

Jewish Studies Quarterly

Volume 30

No. 3

2023

Hillel Mali and Naphtali S. Meshel

Two Models for Pollution, Part B:
From Qumran to Qirqisani, from the Mishnah
to Maimonides

Nadia Vidro

Qaraite New Moon Observation in the Tenth and
Eleventh Centuries and Its Ritual and Calendrical
Implications

Shalom Sadik

R. Yehuda Al-Harizi's Translation of *Ta'wil*
in Maimonides' *Guide of the Perplexed*:
Philosophical Implications and Historical Impact
on the Latin Translation

Uriel Gellman and Menachem Keren-Kratz

The Battle Over Hasidic Radicalism:
The Belz-Munkács Controversy

Daniel M. Herskowitz

Between Barth and Heidegger:
Michael Wyschogrod's *The Body of Faith*



Mohr Siebeck

Nadia Vidro

University College, London, UK

Qaraite New Moon Observation in the Tenth and Eleventh Centuries and Its Ritual and Calendrical Implications*

Abstract: Throughout the ages setting the calendar by lunar observation has been one of the most salient Qaraite practices and a key component of the Qaraite religious identity. It is asserted in a variety of sources belonging to many different genres and can sometimes stand as a synecdoche for the entirety of Qaraite customs. The present article analyses the method of setting months by sighting the crescent as it is described in Qaraite legal and exegetical works from the 10th–11th centuries and compares it with the Jewish observational calendar and the Muslim calendar. The article also looks at the implications for the religious observance of a calendar in which beginnings of months could not be known in advance, and discusses attitudes to and the lived experience of calendar diversity that existed within the Qaraite movement and between Qaraites and Rabbanites.

Key words: Middle Ages, calendar, diversity, festivals, Qaraism.

Introduction

Throughout the ages, setting the calendar by lunar observation has been one of the most salient Qaraite practices and a key component of the Qaraite religious identity. It is asserted in a variety of sources belonging to many different genres and can sometimes stand as a synecdoche for the entirety of Qaraite customs.¹ Qaraites maintained that starting a new month at the first appearance of the new crescent was the original Jewish practice commanded in the Bible and confirmed in ancient sources such as

* This article was researched and written as part of the project “Qaraite and Rabbanite Calendars: Origins, Interaction, and Polemic” funded by the Fritz Thyssen Foundation. I am grateful to Sacha Stern for commenting on an earlier version. Mss cited are from the Taylor-Schechter Genizah Collection, Cambridge University Library (T-S); Russian National Library (RNL); British Library (BL); Bodleian Library, Oxford (Bodleian); and Elkan Nathan Adler Collection, Jewish Theological Seminary (ENA).

1 Zvi Ankori, *Karaite in Byzantium: The Formative Years, 970–1100* (New York: Columbia University Press, 1959) 295–299; Magdi Shamuël, “The Karaite Calendar: Sanctification of the New Moon by Sighting,” in *A Guide to Karaite Studies: The History and Literary Sources of Medieval and Modern Karaite Judaism*, ed. Meira Polliack (Leiden: Brill, 2003) 591–629, esp. 591; Judith Olszowy-Schlanger, *Karaite Marriage Documents from the Cairo Genizah* (Leiden: Brill, 1998) 247–248.

the Mishnah.² Medieval Qaraites derived this commandment from biblical references such as Gen 1:14 (“Let [the luminaries] be signs for times (or: festivals)”), Num 28:14 (“This is the offering of the month at its renewal”), Ps 104:19 (“He appointed the moon for times (or: festivals)”).³

Setting the months by lunar observation was a long-standing Near Eastern tradition, attested in Babylonia already in the 2nd millennium BCE.⁴ Jews practiced it in Late Antiquity well into the Amoraic period (3rd–5th centuries).⁵ Although in the Geonic period, months in the Jewish calendar were set by calculation,⁶ lunar observations were still performed in Palestine in the 8th and 9th centuries, and in some cases even the 10th century.⁷ In addition, the majority of Muslims followed a calendar based on lunar observation.⁸

