

Rules for the New Moon

Our attention will be focused on the rules used by Scriptures to determine the beginning of each month and the beginning of each year. In our present article we shall examine the scriptural method for uncovering this type of knowledge and for making the appropriate calculations. We shall then discuss the proper way by which a new moon is to be determined. In another article, we will focus on the scriptural method for calculating the beginning of a year.

Uncovering Scriptural Knowledge

How does one calculate the beginning of the scriptural month and year? At first glance, there might seem to be very little information from Scriptures regarding this issue. Yet the significance of these calculations becomes apparent when we realize that all of the *khag* (festival) days of Yahweh, as well as the Sabbath and Jubilee years, are directly dependent upon them. Why, then, would Yahweh leave so little information regarding a subject of such weighty importance? The fact of the matter is that he has left more than enough instructions to decide these issues. The problem has been that, as a method for discovering the correct information, too many religionists have relied upon the views popularized by various Jewish and Christian religious institutions rather than upon Yahweh's instructions for uncovering scriptural knowledge.

To refresh our memories regarding the scriptural approach, we first must consider what the prophet Isaiah informs us:

Whom shall he teach towards knowledge? And whom shall he explain towards the message? Those weaned from milk, those moving from the breasts. Because precept is upon precept, precept is upon precept; line is upon line, line

is upon line, a little here, a little there.¹

Along with this guide, Isaiah adds a companion passage:

Search throughout the book of Yahweh and read it. Not one of these (passages) is missing; each one does not lack her mate. Because he (Yahweh) has commanded my mouth, and his *ruach* has assembled them (the passages). And he has made a lot fall for them, and his hand divided to them by its line. Until *olam* they shall possess it; to generation and generation they shall live in it.²

To these instructions we must add those which command, "Ask, and it shall be given to you; seek and you shall find; knock, and it shall be opened to you."³

To accomplish our goal, therefore, we merely need to seek out and then assemble all of the relevant scriptural passages. Once we dismiss the numerous human interpretations often attached thereto and then rely solely upon the information provided by Scriptures, these instructions become rather simple, direct, and to the point. We shall find that Scriptures actually speak quite clearly on the matter, leaving little doubt as to how one must determine the beginning of scriptural months and years.

Basic Rules

The basic rules for determining the beginning of daytime, nighttime, a 24-hour day, a moon (month), and a year are defined in Genesis:

And *eloahim* said, Let there be *מְאֹרֹת* (*maroth*; luminaries)⁴ in the

¹ Isa., 29:9f.

² Isa., 34:16f.

³ Matt., 7:7; Luke, 11:9. A complete discussion on how to study the Scriptures will be contained in a forthcoming work.

⁴ The Hebrew word *מְאֹרֹת* (*maroth*) comes from *אָוֶר* (*aur*), meaning "to be (caus. make) luminous (lit. and metaph.) . . . illumination or (concr.) luminary (in every sense, including lightning, happiness, etc.)" (*Strong's Exhaustive Concordance*, Heb. #215f), "light, brightness, lightning, luminary . . . fire, the light of fire" (*Hebrew-English Lexicon. Zondervan Edition*, 1970, p. 9); "The word *מְאֹרֹת* (*maroth*) refers to "light" (*Hebrew-English Lexicon. Zondervan Edition*, 1970, p. 9), "a luminous body or luminary, i.e. (abstr.) light (as an element); fig. brightness, i.e. cheerfulness; spec. a chandelier—bright, light" (*Strong's Exhaustive Concordance*, Heb. #3974).

open expanse of the heaven to divide between the daytime and the night and let them be for signs and for *moadim* and for days and years; and let them be for illuminations in the open expanse of the heaven to give light on the *eretz*; and it was so. And *eloahim* made the two great luminaries: the great **מָאֹר** (*maor*; luminary) for ruling the day and the smaller **מָאֹר** (*maor*; luminary) for ruling the night, and the stars. And *eloahim* set them in the open expanse of the heaven to give light upon the *eretz* and to rule over the daytime and over the night, and to separate between the light and the darkness.⁵

This understanding is enhanced in Psalms:

Give thanks to Yahweh . . . to him who made the great lights; for his mercy is for *olam*; the *shemesh* (sun) to rule in the day, for his mercy is for *olam*; the *yerakh* (moon) and the stars to rule in the night, for his mercy is for *olam*.⁶

