

# Is The “Aviv Barley” A Determining Factor Today?

By Rabbi Moshe Yoseph Koniuchowsky

\*\*\*Author’s Note -The reason many Karaites and Messianics are getting angry and short with me, sadly even on an ugly and personal level, is because their newly acquired beliefs are being challenged, for the first time since the Jerusalem based Kairites began to make inroads into Nazarene Yisraelite and Messianic thinking about 8 years ago. The Karaites have begun making major inroads (mostly among Ephraimites) into the minds of believers seeking truth, with the Karaite sponsored annual barley hunt. Add to this several well-known ministers who have recently converted to Karaite type faith. These leaders range from those who deny Yeshua, the Renewed Covenant and virgin birth, to those who believe in Yeshua, but have ministry/fellowship relationships with unbelieving Karaites. Several Karaites are former believers who now no longer trust Yeshua. The history of Karaiteism is shocking and can be researched in other venues. On their own website you’ll see links and articles from the anti-missionaries themselves <http://www.light-of-israel.org/> against any faith in Yeshua and His blood! Why are the Karaites carrying anti-missionary links? Are these the folks you really want to receive teachings from? Yet, we must not allow the calendar debate to divide friendships, as this hotly debated issue goes back 3,000 years and has in the past caused giant schisms in Yisrael, even as it does today. But to ignore it for me it would also be the sin of omission of the presentation of truth. I present this material as a former follower of Kairite reckoning until 3 years ago, who has seen the error in their thinking, as a MAJOR stumbling-block to unity between both houses of Yisrael!

Please read this carefully with an open mind and ask YHWH to correct you if perhaps you’ve rushed to error!

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What about AVIV BARLEY YOU SAY! We must go by Aviv barley. MUST we? Let’s see what Torah actually says.....Vayikra/Leviticus 23: 9 says, AND YHWH SAID to [thru] Moshe.....

10 Speak to the children of Yisrael [all 12 tribes], and say to them, When you have come into the land [all 12 tribes] which I give to you, and shall reap the harvest of it, then you shall bring a sheaf [omer] of the resheet [beginning] of your harvest to the kohen:

11 And he shall wave the sheaf [omer] before YHWH- vuvh, to be accepted for you: on the next day after the first day [after Aviv 15 on Aviv 16] the kohen shall wave it.

## No Standing Temple

We see that the Aviv barley is a non-factor and has been so for nearly 2,000 years, as long as all 12 tribes are not in the land! BUT even for those few Jews in the land, the Aviv barley is a non-factor, as long as THERE IS NO STANDING MORIAH TEMPLE! Assuming barley is a legitimate indicator of the New Year (Aviv 1), what Temple do the Kairites bring their barley to? The answer is none! Moreover, the true Temple in the heavens where Yeshua

ministers before YHWH they have rejected, since He Himself is the first sheaf wave offering before the Father for born again believers. But since most Kairites reject Yeshua as Adonai, who according to First Corinthians 15:20 is the “barley omer wave offering” for Renewed Covenant BELIEVERS, they and their followers have no Temple on earth, or in the heavens. If you are not in the land, or even if you are in the land, you don't have to worry about whether the barley is green, purple, yellow, or polka-dotted.

The Aviv barley is a non-factor, as long as there is no current functioning Temple on earth. The barley will once again become a factor in the new millennial temple as described in Ezekiel chapters 40-48, especially with the reconvening of a new sitting Sanhedrin in Yisrael. But not before!

Why don't we as believers trust in the validity of sacrificing bulls and goats today? Because there is no standing Temple. Yeshua has come as the eternal offering for sin, both intentional and unintentional. Why don't we trust in Aviv barley sightings? Same reason! Yeshua became our “first omer barley offering” in the Temple made without man's hands. Thus, if the barley is now necessary to guide us in declaring the month of Aviv, so must the bulls and goats be necessary to provide blood atonement today. Most Kairites have neither YHWH's blood forgiveness by Yeshua and neither do they have Him as their barley wave offering; thus the overwhelming need to find earthly barley. Until the Temple is rebuilt, the barley is also irrelevant to the Karaites and those who factor the Aviv barley while in their exile.

### No Kohen on Earth or Kohen Gadol in the Heavens!

For those who "find" Aviv barley, where is the Aharonic kohen/priest to receive it? Rather, who is the kohen? Rather, who is the Kohen Ha Gadol? Rather, where can the Karaites find the Kohen? Answer: NOWHERE ON EARTH! Why? The Levitical priesthood cannot function without a Moriah Temple, or earthy tabernacle.

But for born again believers, we have an answer to the missing Temple and the missing Priest. The Scroll of Hebrews tells us that Yeshua ministers in a real but unseen heavenly Temple with Yeshua being the HIGH PRIEST and FIRST OMER/SHEAF WAVE BARLEY HARVEST OFFERING! So as believers, we have all the prerequisites for a heavenly fulfillment of Vayiqra/Leviticus 23:14. But since the average Kairite rejects Yeshua and all revelation pertaining to Him, they have nothing, and their barley becomes a work of their own Torah, or tradition. Sadly, for them anyway, YHWH has not seen fit to provide them with a way to turn their tradition of men into a true Torah mitzvah, due to lack of both Temple and priesthood.

For those who reject Yeshua, and who have no Kohen in heaven, or on the earth, the barley remains an irrelevant factor UNTIL THE TEMPLE AND THE AARONIC PRIESTHOOD ARE BOTH RESTORED.