- 2 See Mishnah, Rosh Hashanah. For additional talmudic sources, see Sacha Stern, *Calendar and Community: A History of the Jewish Calendar, 2nd Cent. BCE–10th Cent. CE* (Oxford: Oxford University Press, 2001) 157–160.
- 3 My English translation follows the interpretation of the 10th-c. Babylonian Karaite scholar Jacob al-Qirqisani in his code of Karaite law, *Kitab al-Anwar wal-Maraqib* (Leon Nemoy, *Kitāb al-Anwār wal-Marāqib = Code of Karaite Law*, 5 vols.; New York: Alexander Kohut Memorial Foundation, 1939–1943) 4:791–792, and RNL Evr Arab I 1717, fols. 15v–16r. For the translation “times” for *mo’adim* in Gen 1:14, see also Yefet b. Eli, Commentary on Genesis, RNL Evr Arab I 22, fol. 22r. For “renewal” for *be-ḥodsho* in Num 28:14, see also Solomon L. Skoss, *The Hebrew-Arabic Dictionary of the Bible Known as Kitāb Jāmi’ Al-Alfāz (Agrōn) of David Ben Abraham Al-Fāsi*, vol. 1 (New Haven: Yale University Press, 1936) 524. Also Shamuël, “Karaite Calendar,” 595–597, and Nadia Vidro, “Moon: Medieval Judaism: Karaite Judaism,” in *Encyclopedia of the Bible and Its Reception*, vol. 19 (Berlin: De Gruyter, 2021) 965–967.
- 4 Sacha Stern, *Calendars in Antiquity: Empires, States, and Societies* (Oxford: Oxford University Press, 2012) 71–94; Paul-Alain Beaulieu, “The Impact of Month-Lengths on the Neo-Babylonian Cultic Calendar,” *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 83 (1993) 66–87; John M. Steele, “The Length of the Month in Mesopotamian Calendars of the First Millennium BC,” in *Calendars and Years: Astronomy and Time in the Ancient Near East*, ed. John M. Steele (Oxford: Oxbow Books, 2007) 133–148.
- 5 Stern, *Calendar and Community*, 157–160, 164–167. The often-quoted tradition that the calculated Jewish calendar in its present-day form was instituted by Hillel the Patriarch in the 4th century is inaccurate (*ibid.*, 175–179).
- 6 Stern, *Calendar and Community*, 182–188.
- 7 Stern, *Calendar and Community*, 180–181; Sacha Stern, *The Jewish Calendar Controversy of 921/2 CE* (Brill: Leiden, 2019) 286–288, 529–530.
- 8 Friedrich K. Ginzel, *Handbuch der mathematischen und technischen Chronologie*, vol. 1 (Leipzig: J. C. Hinrichs’sche Buchhandlung 1906) 253–254; François C. de Blois et al., “Ta’rikh,” and Joseph Schacht and Richard Ettinghausen, “Hilāl,” in *Encyclopaedia of Islam, Second Edition* (<https://referenceworks.brillonline.com/browse/encyclopaedia-of-islam-2>). An exception is the Isma’iliya, who followed a calculated calendar; Johannes Thomann, “A Mathematician’s Manifesto on Scientific Reasoning against Religious Convictions,” in *Sources and Approaches across Disciplines in Near*

It is against this background that the observational calendar was championed by the Qaraite and possibly already by the Ananites (followers of Anan b. David, 8th-c. Babylonia), an earlier movement that was integrated into Qaraism. A traditional story, first found in Saadya Gaon's *Refutation of Anan* (905 CE) and repeated in later sources, tells that Anan b. David abandoned the calculated calendar and turned to lunar observation in emulation of the Muslims, in a bid to find favour with the Muslim authorities and secure the title of the Exilarch.⁹ While most scholars accept this narrative, Marina Rustow argues that the first certain evidence of Qaraite setting months by lunar observation comes from Daniel al-Qumisi, the 9th-c. founder of the Qaraite center in Palestine, and maintains that the traditional story anachronistically ascribes later Qaraite practices to Ananites in the 8th century.¹⁰ While shifting the focus to al-Qumisi in Palestine aligns well with the continued importance of crescent sightings for Palestinian Rabbanites, Saadya's characterisation of Anan's calendar as based on lunar observation cannot be dismissed as purely fictional. Recent evidence indicates that the story derived from sources in Aramaic. The use of Aramaic suggests that these sources are close in time to Anan b. David. While Anan wrote in Aramaic, later Ananite and Qaraite authors switched to Hebrew and Judaeo-Arabic.¹¹ In *Kitab al-Tamyiz* Saadya stated that Anan fixed a new month only if the crescent was clearly seen, but not if it was hard to see, and supported this with an Aramaic technical term he attributed to Anan: "as he said *brira'ith* (clearly)."¹² A disciple of Saadya gave a fuller quotation, in Aramaic:¹³ "We do not fix the beginning of the month unless we see the moon clearly." Although neither this statement, nor any other

Eastern Studies, ed. V. Klemm and N. Al-Sha'ar (Leuven: Peeters, 2013) 491–501, esp. 493–495; Schacht and Ettinghausen, "Hilāl").