Therefore, the sun, moon, and stars—i.e., when seen as **מְאֹרֹת** (*maroth*; luminaries) in the open expanse of the first heaven—regulate daytime and nighttime, for the *moadim*, 24-hour legal days, and years. The **מָאֹר** (*maor*; luminary) of the sun can only regulate during the daytime and the **מָאֹר** (*maor*; luminary) of the moon, as well as the lights from the stars, can only regulate during the nighttime. In Jeremiah, meanwhile, we are told that the statutes of the moon and the stars are for the light given at night:

Thus says Yahweh who gives the sun for a light by daytime and **חֻקֵּי**

(*khoquth*; statutes)⁷ of the *yerakh* (moon) and stars for a light of the night.⁸

Ancient Jewish and Christian writers also understood the theme that the sun could only regulate during the daytime while the moon and stars had authority only during the nighttime. Rabbi Eliezer (fl. 100 C.E.), for example, states:

Just as the moon's light does not rule over the sun's light by daytime, nor does the sun's light rule over the moon's light by night, likewise the calculation of the moon does not rule by daytime nor does the calculation of the sun by night, and the one does not trespass on the boundary of the other.⁹

Philo writes:

All time having been divided into two portions, daytime and night, the father (Yahweh) assigned the sovereignty of the daytime to the sun, as to a great king, and that of the night to the moon and the host of the other stars.¹⁰

The Christian writer John of Damascus similarly states that the sun's illumination was created "to have rule and authority over the day." He adds:

. . . for it is by it (the sun's illumination) that daytime is made: for it is daytime when the sun is above the earth, and the duration of daytime is the course of the sun over the earth from its rising until its setting. And he (Yahweh) also created the lesser luminaries, that is, the moon and the stars, to have rule and

⁵ Gen., 1:14–18.

⁶ Ps., 136:1, 7–9.

⁷ The term **חֻק** (*khoq*), fem. **חֻקוֹת**, **חֻקוֹת** (*khoquth*), collective noun **חֻקִּים** (*khoqim*), etc., means "an enactment; hence an appointment (of time, space, quantity, labor or usage)" (*Strong's Exhaustive Concordance*, Heb. #2706, 2708); "statute, law . . . custom, privilege" (*Hebrew-English Lexicon. Zondervan Edition*, 1970, p. 93).

⁸ Jer., 31:35.

⁹ Eliezer, 7.

¹⁰ Philo, *De Opificio Mundi*, 18:56.

authority over the night, and to give light by night. For it is night when the sun is under the earth, and the duration of night is the course of the sun under the earth from its rising until its setting. The moon, then, and the stars were set to lighten the night: not that they are in the daytime under the earth, for even by day stars are in the heaven over the earth: but the sun conceals both the stars and the moon by the greater brilliance of its light and prevents them from being seen.¹¹

The statutes providing for a 12-hour period of day and 12-hour period of night—although the length of each hour under the ancient system was variable¹²—and these periods are bound by a covenant agreement. Yahweh states:

If you can break my covenant of the day, and my covenant of the night, and that there should not be a day and night in their time then can my covenant be broken with David my servant. . . (For) if my covenant is not with day and night, then I have not appointed the statutes of heaven and earth.¹³

To these passages we must add Psalm, 104:19, which states:

He (Yahweh) made the moon for the *moadim*, the sun knows where he enters in.¹⁴

These instructions and statements clearly show that only the moon is used to determine

the day of the month for the *moadim* (appointed times) and the assembling of Yahweh's people, i.e., the festivals and sacred days.¹⁵ Indeed, in Scriptures the days of the month as well as all the *moadim* are always counted by the 24-hour legal days of the moon, which begin at sunset.¹⁶ The כִּוּוֹת (*khoquth*; statutes) of the moon, which control the legal 24-hour days—whether regular days, Sabbaths, or the festival days—were ordained by Yahweh,¹⁷ which means they were among those kept by Abraham.¹⁸ At the same time, the year is anchored to a *tequphath* (season).¹⁹ A *tequphath* is a solar event and, therefore, can only be regulated by the sun. Since the seventh month and the Khag of Ingathering are clocked to the autumnal *tequphath* of a year,²⁰ the moon and the sun must work together to determine the beginning of a year.