### Sunday Worship

Even sadder, the Kairites method of presenting their barley find on Sunday and counting the omer from Sunday to Sunday, establishes a clear connection with SUN worship. Those who

do bring the barley incorrectly even while living in the land, bring it on the first "SUNday" of Passover week, when as seen in the RSTNE, DSS (Dead Sea Scrolls, LXX (Septuagint) Josephus, Philo and the Talmud, the correct day is Aviv 16 for the barley to be presented. So the Karaites who seem to emphasize the Aviv barley, don't even have the correct day for their first barley harvest presentation, even if barley was needed, and even if there was a Temple and even if there was a Aharonic Priest in that Temple!!

One cannot, should not, and must not make barley an issue in Pesach determination, when according to Torah it is not! During the 40 years in the wilderness Pesach was still celebrated without barley, as it was for the 70 years in Babylon, and as it has been for the last 2,000 years.

Nazarene Yisraelites and Messianics who insist on believing the Kairite doctrine of spring "barley hunting" must also be consistent and logical by procuring/acquiring bulls and goats to shed the blood of atonement as a sacrifice (in light of the fact that the Temple and priesthood do not stand). Be consistent please! If blood cannot be offered today, neither can barley, as both priesthood and Temple remain absent to receive them.

So whether you or I are in or out of the land, you don't have to worry about whether the barley is green, purple, yellow, or poke dotted, or whether it was sited in Jerusalem, or in Disneyworld!

### Aviv Does Not Mean Ripe Barley Alone!

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#### Key Points

- (1) Shemot-Ex 9:31-32 in its context shows that AVIV includes a multitude of stages of the growth of the ear of barley. One text in the Dead Sea Scrolls shows it to mean fully ripe ears. With such a variance in the inclusive meaning of AVIV, how can it be used to determine the first month?
- (2) The presence of AVIV in Yisrael applies to several months from the meaning of AVIV, so that its name does not uniquely determine a month.
- (3) Since Moses never went into Yisrael and did not know when barley grew through its various stages there, and since the stages of barley growth in Egypt are different from the stages of barley growth in Yisrael [well documented], how would he know to think about barley growth in Yisrael in relation to the first month at the time that Ex. 12:2 was told to him (given that there is no mention of barley), or AVIV in the immediate context of Ex. 12:2?
- (4) Although there is evidence that the wave sheaf offering should be performed with domesticated barley rather than wild barley, there is no evidence that the general meaning of AVIV must be restricted to domesticated barley. The word AVIV does not occur in contexts of the wave sheaf offering of Vayiqra 23! The words are "resheet omer," or "first harvest"! How does one use the Bible to decide whether to use wild or domesticated barley in any proposed definition to use AVIV to define the first month?

(5) If a proposed definition of barley ALONE is used to determine the first month, what would prevent a year from having eleven months, and how should this be accepted in light of Esther 9:19-23?

(6) The second biblical month is called the month of "brightness of flowers" (Hebrew word ZIF in Melachim Alef/I Kings. 6:1, 37) which prevents the phrase "month of Aviv" from meaning "month of the first Aviv" because the first AVIV occurs too early for the second month to be the month of brightness of flowers. Since month of Aviv does not mean the month of first AVIV and several months show AVIV, how does one decide the month of Aviv from the word AVIV?

(7) Bamidbar/Num 9, especially verse 22, shows that Yisrael did not search for AVIV in Yisrael to determine the first month during the 40 years of wandering in the wilderness. This is a type of how people all through history from that time onward who wanted to keep the festivals were expected to use a different method than searching for AVIV to determine the first month, especially in view of Deut. 30:11-14. Similarly, Karaites in Babylonia about 1000 CE used the vernal equinox and ignored the barley; they were too far away from Yisrael to use barley, and it is not known that they would have used barley if they could have known its status.<sup>[1] [2]</sup>

(8) In the first century it would have been a significant problem for news about barley just prior to the first month to reach Jews about 1,500 miles away in Rome in time for the days of Unleavened Bread for local observance in Rome. This problem is far worse for a person who wishes to travel from Rome to Jerusalem to keep the feast there after hearing the news about the barley in Rome. While hypothetical high speed runners and fire signals might be employed in getting news to Rome in time, this does not help people who want to travel from Rome to Jerusalem to keep the feast after finding out that the month which recently began is the first month. If using barley is the proper method, what advice does one give to the Jew in Rome who wants to go to Jerusalem for Passover? AND HOW DID JEWS IN ROME ARRIVE IN TIME FOR SHAVUOT IN ACTS 2, WHEN IT TAKES 2 TO 3 MONTHS BY BOAT based on Aviv barley, allowing merely 14 days for Passover arrival and less than 2 months for Shavuot arrival!

(9) What Scripture is strong enough to overturn the direct cause and effect statement in Gen 1:14 that the lights in the heavens are for festivals (moedim) and years? Neither Vayiqra/Lev. 23:10 nor Devarim/Deut. 16:9 provides a direct statement that the wave sheaf offering determines the first month.

(10) Ezra 6:15 and Nehemiah 6:15 tie in with Beresheet/Gen 1:14 to give the biblical and archaeological evidence that together show explicit evidence that Beresheet/Gen 1:14 involves the vernal equinox so that the first month begins on or after the vernal equinox. The Hebrew word TKUFAH can mean equinox, or solstice depending on context. (11) Philo of Alexandria explains Beresheet/Gen 1:14 and Shemot/Ex 12:2<sup>[3]</sup> without the use of barley, and with the use of the vernal equinox.

Also, AVIV means SPRING, or SPRINGING FORTH, not just barley, as seen in such translations as Stone's Edition, or even in Strong's concordance.

### The Wilderness Precedent - 40 years of Determining New Year (Aviv 1) Without Barley!

The First Month During the 40 Years of wandering in the wilderness Bamidbar/Num. 9:1-14 describes the keeping of the Passover in the wilderness during the first year after the Yisraelites left Egypt. In order to do this during the 40 years in the wilderness they would have to determine when the first month was. Bamidbar/Num 9:15 "Now on the day that the

tabernacle was erected, the cloud covered the tabernacle, the tent of the testimony, and in the evening it was like the appearance of fire over the tabernacle, until morning.