9 Yehudah Seewald, "Kitāb al-Radd 'alā 'Anan by Rav Saadia Gaon," (Hebrew) *Qovetz Hitzei Giborim* 9 (2016) 1–80, esp. 37 (text), 54 (transl.); Yoram Erder, *The Karaite Mourners of Zion and the Qumran Scrolls: On the History of an Alternative to Rabbinic Judaism* (Turnhout: Brepols, 2017) 58.

10 Marina Rustow, *Heresy and the Politics of Community: The Jews of the Fatimid Caliphate* (Ithaca: Cornell University Press, 2008) 57–63.

11 Rina Drory, "'Words Beautifully Put': Hebrew Versus Arabic in Tenth-Century Jewish Literature," in *Genizah Research After Ninety Years: The Case of Judaeo-Arabic: Papers Read at the Third Congress of the Society for Judaeo-Arabic Studies*, ed. Joshua Blau and Stefan Reif (Cambridge: Cambridge University Press, 1992) 53–66, esp. 55; Haggai Ben Shammai, "Between Ananites and Karaites: Observations on Early Medieval Jewish Sectarianism," *Studies in Muslim-Jewish Relations* 1 (1993) 19–29, esp. 21–23.

12 T-S Misc.35.83v; Nadia Vidro, "Non-Rabbanite Jewish Calendars in the Works of Jacob al-Qirqisānī and Saadia Gaon," *Aleph: Historical Studies in Science and Judaism* 21/1 (2021) 149–187, esp. 182–184.

13 T-S Ar.51.238, fol. 2v, lines 6–7: לא קבעינו ראש ירחא אלא כד מיחזילן סיהרא ברראית.

mention of lunar observation, is found in the surviving fragments of and quotations from Anan b. David's *Book of Commandments*,¹⁴ the fact that it is in Aramaic suggests that it originated either from a lost portion of his code or a commentary on it that cited the original Aramaic, or from another source close in time to Anan. This quotation, which has never previously been discussed, provides strong supporting evidence that the calendar of Anan b. David was based on sighting the crescent.

The earliest detailed Qaraite description of fixing months by sighting the crescent, including its exegetical basis, practical rules and a refutation of other methods of setting months, is found in Jacob al-Qirqisani's code *Kitab al-Anwar wal-Maraqib* (first half of 10th c., Babylonia).¹⁵ During the so-called Golden Age of Qaraism (10th–11th c.) major contributions on lunar observation were also included in Bible commentaries and legal compendia by Israel b. Daniel (10th c. (?), Maghreb and Palestine), Sahl b. Masliaḥ (10th c., Palestine), Yefet b. Eli (10th c., Palestine), Levi b. Yefet (10th–11th c., Palestine), Joseph al-Basir (10th–11th c., Palestine) and Jesu'ah b. Judah (11th c., Palestine). Treatises on the subject continued to be written by Qaraitees all through the Middle Ages and into the early-modern period.

While Byzantine and later Crimean works on setting months by lunar observation have been discussed in research literature,¹⁶ the Qaraite method of setting months by lunar observation evolved in the course of the centuries,¹⁷ so that these later works are not fully representative of the earlier period. The present article analyses the earlier methods of setting months by sighting the crescent, as described in Qaraite legal and exegetical works from the 10th–11th centuries, and looks at the implications for the religious observance of a calendar in which beginnings of months could not be known in advance. It also discusses attitudes to and the lived experience of calendar diversity that existed within the Qaraite movement and between Qaraitees and Rabbanites.

14 The longest, but still incomplete reconstruction of Anan's *Book of Commandments* is Abraham Harkavy, *Aus den ältesten Karäischen Gesetzbüchern [von Anan, Benjamin Nehawendi und Daniel Kummissi]* (Hebrew) (St. Petersburg: I. Lurje, 1903) 1–172. See also Haggai Ben-Shammai, "Babylonian Aramaic in Arabic Characters: A Passage from Anan's *Book of Precepts* in a Work by Yeshu'ah b. Judah the Karaite," *Jerusalem Studies in Arabic and Islam* 32 (2006) 419–432, esp. 419–421, 423–427.

15 Nemoy, *Kitāb al-Anwār*, 4:790–833.

16 Ankori, *Karaitees*, 344–353; Shamuel, "Karaite Calendar."

17 The trend was towards ever-stronger reliance on predictions of first lunar visibility, as is evident from the survey in Shamuel, "Karaite Calendar," 602–604, 607–621.

