

THE CALENDARS OF EBLA PART I. THE OLD CALENDAR

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Among the very first texts from the royal archive of ancient Ebla that Giovanni Pettinato of the University of Rome has published are several which provide us with information about the calendars that were used there. Two calendars are involved because the names of the months of the year were revised at the end of the dynasty that is now known from the Eblaite texts which date from the late third millennium B.C. From the reign of Igrīš-Ḥalam to that of Ebrium the calendar referred to by Pettinato as the Old Calendar was used.¹ The New Calendar was then adopted during the reign of Ibbi-Sipiš, and it apparently continued in use until the end of his reign as the last king of the Eblaite dynasty of the Sargonic period in the second half of the third millennium B.C.² Thus the following outline represents the way in which these calendars may be related to the rulers in the king-list of Ebla that Pettinato has compiled:³

Igrīš-Ḥalam	Old Calendar
Irkab-Damu	Old Calendar
Ar-Ennum	Old Calendar
Ebrium	Old Calendar
Ibbi-Sipiš	New Calendar

Although they have been published in separate articles, the format of Pettinato's presentation of the Old and New Calendars of Ebla is essentially the same and proceeds quite logically. First comes a detailed treatment of a few of the texts that are most directly relevant to a study of these two calendars. In this detailed treatment they are presented in transliteration, translation, philological commentary, summary tables, and photographic plates. In the case of the Old Calendar, three texts are presented in this way.

¹G. Pettinato, "Il calendario Semitico del 3. millennio ricostruito sulla base dei testi di Ebla," *Oriens Antiquus* 16 (1977): 257-285.

²G. Pettinato, "Il Calendario di Ebla al Tempo del Re Ibbi-Sipiš sulla base di TM 75.G.427," *AfO* 25 (1976): 1-36.

³G. Pettinato, "The Royal Archives of Tell Mardikh-Ebla," *BA* 39 (1976): 47. It is to be noted that Pettinato has revised the order of the kings of Ebla to that which is outlined here (Idem, "Gli archivi reali di Tell Mardikh-Ebla," *Rivista Biblica Italiana* 25 [1977]: 235).

The first of these itemizes month-by-month the number of sacrificial animals offered over a period of seven months (TM 75.G.1629). The second text serves the same function for a period of twelve months (TM 75.G.1630). The third text lists the quantities of animals distributed as foodstuffs to different personnel and covers a period of ten months (TM 75.G.2096). Only one text is presented in this much detail as a basis for the New Calendar, but its length is extraordinary (TM 75.G.427). It covers the distribution of provisions over seven years in a total of twenty-nine vertical columns of text on both sides of the tablet. Due to its length (the tablet measures 23.5 x 22 cm.), seventeen journal pages were required just to publish the transliteration and translation of the text.⁴

In the second section of his studies on these calendars, Pettinato has dealt with the names of the months of the calendars in alphabetical order. Here he lists the unpublished texts in which each of the month names has been identified thus far, the variants in the way in which they were written, and a brief comment presenting his current understanding of the etymology of the names of the months. Etymologies have been suggested for about two-thirds of the month names, while the rest have been left blank. More than half of the etymologies suggested appear to be correct, while alternate proposals for the others are offered below.

In the third section of his studies, Pettinato lists the unpublished texts in which several month names occur. In conjunction with basic calendrical texts which he has published in full, these connected occurrences of several month names aid in establishing the order of the names of the months in their respective calendars. In his presentation of the New Calendar Pettinato has listed twenty-five such texts, and their entries run from two months to twenty-nine months. The text which lists twenty-nine months has been presented in a full transliteration (TM 75.G.522). Thus far, eighteen texts with multiple references to months have been identified with which to establish their order in the Old Calendar, but they do not cover that many months since the longest lists only nine.