Bamidbar/Num 9:16 So it was continuously, the cloud would cover it by day, and the appearance of fire by night.

Bamidbar/Num 9:17 And whenever the cloud was lifted from over the tent, afterward the sons of Yisrael would then set out; and in the place where the cloud settled down, there the sons of Yisrael would camp.

Bamidbar/Num 9:18 At the command of YHWH the sons of Yisrael would set out, and at the command of YHWH they would camp; as long as the cloud settled over the tabernacle, they remained camped.

Bamidbar/Num 9:19 Even when the cloud lingered over the tabernacle for many days, the sons of Yisrael would keep YHWH's charge and not set out.

Bamidbar/Num 9:20 If sometimes the cloud remained a few days over the tabernacle, according to the command of YHWH they remained camped. Then according to the command of YHWH they set out.

Bamidbar/Num 9:21 If sometimes the cloud remained from evening until morning, when the cloud was lifted in the morning they would move out; or if it remained in the daytime and at night, whenever the cloud was lifted, they would set out.

Bamidbar/Num 9:22 Whether it was two days or a month or a year that the cloud lingered over the tabernacle, staying above it, the sons of Yisrael remained camped and did not set out; but when it was lifted, they did set out.

Bamidbar/Num 9:23 At the command of YHWH they camped, and at the command of YHWH they set out; they kept YHWH's charge, according to the command of YHWH through Moses."

Notice in verse 22 that even if the cloud lingered for a year they remained camped. Their coming and going was strictly governed by the cloud by day and the fire by night over them during the 40 years. Not by barley! As Yisrael, we are in the wilderness of exile in the nations, and MUST by definition follow this precedent in that there is no Moriah Temple, or Aharonic priesthood available on earth to whom we may bring the first harvest wave offering!

The only exception was when the 12 spies were sent out, which occurred before the announced 40-year punishment of wandering in the wilderness (Num 14). There is no hint that they violated the rule of remaining with the miraculous cloud and fire by sending search parties into Yisrael to seek AVIV to determine the first month during the 40 years.

### Karaites And 11 Month Years

The following paragraph appears on page 326 of Ankori: "Thus, in the case of an unusually early ripening of barley in Palestine, the twelfth month of the Karaite calendar-year, Adar, would yield to Aviv/Nisan, the first month of a new year. Indeed, an actual occurrence is cited when the Purim Festival, due to fall, as a rule, in the middle of Adar, was shelved altogether to make way for Passover, which falls in the middle of the succeeding month of Aviv/Nisan." Historical data places this in the year 1006-1007 CE. In Esther 9:19-23 it is clear that the Jews had decided that every year on the 14th and 15th days of the 12th month Adar they would celebrate Purim. Hence they understood that every year had to have at least 12 months' but the Karaites who used barley apparently accepted the viewpoint that some

years might only have 11 months based on the early state of the barley. HOW IS THAT NOT MAN'S TRADITION!!!

### Karaites Don't Agree Among Themselves

In Poland today (and scattered elsewhere in eastern Europe) there are some Karaites that follow a Karaite group that uses the vernal equinox and not the barley to determine the first month.

In discussing the Karaites, pages 392-393 of Nemoys state, "Some of them begin the '(month of the) fresh ears' (with the appearance) of (any kind of) green herbage, whereas others do not begin it until (fresh) garden-cress is found all over Yisrael; others begin it only when (at least) one piece of ground becomes ready for harvest; still others begin it even when only a handful of corn is ready for harvest." This indicates that Karaites in the middle-ages who wanted to use vegetation to determine the first month could not agree among themselves on the method, undoubtedly because the Bible does not provide a botanical description for the month of Aviv.

### Spring Equinox and Solstice is in the Bible

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### New Discoveries In The Dead Sea Scrolls About TKUFAH!

The Hebrew word TKUFAH, Strong's number 8622, occurs four times in the Bible, Shemot/Ex 34:22; I Shmuel/Sam 1:20; II Divre Hayamim/Chr 24:23; Tehillim/Ps 19:7. In 1907 when the well known lexicon by Brown, Driver, and Briggs abbreviated BDB was published (see page 880 for TKUFAH), the Dead Sea Scrolls were not yet discovered and clarifying insightful meanings into some ancient Hebrew words were not yet available. The Dead Sea Scrolls use the Hebrew word TKUFAH in contexts before the time of Moshiach, and this is now discussed. The paper by Hoenig discusses a scroll labeled I QH among the Dead Sea Scrolls. On pages 312-313 he explains two expressions found there: one is "TKUFAH of the day" and the other is "at the appointed time of the night at TKUFAH".

Hoenig explains that the former means "zenith of the day" meaning "noon" and the latter means "at the appointed time of the night at zenith" meaning "midnight". It is particularly interesting that in the expression "at the appointed time of the night at TKUFAH" the Hebrew word for "appointed time" is MOED, the same word used for the holy days in Vayikra/Lev. 23 and for seasons in Beresheet/Gen 1:14. Thus it is not foreign to ancient Hebrew to use or associate TKUFAH with MOED. This use of TKUFAH shows two heavenly bodies, the earth and sun, interacting on a daily basis so that at astronomically distinctive points in time TKUFAH refers to those points in time.

In the book chapter by Johann Maier one of the Dead Sea Scrolls is discussed that contains the Hebrew word TKUFAH. On page 146 Maier writes, "The Songs themselves are attached to the thirteen Sabbaths of one quarter, or season (tqufah) of a year, according to the editor the first quarter (the Aviv season) only." Here we see the Hebrew

word TKUFAH used for the season of spring, which begins with the vernal equinox and ends with the summer solstice. Here also astronomically distinctive points in time involving the earth and sun define a time period called TKUFAH.

