around 2100 B.C. indicates that this

²From Symposium papers as yet unpublished at the time of this writing. ³See n. 21, below.

⁴B. Bell, "The Oldest Records of Nile Floods," *Geographic Journal* 4 (1970): 569-573.

⁵Idem, "The Dark Ages in Ancient History: I. The First Dark Age in Egypt," AJA 75 (1971): 1-26.

⁶K. W. Butzer, *Quaternary Stratigraphy and Climate in the Near East* (Bonn, 1958), pp. 116-118.

⁷T. Jacobsen and R. M. Adams, "Salt and Silt in Ancient Mesopotamian Agriculture," Science 128 (1958): 1251-1258.

development was progressive. (2) A study of grain impressions in pottery, excavated at Girsu near Lagash from the period around 2500 B.C. indicates, when compared with earlier and later materials, a steady decline in the percentage of the wheat crop because it was not sufficiently resistant to the progressive salination of the soil. (3) The fertility of the soil declined markedly at Girsu, where the yield of the fields dropped in half from the middle to the end of the third millennium. Jacobsen and Adams did not connect this progressive salination with the development of warmer and drier climatological conditions that appear to have occurred through this period, but J. Neumann and R. Sigrist have now suggested a mechanism whereby the two may have been related.⁸

In their own study, Neumann and Sigrist have examined the dates of the grain harvest in Mesopotamia. In the late Old Babylonian period of the first half of the second millennium, when it is thought that conditions were warmer and drier, the grain crops were harvested about a month earlier than in Neo-Babylonian times more than a millennium later, when cooler and wetter conditions had returned.⁹ C. E. P. Brooks has argued for an intense drought farther East, in Iran, around 2200 B.C. In his view this was the reason for the abandonment of such sites as Anau in northern Iran and Susa in Elam around this time.¹⁰ An attempt has been made to identify the impact of these climatic factors upon Syria during this period, but it has not been as successful as studies of other regions, possibly because of the nature of the evidence involved.¹¹ For northern Palestine, A. Horowitz has now postulated a hot and dry climate between 2400 and 2100 B.C. on the basis of radiocarbon-calibrated pollen samples.12

These historico-climatological studies of conditions in Egypt, Mesopotamia, Iran, and Palestine converge to suggest that the second half of the third millennium, the time from which the

⁸J. Neumann and R. M. Sigrist, "Harvest Dates in Ancient Mesopotamia as Possible Indicators of Climatic Variations," *Climatic Change* 1 (1978): 241-242. ⁹Ibid., pp. 243-248.

¹⁰C. E. P. Brooks, Climate Through the Ages (New York, 1970), p. 319.

¹¹A. Haldar, Who Were the Amorites? (Leiden, 1971), pp. 40-50.

¹²A. Horowitz, "Human Settlement Pattern in Israel," *Expedition* 20 (1978): 55-58.

Eblaite texts originate, was a time of progressive desiccation for the Near East generally. The area covered by these conditions suggests that conditions for raising crops in north-central Syria became progressively less favorable throughout this period. In view of this general course of events it would only have been natural for the residents there to become concerned about gaining more optimally favorable conditions for the pursuit of agriculture that was so vital to their survival. Whence came these conditions? From the gods! In such circumstances it would have been natural to become increasingly preoccupied with the gods whose functions directly had influenced such matters to develop. The appearance of their names in the New Calendar of Ebla could have been one symptom of such an increasing religious interest. The discovery of the royal archive from the Early Bronze Age at Ebla now opens up the possibility of searching contemporaneous written records for direct and indirect written evidence relating to the effect of climatic factors upon the inhabitants of this region in the second half of the third millennium.

3. Translation and Meaning of the New-Calendar-Text Summary

The main text, which provides the most extensive documentation for the New Calendar, may now be singled out for two concluding comments, since Pettinato appears to have misinterpreted its summary, and because—at least at the time of his initial publication—he seems to have missed the reason for its extraordinary length. The first matter, the point about interpreting the summary, will be treated here; and the significance of the extraordinary length will be dealt with in the next section.

The question of interpreting the summary has to do with the way in which that summary should be translated and understood. In order to understand the summary, some mention must be made of the year dates that are found in the text.

Pettinato has noted that a date appears at the end of the last column of this tablet where the "Year of the Expedition to Hurbatum" is mentioned.¹³ Another date of this type occurs in the fifth

¹³G. Pettinato, "Il Calendario di Ebla al Tempo del Re Ibbi-Sipiš sulla base di TM.75.G.427," AfO 25 (1976): 2, 23.

column from the beginning where "Year 1, Expedition to Šidalu" is mentioned.¹⁴ In the line following the date of Year 2 the place name of [D]uzalu appears,¹⁵ which probably should be understood as the name of the year which was named for expedition. None of the other years in the text are named, but all of them are numbered. Thus, the Eblaites not only numbered their years, but on occasion they also named them after important events that occurred during those years, as was also the practice in Mesopotamia. The expeditions mentioned appear to have been peaceful, being political or commercial rather than military in nature. One to three such undertakings are mentioned in the entries for each year, and the last four expeditions went to the city of Mari on the Euphrates.

