

# **SUN, MOON, STARS, & PRIESTS**

## **How Do They Relate to Yah's Calendar Work?**

*by Bill and Karen Bishop*

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Many calendars are circulating today, and a handful of these are called Enochian or Zadokian calendars. They are not all the same, even though they typically claim to come from the Dead Sea Scrolls (henceforth DSS)? What exactly is the calendar that emerged from the DSS? How is it different from some of these other calendars? They may be similar, but there is a single calendar system that carries through in a pure form in the scrolls. Only when the actual criterion set forth in the scrolls is maintained do we have a pure scroll calendar with all its attributes intact and Yah's divinely ordained patterns in place. That is what we want to consider in this writing, but first we'll see how Scripture points to it.

In the first pages of our Bible, Moses records Yah's Words about His creation. In this narrative, we find:

Genesis 1:14-16

(14) And God said, Let there be lights in the firmament of the heaven **to divide the day from the night**; and let them be **for signs**, and **for seasons**, and **for days**, and **years**:

(15) And **let them be for lights in the firmament of the heaven to give light upon the earth**: and it was so.

(16) And God made **two great lights; the greater light to rule the day, and the lesser light to rule the night**: he made **the stars also**.

It is obvious that time-keeping from an earthly perspective is indicated here, but how are we to ascribe these lights to a calendar. Do they tell us when to begin a year or how to intercalate? What does the term intercalate even mean, and how does it apply to the calendar we decide to use? This study proposes to examine how the lights of Heaven relate to the calendar of the DSS and its function.

### **Intercalation:**

Let's start with the word intercalation. It takes 365.24667 for the earth's yearly path around the sun. Since we live on the earth and the sun dictates our agricultural growing cycles, we must correlate our calendars to the reality of the sun's relationship TO the earth. It is really that simple. On the Gregorian calendar we use in America, our typical year is 365 days, but the solar year is .24667 days longer. That means we fall behind the solar reality by roughly ¼ day each year until we adjust for that differential. So - we adjust our calendar with

an extra day (February 29) every four years, which brings us back into close proximity to the solar reality. The .24667 fractional day in the solar cycle makes it impossible for ANY calendar to completely synchronize with the reality of the yearly solar cycle without a periodic adjustment. When and how every calendar makes this adjustment is called intercalation. The timing for such intercalation and the amount of days involved when it occurs will vary from one calendar to another – depending on the calendar's format.

### **Analyzing Genesis 1:14:**

Genesis 1:14 says that the lights in the sky are for signs, **seasons, days, and years**. Notably absent are two periods of time: weeks and months. This leads us to consider that weeks and months may be derived by other means – such as by counting. In our book The Biblical Calendar Then and Now, we build a strong case that both the weeks and the months are determined solely by counting days in accordance with the structural schema of the DSS calendar. For instance, we count seven days, and we have a week. On the calendar of the scrolls, we likewise count 30 days, and we have a month. Using the moon to determine months may just be one of those ways that seems to be right to man as in Proverbs 14:12, and we concur that this type of rationale can lead to erroneous conclusions:

Proverbs 14:12

(12) There is a way which seemeth right unto a man, but the end thereof are the ways of death.

The word “signs” here is the Hebrew word Strong's H226 ('owth) – *sign, marker, signal, banner, token, ensign, standard*.

The word “seasons” in this verse is Strong's H4150 (moed) – *appointed time, feast, season*. There are other possibilities as well, but it can simply mean “seasons” (as in the 4 quarters of the year) - just as it is translated in Genesis 1:14. We understand that the equinoxes and solstices provide the markers in the sky for Yah's 4 “seasons”. They are the “signs” referenced in Genesis 1:14. The sun provides these markers, and determines when each one will appear. The sun and moon are faithful witnesses together to determine the division of day and night in order for days to be counted, and that appears to be the sole timing duty of the moon for Yah's sacred calendar.