### Spring Equinox in Sirach/ Ecclesiasticus

The intertestamental (between testaments) apocryphal Book of Sirach (also known as Ecclesiasticus) contains the Hebrew word TKUFAH. This book was written in Hebrew about 190 BCE, but today only incomplete sections of it have survived, having been discovered with thousands of other Hebrew texts in the attic of a synagogue in Cairo, Egypt toward the end of the nineteenth century. The treasure of texts in that attic which survived for many hundreds of years is known as the Cairo Geniza. There are many copies of Sirach in Greek translation, and most of the Hebrew words in Sirach 43:7 is preserved, one of them being TKUFAH.

The Greek translation for TKUFAH is SUNTELIA (Strong's Greek number 4930) which means completion, fulfillment, or destruction. These words indicate a point in time at which some event occurred. In harmony with this idea, the Jerusalem Bible translates Sirach 43:7, "the moon it is that signals the feasts, a luminary that wanes after her full". Here "her full" refers to the full moon and is translated from TKUFAH, or SUNTELIA. Here TKUFAH refers to a natural distinctive time of the moon in its movement about the earth.

These contexts from the Dead Sea Scrolls and from Sirach from before the time of Moshiach show that the Hebrew word TKUFAH is used to refer to natural distinctive points, or time intervals associated with the heavenly bodies of the earth, sun, and moon.

On page 394 of the lexicon by Holladay the word TKUFAH is defined. The parentheses and square brackets are part of the text of that book by Holladay where he writes about TKUFAH "turning (of sun at solstice) Ps 19:7; (of the year, i.e. end of year, at autumnal equinox) Ex 34:22; (of the days [i.e. of the year] = end of year I Sam 1:20".

In Shemot/Ex 34:22 Moses was told, in literal translation, "And you shall celebrate the Feast of Ingathering/Sukkot/Tabernacles/TKUFAH the year." There is no Hebrew preposition attached to TKUFAH here so that the relationship between this feast/Sukkot and TKUFAH is very indefinite, although translations attempt to make it definite by adding some preposition that is not in the Hebrew. This verse does not define an explicit relationship between these events, but merely indicates that there is some vague closeness in terms of the general year. In harmony with the astronomical uses shown above, this refers to the autumnal equinox.

Certainly Moses was aware of the equinoxes from the knowledge he gained in his upbringing in Egypt (Ma'aseh Shlichim/Acts 7:22), and the fact that the greatest pyramids had one wall aligned exactly east-west. Only on the days of the equinoxes does the shadow of a vertical object fall exactly east-west all day long. The ancients were easily able to determine an east-west line. Therefore the equinoxes are visible signs of the sun in relation to the earth and do fall within the purview of signs in Beresheet/Gen 1:14 "lights in the expanse of the heavens ... for signs and for festivals and for days and years".

### The main points are:

- (1) The Hebrew word TKUFAH found in Scripture does have use outside the Bible before Herod's Temple in Jerusalem was destroyed in 70 CE.
- (2) Contexts with TKUFAH show it to mean distinctive points in time in relation to movements of the heavenly bodies as observed from people on earth. Also, it is used for the time period between the distinctive points, i.e., the Aviv TKUFAH, or spring season.
- (3) Moses used this word. While he did not specifically use it to refer to the Spring vernal equinox, Ex 34:22 refers to the autumnal equinox in connection with Sukkot, at least showing that Moses had a word in Hebrew that refers to an equinox.

Does Shemot/Ex 34:22 refer to the end of the harvest when it uses the word TKUFAH? There is no ancient context that forces TKUFAH to mean a "point" of time defined by a barley harvest in contrast to ancient contexts that show it to relate to heavenly bodies. This is simply a matter of finding contexts that bring out meaning that is clear.

Incidentally, the three main crops harvested at that general time of the year are figs, olives, and grapes. Figs, are a summer fruit, hardly ever extending into fall. The olive harvest occurs in September and October, and is over in most parts of Yisrael by about the third quarter of October. The grape harvest begins with sour grapes in July but with ripe grapes in some areas of Yisrael from the beginning of August. The grape harvest continues through about the first third of November in the area of Jerusalem.

The uses of TKUFAH in the Dead Sea Scrolls shows the meaning of a point in time.

### Equal Daytime and Nighttime is Not the Biblical Equinox

The word "equinox" comes from the Latin language and means "equal night" which implies that daytime and nighttime are equal at the time of an equinox. But did the ancient people that used this Latin name equinox use the meaning of this word in practice, or was it a mere guess that daytime and nighttime are equal on the days of the equinox? It will be shown that this was a mere guess. Near the dates of the equinoxes the difference in time from sunrise to sunset from one day to the next is about two minutes.

In order to determine the date upon which daytime and nighttime are equal at a certain latitude, it is required that a clock exist that can measure time during a 12 hour period to an accuracy that is better than two minutes per day. When ancient Babylonian astronomers recorded an eclipse or the disappearance of a planet behind the moon, they wrote down the time it occurred as well as the month, day of the month, and year of a king's reign. The paper of Stephenson explains that the smallest Babylonian unit of time was called an "us" and equaled 1/360 of a day, which is four minutes.

Moreover, the Babylonians never expressed time as a fraction of an "us." This shows that they made no attempt to express time more accurately than to the nearest four minutes with their water clocks. The paper of Steele showed a summary of a computer study of Babylonian astronomical phenomena from 562 BCE to 41 BCE, all recorded with a time of day. The conclusion was that the average accuracy of the recorded time was two

us's which represents eight minutes from the true time. Moreover, accuracy remained the same during this 500-year period; their water clocks used for this purpose did not improve. One reason that water clocks were not accurate is that as temperature changed, the dripping rate changed. Another reason is that the construction of the mechanism and the recording method was not accurate. Page 609 of Ward shows a graph of how the accuracy of time mechanisms improved through history, based on historical improvements. This chart shows a sudden leap to about two minutes per day in the year 1656 when Christian Huygens perfected the pendulum clock.

