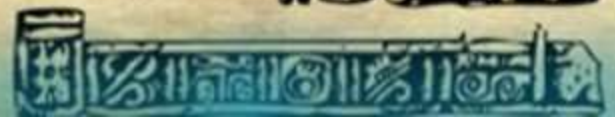
John 7
Part 6

"Ancient Civilization Calendars" Under Brief Inspection



What was revealed in Part 5 about intercalation?

1. Roman Gregorian Calendar

- Intercalates a leap day every 4 years; it is a civil calendar only with 365/366 days.

2. Lunar Calendars

A brief examination of the most popular lunar calendars including a brief look at the lunar-sabbath calendar; all must intercalate an extra lunar month about every 3 years.

3. Qumran Calendars

- From the Dead Sea Scrolls, the Enoch, Zadok & Essene calendars generally all have a 364-day year; intercalate a 31st day to every 3rd month; intercalate a full week about every 6-7 years!

What else was revealed in Part 5?

1. Roman Gregorian Calendar

- A Civil Calendar of the World

2. Lunar Calendars

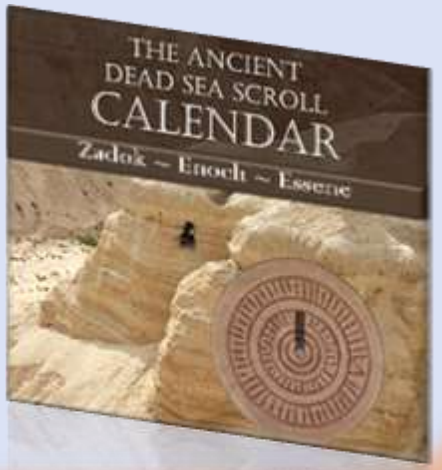
- Jewish, Messianic and/or Hebrew Roots Festival Calendar

i. All of the calendars in points #2 and #3 utilize the moon in various ways for the year-start.

ii. None of them are completely based in the Torah with a pure Gospel witness.

3. Qumran Calendars

- Another set of Festal Calendars



What will be revealed in Part 6 as intercalation is examined?

1. Julian Morgenstern

- The work of a wonderful calendar historian sheds more light on this topic of intercalation.

2. Ancient Civilizations

- A brief examination of 11 nations and how they handled intercalation.

Will the calendars of the Dead Sea Scrolls be included in this examination?

Secular Historical Documentation

- There is more than enough documentation for Yahuah's Covenant Calendar in the Scriptures as based in the Torah.
- Julian Morgenstern has done excellent research around lunar calendars (1930's). Does he have anything to add to the documentation of these calendars that incorporate "intercalation"?
- His comments are only a 2nd witness, not the authority for truth! First: Who is Morgenstern?

Julian Morgenstern
1881-1976
The Calendars of
Ancient Israel

Morgenstern, Julian (1881-1977)

U.S. Reform rabbi, Bible scholar, and president of the *Hebrew Union College. Born in St. Francisville, Illinois, Morgenstern graduated from the University of Cincinnati in **1901** and was ordained at the Hebrew Union College in **1902**. He received his doctorate at Heidelberg in **1904**; his dissertation was published as *Doctrine of Sin in the Babylonian Religion* (**1905**). **After three years as rabbi in Lafayette, Indiana, he turned to academic life, teaching biblical and** Semitic languages, concentrating on biblical studies, at Hebrew Union College. In **1921 Morgenstern** became acting president of the college and in **1922** was elected president; he **was the first alumnus to hold this office.** During his presidency the number of students and faculty and the scope of college activity grew markedly. …

Morgenstern, Julian (con't)

Departments of education, social studies, and Jewish music were established; new buildings were erected; an endowment fund was created; the college, previously a department of the Union of American Hebrew Congregations, was independently chartered, and the Hebrew Union School of Religious Education was established in New York City. ***Hebrew Union College Annual*, founded in 1924, at once became one of the world's outstanding publications in Jewish scholarship.** During the Hitler period, a dozen European scholars found a haven at the college, chiefly as the result of Morgenstern's efforts. At first anti-Zionist, Morgenstern later modified his position on the creation of a Jewish state. **After retiring as college president in 1947, Morgenstern continued to teach Bible.** He served as president of the American Oriental Society and the Society of Biblical Literature; he was for many years recording secretary, and then honorary president, of the Central Conference of American Rabbis and one of the founders of the World Union for Progressive Judaism. **Biblical Studies**

Well documented information from Morgenstern on the calendars of Israel addresses the question:

Did the Jews have Different Calendars? How many?

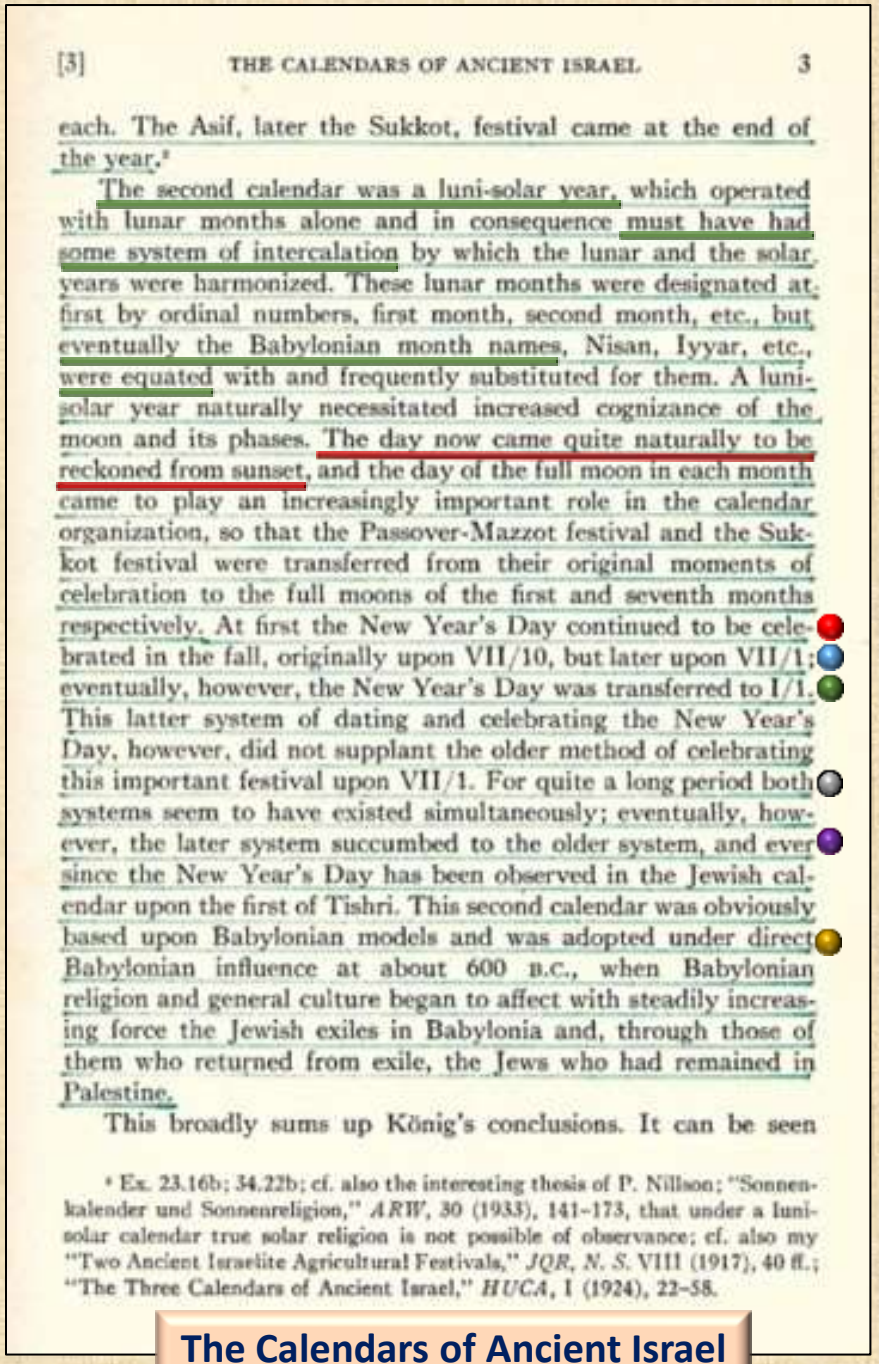
Calendar I Facts: (p. 18) Employed as late as **621 BCE** up to **608 BCE**.
It appears this is a solar calendar. **The dates for Sukkot were different compared to Calendar II**.

Calendar II Facts: (p. 3) May have appeared about **608 BCE (13 years later).**

- Morphs to a luni-solar calendar about **586 BCE [22 yrs] taking on Babylonian characteristics;** their **cycle now begins at sunset as was practiced in Babylon.**
- Passover and Yom Kippur were **transferred to "full moon" dates**.
- Their festal calendar **New Year's Day,** was moved around several times from: (1) 7th Mon/10th Day; (2) later to 7th Mon/1st Day; (3) then transferred back to 1st Mon/1st day; (4) **finally it was placed back to 7th Mon/1st Day – adopted under Babylon in 600 BCE (which affected the Jews in both Babylon and Palestine).**

Calendar III Facts [of the 4th century BCE]: Intercalation was always changing, but Calendar III has a more exact system of intercalation (p. 8). The **New Year's Day** is fixed to 7th Mon/1st day even though a secondary New Year's Day is marked as 1st Mon/1st Day. **The "fixing" of the New Year's Day was the main difference between Calendar II and Calendar III.**
Calendar IV: (Not discussed in this study.) **Morgenstern also writes Israel changed their calendars so many times it was almost completely lost!**

Julian Morgenstern
1881-1976
The Calendars of Ancient Israel p 3-16
(and)
The Three Calendars of Ancient Israel
p 18



[3] THE CALENDARS OF ANCIENT ISRAEL 3

each. The Asif, later the Sukkot, festival came at the end of the year.[4]

The second calendar was a luni-solar year, which operated with lunar months alone and in consequence must have had some system of intercalation by which the lunar and the solar years were harmonized. These lunar months were designated at first by ordinal numbers, first month, second month, etc., but eventually the Babylonian month names, Nisan, Iyyar, etc., were equated with and frequently substituted for them. A luni-solar year naturally necessitated increased cognizance of the moon and its phases. The day now came quite naturally to be reckoned from sunset, and the day of the full moon in each month came to play an increasingly important role in the calendar organization, so that the Passover-Mazzot festival and the Sukkot festival were transferred from their original moments of celebration to the full moons of the first and seventh months respectively. At first the New Year's Day continued to be celebrated in the fall, originally upon VII/10, but later upon VII/1; eventually, however, the New Year's Day was transferred to I/1. This latter system of dating and celebrating the New Year's Day, however, did not supplant the older method of celebrating this important festival upon VII/1. For quite a long period both systems seem to have existed simultaneously; eventually, however, the later system succumbed to the older system, and ever since the New Year's Day has been observed in the Jewish calendar upon the first of Tishri. This second calendar was obviously based upon Babylonian models and was adopted under direct Babylonian influence at about 600 B.C., when Babylonian religion and general culture began to affect with steadily increasing force the Jewish exiles in Babylonia and, through those of them who returned from exile, the Jews who had remained in Palestine.

This broadly sums up König's conclusions. It can be seen

[4] Ex. 23.16b; 34.22b; cf. also the interesting thesis of P. Nilsson: "Sonnenkalender und Sonnenreligion," *ARW*, 30 (1933), 141–173, that under a luni-solar calendar true solar religion is not possible of observance; cf. also my "Two Ancient Israelite Agricultural Festivals," *JQR*, *N. S.* VIII (1917), 40 ff.; "The Three Calendars of Ancient Israel," *HUCA*, I (1924), 22–58.