Further, the place on the *eretz* from which all dates must take their beginning are calculated from the royal city of Jerusalem, i.e., within the Promised Land. In both Isaiah and Micah, for example, we are told:

And many people shall go and say, Come you, and let us go up to the mountain of Yahweh, to the house of the *eloahi* of Jacob; and he will teach us of his ways, and we will walk in his paths: because out of Zion shall go forth the Torah, and the *debar* (word) of Yahweh from Jerusalem.²¹

This Torah referred to in this passage, of course, is the Torah of Trust, not the Torah of Moses.²² It includes the statutes established by Yahweh during the six days of “making” the heaven and the land and were part of the statutes

¹¹ John of Damascus, *De Hearesibus*, 2:7.

¹² An in-depth discussion of the evidence will be presented in our forthcoming work *The Festivals and Sacred Days of Yahweh*, Vol. 3.

¹³ Jer., 33:20, 25.

¹⁴ The LXX version (LXX Ps., 103:19) reads, “He appointed the moon for appointed times, the sun knows his going down.”

¹⁵ Lev., 23.

¹⁶ An in-depth discussion of the evidence will be presented in our forthcoming work *The Festivals and Sacred Days of Yahweh*, Vol. 3.

¹⁷ Lev., 23:1–44; Gen., 1:14–18.

¹⁸ Gen., 26:5.

¹⁹ Exod., 34:22. An indepth discussion is presented in our Article titled *The Beginning of the Year*.

²⁰ Exod., 34:22; compare with Exod., 23:15–16; Lev., 23:34, 39, 41; Num., 29:12–39; Deut., 16:13.

²¹ Isa., 2:3; Micah, 4:2.

²² Rom., 3:27. Also see *The Festivals and Sacred Days of Yahweh*, Volume 1, Qadesh La Yahweh Press, Garden Grove, CA, 1998.

kept by Abraham, as found in the Abrahamic Covenant. Within these statutes are those pertaining to the *moadim*, which are controlled by the moon which rules during the night.²³

Khodesh

How does one determine the first day of the month (i.e., a new-moon day)? We begin to understand this process with the Hebrew term **כְּחֹדֶשׁ** (*khodesh*), which is translated as “moon,” “new moon,” and “month.”²⁴ *Khodesh* is specifically used as a calendrical term for the month and must not be confused with the terms *yerakh*, the name of the moon, or *maor*, which is used to describe the illumination of the moon. Under the Torah of Moses, the monthly recognition of a new-moon day was commemorated with sacrifices and was a matter of regular observance.²⁵ Exactly how it was originally calculated has been an issue of much debate. We have two ways of understanding the use of the word *khodesh*. First, there is the basic Hebrew definition.

• **כְּחֹדֶשׁ** (*khodesh*), “a prim. root; to be new; caus. to rebuild:—renew, repair . . . new:—fresh, new thing . . . the new moon; by impl. a month”;²⁶ *renew, restore . . . new, recent, fresh*;²⁷ “**make new, restore . . . new, fresh . . . new moon . . . month**”;²⁸ “TO BE NEW . . . to produce something new . . . Piel to renew . . . especially to repair or restore buildings or towns . . . It often means *fresh of this year; of grain . . . the new moon, the day of the new moon . . . a lunar month, beginning at the new moon.*”²⁹

Accordingly, a new moon (new month) differentiates itself from the previous month’s

lunation in that it is defined as a moon that has been “renewed” or “rebuilt,” i.e., a fresh, new lunar cycle. Obviously, the physical orb, the *yerakh*, which we call “the moon,” does not rebuild. That detail brings us to our second important definition. In Genesis, 1:14–18, and Jeremiah, 31:35, as demonstrated above, it is not just the *yerakh* that is said to regulate legal days and *moadim* but more particularly the moon’s **מָאֹר** (*maor*; luminary). This **מָאֹר** (*maor*; luminary) of the moon served two purposes. First, it was placed “in the open expanse of the heaven to give light upon the *eretz*,”³⁰ and, second, it was given authority to regulate. Nonetheless, this regulation by the moon is restricted to nighttime (i.e., between sunset and sunrise).³¹ Accordingly, the rebuilt moon is, in fact, the rebuilt **מָאֹר** (*maor*; luminary) as referenced from the *eretz* in Jerusalem and the Promised Land.³²

It is also evident that the moon’s luminary cannot begin to rebuild itself until after it has passed its conjunction with the sun. For that matter, it can not rightfully be classified as having been officially “rebuilt” (i.e., a new month) until it has passed what can be called its “transitional phase.” A conjunction of the moon occurs when the moon and the sun have the same celestial longitude, i.e., at the point when the moon is in a direct line between the earth and the sun. A transitional phase occurs when the moon gives the appearance, as seen from the earth, of closely approaching, meeting with, and then leaving the position of the sun.