Ancient peoples did not have the ability to determine the day at which daytime and nighttime were equal because their clocks were not accurate enough. The day upon which daytime and nighttime are equal depends on the latitude of the observation because refraction of light increases as one gets closer to the north and south poles.

As already explained from Eccl 1:5-6, the Bible indicates that the sun's annual position was noted on the basis of its south-north movement which was not a matter of measuring the time of day.

The Hebrew noun TKUFAH has an inner stem in common with the Hebrew verb NAHKAHF which occurs 19 times in the Bible. The latter means "to surround" 11 times - I Ki 7:24; II Ki 6:14; 11:8; II Chr 4:3; 23:7; Job 19:6; Ps 17:9; 22:16; 88:17; Isa 15:8; Lam 3:5. It means "to go around" four times - Josh 6:3, 11; Ps 48:12; Isa 29:1 ("add year to year, let feasts 'go around'"). It means "to destroy" twice - Job 19:26; Isa 10:34. It means "to curve" once - Lev 19:27. It means "to finish" once - Job 1:5. The overall flavor of this word indicates the idea of encirclement which does not have any implication about accurate clock time measurement. The relationship between TKUFAH and NAHKAHF indicates that encirclement of heavenly bodies provides the basis of the meaning rather than the Latin meaning of equinox (equal night with day). When the word equinox is used, its original Latin meaning is discarded, and instead, the time of its practical determination anciently is meant. This time agrees with the modern astronomer's time for the equinox although the modern astronomer uses a technical definition that ancient peoples could not have used.

Page 124 of Pannekoek states, "Another instrument they [the Greek astronomers living in Egypt after the time of Alexander the Great] used was an equatorial ring, placed before the temples in Alexandria, in Rhodes, and perhaps in other towns, for calendar purposes. It consisted of a cylindrical belt, with its upper and lower borders exactly in the direction of the equatorial plane; the shadow of the southern half upon the inner side of the northern half left a narrow line of light at the upper or at the lower side of the equator. Thus the exact moment of the equinoxes could be fixed." This modern description of this ancient instrument uses the term "equatorial plane" which the ancient Greeks did not use; they bisected shadow angles at the solstices in order to construct this instrument which is today called the equatorial ring. Pages 73-74 of Pannekoek state, "The Babylonians, according to Greek testimony, used a vertical pole for measuring shadow length; thus they could determine the moments of solstice and, as medium points between the solstices, the moments of vernal and autumnal equinoxes."

The paper by Neugebauer proposes a simple geometric method by which the Great Pyramid could have been constructed so that it could have achieved its great accuracy in cardinal directions (precise east-west and north-south). Only on the days of the true equinoxes (not when daytime and nighttime are equal) does the shadow of a vertical object fall exactly east-west all of the daytime.

Pliny the Elder, writing about the middle of the first century, defines the equinox in two ways that are somewhat contradictory on page 309 of Pliny\_1. He writes that "at the season of the equinox sunrise and sunset are seen on the same line", and this is the east-west line; this definition is practical and accurate, and while stated in a way that is very different from a modern astronomy book, it is nevertheless the same in the time. Pliny also writes "the equal hours of day and night at the equinox". When rounding off to hours this is correct, but not when rounding off to minutes in the latitude of the Mediterranean Sea where Pliny lived.

On page 81 of Pasachoff we find, "These points are called equinoxes because the daytime and the nighttime are supposedly equal 12-hour lengths on these days. Actually, because the refraction by the earth's atmosphere makes the sun appear to rise ahead of the middle of the sun, at U.S. latitudes the daytime exceeds the nighttime by about 10 minutes on the days of the equinoxes. The days of equal daytime and nighttime precede the vernal equinox and follow the autumnal equinox by a few days."

This is about four or five days for the U.S.

The Vernal Equinox and Ex 12:2 Gen 1:14 mentions the lights in the heavens, and these are the sun, the moon, the stars, the planets, and comets.

The cycles of the planets and comets are much too irregular in comparison to repeatable phenomena on the earth to consider in relation to a biblical calendar when considering the lights in the heavens. The stars must be excluded because during every 1000 tropical years the time of the appearance of the stars slowly shifts about 14.1 days further into the tropical year thus losing touch with the earth's seasons; this is called precession of the equinoxes in books on astronomy. Only the sun and moon remain to be considered.

The moon determines the months, but not which month is the first. Only the sun remains to be considered. The only repeatable time points involving the sun are the two equinoxes and the two solstices. Considering that the barley and wheat in Yisrael are harvested in the spring, the vernal equinox is the only logical candidate to consider that involves the lights in the heavens on the direct basis on Gen 1:14.

We must seek to know what Moses knew. Maaseh Shlichim/Acts 7:22 reads [NKJV], "And Moses was learned in all the wisdom of the Egyptians, and was mighty in words and deeds." Pages 333, 336-337 of Lockyer show that most of the Egyptian pyramids are oriented east-west, and the two largest pyramids at Gizeh built by Cheops and Chephren are oriented east-west, having one wall aligned exactly east-west.

Pages 63-64 of Lockyer explain that the sun's shadow on a vertical object from sunrise to sunset fall exactly east-west only on the days of the equinoxes. So it is clear that Moses knew how to determine the days of the equinoxes.