Contrary to the impression given by Pettinato,¹⁶ the date at the end of the tablet does not name the year in which this record was written. The entry for Year 3 is where the expedition to Hurbatum is mentioned,¹⁷ even though this year was not named for that expedition. That this was the year referred to at the end of the tablet is evident from the fact that the date formula summarizes the amount of rations given out over the last 5-year period. The summary at the end of the tablet is divided into two sections which cover the first 2 years and the last 5 years of this 7-year period, and they should be translated in a manner which indicates that point:

Pettinato's transliteration¹⁸ Column XV, lines: 1. šu-nigín 1 ri-ba_x 9 li 7 mi 90 ži 2. mu-túm 3. é-en 4. DIŠ mu 5. hi-[k]as₄ 6. broken 6'. [li-]im šik_x gu-bar My translation

Total: 19,790 (Gubar) of meal

distributed to the palace of the king from the Year of the expedition to [Šidalu] (= Year 1) [X],000 Gubar of fine meal

¹⁴Ibid., pp. 6, 27.
¹⁵Ibid., p. 11.
¹⁶Ibid., p. 2.
¹⁷Ibid., p. 11.
¹⁸Ibid., pp. 22-23.

7´.	mu-túm	distributed
8'.	é-en	to the palace of the king,
9'.	še-ba	as provisions for
	5 mu	5 years,
11′.	DIŠ mu	from the Year of
12'.	ni-kas ₄ hur-ba-tum ^{ki}	the expedition to
13'.	hur-ba-tum ^{ki}	Hurbatum (= Year 3)
14'.	šu-ba₄-ti guruš	were received by
15′.	guruš	the (royal) dependents.

This text records entries kept for two different types of rations. During the years 1 and 2 those rations were distributed as i, which Pettinato has translated as "meal, flour." According to the entries for years 3 through 7, however, the provisions distributed were given out as ik_x , which Pettinato translates as "fine meal" or "fine flour." The figures given in the summary at the end of the tablet are totaled up according to the two different types of rations distributed. Consequently, the two totals given in the summary cover two successive periods of 2 and 5 years each. The first total—19,790 Gubar of (regular) meal—refers to the provisions distributed during the first two years recorded at the beginning of the text. The sign i occurs 100 times in the entries for those first two years, but does not occur thereafter.

When adding the individual amounts of meal distributed during those two years, the total comes to just 2,000 Gubar short of the total of 19,790 given at the end of the tablet for the distribution for this kind of provisions. Allowing for breaks in earlier entries, these totals correspond reasonably well. Thus, this total must start with Year 1, which was the year of the expedition to Šidalu, according to the reference in its entry. Accordingly, the name of Šidalu should be restored in line 6 at the end of the first half of this final summary. Prepositions are used sparingly in this type of statistical outline writing. The context and comparison with the earlier columns of the text make it evident that the preposition "from" or "beginning with" should be understood, as at the beginning of line 4 and line 11, since the quantity of grain distributed in Year 2 is included with that of Year 1 in the total for the first half of the summary.

The provisions distributed from Year 3 to Year 7 were distributed as ik_x , and this sign occurs about 150 times in the entries for

those 5 years. The number of Gubar distributed of this type of meal is missing due to damage of the text. The beginning of this period should be dated "(from) the Year of the Expedition to Hurbatum." The only reference to an expedition to Hurbatum in the text occurs in the entry for Year 3. Year 3 must, therefore, be the year referred to in lines 11'-13' in the second section of the summary. Thus the 5-year period mentioned in the second half of the final summary started with Year 3 and ran to Year 7. Why the Eblaites changed over to distributing this type of meal through this period is not clear, but the way they registered the totals in the summary to this text is clear.

4. The Extraordinary Length of the New-Calendar Text

We now turn to the matter of the extraordinary length of this text which has provided the most extensive documentation for the New Calendar, covering a total of 7 years on a month-by-month basis for its disbursements of supplies. The importance of this length of time can be grasped by comparing it with the periods of time documented in the other administrative texts Pettinato has mentioned thus far.

The documentation for the Old Calendar is somewhat more detailed than the one available for the New Calendar, as far as secondary texts are concerned. The three texts published, which utilize the Old Calendar, cover periods of 7, 10, and 12 consecutive months respectively. For the purpose of establishing the order of the months in this calendar, Pettinato has listed the month names attested in 18 other texts.¹⁹ The number of month names attested in these 18 texts runs from 3 to 9. Assuming that they are listed in the proper order, the time periods covered can be estimated by counting through the months of the calendar. From this it is evident that they cover periods from 3 to 35 months. Of the 21 Old Calendar texts mentioned thus far, therefore, the longest with consecutive month names covers 12 months (TM.75.G.1630), and the longest period of time covered by one of them is 35 months (TM.75.G.2235).