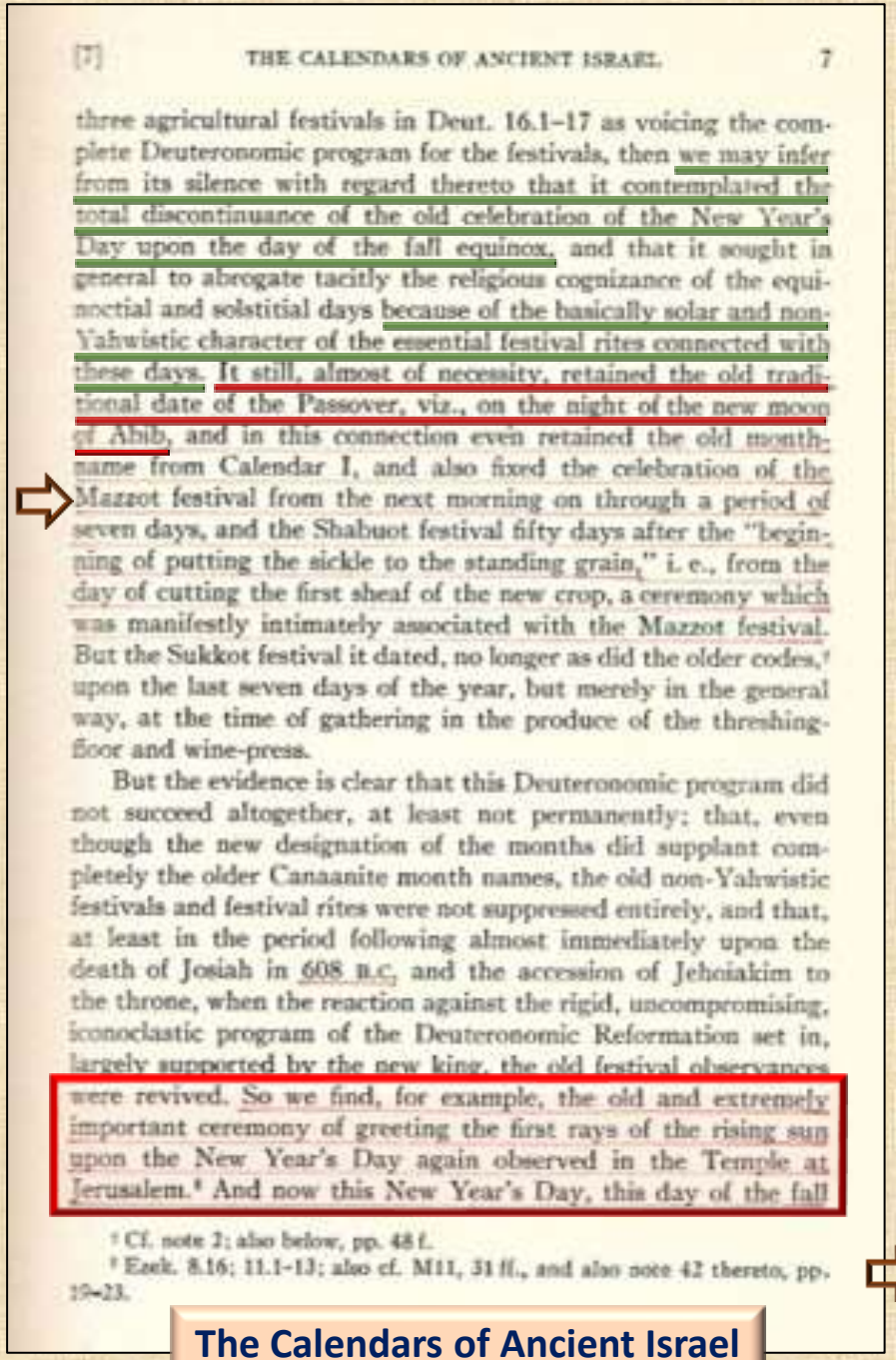
The Calendars of Ancient Israel

The Calendars of Ancient Israel p 3 (Konig's Summary)

- Calendar II was luni-solar and had **a system of intercalation to harmonize the movements of the sun and moon**. **As Babylon's moon took priority, the Jewish nation naturally adopted sunset.**
- Originally New Year's day was reckoned on Yom Kippur.
- THEN New Year's day was changed to Feast of Trumpets.
- After that, New Year's day was moved to 1st day of the 1st month.
- Next, both Trumpets & Yom Kippur had New Year's day for a while.
- FINALLY, Trumpets is selected as New Year's day. **(Today's Problem!)**
- In **600 BCE** the Jew's Calendar II was adopted from Babylonian influence affecting the Jews in Babylon, those in Palestine, and the exiles that returned many years later.
- (Additional note: About **450 BCE** this Babylonian calendar was implemented into the Jewish culture and stands to this day.)

Question: Is it possible to see how the sun and moon deities from Babylon all "contribute to" and "form the foundation" of intercalation?

- **Note: These calendar roots were among the children of Israel when Joshua died. (~1430 BCE) Within 830 years, Babylon's calendar was adopted; 150 years later Babylon's calendar was implemented!**



[7] THE CALENDARS OF ANCIENT ISRAEL. 7

three agricultural festivals in Deut. 16.1–17 as voicing the complete Deuteronomic program for the festivals, then we may infer from its silence with regard thereto that it contemplated the total discontinuance of the old celebration of the New Year's Day upon the day of the fall equinox, and that it sought in general to abrogate tacitly the religious cognizance of the equinoctial and solstitial days because of the basically solar and non-Yahwistic character of the essential festival rites connected with these days. It still, almost of necessity, retained the old traditional date of the Passover, viz., on the night of the new moon of Abib, and in this connection even retained the old month-name from Calendar I, and also fixed the celebration of the Mazzot festival from the next morning on through a period of seven days, and the Shabuot festival fifty days after the "beginning of putting the sickle to the standing grain," i. e., from the day of cutting the first sheaf of the new crop, a ceremony which was manifestly intimately associated with the Mazzot festival. But the Sukkot festival it dated, no longer as did the older codes,[1] upon the last seven days of the year, but merely in the general way, at the time of gathering in the produce of the threshing-floor and wine-press.

But the evidence is clear that this Deuteronomic program did not succeed altogether, at least not permanently; that, even though the new designation of the months did supplant completely the older Canaanite month names, the old non-Yahwistic festivals and festival rites were not suppressed entirely, and that, at least in the period following almost immediately upon the death of Josiah in 608 B.C. and the accession of Jehoiakim to the throne, when the reaction against the rigid, uncompromising, iconoclastic program of the Deuteronomic Reformation set in, largely supported by the new king, the old festival observances were revived. So we find, for example, the old and extremely important ceremony of greeting the first rays of the rising sun upon the New Year's Day again observed in the Temple at Jerusalem.[2] And now this New Year's Day, this day of the fall

[1] Cf. note 2; also below, pp. 48 f.

[2] Ezek. 8.16; 11.1-13; also cf. M11, 31 ff., and also note 42 thereto, pp. 19–23.

The Calendars of Ancient Israel

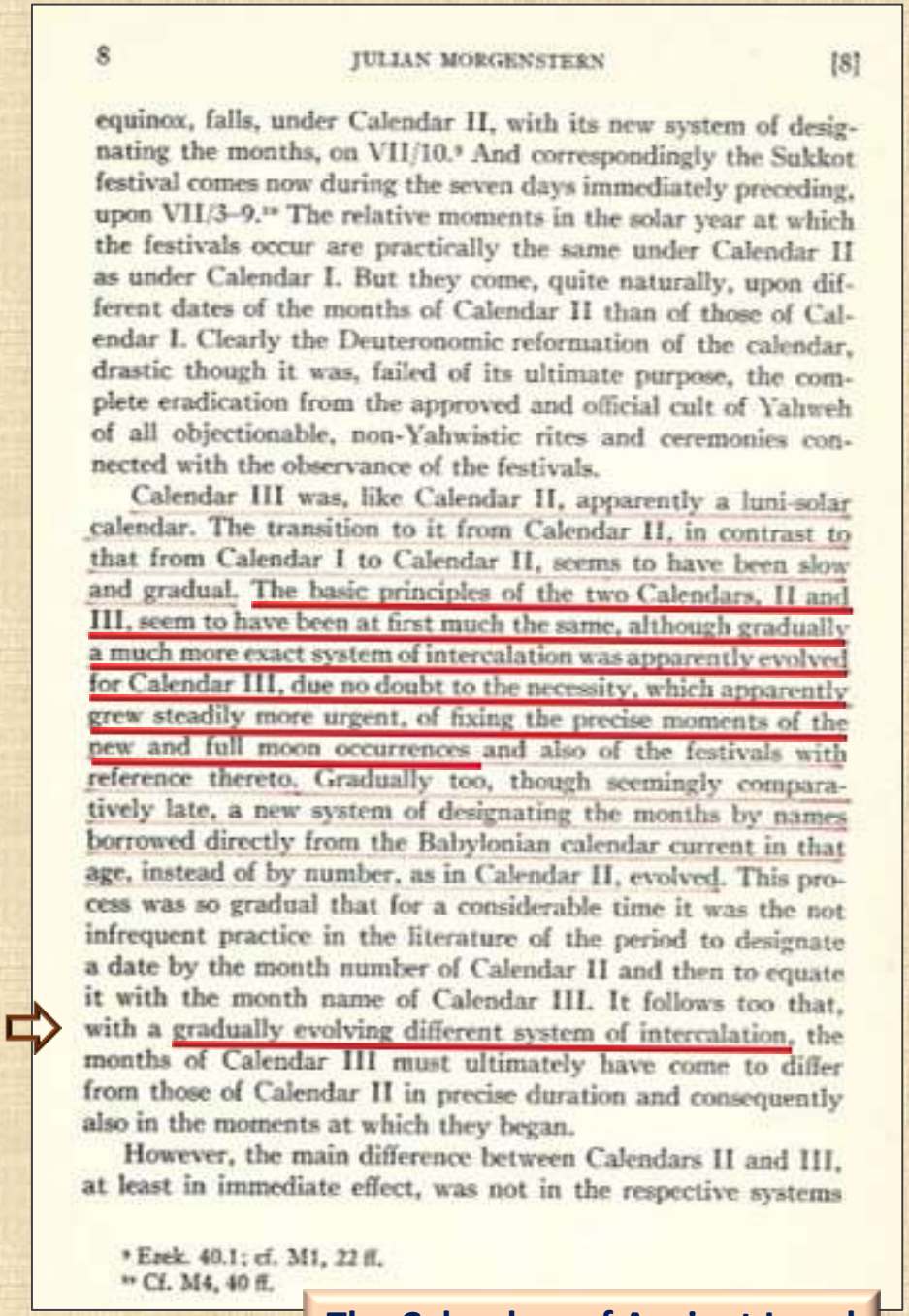
The Calendars of Ancient Israel p 7 (Summary)

Page 7 seems to contain a lot of "conflicting information" about the Passover falling on the new moon which isn't the topic of this study. However the existing conflict does show there was very little calendar stability.

- There is not enough context for this first paragraph, but it seems to indicate (through a lot of calendar silence) that **New Year's Day was separated from the FALL equinox** – because of non-sacred rites attached to it from pagan nations.
- THEN, in the last paragraph (around 608 BC) apparently **New Year's Day on the FALL equinox was revived – with the rays of the rising sun observed in the TEMPLE – this is on Calendar II.**

Question: Is it not interesting that once again today some want to link the Summer Shadow Teshuva Sign (in Sept) with Feast of Trumpets? Is this idea stemming from some ancient pagan history?

- It is also stated that **Passover was on the night of the new moon, NOT the full moon**.
- **Notice:** Mazzot festival is fixed to the NEXT morning after Passover (middle of page) – not to sunset on Passover cycle.



8 JULIAN MORGENSTERN [8]

equinox, falls, under Calendar II, with its new system of designating the months, on VII/10.[9] And correspondingly the Sukkot festival comes now during the seven days immediately preceding, upon VII/3–9.[10] The relative moments in the solar year at which the festivals occur are practically the same under Calendar II as under Calendar I. But they come, quite naturally, upon different dates of the months of Calendar II than of those of Calendar I. Clearly the Deuteronomic reformation of the calendar, drastic though it was, failed of its ultimate purpose, the complete eradication from the approved and official cult of Yahweh of all objectionable, non-Yahwistic rites and ceremonies connected with the observance of the festivals.

Calendar III was, like Calendar II, apparently a luni-solar calendar. The transition to it from Calendar II, in contrast to that from Calendar I to Calendar II, seems to have been slow and gradual. The basic principles of the two Calendars, II and III, seem to have been at first much the same, although gradually a much more exact system of intercalation was apparently evolved for Calendar III, due no doubt to the necessity, which apparently grew steadily more urgent, of fixing the precise moments of the new and full moon occurrences and also of the festivals with reference thereto. Gradually too, though seemingly comparatively late, a new system of designating the months by names borrowed directly from the Babylonian calendar current in that age, instead of by number, as in Calendar II, evolved. This process was so gradual that for a considerable time it was the not infrequent practice in the literature of the period to designate a date by the month number of Calendar II and then to equate it with the month name of Calendar III. It follows too that, with a gradually evolving different system of intercalation, the months of Calendar III must ultimately have come to differ from those of Calendar II in precise duration and consequently also in the moments at which they began.

However, the main difference between Calendars II and III, at least in immediate effect, was not in the respective systems

[9] Ezek. 40.1; cf. M1, 22 ff.
[10] Cf. M4, 40 ff.

The Calendars of Ancient Israel

The Calendars of Ancient Israel p 8 (Summary)

The top of this page seems to indicate that Calendar I was solar and Calendar II was luni-solar.
Only the middle of the page talks about **a more exact system of intercalation evolved to Calendar III thus the months of Calendar III differ from those of Calendar II.**

- **Calendar III Facts (p 8): Intercalation was always changing, but Calendar III has a more exact system of intercalation.**
- The New Year's Day is fixed to 7th Mon/1st day even though a secondary New Year's Day is marked as 1st Mon/1st Day.

The difference between Calendars II & III fixed the New Year's Day "date" to the 1st Day of the 7th Month.