In the fourth section of his studies, Pettinato takes up a discussion of three technical aspects of the Eblaite calendars: their use of the intercalary month, the calendrical relationship of the months of the New Calendar to those of the Old, and the problem of the time of year in which these calendars began. Since the other ancient calendars of Western Asia were all lunar

⁴G. Pettinato, "Il Calendario di Ebla al Tempo del Re Ibbi-Sipiš sulla base di TM 75.G.427," *AfO* 25 (1976): 2-23, with intervening plates.

in nature, it is only to be expected that the calendars of Ebla would be lunar in nature also. Twelve months of the lunar year fell approximately ten days short of the solar year, and consequently it was necessary to add a thirteenth or intercalary month about every third lunar year to keep it in line with the solar year.

The evidence for the intercalary month at Ebla is quite explicit in both of these calendars. In some of the texts which list the months of the Old Calendar, or those of the New Calendar, there are instances in which a particular month name is repeated. In the Old Calendar the name of this month was *ig-za*, while in the New Calendar it was ŠE-GUR₁₀-KU₅. There are six indications that these months served, on occasion, as the intercalary month in their respective calendars:

1. In some texts these names occur only once in the order of the months listed. By way of contrast with the following conditions, these occasions should represent the years in which no intercalary month was added.

2. In other instances these names occur twice in the order of the months listed. These occasions should represent the years in which an intercalary month was added.

3. In still other instances these names occur twice in the order of the months listed and the second occurrence is followed in both calendars by the sign MĪN, which designates it as the second or doubled month by that name.⁵ These occasions should represent the years in which an intercalary month was added and was designated as such.

4. The basic New Calendar text that covers seven years lists an extra ŠE-GUR₁₀-KU₅ for three of those years. Three intercalations in seven years is a reasonable average according to later data.⁶ The distribution of this extra month through this period indicates that the Eblaites intercalated their extra month on an *ad hoc* basis. Operating from a similar basis, a non-Eblaite instance is even known in which three intercalary months were added within two years.⁷ The more sophisticated type of intercalation based upon mathematical calculations did not come into use until late in the first millennium B.C.

5. The frequency with which these month names occur together with MĪN in various texts supports interpreting them as intercalary. Thus far

⁵R. Labat, *Manuel d'épigraphie akkadienne*, 5th ed. (Paris, 1976), p. 211.

⁶R. A. Parker and W. H. Dubberstein, *Babylonian Chronology 626 B.C.-A.D. 75* (Providence, R.I., 1956), p. 6.

⁷D. O. Edzard, *Die "zweite Zwischenzeit" Babyloniers* (Wiesbaden, 1957), p. 28.

Pettinato has identified thirty texts in which the *ig-za* of the Old Calendar occurs, but he has only found three texts in which *ig-za MĪN* appears. In texts which mention months of the New Calendar, Pettinato has found twenty-five occurrences of ŠE-GUR₁₀-KU₅, but only four occurrences of ŠE-GUR₁₀-KU₅ MĪN. A ratio approximating 3:1 is not expected here because the Eblaite scribes labeled the intercalary month with MĪN only irregularly.

6. When the Old Calendar is lined up with the New Calendar, it is evident that the same month of the year was used for intercalation.

It is not difficult to align these two calendars, because four out of twelve month names which came into regular use with the New Calendar had already appeared as variant month names in Old-Calendar texts. It seems safe to assume that these names were used for the same months of the year in texts that were written up according to either calendar. These calendars can be related quite easily, therefore, because these month names occur in texts which mention several other month names in order. The reverse is also true in that one month name from the Old Calendar survived and appeared occasionally as a variant month name in the New Calendar. With so strong a bi-directional cross-linkage established between these two lists of month names, there does not appear to be much question about how they should be related to each other, calendrically speaking.

In order to determine with what month of the year these calendars began Pettinato turned to his major exemplar of the New Calendar. From the periodic references to numbered years in that text it is evident that five out of seven of those years were counted as beginning with the month of *beli*. Then the times in the year in which the various months occurred have been determined from the meanings of their names. The associations Pettinato has worked out in this way appear to be correct and they locate the month of *beli*, with which the New Calendar began in the fall (around September). We lack such specific textual evidence for the time of year with which the Old Calendar began. At present, it can only be assumed that it began at the same time of year as the New Calendar did. The agreement in meaning of some of the parallel month names and the similar location for the intercalary month currently suggest that the Old Calendar also began in the fall.