1. Setting Months by Lunar Observation

In the Qaraite observational calendar, months began at the first sighting of the lunar crescent.¹⁸ The new crescent was sought at the end of the 29th day of the outgoing month, at or just after sunset, in the western sky. If the crescent was sighted, that night was the beginning of a new month. If the crescent was not sighted, be it due to astronomical, atmospheric or weather conditions, the month was made 30 days, and the next day was fixed as the beginning of a new month without seeking the crescent again. This procedure was in direct continuity with ancient Near Eastern practice attested in cuneiform sources and with Jewish mishnaic observational calendar, and closely corresponded to contemporary Muslim practice.¹⁹

In principle, the observation and the decision to declare a new month were made locally. However, the obligation to observe the crescent was believed to be upon the nation as a whole, not upon each person.²⁰ That meant that reports of sightings in other localities were accepted as indications that a new month had begun.²¹ Some such reports were given by witnesses; others may have been delivered by birds.²² A report of a sighting

¹⁸ The basic procedure is described or mentioned in all Qaraite works that discuss the calendar. Some representative sources are al-Qirqisani, *Kitab al-Anwar* VII.1, VII.4.1, VII.14.1 (references according to discourse, chapter and paragraph number in Nemoy's edition, not volume and page number). For *Kitab al-Anwar* VII.1 (missing in Nemoy's edition), see Nadia Vidro, "Al-Qirqisānī's Account of Historical Jewish Calendars and Its Dependence on the Commentary on Genesis by Sa'adya Gaon: A Study of *Kitāb al-Anwar* VII.1," *Ginzei Qedem* 17 (2021) 11*–49*; Israel b. Daniel, *Book of Commandments*, RNL Evr Arab I 1012, fol. 32v, followed by fol. 44r; Yefet b. Eli, *Commentary on Leviticus*, RNL Evr Arab I 73, fols. 103r–104r.

¹⁹ For the neo-Assyrian (8th–7th centuries BCE) practice of setting months by lunar observation, see Stern, *Calendars in Antiquity*, 76–79. For the mishnaic practice, see Stern, *Calendar and Community*, 157–159, and sources listed there. For the Muslim practice, see references in fn. 8 and Klaus Lech, *Das Ramaḍān-Fasten* (Wiesbaden: Harrassowitz, 1979) 39, 42–43. Muslim practices of lunar observation and the fulfilment of religious obligations dependent on it were far from homogenous, and a variety of views were supported by adherents of different legal schools. While a detailed analysis of medieval Muslim literature on the subject would undoubtedly be fruitful, it is beyond the scope of this article. The presentation of Muslim observational calendar in the article is by necessity somewhat generalised.

²⁰ Yefet b. Eli, *Book of Commandments*, RNL Evr Arab I 829, fol. 30v.

²¹ Al-Qirqisani, *Kitab al-Anwar* VII.13.12. Also Yefet b. Eli, *Commandments*, Evr Arab I 829, fol. 30v; Comm. *Leviticus*, Evr Arab I 73, fols. 105r–105v; and *Commentary on Deuteronomy*, RNL Evr Arab I 19, fol. 103r. And Sahl b. Masliah, *Book of Commandments*, RNL Evr Arab I 819, fols. 3r, 6r and Evr Arab I 823, fol. 2v.

²² This is implied by a discussion of whether sending birds on the Sabbath was permitted to notify others that the crescent had been sighted. Some Qaraites allowed this, as long

elsewhere overruled the decision to declare a 30-day month: if news arrived that the new crescent had been sighted, the old month was retroactively made 29 days long, and a new month was declared to have begun on day 30. There are direct parallels to this practice in neo-Assyrian and Muslim texts,²³ although the vast geographical distances between different Muslim regions led to the development of the concept of observation zones, loosely defined as areas within which the crescent could be first visible in the same night under good observation conditions. An observation in one place within an observation zone determined the beginning of the month for the entire zone, but not for other zones.

The Qaraite calendar was intended to closely follow the first visibility of the crescent. However, this connection could temporarily break down due to observation mistakes (both false positives and false negatives) and especially when, due to adverse atmospheric and weather conditions such as clouds, it was impossible to establish whether the crescent was visible, and months were made long. The decision to set 30-day rather than 29-day months in case of clouds was based on the premise that while the crescent may or may not appear in the 30th night in the clear skies, it is always at a sufficient distance from the sun to be visible in the following, 31st night.²⁴ Thirty-day months in case of clouds were also supported by a biblical precedent, Gen 7:11–8:4, where 150 days are equated with five months.²⁵

To limit deviations from astronomical reality, Qaraites had rules regarding the maximum sequences of consecutive 30 and 29-day months, which they believed to reflect the observable behavior of the moon.²⁶ All Qaraites who mentioned these rules agreed that there could be no more than four consecutive full months (of 30 days), but there was no consensus about

as the birds did not carry notes – presumably, the arrival of the bird itself would signal that the crescent had been sighted; Levi b. Yefet, *Book of Commandments*, RNL Evr Arab I 3920, fol. 73r.