When one considers that Gen.1:14 points to the lights in the heavens to determine the festivals and knowing that only the vernal equinox is related to the time of the year under consideration, Moses would naturally think of the vernal equinox in relation to Ex 12:2. That would be Egyptian training, Egyptian thinking, Egyptian context, and in harmony with Beresheet/Gen 1:14, the only explicit Scripture that directly addresses the determination of the festivals. Would Moses think of the vernal equinox if it had not yet occurred by that day? No, it would be premature for him to think of it. The natural thinking from Ex 12:2 in the context of Egypt and what Moses knew would point to the vernal equinox as having occurred. Would Moses think it was necessary for him to explicitly mention the vernal equinox in the context of Gen 1:14? If this is the only choice there was, he need not think it was necessary. Moses HAD NO TRAINING IN BARLEY HUNTING OR ITS DETECTION! THE TERM "THIS MONTH" WAS A MONTH BASED ON EGYPTIAN UNDERSTANDING THAT HAD ALREADY BEGUN!

### Ezra and Nehemiah in Relation to the Equinox

Ezra 6:15 mentions the month Adar and Neh 6:15 mentions the month Elul. These are month names in the Babylonian calendar, but these verses are in the context of Jerusalem and Yehudah. From 499 BCE to 400 BCE the Babylonian calendar followed a 19 year pattern which began Aviv/Nisan 1 on or before the vernal equinox. History reveals that Ezra traveled from Babylon to settle in Jerusalem in 458 BCE, and Nehemiah followed in 444 BCE. They were apparently willing to replace the use of the name Aviv with the name Nisan in the context of Jerusalem because they accepted the Babylonian month names AND CALENDAR being outside the land!!!

Nehemiah 8: 2, 9 show that Ezra kept the holy day of the first day of the seventh month (Yom Teruah) at the correct time. From this time onward, Yisrael used the Babylonian month names and days for their calendar, which would have led to confusion unless the Yisraelite calendar and the Babylonian calendar began Aviv/Nisan at the same time almost always during the century in which Ezra and Nehemiah lived.

The claim has been made that the Persian Empire forced the Jewish leadership in Yisrael to accept the Babylonian month names into their religious calendar and discontinue all of the original month names. Ezra 7 gives the text of a letter from the Persian King Artaxerxes to Ezra the priest, and in verse 16 the king writes that the religious laws are in the hand (power) of Ezra, showing that the king is respecting the independence of the priest in carrying out the laws of the Bible. Not only did Ezra and Nehemiah not change AVIV 1, BASED ON JERUSALEM BARLEY HUNTING, BUT FOLLOWED IT THE SAME AS THE BABYLONIAN CALENDAR, WHICH ALWAYS BEGINS AVIV 1 JUST BEFORE, OR AFTER THE VERNAL EQUINOX! Are the Kairites saying that Ezra and Nehemiah, choice servants of YHWH, were not being led by the Ruach HaKodesh in using and restoring a barley hunt?

Nehemiah 5:14 shows that Nehemiah was appointed governor by the king, and in Nehemiah 13:30 Nehemiah writes, "Thus I cleansed them [the Israelites] of everything pagan." Yisrael had religious autonomy and self-determination. If the Babylonian Nisan was sometimes not the Jewish first month, then the Jews would have kept both sets of names to avoid confusion with their numbering of religious months. Or instead, the Jews could have merely

used numbers of the months without names for the religious calendar. But Ezra and Nehemiah kept the Babylonian calendar, since both calendars began Aviv/Nisan 1 just before or after the Spring Equinox!

### The Book of Maccabees in Relation To The Spring Equinox

The book of I Maccabees covers the history of Yisrael from about 175 BCE to 130 BCE and was originally written in Hebrew. It shows the military struggle of the Jews to gain independence from Seleucid domination. The Jews had some degree of success, but it was a continual struggle. In this context of greater Jerusalem the Jews use Babylonian month names and calendar for their calendar in I Macc. 4:52, 59; 7:43, 7:49; 14:27; 16:14 when the Babylonian Empire and the subsequent Persian Empire no longer existed. Why? They were identical!

Josephus also uses these month names and calls them Jewish, and these names have been kept by the Jews until today. The existing biblical and historical evidence is that the Babylonian month names were not merely a secondary secular alternate method to designate dates apart from the biblical month numbers (as we today use January to December 20 apart from the biblical month numbers), but that the Babylonian month names and the biblical month numbers were synonymous in designating months.

For example, I Macc. 4:52 reads, "Early in the morning on the 25th day of the ninth month, which is the month of Chislev, ..." This does not say that in this particular year the ninth month happened to be Chislev, but that the ninth month is Chislev. To emphasize this point even more vigorously, verse 59 states, "Then Yehudah and his brothers and all the assembly of Yisrael determined that every year at that season the days of dedication of the alter should be observed with joy and gladness for eight days, beginning with the 25th day of the month of Chislev." Thus this festival of Chanukkah (Feast of Dedication in John 10:22) was always to begin on Chislev 25, thus requiring Chislev to always be the ninth month. We see this pattern also in many places in the book of Zacharyah/Zechariah as well.

The book of Esther discusses the origin of the Feast of Purim which has been kept by Jews from that time in 473 BCE in Babylon until today. For the year 473 BCE see the note to Est 8:12 in the NIV. The date of the writing of the book of Esther is less certain. On page 718 of NIV we find, "Several scholars have dated the book in the Hellenistic period; the absence of Greek words and the style of the author's Hebrew dialect, however, suggest that the book must have been written before the Persian Empire fell to Greece [Alexander the Great] in 331". In Est 9:19-23 it is clear that the Jews had decided that every year on the 14th and 15th days of the 12th month Adar they would celebrate Purim. Note the specific wording in Est 9:20-21, "And Mordecai wrote these things and sent letters to all the Jews, near and far, who were in all the provinces of king Ahasuerus, to establish among them that they should celebrate yearly the 14th and 15th days of the month of Adar," and verse 23 concludes, "So the Jews accepted the custom which they had begun, as Mordecai had written to them". Thus Scripture teaches that the Jews accepted that the month named Adar would always be the month in which the Feast of Purim would fall.