With a summary up to this point, Pettinato concluded his study of the New Calendar. Two further points are presented in his study of the Old Calendar. After juxtaposing the names of the months in the New Calendar and the Old Calendar, he goes on to discuss the problem of why the names of the months were changed from one calendar to the other. From the fact

that some of the months of the New Calendar were named for the feasts of some of the gods, he notes that the New Calendar took on a more distinctly religious appearance. By way of contrast, the month names in the Old Calendar might indicate that it was oriented more towards agriculture and administration. This distinction appears to be significant, and the observations on the interpretation of the Eblaite calendars at the end of this study build upon it.

In the final section of his studies on the calendars, Pettinato demonstrates how widespread a knowledge of the Old Calendar existed in the Middle Euphrates River Valley and southern and eastern Mesopotamia. Month names from this calendar have shown up in texts recovered from sites such as Abu Šalābīkh (2), Mari (4), Gasur (4), Eshnunna (1), Diyala sites (4), Adab (2), and Lagash (4). Discounting multiple references, a total of eight out of twelve of the month names of this calendar have shown up in these eastern sources. Thus this calendar need not have been adopted at Ebla first. It could have had another, or even a multicentric, origin.

From the survey of Pettinato's studies of the Eblaite calendars we turn to an examination of the calendars themselves. In the treatment below, the months are first presented in Pettinato's transliteration, arranged according to his correlation with the months of our calendar. Then follows my own translation of the month names, a correlation once again with months of the "Julian" (Julian-Gregorian) calendar, and philological notes on the meanings of the months names. In giving the correlations of the months, I have indicated "Sept./Oct." instead of "September," etc., as more accurately representing the Eblaite lunar months. Finally, this study of the Eblaite calendars concludes with their overall interpretation and relationship to each other. (For Pettinato's transliteration and my translation, see the lists on p. 132; the interpretational section begins immediately below.)

1. *The Old Calendar: Translational Notes*

I. ITU *ḥa-li-tù*—Month of Whirling (Winds). As M. Dahood pointed out to Pettinato,⁸ this month name occurs also in Ugaritic texts as *ḥlt*.⁹ It is the texts from Ebla, however, that suggest its semantic origin. In reading *ḥalitu* for the name of this month, Pettinato has followed a minority reading of his texts. His list of variants shows that this month name was written *ḥa-li* in fifteen texts, *ḥa-li-ì* in eleven texts, and *ḥa-li-tù* in only

⁸Personal communication.

⁹C. H. Gordon, *Ugaritic Textbook*, AnOr 38 (Rome, 1965), p. 397.

TRANSLITERATION

OLD CALENDAR ¹	JULIAN CALENDAR	NEW CALENDAR ²
I. <i>ḥa-li-tù</i>	September	I. ITU <i>be-li</i>
II. ITU <i>i-ri-sá</i>	October	II. ITU (NIDBA _x) ^d AŠ-TÁ-BI ₅
III. ITU <i>ga-šum</i>	November	III. ITU Ì-TÚM
IV. ITU Ì-NUN	December	IV. ITU (NIDBA _x) ^d ù-da
V. ITU <i>ša-lul</i>	January	V. ITU Ì-la-mu/er-me
VI. ITU <i>i-ba₄-sa</i>	February	VI. ITU <i>ḥur-mu/ḥu-lu-mu</i>
VII. ITU MAX <i>ganatenù</i> -SAG	March	VII. ITU È
VIII. ITU MAX <i>ganatenù</i> -GUDU ₄	April	VIII. ITU KUR ₆
IX. ITU <i>i-ší</i>	May	IX. ITU ^d <i>a-dam-ma-um</i>
X. ITU <i>ig-za</i>	June	X. ITU ŠE-GUR ₁₀ -KU ₅
Xb. ITU <i>ig-za-MÌN</i>	Intercalary	Xb. ITU ŠE-GUR ₁₀ -KU ₅ -MÌN
XI. <i>ša-à-tum</i>	July	XI. ITU ^d AMA-ra
XII. ITU <i>qi-lí</i>	August	XII. ITU (NIDBA _x) ^d kà-mi-iš