In that part of the transitional phase where the moon appears to be leaving the sun, the luminary begins to rebuild. At some point thereafter, standing far enough away from the sun, it

²³ Jer., 31:35; Ps., 104:19.

²⁴ *Analytical Concordance to the Bible*. Robert Young. 22nd American Edition, rev. Wm. B. Eerdmans Publishing Company, Grand Rapids, Michigan, reprint 1968., pp. 667f, s.v. s.v. MONTH, MONTHLY, MOON, and MOON, new; *Strong’s Exhaustive Concordance*, pp. 687f, s.v. month, monthly, months, moon, moons, and compare with p. 716, s.v. new, Heb. #2320.

²⁵ Num., 28:11–15; 1 Sam., 20:5, 18–24; 2 Kings, 4:23; 1 Chron., 23:31; 2 Chron., 2:4, 8:13, 31:3; Ezra, 3:5; Neh., 10:33; Ps., 81:3; Isa., 66:23; Ezek., 45:17, 46:1, 3, 6.

²⁶ *Strong’s Exhaustive Concordance*, Heb. #2318–2320.

²⁷ *Hebrew-English Lexicon*. Zondervan Edition, 1970. Catalog #6264. Samuel Bagster & Sons, LTD., London. Zondervan Publishing House, Grand Rapids, Michigan, p. 80.

²⁸ *A Concise Hebrew and Aramaic Lexicon of the Old Testament* William L. Holladay. Based upon the Lexical Work of Ludwig Koehler and Walter Baumgartner. William B Eerdmans Publishing Company, Grand Rapids, Michigan, 1971, pp. 96f.

²⁹ *Genenius’s Hebrew and Chaldee Lexicon to the Old Testament Scriptures*. Samuel Prideaux Tregelles. Samuel Bagster and Sons, Paternoster Row, 1846, p. CCLXIII.

³⁰ Gen., 1:15, 17.

³¹ Gen., 1:16; Ps., 136:1, 7–9.

³² Isa., 2:3; Micah, 4:2.

is declared officially *khodesh* (rebuilt). But is *khodesh* a reference to the orbital position of the moon or purely based upon visibility? The ancient Jews interpreted this broader transitional phase so as to include both the time before and the time after a conjunction, while the moon is no longer visible in the sky. This much is for sure, a conjunction of the moon is a lunar event, marking a point of passage for the moon around the earth. Therefore, as we have already explained, since it is a lunar event, it can only be regulated during the night, at a time when the moon has authority.

Meanwhile, there is no statement whatsoever in all of Scriptures that the moon's luminary had to actually be viewed by a man before it could be officially designated as the beginning of a month. This detail is implicit in the statement that Yahweh "made the moon for the *moadim*"³³ and by the fact that it was already designated as regulating the night before Adam was created.³⁴ Therefore, the original purpose of the moon, which existed long before any man walked upon the face of the earth, was to fulfill its role as a mechanism for calculating time. Its role is not predicated upon the existence of man. Indeed, even when its crescent is large enough to be visible to people who are standing on the ground, the obstruction of clouds, snow, smoke, poor eyesight, and the like are all a constant threat as an impediment to their vision. This detail moves us away from visibility as a prerequisite for determining a new moon and emphasizes the moon's position in orbit.

Even more important, despite visibility, the rebuilding of the moon was understood even by the ancients as actually beginning immediately after the moment of conjunction. Rabbi Eliezer, for example, writes:

The moon disappears from heaven only for one moment, like the twinkling of the eye. Otherwise, however, it continues to run its course and be it only in the width of a thin

thread, either in the east (before the conjunction) or in the west (after the conjunction). But the human eye has no strength to perceive the moon for 8 large hours (i.e., 16 hours).³⁵

The Pharisees varied in their opinions on when the moon became visible to the human eye, extending it anywhere from 6 to 18 hours after conjunction, although they did agree that a complete time of the transitional phase (both the approach and exit from a conjunction) lasted 24 hours.³⁶ The concept that the light of the moon was itself required to be seen by the human eye before it could be declared a new-moon day was a late Pharisaic invention born out of interpretation. Nowhere in Scriptures is such an instruction offered, indicating that another approach was required by Yahweh. Not only are these Pharisaic opinions at variance but they are unnecessary, because the term "חודש (*khodesh*; rebuilt, new)" only means that the official new moon cycle has begun. Technically, rebuilding begins the moment after conjunction. The question is, "On what day does Yahweh officially consider the moon as rebuilt in order to designate it as the first day of the month?"