Adar is the name of the 12th month in the Jewish calendar as well as in the Babylonian calendar. The month names and month numbers were locked together; they did not slide around with respect to one another.

### New Aramaic Evidence

A number of letters written in Aramaic have been discovered during the late 19th and early 20th centuries on the island of Elephantine in Egypt which is on the Nile River about 500 miles south of the Mediterranean Sea. This island was a military base of the Persian Empire when it controlled Egypt. The troops at this military base were Jewish mercenaries. One of these letters is known in scholarly circles today as the Passover Papyrus. The Hebrew-Aramaic alphabetic characters in this letter along with an English translation are found on pages 56-57 of Lindenberg. In the following quotations from the letter, the square brackets and the contents within them appear on page 57 of Lindenberg. The letter contains "This year, year five of King Darius" which dates the letter in 419/418 BCE. There are gaps in the letter because it is poorly preserved. The addressing of the letter says "[To] my brothers Yedanyah and his colleagues, the Jewish garrison, from your brother Hananyah". It was written from one Jew in friendship to the Jews on the island with whom the author had familiarity.

Part of the preserved text of the letter says, "Be scrupulously pure. Do not [do] any work [...]. Do not drink any [...] nor [eat] anything leavened [... at] sunset until the twenty-first day of Nisan [...]". Another translation of this same segment of this letter is on page 283 of Whitters where he adds in square brackets some guesses in gaps in the text as follows, "be pure and take heed. [Do n]o work [on the 15th and the 21st day, no]r drink [fermented drink, nor eat] anything [in] which the[re] is leaven [from the 14th at] sundown until the 21st of Nis". Note that the final letter of Nisan is missing in the poorly preserved papyrus so only "Nis" is shown. This provides historical evidence that after the return from exile under Ezra and Nehemiah, Jews named the first month Nisan as a substitute for Aviv.

On page 283 Whitters comments, "The letter came from one Hananiah, who apparently wanted the Jews in Egypt to celebrate Passover and Unleavened Bread appropriately. The address and greeting rule out a local Egyptian official, or Persian overlord." If the name Nisan was not significant for the first month, the letter could simply have said the first month, or Aviv. Gen. 1:14; Ezra 6:15; Neh 6:15 all show that the Vernal Equinox falls in the first month of the year. Ezra 6:15 and Neh 6:15 tie in with Gen 1:14 to give the biblical and archaeological evidence that together show explicit evidence that Beresheet/Gen 1:14 involves the vernal equinox.

The Babylonian cuneiform inscriptions are archaeological clay records that are now mostly in the British Museum. These tablets have eclipse data as well as new moon sighting data that correlate with computerized astronomy to prove the dating of their calendar. From the knowledge of the Babylonian calendar with the use of these same month names in Yisrael, we can say that Nisan/Aviv 1 is just before, or after the vernal equinox. In discussions above it was pointed out that by the process of logical elimination of choices about the time of Ex 12:2 and within the parameters of Gen 1:14 involving the lights in the heavens, the vernal equinox is the only candidate for starting the year.

## Does Aviv 1, or Just Passover Have to Fall After The Spring Equinox?

Aviv 1 can be determined by the New Moon closest to the Spring Equinox. It can fall before, or after the Spring Equinox. Passover being the spring feast must fall after the Spring Equinox and is known as Tekufat Nisan. Tehillim/Psalm 104:19 states that the moon is for moadim, BUT the SUN KNOWS when to SET, or ITS SETTINGS as it relates to SETTING the 4 tekufot/SEASONS of the biblical year.

## Difficulty of Distance from Yisrael and Devarim/Deut. 30:11-14

Devarim/Deut 30:11 "For this commandment which I command you today is not too difficult for you, nor is it far off.

Devarim/Deut 30:12 It is not in heaven, that you should say, 'Who will go up to heaven for us to get it for us and make us hear it, that we may observe it?'

Devarim/Deut 30:13 Nor is it beyond the sea, that you should say, 'Who will cross the sea for us to get it for us and make us hear it, that we may observe it?'

Devarim/Deut 30:14 But the word is very near you, in your mouth and in your heart, that you may observe it."

In Rom 10:6-10 Paul quotes parts of this and interprets this in a somewhat figurative way to look at the Torah as a type of Moshiach, because in the new covenant the Torah is written in our mind and heart, and Moshiach also is in our mind and heart ("Moshiach in you, the hope of glory" - Col 1:27). He is our example of keeping the Torah. The intent of Deut 30:11-14 is that (even though we are too weak to live a sinless life) the Torah is not too difficult for us to be able to apply it, so that figuratively it is not across the sea. But by analogy, if it was intended for all those with faith down through the ages to keep the month of Aviv using an unspecified rule of barley (especially before modern technology), IT WOULD BE TOO DIFFICULT (verse 11) because some would indeed have to CROSS THE SEA (verse 13). This was given to Moses before the original listeners reached the promised land from which the barley for the wave sheaf offering was to be taken. It was intended that the Torah be kept down through the ages, not merely in the future at certain intervals in Jewish history, or the olam haba, when the Torah will go forth from Zion (Isa. 2:3).

## Testimony of Josephus

### The Hebrew Calendar Was in Existence BEFORE Second Temple Observation and "Barley Hunts" Were Added!

"As we have pointed out, this already-ancient calendar was the one in use in the land of his birth where Abraham grew up. Abraham left Ur to follow the one true King of the Universe into what came to be the promised land. When he did, he took his knowledge of the ancient lunar calendar with him."