### **New Moon:**

The word for “new moon” in our Old Testament Scripture is always the same Hebrew word Strong's H2320 (**chodesh**), which is used 274 times in Scripture. Yet it is only translated as “new moon” 20 times, so about 93% of the time it is

rendered as something else. Etymologically, this word indicates a repeating cycle - the ending of one cycle, a transition, and the entering into the next. Over the years, this etymological meaning has been obscured. We realize that when we go from one language to another, a great deal can be lost or misconstrued, and when going from the Hebrew of the preserved manuscripts to English, this can be very pronounced. It can be somewhat like trying to relate calculus in a language that a first grade student can understand. The barrier from one language to another can be hard to cross properly. A Hebrew word can have several meanings, even contradictory meanings or contronyms. Despite the best efforts of translators, the English rendering will never reflect all of these meanings.

This problem can be magnified when societal corruption and cultural changes play a role in translation. The proper translation may be compromised by this type of cultural bias. It may ignore a more accurate meaning which existed before the cultural change. This means that our current Bible translation for the word "chodesh" may not match Yah's original intent. If you refer to our writing titled [Qumran and Mishneh Torah](#) or view our video by the same name, we explain how this "new moon" translation was unfortunately based on the Babylonian culture carried forward after the captivity and recorded as "law" in rabbinic literature. It seems that our English translations (both Biblical and Lexical) were then drawn from this Babylonian rabbinic foundation. So - this Babylonian bias is carried forward into our English translation of "chodesh". Then by what we might call circular reasoning, the persistent dependence on the luni-solar calendar methodology in our own culture today is largely due to this unfortunate English translation.

### **Yareach – Moon:**

While the English occasionally indicates "new moon" as the translation for "chodesh", the Hebrew word for "moon" is actually something else entirely: Strong's H3394 (**yareach**). The only time this word is used is in reference to our physical moon. It is exclusive and distinct in its application.

The proper Hebrew rendering for "**new** moon" would be מולד הירח (molad ha yareach) - (mo.lad' ha.ya'.re.ach). This can easily be confirmed using:

[https://languagedrops.com/word/en/english/hebrew/translate/new\\_moon/](https://languagedrops.com/word/en/english/hebrew/translate/new_moon/)

In Hebrew, molad = birth and ha = the, so we have a literal meaning of "birth of the moon".

Likewise, at chabad.org we see that molad is the birth of the new moon:

[https://www.chabad.org/library/article\\_cdo/aid/216238/jewish/Molad-Times.htm](https://www.chabad.org/library/article_cdo/aid/216238/jewish/Molad-Times.htm)

... it is customary to announce the time that the **molad (birth of the new moon)** occurs in Jerusalem, so that it can be kept in mind while saying the blessing.

If "new moon" was a proper translation for the new phase of the moon in our English Bible, this Hebrew rendering would have been used instead of "chodesh". However, that is not the case. "Chodesh" was used in the manuscripts because the indication was never to be "new moon" at all.

### **Yerah – the Lunar Cycle:**

However, we do know that the moon has its own cyclic pattern or its own version of "chodesh" (repeated cycle) reckoning. The full moon is the common focal point in our agricultural communities. Actually the **Farmer's Almanac** lists a primary name (as well as several other potentials) for the full moon of each month, such as the "snow moon" for February, because heavy snow falls this time of year.

Likewise, there are 13 references to such a cycle in our Bible. The Hebrew word for this type of cycle is Strong's H3391 (**yerah**). An example of this word is seen in Exodus 2:2 regarding the mother of Moses. The moon is a loose gauge for the span of a month, and that was all the mother of Moses needed to observe for the timing she needed to consider. However in the 13 times in the Bible that "yerah" is mentioned, there is no precedent to indicate that this word even remotely implied a liturgical (priestly or festival) use. There are actually three moon names mentioned in our Bible, all of Canaanite origin. There are multiple spellings for these moons, but we'll use the common English spellings of Zif, Bul, and Ethanim. Zif is mentioned twice, while Bul and Ethanim get only one mention each. All of these references are within a three-chapter span (6-8) in the book of 1 Kings. Just as our culture has a moon for each month with specific names, we see that this may have been so with certain cultures in Biblical days as well.