Next, a conjunction of the moon occurs when the moon lines up between the sun and the earth, causing the side of the moon facing the earth to be totally dark. As it moves out of conjunction a thin sliver of light illuminates its edge. As the moon moves away from the sun, yet still remaining relatively close to it, this ever growing crescent of light is not visible, being obscured by the sun's light. Eventually the moon moves far enough away so that its crescent can be seen with the naked eye. The real issue becomes the scriptural view regarding just how long the moon remains in its transitional phase before it is officially counted as חודש (*khodesh*; rebuilt). In reviewing this issue, we must keep in mind that Scriptures nowhere directly speaks of the moon's conjunction, its transitional phase, or how long this phase lasts.

³³ Ps., 104:19.

³⁴ Gen., 1:14–18.

³⁵ Eliezer, 7.

³⁶ Babylonian Talmud, Rosh ha-Shanah, 20b.

Yet as we shall see, it does address this issue howbeit in another form.

At the same time, although the visual sighting of a new moon's crescent is not necessary for the definition of a "rebuilt" lunation, we happen to know that the crescent can be seen as early as 12.1 hours after a conjunction.³⁷ Therefore, since the first light of a new moon's crescent is always seen during *arab* (twilight, the hour or so following sunset), and it requires at least 12.1 hours before a large enough crescent forms far enough away from the sun to be visible, the new moon's crescent became a basis for the later idea that one could see the new moon on the next day after the night of a conjunction. Any conjunction taking place during the daytime, on the other hand, comes too early to make the crescent visible that next night. No doubt this general factor served as one of the bases for the developing Hasidic and Pharisaic views on requiring the visibility of the moon's crescent.

This much is for sure, somewhere between the conjunction and the visual sighting of a new moon's crescent comes the scriptural definition for the moon becoming officially כִּדְּשׁ (*khodesh*; rebuilt), designating a day as the first day of the month. For this definition, we must examine the evidence from Scriptures and not assume the theories of religious leaders.

The "Part Of" Rule

Since a new crescent technically begins to rebuild on the day of the conjunction, why not use the day of the conjunction as the first day of the moon? In Scriptures the premise is everywhere followed that those things which qualify legally for some purpose must be absent of any part of the old or opposite quality. For the reason of simplification, we shall label this the "part of" rule. For example, father Yahweh is light, "and in him there is no darkness at all."³⁸

At the same time, Yahushua points out that even a little darkness condemns the whole:

The lamp of the body is the eye. Then, if your eye is sound all of your body is light. But if your eye is evil, your whole body shall be full of darkness. Therefore, if the light that is in you is darkness, how great is that darkness!³⁹

He adds to this parable:

Watch, then, that the light in you is not darkness. If, then, your whole body is light, NOT HAVING ANY PART OF DARKNESS, all will be light, as when the lamp enlightens you with its shining.⁴⁰

Under the Torah of Moses, one could not be ceremonially clean the same day the person was unclean—even after that person had completely washed his body, changed into new clothes, and was absolutely clean from head to toe—until the arrival of the new day at sunset and the time of *arab*.⁴¹ If that person waited to accomplish these chores until just after sunset, he was still counted as unclean and would be required to wait until yet another sunset arrived before being declared clean.

Other examples are as follows: A convicted criminal who was executed by means of being hung on a tree could not remain there beyond the 24-hour legal day of his execution. He must be taken down before sunset and the arrival of a new day.⁴² If one stumbled in only one point of the Torah, he was counted as guilty of breaking all the laws of the Torah.⁴³ Only Yahushua the messiah was without sin (i.e., he was righteous), for which reason he was the only man able to qualify for the eternal

³⁷ It takes at least 12.1 hours with aid of a telescope and 12.7 hours with binoculars before a moon's crescent can actually be seen (Schaefer, B. E., Ahmad, I. A., and Doggett, L., "Records for Young Moon Sightings," *Quarterly Journal of the Royal Astronomical Society*, 34, p. 53 [1993]).

³⁸ 1 John, 1:5.

³⁹ Matt., 6:23.

⁴⁰ Luke, 11:35.

⁴¹ For example, Lev., 11:24f, 27f, 31f, 39f, 14:46, 15:5–8, 10f, 16–19, 21–23, 27, 17:15; Num., 19:7f, 10, 21f.

⁴² Deut., 21:22f; compare with Josh., 8:29; John, 19:31–42.