[9] THE CALENDARS OF ANCIENT ISRAEL 9

of intercalation and attendant circumstances, but in the relative order and dating of the main festivals. In Calendar II, as we have just seen, the Asif or Sukkot festival came on the last seven days of the year, from VII/3 through VII/9, with the New Year's Day celebrated upon VII/10, the day of the fall equinox. Actually, therefore, there were eight days of festival celebration, with the climax reached upon the eighth day, itself, however, not an integral part of the Sukkot festival proper. In Calendar III this condition has been altered completely. The New Year's Day has been transferred to VII/1. Sukkot, on the other hand, which originally preceded the New Year's Day, has been transferred to the full moon day of the seventh month, exactly two weeks after the New Year's Day, and is now celebrated for seven days, from VII/15 through VII/21. Apparently, however, the reminiscence persisted that originally there had been actually not seven, but eight, days of celebration in connection with the observance of the Sukkot festival. Accordingly, in time, and apparently fairly soon, an eighth, supplementary and rather colorless day of celebration was added to the original seven days of the festival, designated in quite nondescript manner as Shemini Azeret, and falling, of course, upon VII/22.[11]

However, another and even more significant reminiscence seems to have persisted in the mind, and no doubt in some form or other, even in the practice of the people, viz., that VII/10, the old fall equinoctial day, had been a day of most important ceremonial observance, upon which, among other things, much of the survival and good fortune of the people during the coming year depended.[12] Many of the old rites and ceremonies of the New Year festival, originally observed upon this day, had been transferred, some, such as the blowing of the shofar to proclaim the beginning of the new year,[13] to the New Year's Day upon

[11] Cf. M1, 77.

[12] For the persistence into rabbinic times of the idea of Yom Kippur, i. e., VII/10, as a day of prognostication by the high-priest of the fortunes of the people for the year just begun, cf. Jer. Yoma, V, 42c (above); Bab. Yoma, 53b; Lev. Rabba, XX, 4.

[13] And no doubt originally to ward off the demons and evil spirits which threatened particularly upon this critical day, and thus free the new year, to

The Calendars of Ancient Israel

The Calendars of Ancient Israel p 9 & 11 (Summary)

- An interesting comment to take note of: **The New Year's Day was at one time on Yom Kippur – the 10th day of the 7th month which was ALSO the fall equinoctial day – a very important day of ceremonial observance.**

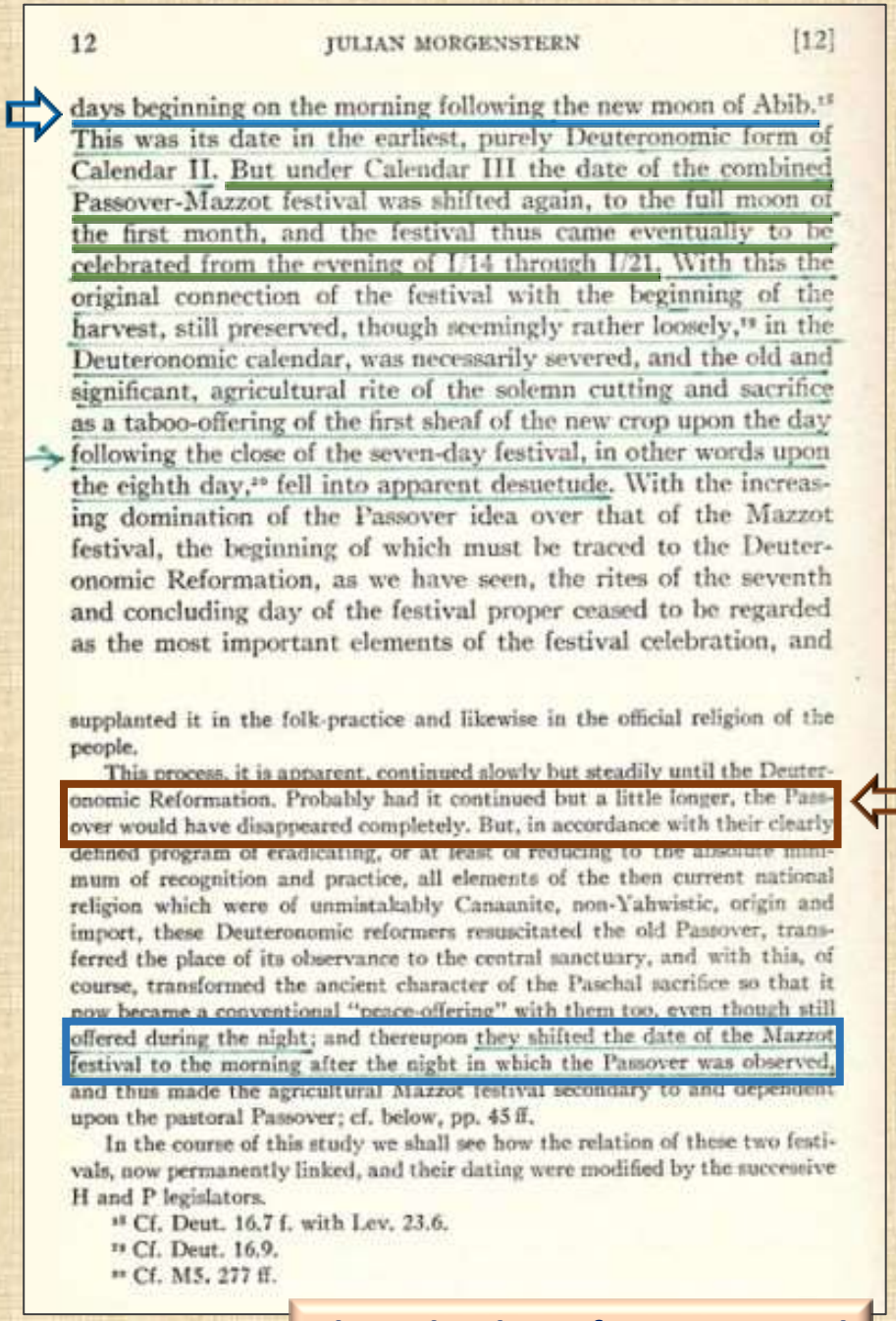
- **Calendar Facts (p 9 & 11): Those rights were transferred to the night of the new moon which preceded the spring equinox.**

[11] THE CALENDARS OF ANCIENT ISRAEL 11

upon the night of the new moon which preceded the spring equinox. We have just seen too that the Deuteronomic reformers revived the old Passover at its old, traditional date on the night of the new moon of Abib, and accorded to it a primary significance, while they relegated the Mazzot festival to a seemingly secondary position by linking it to the Passover and making its celebration begin on the morning following the night of the Passover celebration. Manifestly, these Deuteronomic reformers must

Note: There seems to be an obvious "serious" attachment to the fall equinox day, as several festivals were married to this day one way or another, without any Torah support.

- ***And the same thing seems to be happening today!***



12 JULIAN MORGENSTERN [12]

days beginning on the morning following the new moon of Abib.[17] This was its date in the earliest, purely Deuteronomic form of Calendar II. But under Calendar III the date of the combined Passover-Mazzot festival was shifted again, to the full moon of the first month, and the festival thus came eventually to be celebrated from the evening of I/14 through I/21. With this the original connection of the festival with the beginning of the harvest, still preserved, though seemingly rather loosely,[18] in the Deuteronomic calendar, was necessarily severed, and the old and significant, agricultural rite of the solemn cutting and sacrifice as a taboo-offering of the first sheaf of the new crop upon the day following the close of the seven-day festival, in other words upon the eighth day,[19] fell into apparent desuetude. With the increasing domination of the Passover idea over that of the Mazzot festival, the beginning of which must be traced to the Deuteronomic Reformation, as we have seen, the rites of the seventh and concluding day of the festival proper ceased to be regarded as the most important elements of the festival celebration, and

supplanted it in the folk-practice and likewise in the official religion of the people.

This process, it is apparent, continued slowly but steadily until the Deuteronomic Reformation. Probably had it continued but a little longer, the Passover would have disappeared completely. But, in accordance with their clearly defined program of eradicating, or at least of reducing to the absolute minimum of recognition and practice, all elements of the then current national religion which were of unmistakably Canaanite, non-Yahwistic, origin and import, these Deuteronomic reformers resuscitated the old Passover, transferred the place of its observance to the central sanctuary, and with this, of course, transformed the ancient character of the Paschal sacrifice so that it now became a conventional "peace-offering" with them too, even though still offered during the night; and thereupon they shifted the date of the Mazzot festival to the morning after the night in which the Passover was observed, and thus made the agricultural Mazzot festival secondary to and dependent upon the pastoral Passover; cf. below, pp. 45 ff.

In the course of this study we shall see how the relation of these two festivals, now permanently linked, and their dating were modified by the successive H and P legislators.

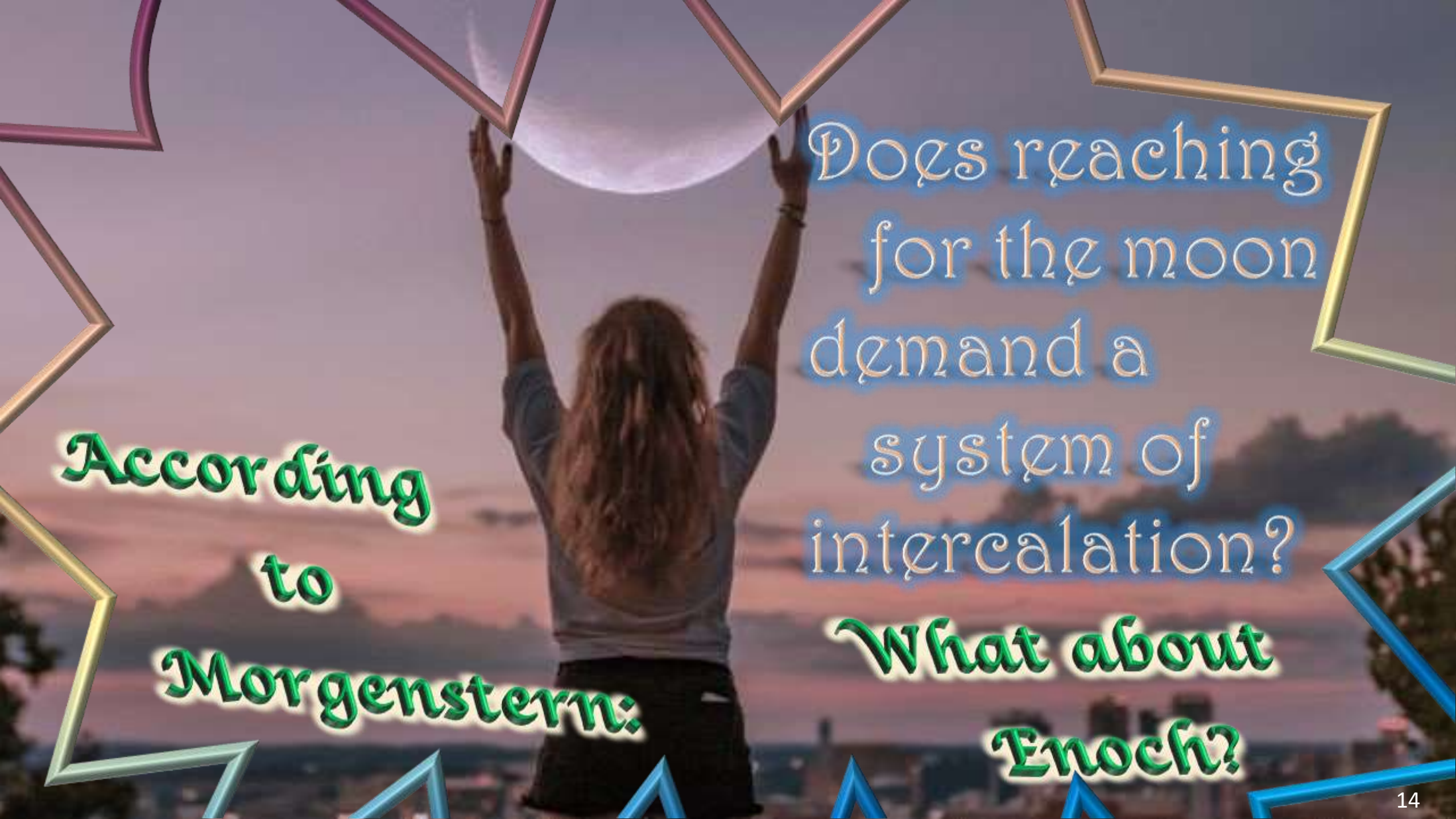
[17] Cf. Deut. 16.7 f. with Lev. 23.6.
[18] Cf. Deut. 16.9.
[19] Cf. MS. 277 ff.

The Calendars of Ancient Israel

The Calendars of Ancient Israel p 12 (Summary)

- Don't miss this comment (in the days of **Calendar II**) [picking up from p 11]: **"Manifestly, these Deuteronomic reformers must have shifted the date of the old Canaanite, agricultural festival from the traditional moment of its celebration … in which the spring equinox fell, to the seven [p 12] days beginning on the morning following the new moon of Abib."**
- **Under Calendar III: The date of Passover was SHIFTED AGAIN – to be celebrated on the [full moon] of the 14th of Abib, starting at SUNSET!**
- **In the footnotes of p 11, Morgenstern writes around the time of Elisha (842 BCE) Passover was considered an optional festival and that IF it was observed any leftover sacrifice had to be burned before morning. No wonder he also notes: "had it [non-observance of Passover] continued on a little longer, the Passover would have disappeared completely."**
- **The old Passover was resuscitated; observance was restored to the sanctuary again.**

Question: What IF Covenant Calendar of the Torah would have been followed without the sunset, the moon and intercalation?