Zif is a lunar renewal that occurs during the second month of the religious year which is in the spring. Accordingly, the Word Zif means *blossoms, bloom, brightness*. Ethanim is the lunar renewal that occurs in the seventh month of the year which is in early fall, so it means *ever-flowing streams*. It is presumed this name was due to the need of flowing water for the planting season at this time of year when the rains were few. Bul is the lunar renewal that occurs in the eighth month of the year which is in the middle of the fall season. Appropriately then, the word Bul means *rain, withering, increase, produce*. All three names are connected in our Biblical text to the Hebrew word "yerah" (the lunar cycle) as well as the word "chodesh". The use of "chodesh" indicates a renewing "cycle", and

“yerah” tells us which type of cycle – the lunar cycle. However, this type of cycle (the lunar month) is never shown Biblically to relate to liturgical use.

This abbreviated segment about “yerah” is a quick nuts and bolts version. If you want to dig a little bit deeper with us on this topic, we have we can provide more input. We can send you the digital notes on an involved study of this very subject. Unfortunately, the full study is just too lengthy for this writing. Just notify us with your request for our writing called Lunar Cycles – Detailed Version, and provide us with your email address so we can get it to you.

We need to reiterate here that the lunar cycle is not at all the same as the solar month. Astronomically they do not match, and that is the reason for so much differential between the rabbinic calendar in use today and the one revealed in the Dead Sea Scrolls, which actually matches Biblical criteria much better! We should note that the intercalation required by the luni-solar calendar is the periodic addition of a full month, which is 1/12 of a year – quite a large amount of time relative to seasonally-based agricultural concerns!

The take-away here is that the moon really has no bearing on Yah's calendar timing at all – except to work in tandem with the sun as the lesser light to rule over the night.

### **The Priestly Rotation:**

There is some conjecture that the priestly rotation as noted in scrolls 4Q320-4Q330 dictates when intercalation is to be determined for the calendar of the scrolls. We have worked with these Mishmerot scrolls, and they do indicate that there was an attempt to merge solar and lunar data to form this construct for priestly course rotation. However “attempt” is the key word here. Penguin Classics provides an overview for us (emphasis ours):

The Complete Dead Sea Scrolls in English by Penguin Classics – pp 347

*Twelve fragmentary manuscripts from Cave 4, palaeographically dated to the late second century BCE, present in various forms the peculiar 'solar' calendar – constructed in six-year sequences – of the Qumran community. Their year consisted of twelve months of thirty days each, plus four extra days added to each of the four seasons ... .Some documents from 4Q(320 and 321) **ATTEMPT TO combine this calendar with the various priestly courses which served in turn in the Temple for a week at a time from one sabbath to the following Friday.** They also combine it with the dates of the full moon given according to the days of the week of duty of the priestly course, the date of the solar month, and the equivalent date of the **lunar calendar of mainstream Judaism...***

This ATTEMPT appears to propose a pattern for priestly service that incorporated both solar and lunar considerations, allowing for a complete rotation in priestly service every six years. When coordinating the solar and lunar schematic data in this manner, it presented an **idealized** image of the sun and the moon roughly realigning every three years. Then by doubling this time span, it would work out for 13 full cycles of the 24 priestly course rotations to be completed, so the priestly rotations could be back to their starting point every six years. Then the sun, the moon, and the priestly courses would all be realigned to begin another six year segment of time. Each priestly course would serve for a one-week interval (from the onset of the weekly Sabbath into the following Friday), when the next priestly course took over.

This consistent change of courses was based on the solar data of the calendar that is routinely presented in the Dead Sea Scrolls. However, these manuscripts reflect an ATTEMPT to combine this data with compiled lunar data. The lunar data was based on scribal notations of "dwq" and "x" to depict new and full lunar phases. Ironically, there is considerable disagreement yet today within academia regarding the actual definitions for "dwq" and "x" as they are used in the lunar data logs, and some academic opinions are totally opposite the views of other scholars!

The solar calendar used by Qumran is schematic, so it must be intercalated - periodically realigned to the actual solar year. This calendar was already in place when these manuscripts were composed, as verified by the wording "*Their year consisted of twelve months of thirty days each, plus four extra days added to each of the four seasons*" in the quote above. Then these Mishmerot manuscripts show an attempt to align lunar data onto this preexisting solar calendar. In order to do this, the lunar data too must be re-orchestrated into a schematic format. The lunar schema then requires intercalation as well - the addition of an extra lunar month (much like mainstream rabbinic literature required) every three years in order to synchronize with its solar counterpart.