⁴³ James, 2:10.

inheritance.⁴⁴ Unrighteousness (i.e., sinfulness), as we have already seen, is equated with darkness. Therefore, if Yahushua had sinned he would have been disqualified as a heir. This “part of” theme is also carried out in the symbolism of leavened and unleavened bread. Saul writes:

Your glorying is not good. Do you not know that a little leaven (false teaching, malice, hypocrisy, etc.)⁴⁵ leavens the whole lump? Therefore, purge out the old leaven, that you may be a new lump, as you are unleavened. For even the messiah our Phasekh is sacrificed for us.⁴⁶

In this same vein, the legal 24-hour day in which a transitional phase of the moon occurs—by its very definition and by the fact that, for all intents and purposes, the conjunction never occurs exactly at the beginning of a 24-hour day⁴⁷—will always contain part of a lunar cycle from the old moon (i.e., that part prior to the conjunction) as well as part of a lunar cycle of the new moon (i.e., that part after the conjunction).

We must also keep in mind that there remains to us the technical question regarding just how long the Scriptures considered the entire transitional phase of the moon to last before officially recognizing that its “rebuilt” phase has begun. Is this period of transition considered to last for but a moment (i.e., only at conjunction), for several minutes, or for up to several hours after the moon has left conjunction? In this latter case, the entire period of transition—more especially, the exit phase of transition—must pass before the rebuilt cycle of the moon can officially begin. The very fact that Scriptures says nothing regarding this

issue speaks volumes and indicates that it is addressing the problem in quite another way.

New-Moon Day

The circumstance stands that, if we are concerned only with the conjunction, during a transitional phase the last part of an old month’s cycle (i.e., that part before the conjunction) as well as first part of a new month’s cycle (i.e., that part after the conjunction) both belong to the same legal 24-hour day. Further, if the last half of the transitional phase (i.e., that part after the conjunction) is included as part of the old day, we have the same problem. Yet in this latter case the end of the transitional phase becomes the pivotal point between the old and new cycles.

This duality, whether counted from the conjunction or from the end of the transitional phase, presents a problem for the monthly celebrations of new-moon days and some of the *moadim*, such as the Khag of Trumpets (falling as it does on the first day of the seventh moon).⁴⁸ Festivals and new moons were celebrated in ancient Israel just after sunset. If the conjunction or the final part of the transitional phase was not over until sometime after sunset, yet that day was counted as the Khag of Trumpets or the first day of the month, then those days would actually be celebrated during the time allotted to the cycle of the old moon. This contradiction breaks the scriptural “part of” rule.

This situation makes it mandatory that the legal 24-hour day containing the conjunction or the last part of the transition phase (more specifically, that part of the transition after the conjunction)—i.e., a day containing part of the old lunar cycle and part of the new—must be the last day of the month. This fact was conceded by ancient Jewish commentators, such as

⁴⁴ 1 John, 3:5; 1 Pet., 1:19, 2:21f; Heb., 4:15, 7:26, 9:14; 2 Cor., 5:21.

⁴⁵ Matt., 16:12; 1 Cor., 5:8; Luke, 12:1.

⁴⁶ 1 Cor., 5:6f; compare with Gal., 5:9.

⁴⁷ The odds of an absolute conjunction occurring the very second of sunset is one out of every 86,400 occurrences, i.e., once every 7,200 years. Even if we have a close calculation for a conjunction, such as within the minute (30 sec. on either side) of a sunset, the odds are only one out of every 1440 occurrences, or once every 120 years. Further, the importance of a mistake that would actually affect the dates of the moadim (i.e., which are only relevant to the first and seventh months of the year) would be once out of every 43,200 years for the very second and once out of every 720 years within the minute (30 sec. on either side) of a sunset. For all intents and purposes, the determination can comfortably be made within five seconds on either side of sunset (i.e., once every 4,320 years), making the possibility of a calculation so close that could be questionable almost nil.

⁴⁸ Lev., 23:23–25; Num., 29:1–6.

in the book of 1 Enoch and the works of Philo.⁴⁹ Philo, for example, describes the lunar month as “the period ἀπὸ συνόδου ἐπὶ σύνοδον (*apo synodos epi synodos*); from conjunction unto conjunction,”⁵⁰ noting elsewhere that it “waned into her conjunction with the sun” and “dies away into the conjunction.”⁵¹ Accordingly, he writes, the new moon day “FOLLOWS the conjunction of the moon with the sun.”⁵² Yet the question remains, “How much time must pass after the conjunction before one can count a day of the moon as officially *khodesh* (rebuilt, new)?”