23 Stern, *Calendars in Antiquity*, 80–81 and Lech, *Ramaḍān-Fasten*, 80, 106–113 respectively.

24 Al-Qirqisani, *Kitab al-Anwar* VII.14.1; Yefet b. Eli, *Commandments*, Evr Arab I 829, fol. 31r; Yefet b. Eli, Comm. Deuteronomy, Evr Arab I 19, fol. 103r. However, see below, near fn. 59.

25 For example, al-Qirqisani, *Kitab al-Anwar* VII.14.1; Salmon b. Yeruḥam, Commentary on Psalms, RNL Evr I 558, fol. 76v; Sahl b. Masliaḥ, *Commandments*, Evr Arab I 819, fol. 3v.

26 Al-Qirqisani, *Kitab al-Anwar* VII.14.2; Sahl b. Masliaḥ, *Commandments*, Evr Arab I 819, fol. 3v; Yefet b. Eli, Comm. Leviticus, Evr Arab I 73, fol. 103v; Levi b. Yefet, *Commandments*, Evr Arab I 3920, fol. 7v; Levi b. Yefet, *Book of Differences between Yefet b. Eli and Sahl b. Masliaḥ*, BL Or 2573, fols. 4v–5r.

the maximal sequence of deficient months (of 29 days). Sahl b. Masliaḥ maintained that there could be no more than four, Levi b. Yefet – no more than three. While Yefet b. Eli specifically connected the rule of four full months with cases when the crescent could not be observed, for Levi b. Yefet these rules determined when the crescent *need* not be observed since it was known in advance whether the moon would or would not be seen. Levi b. Yefet's view that observation in such cases can be omitted is reflected in some later sources, including the *Book of Commandments* by Yefet b. David Ibn Saghir (14th c., Cairo)²⁷ and *al-Murshid* by Samuel b. Moses ha-Maghrebi (15th c., Cairo).²⁸ Similar limits on the number of full or deficient months allowable in any single year are found in talmudic literature, where they, too, override the empirical observation if deficient or full months become excessive.²⁹ Thus, Mishnah Arakhin 2:2 stipulates that there can be no less than four and no more than eight full months in a year, and Tosefta Arakhin 1:7 adds that there can be no more than six consecutive full months.

A run of several consecutive 30-day months resulting from poor atmospheric conditions could lead to the moon becoming visible on a subsequent month before the normal observation time in the evening of the 29th day of the outgoing month. While in general a month could be only 29 or 30 days long (a rule also found in the Babylonian and rabbinic observational calendars),³⁰ in these special cases some Qaraite appear to have allowed months of fewer than 29 days. This transpires from Yefet b. Eli and Levi b. Yefet's discussion of BT Rosh Hashanah 25a:

Once the sky was covered with clouds, and the moon appeared on the 27th of the month. The people were saying: "This is the beginning of the month," until their Head (R. Gamliel) told them that he learned from his ancestors that a month cannot be less than 29 days and a half, two-thirds of an hour, and 73 parts.³¹

27 *Book of Commandments*, RNL Evr Arab I 910, fols. 20v–21r. Yefet Ibn Saghir described an unusual year (1376 CE) in which there were four consecutive full months (Iyyar–Av) followed by three deficient months (Elul–Marḥeshvan).

28 Felix Kauffmann, *Traktat über die Neulichtbeobachtung und den Jahresbeginn bei den Karäern von Samuel b. Moses* (Leipzig: Drugulin, 1903) 9* (text), 14 (transl.).

29 Stern, *Calendar and Community*, 159.

30 Stern, *Calendars in Antiquity*, 73, 77 and Stern, *Calendar and Community*, 158–159 respectively.

31 Levi b. Yefet, *Commandments*, Evr Arab I 3920, fol. 67r. Levi b. Yefet's translation exhibits some variations from the modern printed text of BT Rosh Hashanah 25a, the most significant of which in the present context is that the moon is said to have appeared on the 27th day, whereas the modern printed text reads "on the 29th day." The reading 27th is also given by Yefet b. Eli, *Commandments*, Evr Arab I 829, fol. 33r, and Saadya Gaon, *Kitab al-Tamyiz*, RNL Evr Arab II 1189/12, fol. 20r. This reading

According to Levi b. Yefet, some Qaraites explained the sighting of the moon on the 27th of the month by the fact that a number of preceding months were fixed at 30 days due to clouds, which deviated from the actual first visibility of the crescent in those months. They then said: "We do not follow their approach of not relying on it (the crescent) if they saw it after less than 29 [days], because he (R. Gamliel) only did so for reasons of expediency."³² This suggests that these Qaraites did allow months of less than 29 days.³³ On the other hand, months could never be longer than 30 days because Qaraites did not check the crescent in the 31st night on the assumption that it must be visible, and the decision to fix the outgoing month at 30 days was made already in the 30th night.