We realize that Enoch spent considerable time working through the lunar phases in his writings - as though they might somehow correlate to the solar year which he also described. However, in the days of Enoch, there may actually have been more synchronicity between the sun and the moon to warrant this. We know the length of our solar year has changed over time, thus the need today for intercalation.

There have been repeated attempts - very dedicated attempts - to realize such a synchronization between the solar and lunar data since the discovery of the scrolls, some using even more complex and extensive patterning, but all is seemingly to no avail. We actually have a very capable friend who has devoted

years of study to try to do this, and he acknowledges that there simply is no perfect fit.

Consequently, there is no evidence that this ATTEMPTED synchronization was ever implemented, as we have found no further mention of such a system being used throughout the scrolls, and certainly no foolproof means to determine intercalation for the calendar of the scrolls. Attempting to merge two sets of schematic data – each with its own intercalation – onto a single calendar configuration seems to generate problems. Conceptually, these schemas seem to coordinate nicely. However, observationally, this 6-year schematic method does not realistically hold up.

We have read scores of papers in academia by those who have actively worked with the scrolls, comparing and contrasting the scrolls as they deciphered them, and there seems to be a consensus that the moon simply does not have any role whatsoever in the liturgical calendar of the scrolls. They have determined that only the solar-based 364-day calendar was used for liturgical purposes:

Qumran Calendars: A Survey of Scholarship 1980 2007 – by Jonathan Ben-Dov and Stephane Saulnier, p 152

*Ben-Dov and Horowitz (2005:116) maintain that, although the Qumranic calendar experts kept constant record of a schematic lunar orbit, this record had no cultic-liturgical implications. Rather, 'at Qumran, sacred time was exclusively regulated by the 364 day year'.*

Note that “cultic” (as in this quote) is simply a DSS term to indicate: *of or relating to religious practice*. Likewise, “liturgical” relates to *liturgy and worship*. These “cultic-liturgical implications” would then be associated with the observance of the sacred Feast days, etc.

In a similar vein, Jonathan Ben-Dov amplifies this view in another of his works:

The 364-Day Year in the Dead Sea Scrolls and Jewish Pseudepigrapha by Jonathan Ben-Dov p 89

*There is no function for the lunar phases in the ritual calendar. The religious life of the community was dictated by the 364-day calendar alone; the yahad had no festival or sacrifice which depended on lunar movements, such as the first of the month, the full moon, etc. ... Also, when the phases of the moon are indicated in the calendrical documents, they are always indicated schematically and never by actual observation. In sectarian circles, the schematic year [the solar-based 364-day year] remained the exclusive mechanism to calibrate sacred time, although some other calculations were maintained alongside it for various other purposes.*

## The Stars:

Then we have the stars. The star-based calendar is now sometimes touted to be the calendar that requires NO INTERCALATION. How do the stars fit into this calendar picture? While the stars form a backdrop that loosely aligns to the change of the months in the mazzaroth, they also loosely align to the change of seasons and years when combined with the equinox and solstice markers.

A complete cycle of the sun through the Mazzaroth in the stars is called a "**sidereal year**". Some proclaim that a complete circuit of the sun through the stars makes a perfect year. However we don't live in the stars, so a year on earth is based on the relativity of the earth to the sun (which dictates our agriculture). A complete solar cycle for the earth is called the "**solar (or tropical) year**". Ideally these two cycles - the sidereal and the solar (or tropical) - would match exactly. THEN we could say that the complete cycle of the sun through the stars was a perfect year. However, today's reality proves otherwise.

When researching the sidereal year, we found the following link which does a wonderful job of pointing to the difference between the two:

<https://www.britannica.com/science/year#ref120290>

***The solar year (365 days 5 hours 48 minutes 46 seconds)**, also called tropical year, or year of the seasons, is the time between two successive occurrences of the vernal equinox (the moment when the Sun apparently crosses the celestial equator moving north).*

*Because of the precession of the equinoxes (an effect of **a slow wobble in Earth's rotation**), the solar year **is shorter than the sidereal year (365 days 6 hours 9 minutes 10 seconds)**, which is the time taken by the Sun to return to the same place in its annual apparent journey against the background of the stars.*

At the moment of creation, the timing of the solar year and the sidereal year might have been aligned, and that alignment might have continued until something happened to cause this "slow wobble". Some Biblical references might seem to allude to a correlation between these two types of years in the days those references were written. However we can easily observe today that this correlation has been loosening over time due to the wobble of the Earth. In our present reckoning of time, the evidence emphatically shows that the lengths of these two types of years are simply no longer aligned. We can easily see that today the sidereal year is no longer in step with the solar year. The 20-minute



differential between the two does not seem to be a lot – UNTIL – these 20-minute differentials are heaped on one another over the years.