We begin to solve this problem by returning to the controlling statute over these matters, which dictates that the moon’s luminary can only regulate during the nighttime (i.e., during the 12 variable hours between sunset and sunrise). Therefore, any calculation of a conjunction that occurs during the daytime is not valid. Accordingly, if the exact moment of conjunction of the moon with the earth falls during the night, due to the “part of” rule, that entire 24-hour legal day is counted as the last day of the month. The next day the moon is legally determined to be *khodesh* (rebuilt, new). The period of daytime lying between the nighttime conjunction and sunset becomes the de facto period for a transitional phase of “rebuilding” following the conjunction. Nevertheless, although in the process of rebuilding, the moon has not yet been officially classified as “rebuilt.”

On the other hand, what would one do if the conjunction did not take place until the daytime or as late as just a minute or so before sunset? If the conjunction of the moon occurs anytime during the daytime, when only the sun has authority to regulate, it is manifest that the nighttime portion of the 24-hour day has already passed. That by-gone night can no longer be used to declare the last day of the month. Neither the daytime conjunction nor the final part of the transition phase can be legally counted. The statute also means that a legal

count cannot resume until the next night, when the moon once more appears and becomes dominant. The next night following the daytime period in which a conjunction occurs, accordingly, becomes the night of the conjunction and the final part of the transition phase, ergo the last day of the month. In short, there must be an official last day of the month before one can count an official first day of the next month. For this reason, in the story of Jonathan and David, Jonathan mentions that the next day is going to be a new moon day.⁵³ To do so he had to have been already cognizant of the fact that the day in which he spoke was the last day of the old month.

This circumstance indicates that Scriptures do not rely upon just the moon’s conjunction or any visibility of the moon’s crescent to determine the first and last days of a moon. Rather, it is based upon the passing of a transitional period of rebuilding before regarding the moon as officially *khodesh* (rebuilt). In all of this there is an underlying assumption from Scriptures (which only grants authority to the moon during the night) that the moon does not officially come out of its transitional phase of rebuilding (i.e., that part of the transition coming after the conjunction) until a time equivalent to the period of daylight (which hours vary at different times of the year). In that case, the next night becomes the last legal 24-hour day of the moon. One must wait until that 24-hour day passes before he can count the first official 24-hour day of a “rebuilt” moon (i.e., the new-moon day). Therefore, since the night following a daytime conjunction is part of the next legal day, this new night-day cycle is the last day of the month.

Proceeding from this scriptural perspective, even the more conservative Pharisaic Jews, like Rabbi Eliezer, held that, “The moon becomes new at every *molad* (conjunction), once at night and one time by day.”⁵⁴ That is, the *molad* (a term used by the late Jews but not

⁴⁹ 1 Enoch, 73:1–8, 78:13f

⁵⁰ Philo, *De Specialibus Legibus*, 2:26 §140.

⁵¹ Philo, *De Specialibus Legibus*, 1:35 §178.

⁵² Philo, *De Specialibus Legibus*, 2:11 §41.

⁵³ 1 Sam., 20:18.

⁵⁴ Eliezer, 7.

found in Scriptures) is counted first by night and then by the following daylight period. Strictly speaking, the Scriptures require only the night, but it is a logical consequence that a daytime period would follow and it is in keeping with this understanding. Even Jewish leaders mentioned in the Talmud relied upon this premise.⁵⁵

When Rabbi Zera went up (to Judaea), he sent word back to them (in Babylonia): It is necessary that there should be (on new-moon day) a night and a day of the new moon (i.e., there should be no appearance of the old moon on that day).⁵⁶

In turn, this construct means that, if the *molad* occurs during the daytime, it could not be counted as completing an entire period of transition until sometime during the following night. Since the following night falls under the “part of” rule (part of the day belonging to the lunar cycle counted to the old month), it must be the last night of the month.

There can be little doubt that it is from the ancient practice of the Aristocratic priests to calculate the days of the moon by night and then declare the results during the daytime that influenced the later decision among the Pharisees to only sanctify a new moon during the daytime, that is, after the night had completely finished, so that its calculation was truly known.⁵⁷

Further, on a day when a conjunction occurs during the early daytime in Jerusalem, the following sunset finds the physical orb of the moon still so close to the sun it will appear just above the western horizon for only a few minutes. It will then set like the sun. The authority of the moon during that night lasts for only a very short time. Yet this short period for the moon’s presence will overlap with the time allotted to the final phase of the transition period.