There is some evidence that Qaraites observed the old moon as well as the new moon.³⁴ However, 10th and 11th-c. sources contain virtually no trace of using the last appearance of the old crescent to estimate the beginning of the month in case of clouds, as recorded in Judah Hadassi's 12th-c. work *Eshkol ha-Kofer* (Byzantium).³⁵

is also attested in one of the earliest manuscripts of tractate Rosh Hashanah (BL Harley 5508) and the earliest extant printed edition (Pesaro, ca. 1514), as well as some Genizah fragments (see the Friedberg Project for Talmud Bavli Variants <https://bavli.genizah.org>; also Stern, *Calendar Controversy*, 409 and n. 34).

³² Levi b. Yefet, *Commandments*, Evr Arab I 3920, fols. 67r–67v.

³³ One of the supporters of this practice may have been Yefet b. Eli, as is shown by the following: "This saying (in BT Rosh Hashanah 25a) indicates three things. Firstly, they saw the crescent on the 27th of the month due to clouds. Namely, there was a number of consecutive months when there were clouds upon the face of the crescent so that the crescent was not visible. This indicates that there is no basis to the calculation. Secondly, they set 30-day months even if they allowed that it (the crescent) might be visible (behind the clouds) as we do in our times. After four or five such months, the crescent appeared in the 28th night. Thirdly, when the people saw the crescent in the 28th night they said that it was *rosh hodesh*. Why did al-Fayyumi hold this against the Qaraites if his ancestors said so, too?" (*Commandments*, Evr Arab I 829, fol. 33r).

³⁴ Al-Qirqisani mentioned a situation when the old moon is no longer visible for two or three days but the new moon cannot be observed in the 30th night due to clouds (*Kitab al-Anwar* X.12.8). Levi b. Yefet explained the advance knowledge of the new moon in 1 Sam 20:5, 18 (David said to Jonathan: "Tomorrow is the new moon," Jonathan said to him: "Tomorrow is the new moon") by surmising that the old crescent was not seen in the east since the previous day (Levi b. Yefet, Hebrew translation of the *Book of Commandments*, Bodleian, Reggio 5, fol. 7r. Here and afterwards I refer to the Hebrew translation for passages which I was unable to locate in the surviving manuscripts of the Arabic original of Levi's code. These references are to original manuscripts rather than the available edition, which is non-critical and unreliable: Yosef Algamil, *The Book of Commandments of R. Levi ben Yefet Halevi* (Hebrew; Ashdod: Makhon Tif'eret Yosef, 2002).

³⁵ In Hadassi's system the new crescent was expected to be visible three days after the

Astronomical conditions could also complicate the setting of months by lunar observation. Sometimes the crescent is not sighted in the clear sky in the evening of the 29th day but is then seen on the 30th day in the afternoon. This creates a dilemma: whether to sanctify a new month retroactively, or profane the day on which the crescent appeared in the sky. Qaraite were divided about this issue. The minority approach, to retroactively make this 30th day the beginning of the month, is known only from secondary reports and refutations.³⁶ A more common approach was to start the month from the following night.³⁷ Supporters of this view argued that the new crescent served as a divider between months and an indicator of a new month when it was sighted at the end of the 29th day, but not at other times. Hence, sighting it on the 30th day in the afternoon was no reason to retroactively begin a new month from the previous evening. This question was likewise discussed in Muslim legal works, where it was unanimously decreed that an afternoon sighting indicated the beginning of the month from the following night.³⁸ The Qaraite majority opinion thus aligned with the Muslim view.

1.1. Testimony of Witnesses

Beginning from the earliest known Qaraite work on the calendar, *Kitab al-Anwar*, Qaraite discussed the character and number of witnesses upon whose testimony one could declare the beginning of a new month.³⁹

old moon's last appearance at dawn; *Eshkol ha-Kofer*, alphabet 187 (Gozlow 1836, fol. 75v); Shamuel, "Qaraite Calendar," 609).