So, let's work with this for a minute. The solar year is roughly 20.4 minutes shorter than the sidereal year. A day is 1440 minutes. If we divide 1440 by 20.4, we see that in just over 70 years, the sidereal will be a full day longer than the solar year. Over time, this differential continues to grow.

Yah provides specific timing for the spring festival days of His calendar, beginning with the 14<sup>th</sup> day of the 1<sup>st</sup> month. When the ripened barley is to be waved, it must be at the right stage of maturity. As time passes, the differential between the solar and the sidereal year becomes greater and greater. Eventually, the barley harvest will have passed before the first month even arrives on the sidereal calendar – UNLESS it has been intercalated! Granted this is down the road quite a ways, but the fact that the differential will keep growing shows that using a sidereal year to form our calendars will take us further and further away from the equinox each year unless intercalation occurs on the sidereal calendar.

An astrological Ephemeris uses calculations to compensate for the wobble and compile data of a simulated realignment of the stars to the earth over the years. However, this does not realign the stars to the earth, it only provides a picture of what would be if the change had not occurred. Actual astronomical data provides the picture of reality, and the differential will continue to increase over time.

## **The Sun:**

The Book of Jubilees concurs with many other manuscripts from the caves of Qumran. In The Book of Jubilees we find:

Jubilees – The Hermeneia Translation by James C. VanderKam:

*Jubilees 2:8-10:*

*8) On the fourth day the Lord made the sun, the moon, and the stars. He placed them in the heavenly firmament to shine on the whole earth, to rule over day and night and to separate between light and darkness.*

*9) The Lord appointed the **sun as a great sign above the earth for days, Sabbaths, months, festivals, years, Sabbaths of years, jubilees, and all cycles of the years.***

*10) It separates between light and darkness and (serves) for well-being so that everything that sprouts and grows on the earth may prosper. These three types he made on the fourth day.*

Verse 9 explains that the sun is to be used exclusively to determine the timing for

the calendar. Verse 10 then tells us why the sun has this magnified role – that everything that sprouts and grows may prosper. The calendar of the scrolls is built around keeping the Festival dates at their proper times. These dates are agriculturally based, and it is the heat and light of the sun that produces the crops. The moon and the stars have little to no bearing on crop development at all!

At the equinox, spring begins. It is the time in Yah's seasonal changes for the heat and light of the sun to be optimal for His agricultural cycles to begin. He has commanded the timing of His festivals according to this seasonal protocol. The spring feasts begin in the middle of the 1<sup>st</sup> month of the year, so it is important to begin this month at the right time. Starting the year at the equinox ensures that the heat and light of the sun are at just the right level for proper crop maturity for the festivals that fall in the first month. The vernal (spring equinox is the line going out to all the earth (Psalm 19:4) to signal that the time is prime for Yah's yearly cycles to occur on schedule.

Psalms 19:4-5

(4) Their **line is gone out through all the earth**, and their words to the end of the world. In them hath he set a tabernacle for the **sun**,

(5) Which is as a bridegroom coming out of his chamber, and rejoiceth as a **strong man to run a race**.

The sun is as a strong man here, and this line produced by the sun represents the signal that the exiting year has ended and the sun can begin the new year (the "race") to allow for that growth.

Starting this "race" of the new year's cycle at any other time – such as adding an extra month periodically on a luni-solar calendar - simply will not produce the same result. One month is 1/12 of a year, which can be too great an adjustment. The year 2016 was a good example. It was highly disputed that year whether or not to add a 13<sup>th</sup> lunar month. If it was added, the barley might well be past the prime stage for waving at the proper time, and if it was not added, the barley might not be ripe enough. It was a "no win" scenario. With the carefully structured calendar of the scrolls, Yah's masterful ordering of the seasons presents the optimal conditions to maximize the proper maturity of the crops for the festivals, and this calendar always begins the new year within a single week of the equinox, so there will be no such problem. He does things right!!