TRANSLATION

OLD CALENDAR	JULIAN CALENDAR	NEW CALENDAR
Month of Whirling (Winds)	Sept./Oct.	Month of the Lord (Dagan)
Month of Plowing or Seeding	Oct./Nov.	Month of the Sacrifice to the god Ashtabi
Month of Rain	Nov./Dec.	Month in which he/it has come
Month of Clouds	Dec./Jan.	Month of the Sacrifice to the god Hadad
Month of Shadows	Jan./Feb.	Month of Hidden (Sun)
Month of Drying	Feb./March	Month of Lighting
Unidentified	March/April	Month of Coming Forth
Unidentified	April/May	Month of Provisioning
Month of Man	May/June	Month of the god Adama
Month of Cutting	June/July	Month of Harvesting
Month of Cutting, II	Intercalary	Month of Harvesting, II
Month of Sheep (?)	July/Aug.	Month of the goddess Asherah (?)
Month of Heat	Aug./Sept.	Month of the Sacrifice to the god Chemosh

¹G. Pettinato, "Il calendario Semitico del 3. millennio ricostruito sulla base dei testi di Ebla," *Oriens Antiquus* 16 (1977): 257-285.

²G. Pettinato, "Il Calendario di Ebla al Tempo del Re Ibbi-Sipiš sulla base di TM 75.G.427," *AFO* 25 (1976): 1-36.

three texts. The preponderance of the reading *ḥa-li* suggests this month name probably came from a weak verb to which a *-t* was added as a verbal or nominal ending. Hebrew supplies us with the root *ḥwl*, which fits the philological requirements of this name and the climatological requirements of this month very well. *Ḥwl* means "to go or turn around, dance, whirl." In Jer 23:19 and 30:23 it is used to describe a whirlwind, and it also occurs in a *hiphil* form in Ps 29:8, where it describes what happens when a storm from the Mediterranean strikes the plain around Kadesh on the Orontes in Syria. The sirocco winds blow in the spring or fall when the seasons change from winter to summer or vice versa. These winds can cast enough particulate matter into the air to cause a dusty haze. The occurrence of this month early in the fall fits that situation well.

II. ITU *i-rí-sá*—Month of Plowing or Seeding. Semitic cognates with which to elucidate the meaning of this month name are readily available. Pettinato has cited *erištu* as the "season of seeding" in Akkadian. The root *hrš* also deserves consideration. It is the customary word for plowing in biblical Hebrew and it is common to the other Semitic languages.¹⁰ The *ḥ*-of this common Semitic root does not occur in this Eblaite month name, so consequently one would have to take it as represented more weakly than usual by the initial *i*. Pettinato has suggested a similar shift between these two sounds and letters in the Eblaite personal name of E-DA-ŠU, which he interprets as coming from the common Semitic root *ḥdš*, "to become new."¹¹

It is necessary to posit a phonological shift in the sibilants from *s* to *š* here also in the case of either the Hebrew or Akkadian cognate. This shift is illustrated by the name of the king Ibbi-Sipiš, the second element of which stands for the sun god. This was Hebrew Shemesh and Akkadian Shamash, consonantal *šmš*, in which the initial sibilant was represented by *š* in contrast to the *s* at Ebla. The activities of plowing and sowing were closely related, since one plows the soil to prepare it for the seed. It is not necessary, therefore, to make a sharp distinction between these two activities here.

III. ITU *ga-šúm*—Month of Rain. Pettinato did not suggest any etymology for this month name. It can be related quite directly to Hebrew *gešem*, "rain, showers." This fits well with the occurrence of this month in

¹⁰Ibid., p. 399.

¹¹G. Pettinato, "Testi cuneiformi del 3. millennio in paleo-cananeo rinvenuti nella campagna 1974 a Tell Mardīkh = Ebla," *Or* 44 (1975): 372.

the fall when the rains come to Syro-Palestine. M. Pope has noted that this word always designates heavy rain,¹² which means that the start of the rains should be located in the preceding month when they were needed to soften up the soil for plowing and sowing.