Does reaching for the moon demand a system of intercalation?
According to Morgenstern:
What about Enoch?

which the year seems to be reckoned, not from VII/1 but from I/1. The references to this, particularly in the biblical literature, are few and rather obscure, so that, in consequence, too far-reaching conclusions may not be drawn from them. Nor is it at all certain that even though the calendars of Enoch and Jubilees, on the one hand, and those of these secondary portions of P and I and II Maccabees, on the other, apparently reckoned the year from I/1, that they were necessarily one and the same calendar. Of the calendar of Enoch and Jubilees considerable is known, viz., that it was a theoretical and conventional solar calendar of three hundred and sixty-four days to the year, divided into four quarters, each consisting of three months of thirty days each plus one additional, intercalary day, not reckoned to any one month; each such quarter-year therefore consisted of ninety-one days or thirteen weeks. This calendar arrangement manifestly permitted the organization of the festal year in such manner that each of the festivals, with the single but significant exception of Yom Kippur, would begin upon a Sunday. Moreover, as is explicitly stated in Jubilees 6.23-38, this calendar was openly and aggressively non-lunar in character and was designed to combat the program of those contemporary ritual authorities who sought to adjust the festivals to the conditions of a basically lunar calendar, undoubtedly Calendar III. But whether this artificial and unreal solar calendar of Enoch and Jubilees was likewise the calendar of these secondary portions of P or of I and II Maccabees, is a question open to serious doubt. In all likelihood this calendar of Enoch and Jubilees was never actually observed; at least there is no definite evidence thereof. None the less the very fact that such a calendar could have been seriously formulated, and that not as a mere personal vagary but as a conscious attempt to combat the introduction, or at least the continued use of Calendar III, with its lunar system of dating the festivals, shows the extreme importance attached by the religious authorities of the late biblical and early post-biblical periods to the entire question of the calendar, and therefore justifies renewed and persistent investigation.

In this particular study our primary task will be to determine, so far as this is possible, the time of the transition from

Enoch is a falsehood!

Seems to be a "battle of calendars" here & the battle still rages today.

Calendar II to Calendar III and the causes which brought about this transition. We shall see that they were considerations of far-reaching importance, which had a significant bearing upon the evolution of Judaism in the late biblical period. But in the investigation of this general theme a number of specific problems will require particular and minute examination: (1) the time of the transition from the reckoning of the day as beginning with morning to the reckoning of it as beginning with evening; (2) the calendar of the Holiness Code; and (3) the calendar or calendars of the Priestly Code.

The Calendars of Ancient Israel
p 14/15 (Summary)

Take note of the underlined portions of how the Enoch/Jubilee calendars tried for recognition to oust Jewish Calendar III, but were never really observed. **However the Dead Sea Scroll calendars are [sunrise] morning day start which seemed to have an effect on how some calendars of Israel began with the morning** [p 15]. This could also be the reason why so many secular historical quotes over the past 2000 years from rabbis and scholars speak of the sunrise day-start, rather than dawn/boqer.


Did the moon
have anything
to do with Israel's
morning day-start?

[15] THE CALENDARS OF ANCIENT ISRAEL 15

Morgenstern notes Konig's understanding of how morning [sunrise] used to be the day-start for the Jews, and later evolved to the day beginning from the evening.

II

THE MOMENT OF BEGINNING THE DAY

This question has been considered carefully by König,[13] and he has made a fairly good case for the conclusion that in the earlier calendar and in the literature which records this the day was reckoned from the morning, presumably from sunrise, while in the later calendar and the literature pertaining thereto the day was reckoned from the evening. He bases this conclusion primarily upon the oft-recurring phrase *yom wa-laylah*, in which the word *yom*, "day," precedes *laylah*, "night,"[14] upon an interpretation of Gen. 1, and particularly of the enumeration of the six days of creation in vv. 5b, 8b, 13, 19, 23, 31[b], an interpretation, however, which, as we shall see conclusively is forced and false, and finally upon the unmistakable import of the prescription in Lev. 7.15, and 22.30, that the *todah*-sacrifice must be eaten upon the day upon which it is sacrificed, and that nothing of it must be allowed to remain over until morning. Obviously the implication here is that the next morning is no longer a part of the day upon which the sacrifice was offered, but marks the beginning of the second day; had the day been thought here to begin with the evening, then the command that the sacrifice must be completely consumed upon the very day of its offering would have concluded with the injunction that nothing must be allowed to remain over until evening. The evidence of this statement is

[13] *Op. cit.*, 605–612.
[14] Although he recognizes numerous variants from this expression.

- **THE BEGINNING OF THE DAY:** Here Morgenstern cites Konig's research for the day beginning in the morning and eventually was reckoned to evening.
- **However, Morgenstern does not agree with that.** [p 15]
- Needless to say, Morgenstern also goes on to cite Konig's reason for boqer day-start by the statutes in Lev 7:15 & 22:30. All sacrifices must be offered on the same day; going on to conclude this is the only convincing evidence from Konig [p 16].

16 JULIAN MORGENSTERN [16]

unmistakable and irrefutable. Actually, it is the only convincing bit of evidence which König presents; but it alone suffices to prove his contention.

Question: Does Morgenstern link the day-start with lunar timing?

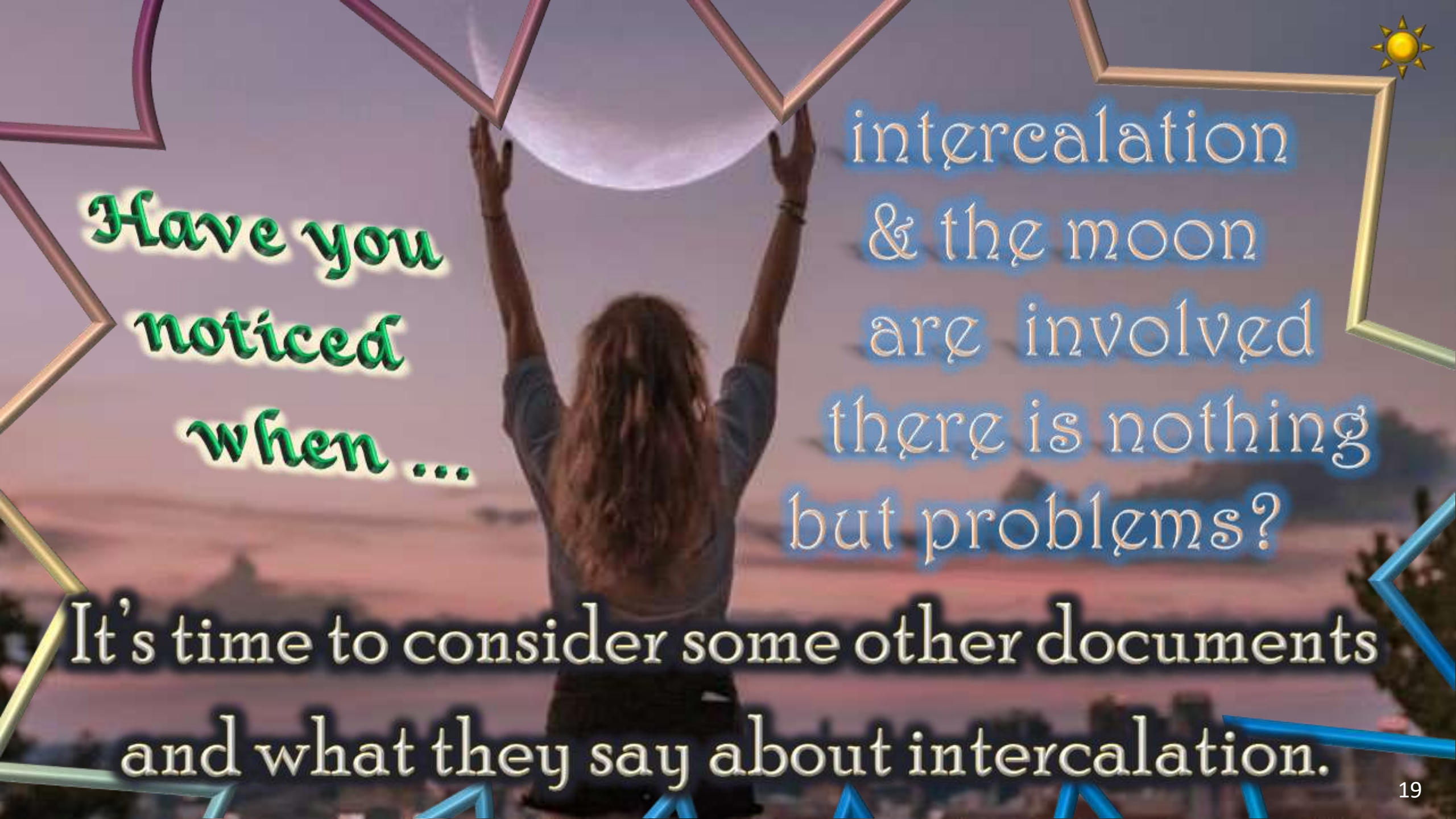
16 **The Calendars of Ancient Israel** [16]
p 16 (Summary)

However, it is possible to enlarge this evidence in manifold and extremely significant manner. Elsewhere[15] we have presented quite a mass of evidence which establishes conclusively that the earlier practice in Israel during the biblical period was to reckon the day from sunrise to sunrise, and that the later practice of reckoning the day from sunset to sunset or from evening to evening is definitely attested only in late secondary passages of the Priestly Code and in still later writings. Accordingly, we ventured to suggest, though at the time rather hesitatingly, the then seemingly radical hypothesis, that this system of reckoning the day could not have been introduced into Jewish practice until comparatively quite late in the biblical period, certainly not before the fourth century B.C., and that this must have been upon the authorization of the Soferim or the "Men of the Great Synod." We correlated this radical modification of the earlier system of calendation with the introduction of a basically lunar system of time-reckoning. For it is almost self-apparent that a lunar system of time-reckoning would necessarily assume a day extending from sunset to sunset, whereas a solar system of time-reckoning, such as Calendar I was, or even a luni-solar system which evolved out of a purely solar system, such as was the case with Calendar II, would naturally reckon the day from sunrise to sunrise. But this consideration would imply in turn that this transition from the earlier to the later system of reckoning the day must be correlated in some way with the introduction of Calendar III, or at least with one of the significant stages in the evolution of this Calendar. The determination of the correctness of this assumption, and with it the attempt to fix as precisely as possible the moment at which this change in the system of reckoning the day was introduced into Jewish practice, must constitute our next specific task.

That in the earliest period of Israelite sojourn in Palestine, under Calendar I, the day was reckoned from morning to morn-

[15] M 6, 176–179.

- Morgenstern links the boqer day-start to Calendar I.
- The change to the sunset/evening day-start appears between the transition of Calendar II to Calendar III – all at the same time that the Dead Sea Calendars have a presence – BEFORE the 4th century BC.
- Note this quote carefully: "We correlated this radical modification of the earlier system of [morning] calendation with the introduction of a basically lunar system of time-reckoning. For it is almost self-apparent that a lunar system of time-reckoning would necessarily assume a day extending from sunset to sunset, whereas a solar system of time-reckoning, such as Calendar I was, or even a luni-solar system which evolved out of a purely solar system, such as was the case with Calendar II, should naturally reckon the day from sunrise to sunrise."


Have you noticed when ...
intercalation & the moon are involved there is nothing but problems?
It's time to consider some other documents and what they say about intercalation.

Have you heard of the Original 360-day Year from

Did You Know?

- … in past ages scholars have come across ancient references of a 360-day year, but they have routinely tended to minimize its significance?

Did You Know?

- … it was inconceivable to them that the ancient world could actually have had a 360-day year and if sources would quote such information they were considered very unreliable?

Did You Know?

- … linguists attempting to make sense of ancient texts may even have mistranslated passages that when correctly translated might imply a 360-day year?
- … the evolutionary paradigm of grunting cavemen conflicts with the actual widespread historical, anthropological and archaeological evidence proving ancient human civilizations were brilliant and sophisticated?

It is now known:

- These ancient civilized races were graced with high intelligence; a race who knew their teachings must be handed down through all the ages to this present day!
- Why did they feel so motivated to document their calendars?

Wikipedia Internet Snooping

Question for Wikipedia:

Did the Earth ever have a 360 day year?

Answer: Many say that several thousand years ago the earth year used to be shorter, closer to 360 days, and at one point a comet came close to the earth and caused the earth to slow down. And evidence of that is all calendars from different cultures around the world switched from 360 days to 365 days around the same time.

Study Question: What did these cultures do with the extra 5+ days?

Definition of 'Calendar' & Why a "Calendar" is so Important to Cultures, Past & Present?

- The word 'calendar' derives from the Latin word 'calendarium', which means register and structure. **So having a calendar was a big leap forward for ancient cultures.** A "Calendar" made it possible to structure festivals, daily routines and agricultural events – with the advantage of being able to plan in advance for these events. This was particularly important when humans started to settle down and then getting together for celebrations/market day and other social events really took off. It was of course the calendar, the common structure for measuring everybody's time, that made these events possible. **Apart from timing celebrations it also enabled dates for planting, harvesting and collecting taxes.**
- **It is hardly surprising that early man chose the path of the moon. Firstly it is the most visible object in the sky** and in the absence of electricity was the only viable light at night (bar fire). **The path of the moon is also inextricably connected to the tides and the human fertility cycle.** In fact, the moon had always been connected to fertility, rainfall, birth and death.
- The **Ancient Greek, Roman and Chinese year** consisted of 12 moon cycles (354 days) and **occasionally a 13th cycle was included to keep the Ancient Lunar year in sync with the seasons.** **Many religious calendars operated (and still do) in sync with this lunar calendar model. Others morphed into a lunisolar calendar model.**

As can be seen, ancient calendars were calculated more on "what they saw" than on "how to count."