- 36 Al-Qirqisani, *Kitab al-Anwar* VII.13.16; Yefet b. Eli, Comm. Leviticus, Evr Arab I 73, fol. 112r; Levi b. Yefet, *Book of Commandments*, RNL Evr Arab I 921, fol. 1v, supplemented by Hebrew transl., Bodleian, Reggio 5, fol. 4v; Levi b. Yefet hypothesised that this may have been the correct approach in pre-Mosaic law; *Commandments*, Evr Arab I 3920, fol. 84v.
- 37 Al-Qirqisani, *Kitab al-Anwar* VII.13.17–19; Yefet b. Eli, *Commandments*, Evr Arab I 829, fol. 35r; Yefet b. Eli, Comm. Leviticus, Evr Arab I 73, fols. 112r–112v; Sahl b. Masliah, *Commandments*, Evr Arab I 819, fol. 4v; Levi b. Yefet, *Commandments*, Evr Arab I 921, fol. 1v, supplemented by Hebrew transl., Bodleian, Reggio 5, fol. 4; Joseph al-Basir, *Kitab al-Istibsar*, RNL Evr Arab I 1793, fol. 62r. Israel b. Daniel discussed a parallel situation when the crescent appeared in the afternoon of the 28th day of the month (rather than of the 29th); he concluded that in this case the beginning of the month should be postponed until the following night, making the outgoing month 29 days long; *Commandments*, Evr Arab I 1012, fols. 47v–48r.
- 38 Lech, *Ramaḍān-Fasten*, 93–95; Muslim scholars also discussed daytime sightings made before noon, an issue not raised in Qaraite works (94–97).
- 39 Al-Qirqisani, *Kitab al-Anwar* VII.13.25; Sahl b. Masliah, Commentary on Exodus or *Sefer Dinim*, RNL Evr Arab I 3177, fols. 9v–10r; Levi b. Yefet, *Commandments*, Evr Arab I 3920, fols. 71v–72v.

Some required two people to testify, citing Deut 19:15: "One witness is not enough to convict anyone accused of any crime or offense they may have committed. A matter must be established by the testimony of two or three witnesses." Others were satisfied with one witness, comparing the lunar sighting with religious commandments in which the statement of one truthful person is sufficient, such as the ritual purity of a wife or the kashrut of offered foods.⁴⁰ Supporters of this view argued that since the witness was reporting on something that affected their own fulfilment of commandments, they were likely to tell the truth.⁴¹ Al-Qirqisani, who required one witness, accorded the most significance to the witness's trustworthiness and reliability. According to Sahl b. Masliaḥ, a testimony was accepted from a single witness who was knowledgeable about the positions of the moon in the sky and skillful with seeking it; was reliable; believed that seeking the moon was the correct method of setting months; and acted upon personal observation.⁴² While Sahl b. Masliaḥ did not accept the testimony of those whose calendar was not set by observation (i.e., the Rabbanites) or those who set the calendar by observation combined with calculation (i.e., the followers of Benjamin al-Nahawandi⁴³), Daniel al-Qumisi found acceptable the testimony of Muslims, whose calendar was based on lunar observation.⁴⁴ Scholars in this group viewed a witness's reliability and correct calendar creed as the most important factors.

Others were more concerned with the possibility of observation mistakes, and they required the testimony of at least two witnesses. Levi b. Yefet in particular stressed that relying on the testimony of a single witness increased the risk of starting a month on the basis of a false positive sighting.⁴⁵ A false positive sighting could occur, for example, if a wisp of cloud or another impurity in the sky was taken for the new crescent. If this erroneous 'observation' was made too early and the month started before its correct time, the next month's crescent might still not be visible 30 days after the beginning of the outgoing month. This created a problem for the Qaraite calendar, because a month could not be longer than 30 days but equally could not begin before the crescent was sighted (if the sky was

⁴⁰ Compare "One witness is credible with regard to prohibitions" (BT Gittin 2b, 3a; Hullin 10b).

⁴¹ Al-Qirqisani, *Kitab al-Anwar* VII.13.25; Sahl b. Masliaḥ, Comm. Exodus, Evr Arab I 3177, fol. 9v; Levi b. Yefet, *Commandments*, Evr Arab I 3920, fol. 72r.

⁴² Sahl b. Masliaḥ, Comm. Exodus, Evr Arab I 3177, fol. 9v.

⁴³ On Benjamin al-Nahawandi's calendar, see Vidro, "Non-Rabbanite Jewish Calendars," 173–175.

⁴⁴ Al-Qirqisani, *Kitab al-Anwar* I.18.1.