IV. ITU *ì-nun*—Month of Clouds. Pettinato's suggestion of "fine oil" for this month name seems unlikely. It relates better to the Hebrew word '*anan* or "clouds." This word is used in the OT more commonly for the cloud of glory which surrounded Yahweh, but it is also used at least a dozen times of natural clouds. It occurs four times in Gen 9:13-16, e.g., where it refers to the clouds in which God set the rainbow as a sign of the covenant with Noah after the flood. Using the Sumerian sign system the Eblaite scribes could not represent the Semitic letter '*ayin* with which the Hebrew word '*anan* begins. We may take it as reflected in the *i*- with which this month name begins. The early winter when this month occurred naturally was a time of the clouds that came with the rainy season. *Ì-nun* or '*anan* appears to have survived in the month name of *kanun*, which also fell in December, in the Syrian calendar of the later first millennium B.C.¹³

V. ITU *ša-lul*—Month of Shadows. This is Pettinato's translation of this month name, and he cites Akkadian and common Semitic cognates for this meaning of *šll*. It occurs half a dozen times in Hebrew with this meaning, usually as a noun, rarely as a verb. The middle of winter, when this month occurred, naturally was the time of the shortest days and the greatest darkness or shadows during the year.

VI. ITU *i-ba₄-sa*—Month of Drying. Pettinato did not suggest any etymology of his own for this month name. It can be related quite directly to Hebrew *yabeš*, "to dry up," on the basis of a shift in sibilants and the initial *i* standing for the *yod* of later West Semitic writing systems. In Gen 8:7,¹⁴ this word is used, for instance, to refer to the drying up of the waters off the earth after the flood. Coming at the end of winter as this month did, it was a time when the rains slackened and the fields dried out.

VII. ITU MAX*ganatenû*-SAG. The semantic relations and significance cannot be determined at the present time.

VIII. ITU MAX*ganatenû*-GUDU₄. The semantic relations and significance cannot be determined at the present time.

¹²M. Pope, *Song of Songs*, AB 7C (Garden City, N.Y., 1977), p. 394.

¹³J. Finegan, *Handbook of Biblical Chronology* (Princeton, N.J., 1964), p. 62.

IX. ITU *i-sí*—Month of Man. Pettinato did not suggest any etymology for this month name, but a colleague of his suggested that it might be related to the common Semitic word for fire. One might conclude that the Eblaites called the month of May/June the month of “fire” because the summer heat came on then. However, other words for “heat” would appear to have been more appropriate for such a use, and the summer months that followed were hotter than this one, so the etymology is not entirely satisfactory. Comparing this month name with the parallel month name in the New Calendar suggests an alternative etymology.

In my discussion of the New Calendar (to appear in the next issue of *AUSS*), I suggest that the name of its ninth month, Adammaum, derived originally from *'adam*, the generic term used for man some 500 times in the OT. There is another generic term for man in Hebrew, however, and that is *'iš*, which occurs over 2,000 times in the OT. Since the names of these two parallel months are both used as generic terms for man in Hebrew, their essential equivalence is suggested here. This equation gives the name “Month of Man” to the ninth month in the Old Calendar.

Man had various tasks to perform at different times in the agricultural year, but his most intense activity came at harvest time. The names of the succeeding month in both the Old and New calendars refer directly to the process of cutting or reaping, so this month name should refer to man as participating in the commencement of that harvest. The calendrical relations established here indicate that in the vicinity of Ebla the grain harvest was reaped in the months of May and June, in contrast to Palestine farther south, where the grains were harvested earlier, in April and May.

X. ITU *ig-za*—Month of Cutting;

Xb. ITU *ig-za-MĪN*—Month of Cutting, II. Citing the Hebrew root *gzh*, “to cut,” Pettinato identified this month as the month of “Cutting.” These signs can also be read *iq-ša* and related to *qšh* or *qšš*, which also mean “to cut.”

As the month succeeding the Month of Man, this cutting should logically refer to the cutting of the grain harvest in which man participated. The parallel month in the New Calendar refers to that harvest.