Around the World that had to Make Decisions About Intercalation

These will be examined in a random order.

ROME
GREECE
EGYPT
ARMENIA
ISRAEL
BABYLON
SUMERIA
INDIA
CHINA

Hezekiah's Sundial: ~700 BCE

Note: Four of them are exceptionally unique! They are:

Note: All dates on the following historical documents are ONLY GENERAL estimates.

Did You Know Some Say?

- The earliest excavated Mayan settlements date to 1800 BC.
- NASA reports that back in 650 BC "Mayan astronomers [made] detailed observations of Venus, leading to a highly accurate calendar."
- The Mayan baktun calendar is similar to the 400 year prophecy of Gen 15 in that 400 hundred 360-day years = 144,000 days.

- Mayans had varying interrelated calendars, but to identify an actual date in history, they used the Long Count calendar of 360-day years.
- Mayans demonstrated tremendous mathematical skill with their base 20 number system.
- Most worldviews simply cannot account for such extraordinary history. As a result this historical evidence often gets ignored.

Did You Know Some Say?

- Ring B of this calendar stone has 18 quincunxes which combines with the 20 uinal day signs for a 360 day year. Some researches say every day was named; the year is named after the 360th day.
- Not based on the lunar system.
- They had different complex calendar systems, yet their "solar year consisted of 18 months of 20 days.
- With the 365-day year they tacked on the extra five intercalary days after the 360th day.

Aztec calendar stone is 12' in diameter.

Armenia, Egypt, India & Sumeria

ARMENIA

EGYPT

SUMERIA

INDIA

Hezekiah's Sundial: ~700 BCE

Did You Know Some Say?

Paris Herouni's research on the Carahunge monument has been positively reviewed by the world's leading expert in archeoastronomy for us to consider.

- Herouni obtained Armenia's calendar date of 2492 BC by various historical and calendrical means.
- He also references a 7th century AD scholar (Anania Shirakatsi) for his list of the 24 Armenian names, one for each of the 24 hours in a day, and then 30 more names, one for each day of the month. Notably, no name is presented for a 31st day of the month because the Armenian calendar had only 30-day months.

- He also reports the following information which must link to the longer yearly circuit:
- Armenian's calendar consists of 12 months 30 days each, so 360 days plus 5 (or 6 once per every four years) additional days.
- He notes that Egyptians followed the practice of the Armenians, in celebrating the 5 epagomenal days, which are not distributed to any of the 12 months of the year. These days were inserted after their 12th month.

Ancient Egyptian Civilization

Extended Investigation into Egypt's History

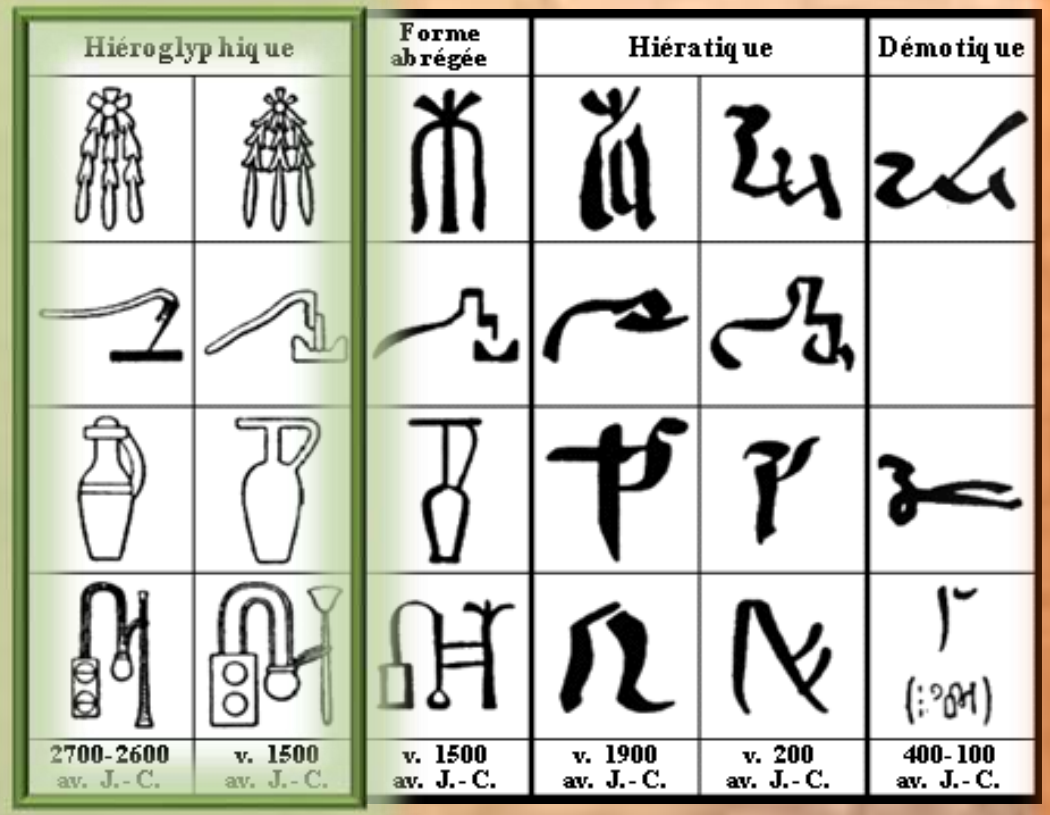
- The Canopus Decree (238 BC)
- The Rosetta Stone (196 BC)
- These are two very interesting inscriptions. Which one has the "key" to unlock the other?

Canopus Decree ~238 BC

- The Decree of Canopus is a trilingual inscription in three scripts, which dates from the Ptolemaic period of ancient Egypt.
- These three writing systems are: Egyptian hieroglyphs, demotic, and Greek, on several ancient Egyptian memorial stones.

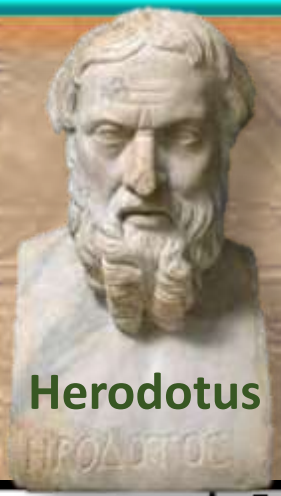
Definition: Hieroglyphics

Hieroglyphics are an original form of writing out of which all other forms have evolved. Two of the newer forms were called hieratic and demotic. Hieratic was a simplified form of hieroglyphics used for administrative and business purposes, as well as for literary, scientific and religious texts. In the third century A.D., hieroglyphic writing began to be replaced by Coptic, a form of Greek writing. The last hieroglyphic text was written at the Temple of Philae in A.D. 450.



Definition: Demotic

Demotic (from Ancient Greek: 'popular') is the **ancient Egyptian script** derived from northern forms of hieratic used in the Nile Delta. The term was first used by the Greek historian **Herodotus** to distinguish it from hieratic and hieroglyphic scripts.



Herodotus

Hiéroglyphique		Forme abrégée	Hiératique		Démotique
2700-2600 av. J.-C.	v. 1500 av. J.-C.	v. 1500 av. J.-C.	v. 1900 av. J.-C.	v. 200 av. J.-C.	400-100 av. J.-C.

Rosetta Stone ~ 196 BC

- Before we investigate anything around the Egyptian calendar, it is **the Rosetta Stone** (dated to 196 BC, found in 1799) that **has been the key to unlock Egypt's hieroglyphics.**
- **Note this very important information: This "hieroglyphic key" also unlocked the Canopus Decree** which had information about "reformation of the calendar" in Egypt.

34

Canopus Decree & Calendar

- **The Canopus Decree** attempted to reform the calendar to effectively a 365.25 year via a modern leap year system.
- **Even though this was as late as 238 BCE, still with great pomp the Egyptians would write, of "the year of 360 days and the 5 days added to their end …"**

Columbia University translates it this way:

- **"… if the arrangement of the year remained of 360 days plus the 5 days later brought into usage …"**
- **The setting aside of the last five days agrees with the practice which Herodotus [~440 BC] ascribes to the Egyptians of considering the 5 days over the 360 as scarcely belonging to the year, and not placing them in any month.**

Is Egypt holding an important KEY of understanding?

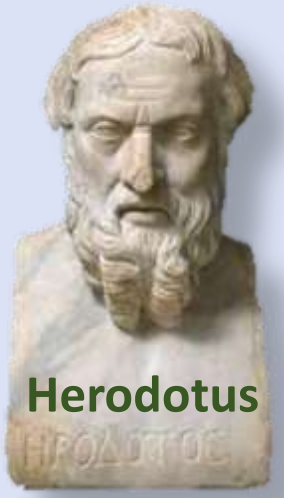
Did You Know This?

- Like so many other cultures, though the Egyptian astronomers knew there were more days in a year, they disrespected the remainder and showed a deep loyalty to the history of the 360-day calendar.

Greek Historian, Herodotus (484-425 BCE, known as the father of Greek history from 550-479 BCE; Asia & Egypt), wrote about 440 BCE:

- "With regard to human affairs, all the priests agreed that the Egyptians were the first to discover the year and to divide it into 12 parts. They obtained this knowledge by studying the stars. The Egyptian calendar seems to me, to be much more sensible than that of the Greeks; for … the Egyptians, basing the calendar on twelve 30-day months, intercalate five additional days every year, whereby the cycle of the season returns with uniformity."

- Though Herodotus may have been correct, the priests still erred if they thought the 12 month division began in Egypt – for the observation of twelve 30-day months continued in Mesopotamia from earlier times.
- Thus the migration of people to Egypt [with their calendar] came from Asia Minor, Mesopotamia and Canaan.



Herodotus

Father of History

In 1892, Lockyer inferred: "Wherever the ancient Egyptians came from, whether from a region where the moon was the time-measurer or not, as soon as they settled in the valley" … "the solar basis of their calendar was settled."

- Ancient Egypt also carved groups of stars into the ceilings of tombs and coffin lids from about 2100 BC. Why?

Did You Know?

- The 36 decans of ancient Egypt were groups of stars carved into the ceilings of tombs and coffin lids beginning from about 2100 BC to Ramesses IV in 1150 BC.
- It was the Egyptians who named the 36 decans of the stars <u>because</u> every 10th morning (just before dawn) the next grouping of stars in the series would rise [more info with the Mul.Apin tablets].

Dendera [Pagan] Temple – with 360-day year Support?

- History: The Dendera Temple was built in Greco-Roman times by Ptolemy IX SoterII. It is dedicated to the cow goddess Hathor, one of the most important goddesses of ancient Egypt.

What does the ceiling of the Dendera Temple depict?
Answer: A beautiful and unique star map!

- The eight feet square sandstone ceiling panel from 50 BC is reputed to be the world's first horoscope. The bas-relief depicts the 12 constellations of the zodiac, five planets, and both a lunar and solar eclipse. It charts the movement of the stars and depicts the zodiac constellations quite like we do today.
- The Dendera Zodiac is a map of the stars on a plane projection. This zodiac is somewhat unique, as it is circular in shape, as opposed to the more usual rectangular ones. The heavens, in the form of a disc, are shown to be held up by the four pillars of the sky in the form of four female figures who are assisted by eight falcon-headed figures. In the circumference of the disc are 36 spirits of 'decans.' These are first magnitude stars used in the ancient Egyptian calendar to keep track of the days of the year.

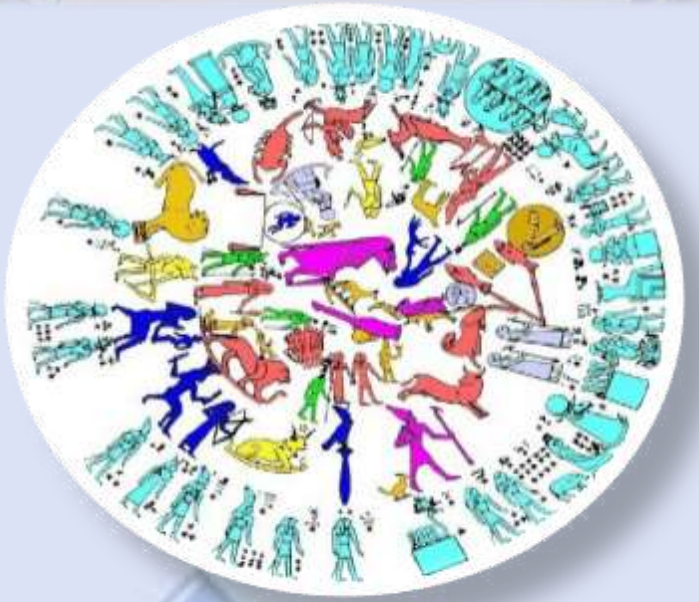
Hence, these spirits, each of which represents 10 days, were carved onto the Dendera Zodiac to symbolize the 360 days of the ancient Egyptian calendar.

The most famous Egyptian star map is a 1st-century-BCE stone chart found in the temple at Dendera, now in the Louvre.

Did You Know we have to pause and ask a question of this specific thought?

"In the circumference of the disc are 36 spirits of 'decans.' These are first magnitude stars used in the ancient Egyptian calendar to keep track of the days of the year."

- This statement cannot be overstated! If Egypt was on anything other than a Teshuva regulated calendar of 360-day years, this implication would be absolutely IMPOSSIBLE!
- In that case, does this historical quote align with Torah and the time of Joseph in Egypt?