Herein lies the explanation of the early priestly Aristocratic and conservative Hasidic understanding, which concluded that, if the conjunction occurred before sunrise, the transitional phase was completed with the following daytime period and the new-moon day began with the next sunset. Yet if the conjunction occurred after sunrise, then the transitional phase would not be finished until after sunset—the moon’s orb remaining just above the horizon for only a few minutes after sunset—and the new-moon day would not begin until the second sunset after the the day of the conjunction. This view was the natural result of the scriptural interpretation. Most importantly, this scriptural view is not based upon an exact number of hours or upon the moon’s visibility to men in order to calculate time. Rather, it is based entirely upon the moon’s position along its orbit as calculated during the night.

The actual statements from Scriptures only require that the first day of the new moon be free of any part of the lunar cycle allotted to the old moon. Originally, it was not a question of any visual sighting of the new moon’s crescent at all—although on almost all occasions this is the natural result. Rather, it was the understanding that the new moon was assigned a general period of transition or rebuilding, after which began its official stage of being rebuilt. This view was guided by the principle that this transition could only be regulated at night. Those times when the moon’s crescent was not visible to the human eye but were determined by the Aristocratic groups as a new-moon day resulted in the famous conflicts between the Aristocratic and Pharisaic groups over which day represented the real first day of the moon.⁵⁸

Conclusion

According to the above evidence from Scriptures, the rules by which a new-moon day (first day of the month) is reckoned are as follows:

⁵⁵ Babylonian Talmud, Rosh ha-Shanah 20b.

⁵⁶ Hebrew English Edition of the Babylonian Talmud, Rosh ha-Shanah, 20b, n. 5.

⁵⁷ For example, Maimonides, Code, 3:8:2:8, 3:8:4:12.

⁵⁸ An in-depth discussion of the evidence will be presented in our forthcoming work *The Festivals and Sacred Days of Yahweh*, Vol. 3.

Simply put, the final day of the month can only be determined by a phase of the moon that is counted during the night. If the conjunction occurs at night, then that night, due to the “part of” rule, will determine that this 24-hour day is the last day of the month. If, on the other hand, the conjunction occurs during the daytime, then that day of the conjunction cannot be counted until the following night. In this latter case, that following night determines the last day of the month. A new-moon day, accordingly, is based upon the position of the moon as it relates to the Promised Land during the night.

In this construct, the period of daytime becomes a de facto period for that portion of the transitional phase after the conjunction—a period of rebuilding which is still considered part of the old moon’s cycle. A new-moon day is the day following the day in which transitional phase of the moon (i.e., that part after conjunction) has finished. If the conjunction occurs at night, then that 24-hour period is the last day of the month and the following night is the first legal day of the month. On the other hand, if the conjunction occurs during the daytime, the transition phase is not considered over until the following night. In that case, the night following the conjunction is counted as the last day of the month and the new-moon day does not arrive until the second night.

From this evidence, the following guidelines are established:

- (1) New-moon days are determined by the moon, which can only regulate during the night.
- (2) A new moon day is that part of the lunar cycle where the luminary of the moon, as timed from the Promised Land, has become *khodesh* (rebuilt, renewed).
- (3) The transitional phase of the moon continues after a conjunction for a period equal to the hours of that current daytime (the ancient day being made up of 12 variable hours).
- (4) A “rebuilt” moon comes after the last half of the transitional phase (i.e., after the rebuilding stage that begins immediately following the conjunction).
- (5) A new-moon day falls after the day that the transitional phase is completed and cannot contain any “part of” that transition.
- (6) The final part of the transitional phase of the moon determines the last day of the month.
- (7) If the conjunction occurs at night, at which time the moon has authority, that same 24-hour day is the last day of the month.
- (8) On the other hand, if the lunar conjunction occurs during the daytime, the period of transition is not counted as finished until sometime after sunset (however small that time is). Therefore, the sunset following a conjunction which occurs during the daytime begins the last day of the month.

Put another way, if the conjunction occurs one minute before sunrise then the transitional phase is finished one minute before sunset. That night following sunset is a new-moon day. Conversely, if the conjunction occurs one minute after sunrise then the transitional phase is not finished until one minute after sunset. In this latter case, that night in which the transitional phase ends becomes the last day of the month. The first day of the month will not arrive until the following night.