XI. ITU *ša-'ā-tum*—Month of Sheep (?). Pettinato has related this month name to the Akkadian word for sheep, *šēnu*, by proposing that its *-n-* is assimilated to the *-t* which follows it. A variant form of this month name written with an *-n-* has been found in six Eblaite texts thus far. In that case the *-t* probably should be taken as a plural ending, but that creates a

problem when interpreting this month name as the word for sheep. This word for sheep is common in the other Semitic languages, and it was used as a collective noun that was singular in form but stood for a plural. Even in Akkadian there is only one instance in which this word is attested with a plural ending. Such a plural at Ebla would have been exceptional.

Without any assimilation this month name can be interpreted quite satisfactorily as the infinitive of *yš'*, "to go out, come forth," with a case ending. This etymology does not provide an explanation for the variant form with an *-n-*, but that variant is a minority reading since it has appeared in only six texts thus far, while the form without the *-n-* has been found in twenty-seven. If the verbal interpretation of this month name is possible, then who or what went forth at this time? The least likely possibility would appear to be that this refers to the going out or end of the Old Calendar year. Another possibility is that this refers to the harvesters going out to harvest the summer fruit. A better interpretation probably is that this month name refers to the fruits themselves which now come forth fully ripe for the harvest. This would fit the function of Asherah, whose name came to be attached to this month in the New Calendar. The verb *yš'* is sometimes used in agricultural contexts in the OT. In Gen 1:12 this verb (in causative form) refers to the time when the earth "brought forth" grass, herbage, and fruit trees at creation.

XII. *ITU qì-lí*—Month of Heat. On the basis of common Semitic cognates, Pettinato suggested that this month name means "Heat." The occurrence of this month late in summer fits well with the heat of that season.

2. *The Old Calendar: Summary*

The etymologies of the names of the Old Calendar can now be summarized by citing them in transliteration, translation, and with their chief cognate evidence. A more extensive study of the comparative Semitic linguistics bearing upon these month names could be presented. Biblical Hebrew has been emphasized as a prominent cognate in order to demonstrate the relationship between its lexicon and that of Eblaite. The Hebrew cognates are, therefore, the ones selected for this summary of the Old Calendar, and it is of interest that good parallels for these month names can be found in Hebrew for all of them except those of the seventh and eighth months, where it is uncertain how the Eblaite scribes read the Sumerian signs with which they wrote those names.

<i>Month Names Transliterated</i>	<i>Month Names Translated</i>	<i>Hebrew Cognates</i>
I. <i>ḫali</i>	Whirling (Winds)	<i>ḫwl</i>
II. <i>irisa</i>	Plowing / Seeding	<i>ḫrš</i>
III. <i>gašum</i>	Rains	<i>gšm</i>
IV. <i>inun</i>	Clouds	<i>'nn</i>
V. <i>šalul</i>	Shadows	<i>šll</i>
VI. <i>ibasa</i>	Drying	<i>ybsš</i>
VII. MAXganatenû-SAG	Unidentified	?
VIII. MAXganatenû-GUDU ₄	Unidentified	?
IX. <i>iši</i>	Man	<i>iš</i>
X. <i>igza</i>	Cutting	<i>gzh</i>
XI. <i>ša'atum</i>	Sheep	<i>š'n</i>
XII. <i>qili</i>	Heat	<i>qlh</i>

Grammatically, the final *-i* on the names of the first, ninth, and twelfth months gives them the appearance of nouns with genitive case endings without mimation. The names of the second, sixth, and tenth months look like verbs with *i-* (for *y*) preformatives and final *-a* vowel endings. They might be translated with indefinite subjects as "one plows," "it dries," and "one cuts" or "it is cut off." The names of the third, fourth, and fifth months look like nouns without case endings. The name of the eleventh month may have originated either as an infinitive used as a gerund with a nominative case ending (and mimation) added, or as a feminine plural noun with mimation added. Grammatical forms cannot be suggested for the names of the seventh and eighth months until the way they should be read can be determined more specifically.

(To be continued)