Ancient Egypt

Did You Know?

The Egyptians divided the night sky into 36 groups of stars, or decans, forming constellations. Each decan was named and associated with a corresponding god or goddess. For the Egyptians, the most impressive constellation in the sky was Orion, and the most important star was Sirius, called the Dog Star by the Greeks. Egyptian mythology equated Sirius with Isis and saw her as Orion's companion. Together they dominated the southern sky.

- Sirius was the brightest star in the night sky, and when it appeared on the horizon around July 9, it was a sign that the Nile was about to rise and the season of inundation or flooding was about to begin. The inundation was crucial because the low Nile would mean less water for irrigation, causing a poor harvest.
- Every 10 days, a different decan appeared on the dawn horizon just before the sun rose. Thus the 36 decans could be used for measuring a 360-day year. By noting the positions of decans, the Egyptians also could tell time during the hours of the night.

Did You Know?

Ancient Egypt

Pictures of the decans, or star clocks, were sometimes painted on coffin lids or tomb walls. Eventually star clocks were more of a decoration than a timekeeper, for, at the end of every year, they were about six hours behind time, and after several years, they were off by weeks.

Although the decans and the god and goddesses who represented them were not used for telling time, they continued to appear on the walls and ceilings of tombs and as coffin decorations until the Greco-Roman period.

Did You Know we have to stop again to ask a question of another specific thought?

"Eventually star clocks were more of a decoration than a timekeeper, for, at the end of every year, they were about six hours behind time, and after several years, they were off by weeks."

- This statement is incredibly interesting. WHY?
- Could it be exposing the transformation period to a lunar based calendar? WHY?
- The lunar based calendar would have introduced this 6 hour time situation.

Did You Know?

- About 1550 BC, *The Ebers Papyrus,* written during the reign of Pharaoh Amenophis, presents a 360-day year calendar on the reverse side of the first "page" of the 66-foot long scroll?
- This lengthy document also preserved many Egyptian medical practices for posterity including their knowledge of the heart as the center of one's blood supply with its vessels extending throughout the body.

The Astronomical Date in the Ebers Papyrus

- "The Ebers Papyrus, an ancient Egyptian manuscript that dates the heliacal rising of Sothis to Year 9, Month 3, Season 3, Day 9 (ca. 15 May) of Amenhotep I's reign (ca. 1550-1529 BC), records this astronomical event that fixes its composition to an identifiable time in the 18th Dynasty. Since astronomers can pinpoint this event by charting the positions of stars in antiquity, the papyrus can be dated to ca. 1541 BC, making his initial regnal year ca. 1550 BC. This dating, accepted by numerous Egyptological scholars, is based on the ancient capital of Memphis as the point of observation, despite the Theban provenance of the papyrus. A Theban point of observation, which is accepted by other Egyptologists, dates the papyrus to ca. 1523 BC. While the Egyptians never stated from where they observed the Sothic rising, Olympiodorus noted in AD 6 that it was celebrated at Alexandria, after having been observed at Memphis. Therefore, Memphis is taken to be the correct point of observation for the rising recorded in the Ebers Papyrus."

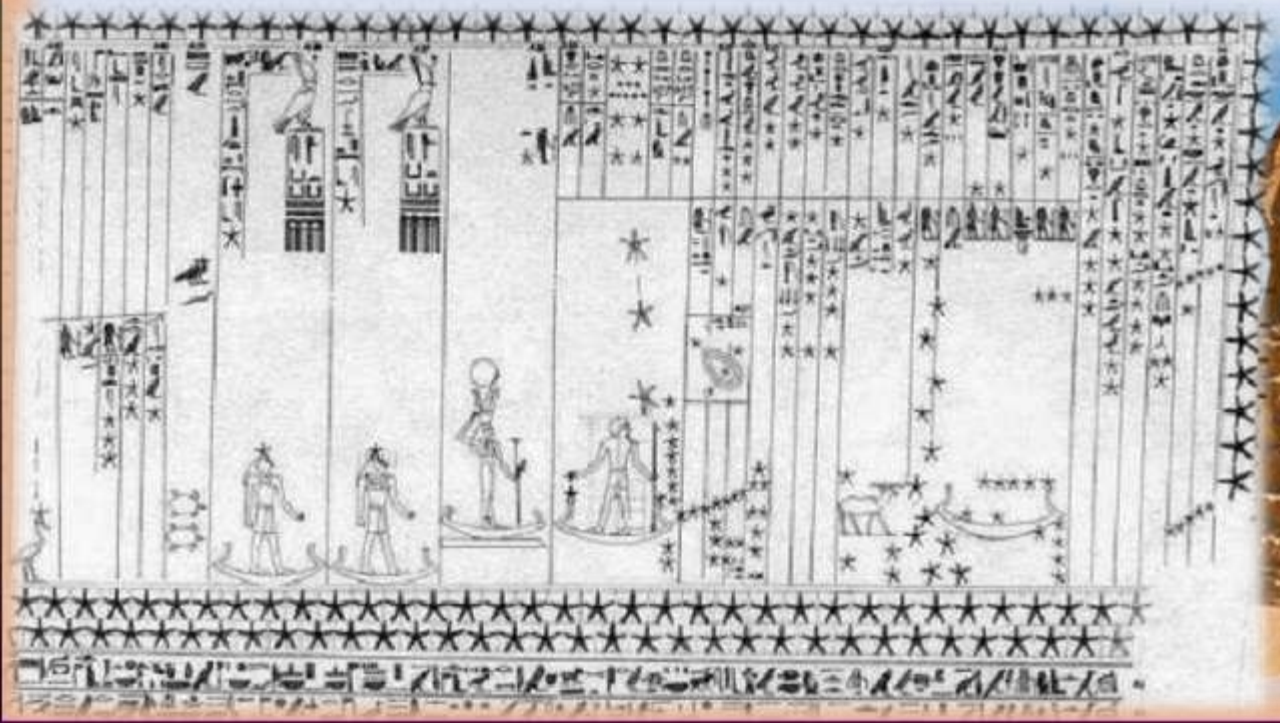
https://biblearchaeology.org/research/exodus-from-egypt/3147-amenhotep-ii-and-the-historicity-of-the-exodus-pharaoh

Did You Know?

- In the 1200s BC, Pharaoh Ramesses II had engraved an astronomical ceiling depicting a 360-day year.
- Marshall Clagett (science historian & scholar of the 20th century) **noticed the five epagomenal days often added to complete ancient 360-day calendars were simply absent in these ancient EGYPTIAN calendars.**

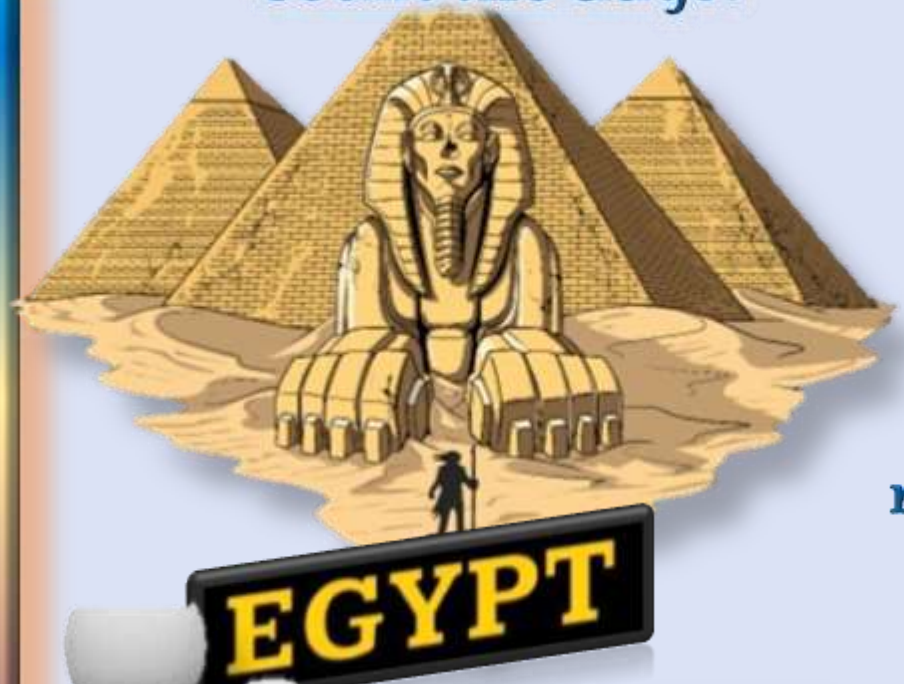
Did You Know?

The "1st law" of the Pharaohs was their pledge, taken on the day of ascension to the throne, to never change the calendar?!



Wikipedia Snooping for Internet Questions

How did Egyptians count the days?



What part of this answer will Torah agree with?

Wiki Answer: It is thought that, like most agricultural societies, the ancient Egyptians originally organized their calendar according to the cycles of the moon and the agricultural seasons. Most scholars agree that the Egyptian day began at dawn, before the rising of the sun, rather than sunrise. The daily cycle was divided into twenty-four hours: twelve hours of the day and twelve hours of the night, the latter apparently reckoned based on the movement of groups of stars ("decans") across the night sky.

https://www.metmuseum.org/toah/hd/tell/hd_tell.htm#:~:text=It%20is%20thought%20that%2C%20like,the%20sun%2C%20rather%20than%20sunrise.

Did You Know?

- All Veda texts (1500-500 BC) speak uniformly and exclusively of a year of 360 days, never mentioning intercalary days.
- The Sanskrit Mahabharata from 1000 BC indicates a year of 12 months of 30 days which forced a 13th month every 5 years [likely after the sundial event]!

- The Hindu lunar months consisted of 30 days – the month being divided into two parts of 15 days to represent the "bright half" as the moon was increasing and the "dark half" as the moon decreased. For a long time only the first 12 months had a god assigned; not the 13th month which was called "Unclean" until Vishnu agreed to represent this month.

Wikipedia Internet Snooping

Question for Wikipedia:

How long was a year in Noah's time?

Answer: In ancient times, twelve thirty-day months were used making a total of 360 days for the year. Abraham, used the 360-day year, which was known in Ur. The Genesis account of the flood in the days of Noah illustrated this 360-day year by recording the 150-day interval till the waters abated from the earth.

Date of the Flood was approximately 2350 BC.

Did You Know?

- The Sumerians are one of the earliest identifiable people groups that occupied the region of Babel.
- The Sumerian calendar was related to the ancient "base 60" numbering system (eventually picked up by Babylon).
- This system of counting dates back to ~3200 BC (when Methuselah was about 100).
- This system (without question) attests to a 12 month, 360-day year in the ancient documents from the end of the 4th millennium [BC].
- Eventually, by 2400 BC, the Sumerian scribes already used the schematic year of 30 x 12 = 360 days.

The Ecliptic

- Ancient Sumeria, Babylonia and some in India divided the ecliptic circuit into 360 degrees which is a highly composite number and manages a calendar of 360 days very well.
- 360 days is reasonably divisible by 2 equinoxes/solstices; 4 seasons; 12 months & 24 hrs/day.
- Even in construction, this base of 60 beats the Greeks to trigonometry by 1500 years; it is easier to use and much more accurate.


Ancient Civilizations
Babylon, Greece, Rome, China, Israel
ROME
GREECE
BABYLON
ISRAEL
CHINA
Maya
Aztec
Hezekiah's Sundial: ~700 BCE

Did You Know This About Babylon?

- Babylon inherited Sumerian's calendar and the number system with 12 months, 360 day year giving rise to base 60.
  In Babylon, 60 was unity, 60 was time, and 60 was money.
- Babylon seemed to have a greater respect for the 12 months of 30 days than for the occasional intercalary month. This would have been at the time when the year had only 360 days/year.
- The 12 months were associated with the gods of Sumer, Akkad & Babylon.
- Later, when the lunar calendar system demanded a 13th month about every 3 years to keep the seasons calibrated with the calendar, the intercalary month was connected to the northern Assyrian god Ashur, an idol from their enemy.

More Notes on Babylon:

The use of lunar reckoning began to prevail in the 21st century BCE. The lunar year probably owed its success to economic progress.

A barley loan could be measured out to the lender at the next year's threshing floor. The wider use of silver as the standard of value demanded more flexible payment terms.

A man hiring a servant in the lunar month of Kislimu for a year knew that the engagement would end at the return of the same month, without counting days or periods of office between two dates. At the city of Mari about 1800 BCE, the allocations were already reckoned on the basis of 29 and 30-day lunar months. In the 18th century BCE the Babylonian empire standardized the year by adopting the lunar calendar of the Sumerian sacred city of Nippur.

The power and the cultural prestige of Babylon assured the success of the lunar year, which began on Nisanu 1, in the spring. When in the 17th century BCE the dating by regnal years became usual, the period between the accession day and the next Nisanu 1 was described as "the beginning of the kingship of PN," and the regnal years were counted from this Nisanu 1.

Did You Know Some Say?

- ~440 BC, Herodotus quotes Solon of Athens (638-558 BC [this is well after 700 BCE]) saying: "...you ask me about human affairs. ...
  I propose 70 years as the average life span for a man. These 70 years represent, excluding intercalated months, 25,200 days."
- Divide these numbers – it equals a year of 360 days.
- This famed and learned ancient Greek calculated using a 360-day year. However, do note this:

- Regarding the Attica calendar (for ancient Athens), "We read that in the 'Attic year' each month was divided in three decades" says Plunket. While she was not arguing for a 360-day year, she found the ancestors of the Aryan race did not count their months with 29½ solar days, but [the months were counted] as a portion of time containing three great equal divisions." [Would that be 3 divisions of 10 days each?]