Abraham was no unintelligent barbarian. The first century Jewish priest Flavius Josephus, being privy to the ancient records of Israel preserved into the first century by the priesthood at the Temple, confirms what an examination of the facts suggests. Josephus recounts that the patriarch Abraham when in Egypt taught the Egyptian astronomers accurate astronomy, the science on which time reckoning is based, as well as mathematics

which he had learned when he resided in Sumeria-Babylonia (Antiquities: Book 1:8:2). He also notes that Moshe/Moses used this same reckoning of time known to Abraham, when he led the tribes of Israel out of Egypt. Josephus even states the amount of time that had elapsed from Adam to the Exodus as tracked through succeeding generations according to this very same reckoning of time! (Antiquities: Book. 1:3:3).

### Testimony of Philo Judeos

With the help of a little sloppiness in the existing translations it is easy for readers to become confused about what Philo means. To help explain one confusing part of Philo's writings I made a word for word translation from the Greek. Here is my literal translation of Philo's On the Creation, paragraph 116 (in chapter 39) on pages 92-95 of Philo\_1: "The sun, too, the great lord of the day, bringing about two equinoxes each year, spring and autumn, the spring in [the] Ram and the autumn in [the] Scales, supplies very clear evidence of the sacred dignity of the seventh [number], for each of the equinoxes occurs [near a] seventh month, and during them [these seventh months] there is enjoined by the Torah the keeping of the greatest national festivals, since [during] both of them [these seventh months] fruits of the earth ripen, [in the] spring indeed grain produce and all else that is sown, and [in] autumn the [fruit] of the vine and most of the other fruit trees." One peculiar thing to notice here is that Philo uses the word "spring" twice as though it meant "spring equinox" and the word "autumn" twice as though it meant "autumn equinox". Elsewhere he seems to use the word "equinox" to mean the season that it begins; for example, he writes separately of the feast of trumpets at/in the autumn equinox and the feast of tabernacles at/in the autumn equinox. Philo enjoys analogies, symmetry, and approximation in his writings.

Philo discusses Shemot/Ex. 12:2 on pages 2-5 of PhiloQE (Exodus, Book 1.1). On page 2 he writes, "' This month (shall be) for you the beginning of months; it is the first in the months of the year.'(Scripture) thinks it proper to reckon the cycle of months from the vernal equinox. Moreover, (this month) is said to be the 'first' and the 'beginning' by synonymy, since these (terms) are explained by each other, for it is said to be the first in order and in power; similarly that time which proceeds from the vernal equinox also appears (as) the beginning both in order and in power, in the same way as the head (is the beginning) of a living creature. And thus those who are learned in astronomy have given this name to the before-mentioned time. For they call the Ram the head of the zodiac since in it the sun appears to produce the vernal equinox."

Then on page 3 he writes, "And that (Scripture) presupposes the vernal equinox to be the beginning of the cycle of months is clear from the notions of time held in the ordinances and traditions of various nations." As a commentary to this last sentence, page 391 of Samuel states, "In the areas of Syria and the East controlled by the Seleucid kings, the Macedonian calendar was adjusted to make its months coincide with the months of the Babylonian calendar, which was in turn regulated locally by a nineteen-year cycle.

The system was in general use in the East, and persisted in an adjusted form in cities all over the eastern regions well into the period of Roman domination." The first day of Nisan in the Babylonian calendar since 499 BCE fell just before or after the vernal equinox. This is the only place where Philo makes a statement about the first month that is capable of some explicit comparison with the vernal equinox. In none of this is there any use of barley to

determine the first month, and the Septuagint does not force Philo to take his position. There is never a hint that the Jews in Alexandria Egypt waited with anticipation to hear the news of barley reports so they could begin their plans for the Passover.

### Logical Rethinking

Before you cement your pro Kairite position, ask yourself this question. Why would a group that rejects any validity whatsoever to the Talmud, use it as prima fascia evidence of barley searches, new moon sightings, and new years? As Rabbi Tom Mitchell mentions, were they true to their own namesake, Karaite, meaning "scriptural only literalist," why would they feel the need to resort to "tradition" to prove 1st century barley finding methods?

The reason they contradict themselves is as plain as day; it is because they know as well as Rabbi Moshe does, and as well as you do, that there is no verse commanding, or instructing how barley is to be found, or considered in relation to Aviv 1. So if one follows their own doctrine being a "who cares what the rabbis and the Talmud say," ... it is irony of the highest order that they turn right around and resort to...guess what?...**THE TALMUD and the TESTIMONY OF THE RABBIS to make their ONLY case!** Factor that into the sad fact that many Nazarene Yisraelites who have denied Yeshua all together, or in some fashion, wind up as Karaites after being tripped up by the Karaites, should make one embrace any of their theology with great trepidation and inward reflection. Selah!

### Sect Mentality

From among the hundreds of millions of Jews and Ephraimites only a few hundred go barley hunting to determine the year, even if it occasionally results in the Torah violation of having years with just 11 months, while ignoring the greater light of Genesis 1:14 to fix the seasons of the year and the lesser light to fix the moedim! Will you follow the few hundred, led by those who do not accept the full Renewed Covenant as Scripture, with many even denying Yeshua and/or His deity? Even the Kairites themselves outside the land do not follow the Aviv barley method. Never have! The Kairites do not even agree among themselves; if barley is the determining factor in the New Year and the Aviv. The ultimate choice is yours! As for me and my house, we will serve the Master YHWH AND HIS SON! Selah.

[Editors note: To make the presentation of this article more readable to the majority of Messianic Jews, those places where the holy name of God has been spelled out - have been changed to reflect "YHWH". And, those places where Messiah's name has been spelled "Yahshua" have been changed to "Yeshua".]