<https://www.torahtimes.org/writings/qumran-calendar/article.html> - The Qumran Calendar

*It so happens that the Qumran calendar in 4Q320 ... set up the cycle to follow the spring equinox, and then aimed to calculate the first Wednesday after it as the*

first day of their 364 day year.

In our article titled New Year, we explain that the calendar must always have even weeks, beginning each year on a weekday 4. So - if the typical 52 weeks of the scroll calendar ends before the equinox arrives, we simply wait an extra week for the equinox, and begin the new year the next weekday 4 (Wednesday):

This is the intercalation that keeps this calendar in sync with the actual solar year. If equinox occurs on a weekday 4 (Wednesday), the new year will begin that same day. That will be like it was when the lights of the Heavens were put in place on weekday 4 of creation:

<https://www.torahtimes.org/writings/qumran-calendar/article.html> - The Qumran Calendar

*The Qumran calendar assumes that the first of Nisan fell on a Wednesday on the day of the spring equinox when the world was created, ... .*

The old year must end before the new can begin. The scrolls consider the equinox to be the marker that the old year is complete so the new year can begin. Therefore, we should never begin a new year until it arrives. When the 52 complete weeks are past and the equinox has not arrived, we must wait for it before beginning the next year. This necessitates an extra full week at the end of the old year before we can begin the new year on the following weekday 4 (Wednesday). This happens roughly every 6 years, and it is the intercalation that provides the realignment to the solar reality. Waiting for this equinox marker is inherent within the calendar of the scrolls, making it self-correcting. No instructions are needed. Just follow the protocol of the scroll criteria to start the year each and every year, and it falls right into place. Again, our article titled New Year will shed more light.

We may sound overly adamant, or it may seem that we are too quick to reject the alterations suggested by others. That is not because we want to be inflexible, but because we must profess what we have been shown, and it is important to us to abide by our commitment to the body of Messiah.

It is our commitment to strive to present the pure and unadulterated calendar of the scrolls – just as it is found there. That is because we have found it to be the historically documented authentic calendar of antiquity used by Yah's people. We have noted that regardless of how pleasing any other calendar version may seem, and how much they might seem to be right in the eyes of man, there is no other calendar which has the historically documented verification that this calendar has. We find evidence that it was used by Noah, used during the wilderness days of the exodus from Egypt, used in the days of David and Solomon, used in the 7<sup>th</sup>

century BCE, and we know it was used by the ordained high priesthood of Zadok and his descendants until Qumran came under siege. Likewise, there is evidence that Y'shua and his disciples, as well as Paul used this calendar in the early days of Christendom - in spite of coercion by rabbinic Judaism to keep the adulterated oral law version brought forward from Babylon by Hillel. We understand that it may not be to everyone's liking, and it may not be the calendar some people would choose in this "natural human state". However, this calendar of the scrolls just is what it is, being clearly presented in the Dead Sea Scroll manuscripts. Unfortunately, there have been many attempts to tweak a little here, and adjust a little there to make "so called improvements" to this calendar - ways that seem right to man. We realize that such attempts by man to improve that which has been shown to be divinely orchestrated by Yah can put one on very dangerous ground (Prov 14:12). Therefore, we do not condone any deviation whatsoever from the actual calendar (and the function of it) as presented in the scrolls. We adamantly believe that the calendar of the scrolls MUST remain in its pure form, and that is what we endeavor to present to the body of Messiah today.

So - we await the equinox and start the year on the next weekday 4 (Wednesday) each and every year. It is really that simple. This simplicity makes a great deal of sense, since our Yah is not an Elohim of confusion (1 Corinthians 14:33). This form of intercalation allows all Yah's people to be able to create their own calendar without any complex configurations or calculations. Checking a sundial once a year and counting days is really all we need to do to keep this calendar. The schematic structure of this creation-based Sabbath calendar which Yah provided for his people is profound beyond measure, yet it is so simple a child could follow it, which may have been His intent all along!