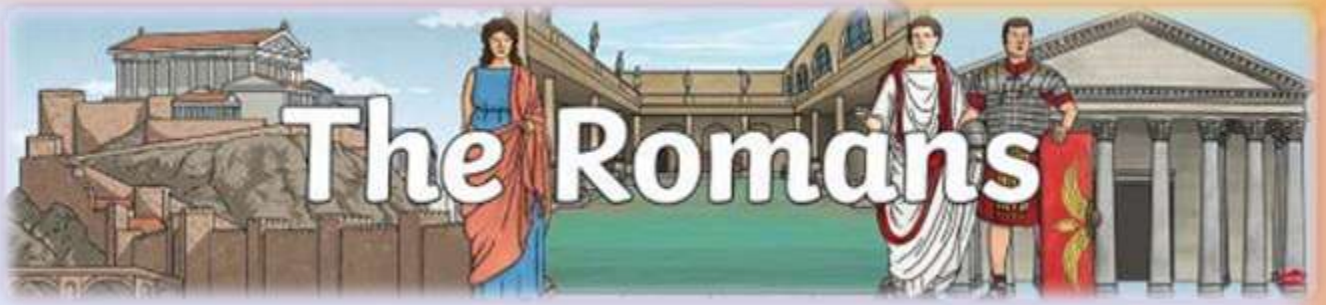
Did You Know?

- Meton of Athens was a Greek mathematician, astronomer, geometer and engineer who lived in Athens in the 5th century BC. He is best known for calculations involving the 19-year Metonic cycle, which he introduced in 432 BC into the lunisolar Attic calendar about 100 years before Alexander the Great ruled the world.

- Metonic Cycle is a period of almost exactly 19 years after which the lunar phases recur at the same time of the year. The recurrence is not perfect, and by precise observation the Metonic cycle defined as 235 synodic months is just 2 hours, 4 minutes and 58 seconds longer than 19 tropical years.

Did You Know Some Say?

- ... at one time Rome's calendar year had only 10 months but this caused a difficulty when trying to count the lunar cycles of 29 or 30 days.?
- Written around 115 CE, Plutarch's Life of Numa states: "during the reign of Romulus [about 753-716 BC] they [Romans] had been irrational and irregular in their fixing of the months, reckoning some at less than 20 days, some at 35 and some at more; they had no idea of the inequality of the annual motions of the sun and moon, but held to this principle only, that the year should consist of 365 days."



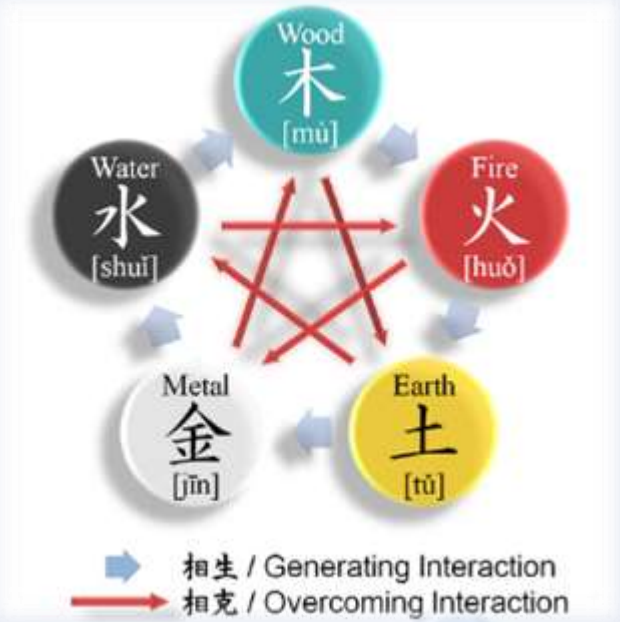
Note pg 229 from the 1859 Dictionary of Greek and Roman Antiquities:

- "The setting aside of the last five days agrees with the practice which Herodotus ascribes to the Egyptians of considering the five days over the 360 as scarcely belonging to the year, and not placing them in any month.
- So completely were these five days considered by the Romans to be something extraneous, that the soldier appears to have received pay only for 360 days."

Did You Know Some Say? [Solar Calendar]

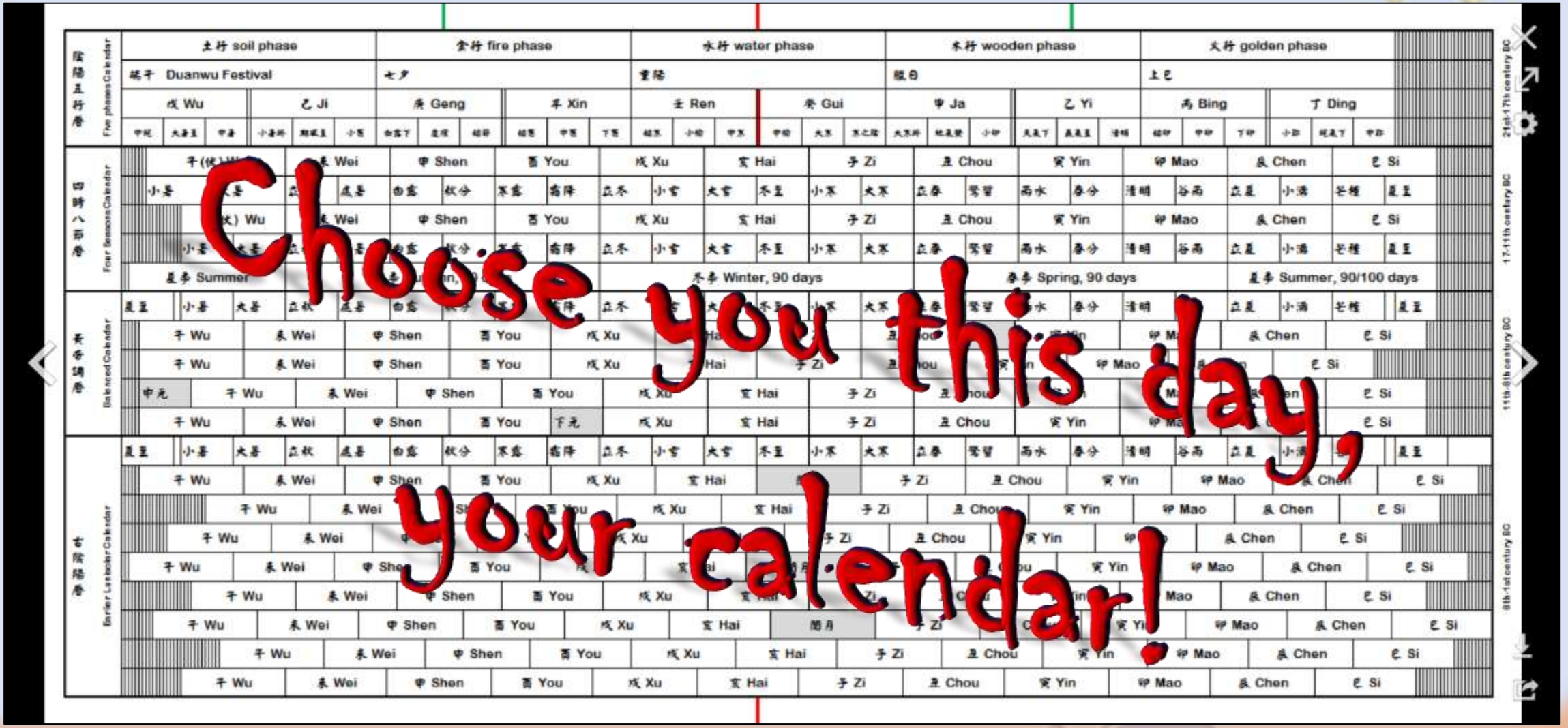
- The western Zhou dynasty ruled 1046-771 BCE.
- Three traditional solar Chinese calendars were developed between 771 and 476 BCE, during the Spring and Autumn period of the Eastern Zhou dynasty 770-481 BCE. There are three versions.
- Solar Calendar uses a 5-elements calendar where the 365-day year was divided into 5 phases of 73 days. Each phase corresponded to one of the "Day 1" elements. Each phase began with a governing-element day, followed by six 12-day weeks. Each phase also consisted of two 3-week months, making each year 10 months long.

1. Years began on a jiǎzǐ day and a 72-day wood phase;
2. Followed by a bǐngzǐ day and a 72-day fire phase;
3. A wùzǐ day and a 72-day earth phase;
4. A gēngzǐ day and a 72-day metal phase;
5. And rénzǐ day followed by a water phase.



Five-phase & Four-quarter

Solar Calendar of China



Did You Know? [Solar Calendar]

2. Another version is a four-quarters calendar having 'four sections, eight seasons.'

- The weeks were 10 days long;
- One month consisted of 3 weeks;
- A year had 12 months with a 10-day week intercalated in summer as needed to keep up with the tropical year.
- The 10 Heavenly Stems and 12 Earthly Branches were used to mark days.
- This system was built from observations of the orbit of Jupiter that was rounded off from 11.86 years to 12 years.
- The Chinese astronomers divided the celestial circle into 12 sections according to the orbit of Jupiter.

- Jonathan Smith has proposed that the first meanings of the earthly branches, were phases of the moon, with the heavenly stems at that point referring to divisions of the ecliptic.

After being adopted as a calendar these would have lost their clear lunar reference, permitting their repurposing for Jupiter stations.

Did You Know? [Solar Calendar]

3. A third version is the balanced calendar.

   A year was 365.25 days, and a month was 29.5 days.

- After every 16th month, a half-month was intercalated.
- According to oracle bone records, the Shang dynasty calendar (c. 1600 – c. 1046 BCE) was a balanced calendar with 12 to 14 months in a year.

Oracle bones are pieces of ox scapula and turtle plastron, which were used for pyromancy – a form of divination – in ancient China, mainly during the late Shang dynasty. Scapulimancy is the specific term if ox scapulae were used for the divination.

China also had Lunisolar Calendars!

Did You Know? [Lunisolar Calendar]

- The first lunisolar calendar was, also introduced under the Zhou dynasty between 1046-256 BCE.
- From the ancient Chinese, as commonly around the world, lunar calendars were in use even though it was exactly the use of lunar, rather than solar calendars, which caused enormous difficulty with many varieties such as:

1. The Zhou dynasty set the 1st lunar calendar beginning the new year with the new moon before the winter solstice.

There were many other competing lunisolar calendars against Zhou such as:

2. JIN: The new year beginning with the new moon nearest the March equinox;
3. QIN: The new year beginning the day of the new moon nearest the winter solstice.
4. SONG'S YIN: The new year beginning the day of the new moon after the winter solstice.

- Calendar formula for Metonic cycle:

$$\left(365+\frac{385}{1539}\right)\times 19=\left(29+\frac{43}{81}\right)\times(19\times 12+7)$$

- The intercalary month was placed at the end of the year. Confusion??

Immanuel Velikovsky (1950)

Worlds in Collision, Immanuel Velikovsky (1950)

In the fifth century Herodotus wrote: "The Egyptians, reckoning thirty days to each of the twelve months, add five days in every year over and above the number, and so the completed circle of seasons is made to agree with the calendar."[1]

The *Book of Sothis*, erroneously ascribed to the Egyptian priest Manetho,[2] and Georgius Syncellus, the Byzantine chronologist,[3] maintain that originally the additional five days did not follow the 360 days of the calendar, but were introduced at a later date,[4] which is corroborated by the text of the *Canopus Decree*.

That the introduction of epagomena was not the result of progress in astronomical knowledge, but was caused by an actual change in the planetary movements, is implied in the *Canopus Decree*, for it refers to "the amendment of the faults of the heaven." In his *Isis and Osiris*[5] Plutarch describes by means of an allegory the change in the length of the year: "Hermes playing at draughts with the moon, won from her the seventieth part of each of her periods of illumination, and from all the winnings he composed five days, and intercalated them as an addition to the 360 days." Plutarch informs us also that one of these epagomena days was regarded as inauspicious; no business was transacted on that day, and even kings "would not attend to their bodies until nightfall."

The new-moon festivals were very important in the days of the Eighteenth Dynasty. On all the numerous inscriptions of that period, wherever the months are mentioned, they are reckoned as thirty days long. The fact that the new-moon festivals were observed at thirty-day intervals implies that the lunar month was of that duration.

Recapitulating, we find concordant data. The *Canopus Decree* states that at some period in the past the Egyptian year was only 360 days long, and that the five days were added at some later date; the *Ebers Papyrus* shows that under the Eighteenth Dynasty the calendar had a year of 360 days divided into twelve months of thirty days each; other documents of this period also testify that the lunar month had thirty days, and that a new moon was observed twelve times in a period of 360 days. The *Sothis book* says that this 360-day year was estab-

[1] Herodotus: *History*, Bk. ii 4 (transl. A. D. Godley).
[2] See volume of Manetho in *Loeb Classical Library*.
[3] *Georgii Monachi Chronographia* (ed. P. Jacobi Goar, 1652), p. 123.
[4] In the days of the Hyksos King Aseth. But see the Section «Changes in the Times and the Seasons».