The way in which the data for the New Calendar have been published makes it possible to determine only the number of

¹⁹G. Pettinato, "Il calendario Semitico del 3. millennio ricostruito sulla base dei testi di Ebla," Oriens Antiquus 16 (1977): 276-277.

month names attested in the individual texts; the time periods they cover cannot be estimated. Of the 25 texts listed, the most abbreviated text lists two months, and the most inclusive one lists 29.²⁰ The text which includes 29 month names has been presented in transliteration (TM.75.G.522) and its 29 months are consecutive.²¹ Putting together the 21 Old Calendar texts with the 25 New Calendar texts gives us a total of 46 texts with which to compare this text, covering 7 years. As for a chronological comparison, the longest of these covers just short of three years, and the most inclusive one contains 29 month names.

We may contrast these findings with the main exemplar of the New Calendar, TM.75.G.427. This text covers 7 calendar years, well over twice as long a period of time as that covered by any of the other 46 texts published or listed. Since those 7 years are covered by listing the months consecutively, 91 month names appear in this text. By way of contrast, its nearest rival can claim only 29 consecutive month names. Thus, this text stands alone in that it covers more than twice as much time as that covered by any of these 46 texts, and it includes more than three times as many month names as any of them.

The question then is, Why—in contrast to all the other texts listed in Pettinato's studies of the Eblaite calendars thus far—was such a lengthy text written in this particular case? The primary source materials with which to answer this question have not been published yet, but they appear to have been referred to in print. Howard LaFay, a writer for the *National Geographic* magazine, interviewed Pettinato in order to collect material for an article on Ebla. In this popular presentation LaFay refers to some remarks that Pettinato made on the subject of kingship at Ebla: "Pettinato has learned that the kings of Ebla—like their Old Testament counterparts—were anointed when they mounted the throne, and that the office was elective rather than hereditary. Ebrium won four seven-year terms and ruled for 28 years. Apparently defeat was gracefully accepted, for records show that ex-kings—still retaining

²⁰Pettinato, "Il Calendario di Ebla," p. 31.
²¹Ibid., p. 32.

their royal titles-continued to receive rations even after their reigns had ended."22

Putting this comment together with the New Calendar text supplies us with a fairly obvious reason why TM.75.G.427 covers a 7-year period of time; it documents the provisions supplied to the palace and its personnel during the course of one 7-year period of kingship to which Ibbi-Sipiš was elected. Since Ibbi-Sipiš introduced the New Calendar, it is likely that he would have introduced it at the beginning of one of his 7-year periods of kingship. It is possible that the period of kingship recorded by this text could have been the one with which the New Calendar was introduced. but it is also possible that such a change could have come with any of his other terms of kingship, depending upon how long he reigned. (Elective kingship was rare in the ancient world. Jacobsen's theory of primitive democracy in Mesopotamia might be one example,²³ but some difference of opinion has developed over this idea, and in any event in Ebla it would have functioned quite differently.)

5. An Intriguing Parallel with the Hebrew Sabbatical and Jubilee Years

The Sabbatical and Jubilee years of the later Israelites offer an interesting comparison, though the Israelite practice was not related to the rule of a monarch. Not only is the time period the same—7 years—, but a somewhat similar theology could have been involved, with the land and people returning to their respective gods at the ends of those time periods.

Furthermore, the Sabbatical Year and the Sabbatical Week bear a resemblance and probable relationship to each other in the Bible. Cuneiform parallels to the biblical Sabbath and the 7-day week have been proposed and discussed in the scholarly literature from time to time. These proposed parallels include the *šapattu* or

²³T. Jacobsen, "Early Political Development in Mesopotamia," ZA 52 (1957): 91-140.

²²H. LaFay, "Ebla: Splendor of an Unknown Empire," National Geographic 154 (1978): 730-759.

day of the full moon, the feasts celebrated for the quarters of the moon and their later identification as unlucky days, and the *hamuštum* or 5-day market cycle. A careful examination of these proposed parallels shows that the evidence for any relationship between them and the week and Sabbath of the Israelites appears to be scant indeed. Thus, the Sabbath and the 7-day week that goes with it still stand out as uniquely Israelite in the ancient world prior to the introduction of the planetary week in Hellenistic times.

The appearance now of evidence attesting the 7-year terms of elective kingship at Ebla which bear some resemblance to the Sabbatical Year of the Israelites raises the interesting question of whether the Eblaites could also have been acquainted with the 7day week. Only after more of the Eblaite tablets have been published, however, can the answer to this tantalizing question be provided.