- *Worlds in Collision* is a book by Immanuel Velikovsky. Pg 333: More reference to the Canopus Decree and Ebers Papyrus – which has been given previously. He also mentions Plutarch.

- **Why is Plutarch so important?** Plutarch was a Greek biographer and author born in the 1st century CE whose works strongly influenced the evolution of the essay, the biography, and historical writing in Europe from the 16th to the 19th century.
- **Is Plutarch a reliable source?** Leaning toward the sensational, Plutarch nevertheless relied on available sources for every thing he wrote. He made nothing up himself and can be considered as reliable as his source material.

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Immanuel Velikovsky's Summary (1950)

- According to *Worlds in Collision*, many of the ancient cultures recorded a 360-day solar year, with a 30-day lunar cycle (a synchronized solar-lunar calendar that accounts for equinoxes marking the end of the year). Notice this quote:
- **"The ancient Vedas of India showed a 360 day year in the Brahmanas and they record that the moon waxed for 15 days and waned for 15 days in a month.** The Brahmanas also state that the sun moved north 180 days and moved south 180 days in a year. **In a later period, the Vedas record that the year was reformed to 365¼ days.** In ancient Persia, the calendar had 360 days; later, it was reformed to add 5 Gatha days to the year length. **The Sumerians had a 360-day year with months of 30 days, and the Babylonians adopted that Sumerian calendar.** At the beginning of the 7th century BC, Babylon added 5 days to the year length. **In ancient Assyria, the clay tablets from the royal library in Nineveh showed a 360 day year occurred in the 8th or 7th century BC according to Plutarch and the *Book of Sotis*, with 5 epagomenal days added to the year length.** The Mayans of Mexico and Incas of Peru in Central and South America had a 360-day year calendar, later they added 5¼ days to the calendar. Other countries like China and Polynesia had 360-day calendars that they amended by adding 5 days to the year-China called their added 5¼ days, Khe-ying days."

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"All Veda texts speak uniformly and exclusively of a year of 360 days. Passages in which this length of the year is directly stated are found in all the **Brahmanas**.2 "It is striking that the Vedas nowhere mention an ...

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The Year of 360 Days Prior to the last series of cataclysms, when, as we assume, the globe spun on an axis ... they also say that the **sun moved** for six months or **180 days** to the **north** and for the same number of days to the south.

- **Definition of Gatha Days:** The calendar reforms also introduced five intercalary days ("Gatha" days) following the twelfth month, and so, because the "all souls" festival was conventionally observed on the last day of the year, the festival was then also observed during the newly introduced last days of the year, i.e. the five intercalary days.
- **Definition of Epagomenal Days:** Epagomenal days are days within a solar calendar that are outside any regular month. And: The intercalary month or epagomenal days of the ancient Egyptian, Coptic, and Ethiopian calendars are a period of five days in common years and six days in leap years in addition to those calendars' 12 standard months, sometimes reckoned as their thirteenth month.

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Wikipedia Snooping for Internet Questions

Question: How long was a year in Biblical times?

Answer: In ancient times, twelve thirty-day months were used making a total of 360 days for the year. Abraham, used the 360-day year, which was known in Ur. The Genesis account of the flood in the days of Noah illustrated this 360-day year by recording the 150-day interval till the waters abated from the earth.

https://en.wikipedia.org/wiki/Prophetic_Year#:~:text=In%20ancient%20times%2C%20twelve%20thirty,waters%20abated%20from%20the%20earth.

Flood:
~2350 BC.

What part of this answer will Torah agree with?

We should all know by now:

- The Biblical Hebrew calendar of Israel today is no longer the pure calendar count found in the Torah as most follow the crescent moon & barley crops.
- However, through all the generations from Adam to Joshua, Yahuah's people did honor His Covenant Calendar.
- From ~1425 BCE many of Israel's leaders began following the pagan ways and worship festivals, continually changing their calendars. Only a remnant did not!
- By the time of the Gospels, nothing much had changed; only a few (remnant) set their lives to be obedient to all the statutes, including Yahuah's Covenant Calendar.
- It is a very sad history, indeed!

Do the Scriptures speak of anything important happening on the "new moonth" day? Yes! ... and No!

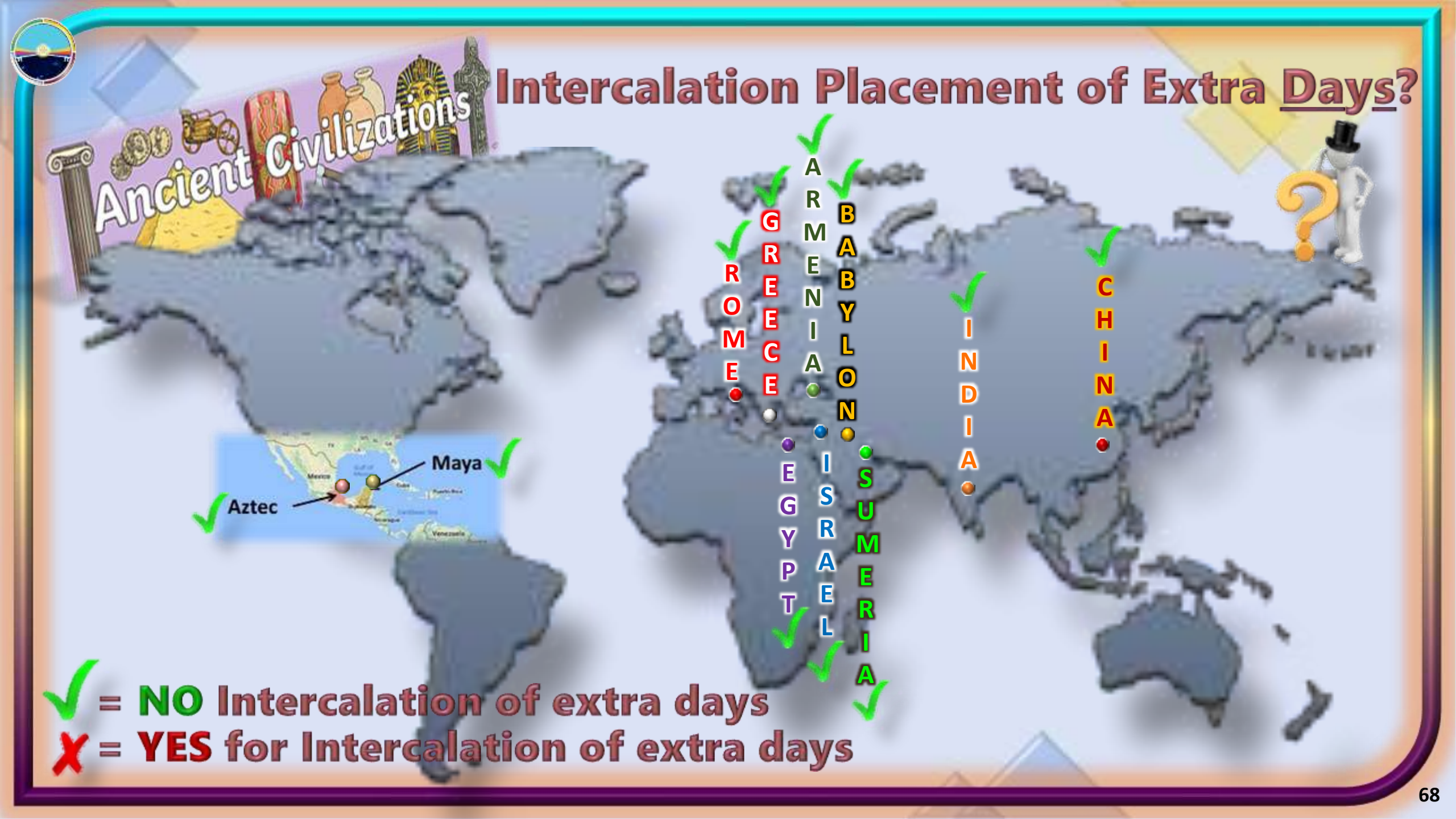
- Yes, there are 10 matches [9:OT & 1:NT] that have the words "new moon" referring to the "day" of the new moon.

- NO! Not one "new moon" phrase refers to "moon/H3394/yareach." Every phrase refers to the words "new month/H2320/chodesh."

Do the Scriptures speak of anything important happening on the Covenant "new month" day? Yes!

The phrases "first day" and "first month" appear together 6 times in the Tanach with very interesting context.

1. Gen 8:13 Noah removes the covering from the ark to see the ground is dry.
2. Exo 40:2, 17 Moses raises up the sanctuary on this "day" in the 2nd year.
3. 2 Chr 29:17 Solomon begins to sanctify and dedicate Jerusalem's temple.
4. Ezra 7:9 Ezra leaves Babylon on his trip back to Jerusalem after the 70 years end.
5. Eze 29:17 Ezekiel speaks the word that Babylon will plunder Egypt (~588 BCE).
6. Eze 45:18 Ezekiel (~574 BCE) is given future instructions for purification & consecration of the sanctuary.


Ancient Civilizations
Intercalation Placement of Extra Days?
ROME
GREECE
ARMENIA
BABYLON
EGYPT
ISRAEL
SUMERIA
INDIA
CHINA
Maya
Aztec
✓ = NO Intercalation of extra days
✗ = YES for Intercalation of extra days

Have You Noticed?

NOT ONE of these ancient civilizations had a calendar that intercalated individual "days" at the end of any months within the year.

All of the 5 (or 6) days were bundled and added at the END of the year.

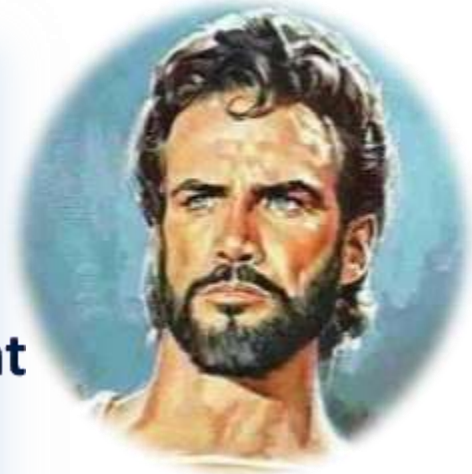
Have you noticed:

1. The Zadok, Enoch and Essene calendars are missing from this list?
2. Had you noticed (Part 5), only the Dead Sea Scroll calendars intercalated "an individual day" at the end of every 3rd month throughout the year.
3. Do you remember: John 7 exposed that Yahusha did not attend the Jew's lunar Sukkot, debunking all lunar calendars?
4. Did you take note (in Part 5), that when "intercalation days" were added at the end of month 6, [following a pattern of the Qumran calendars], the "adjusted" sukkot feasts were almost in the same alignment as the lunar sukkot feast days?

Are You Noticing?

There are some similarities between the Covenant Calendar witnesses of Joshua and John?

Joshua's Covenant Calendar testimony eradicated the accepted traditions for Passover and Wavesheaf placement as well as eradicating all future calendars of the Dead Sea Scrolls.



Which type of calendar is the larger challenge?

John's Covenant Calendar testimony in chapter 7 seems to be doing the same thing:

1. Removing the counterfeit lunar calendars;
2. Removing all possibility of Qumran calendars as truth.

1st Intercalation Question

We just examined 11 ancient civilizations of which 10 of them worshipped other elohim, on different calendars. Israel was never meant to be classed as a pagan nation, even though they persistently apostatized, many times following many pagan gods, customs and feasts.

The seed of pagan nations sprang forth from Cain, and then from Nimrod after the flood. Where did they get their ideas of how to worship their elohim and construct their festal calendar? When extra days were added to the sun's circuit, why did they not intercalate those days evenly throughout the year?

- Exempting Israel, why is it that 9 pagan nations did not intercalate any extra days (5/6) past the 360th day into their calendars somewhere between the 1st and 12th month?

2nd Intercalation Question

Did you notice that out of the 11 ancient civilizations not one of them honored a calendar with 364 days, or intercalated a week every 7 years?

Again, what would be the reason for Covenant Calendar to intercalate any waiting days at the end of month 6, when there is no Torah instructions for this, there is no Tanach instruction, nor did Yahusha set His example of keeping time in this way. Even the pagan nations did not use this 5-6 day intercalation method.

- Why is it that only the calendars from the Dead Sea Scrolls of Qumran intercalate extra days at the end of months 3, 6, 9 & 12?

Where did this idea come from?

3rd Intercalation Question

How is it that Qumran/DSS's demand to rewrite history by declaring a 364-day calendar from the start?

Again: Are the DSS calendars the larger challenge?

Will the Mul-Apin Tablets have more information?

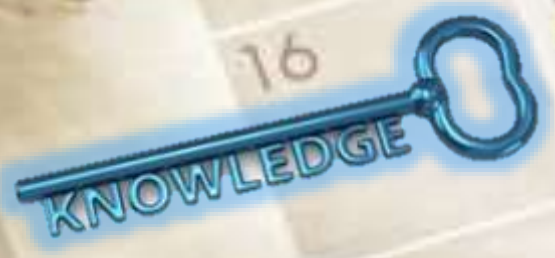
Will they include clues about the moon or star patterns for the year-start?

We Shall See!

The End of Part 6

What is Next?

- ✓ The research by Julian Morgenstern aligned with the Tanach history very well.
- ✓ Part 7 will investigate the Mul-Apin Tablets to see if they hold a "key" to the Calendar of the Covenant.



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