⁴⁵ Levi b. Yefet, *Commandments*, Evr Arab I 3920, fol. 78r.

clear). To safeguard against such mistakes, Qaraite of this group required that the two witnesses not only be reliable and experienced, but also have good eyesight.⁴⁶

The number and qualities of witnesses were also discussed in talmudic and Muslim literature on lunar sightings. According to the Mishnah, two witnesses were always required to testify about sighting the crescent, and multiple pairs of witnesses were interrogated (Rosh Hashanah 1:6–7). In Muslim tradition, witnessing the crescent was particularly important at the beginning and end of the fasting month of Ramadan.⁴⁷ Multiple opinions are recorded regarding the number of witnesses at the beginning of Ramadan, including one, two and up to a group of 50 to 500 people. Some jurists required two or more witnesses in case the sky was clear, but accepted the testimony of a single witness in the case of bad atmospheric conditions, when the crescent could be seen only through a brief parting in the clouds and might not be spotted by more than one person. One of the Muslim arguments for relying on the testimony of one witness was that the witness testified about something related to worship in which they themselves were obligated to participate and hence could have no interest in lying.⁴⁸ (This is strongly reminiscent of a Qaraite idea that since the witness was reporting on something that affected their own fulfilment of commandments, they were likely to tell the truth.) In contrast, at the end of Ramadan most Muslim authorities required at least two witnesses to sight the next month's crescent, for there could be a benefit in ending the fast as soon as possible, giving a single witness an incentive to lie.⁴⁹ While all three traditions stipulated that witnesses must be reliable,⁵⁰ the witnesses' skills and experience

46 Levi b. Yefet, *Commandments*, Evr Arab I 3920, fol. 78r. Yefet b. Eli, too, mentioned experience and good eyesight as the main qualities required of a good observer; *Commandments*, Evr Arab I 782, fol. 39r; Comm. Deuteronomy, RNL Evr Arab I 111, fol. 126v; Comm. Leviticus, Evr Arab I 73, fol. 108v.

47 Lech, *Das Ramaḍān-Fasten*, 76–84, 91–92. Ron Shaham, *The Expert Witness in Islamic Courts: Medicine and Crafts in the Service of Law* (Chicago: University of Chicago Press, 2010) 32–36.

48 Shaham, *Expert Witness*, 35.

49 Shaham, *Expert Witness*, 35–36. Lech, *Ramaḍān-Fasten*, 91–92.

50 For the talmudic calendar see Mishnah Rosh Hashanah 1:8, where certain categories of people (women, those who play dice, lend money with interest, etc.) are disqualified from testifying as unreliable. Mishnah Rosh Hashanah 2:1, Tosefta Rosh Hashanah 1:15–16 and BT Rosh Hashanah 22b require that witnesses be familiar to the calendar court, a condition introduced following the Baytusians' attempt to hire witnesses to give false testimonies. Muslim reliability criteria included that the witness be Muslim, free, of age, of good morals and in full possession of their mental faculties (Lech, *Ramaḍān-Fasten*, 84–87; Shaham, *Expert Witness*, 31–32).

with seeking the crescent or the sharpness of their eyes required by the Qaraite are not explicit in the talmudic and Muslim sources known to me.

2. Implications for Religious Observance

An empirical calendar, in which it is impossible to know in advance when months and years begin and end, can cause difficulties in both the administrative and the ritual sphere. Administrative problems include, for example, how to establish the end of a monthly rental period or how to date court records. In the ritual sphere, the use of an empirical calendar can lead to uncertainties related to the celebration of festivals. The full range of functions of the medieval Qaraite calendar is yet to be established. It is clear that it was used for determining the dates of religious festivals and for dating manuscripts and legal documents. However, it is less clear to what extent it was used on its own for regulating business matters, as published Qaraite business documents, most of which are from later periods, are dated either according to both the Qaraite and Muslim calendars or just the Muslim calendar.⁵¹ Administrative problems caused by an empirical calendar are not discussed in any sources on the Qaraite calendar that are known to me.⁵² In contrast, a number of works refer to uncertainties related to the celebration of festivals and Rosh Hodesh.

The first such difficulty concerns Yom Teru'ah on the 1st of Tishri,⁵³ which begins earlier in the day than the crescent of Tishri can be observed. Festivals are celebrated from sunset to sunset, but the new crescent is easier to see close to but slightly after the sunset. The question is: are works that are forbidden on festival days allowed between the sunset at the end of the 29th of Elul and the time when it can be ascertained through lunar observation whether the new, 30th day is the last of Elul or the 1st of Tishri (and therefore Yom Teru'ah)?

51 Donald S. Richards, "Arabic Documents from the Karaite Community in Cairo," *Journal of the Economic and Social History of the Orient* 15 (1972) 105–162; Dotan Arad, "Being a Jew under the Mamluks: Some Coping Strategies," in *Muslim-Jewish Relations in the Middle Islamic Period: Jews in the Ayyubid and Mamluk Sultanates (1171–1517)*, ed. Stephan Conermann (Bonn: Bonn University Press, 2017) 21–39, esp. 22 n. 3.

52 For rabbinic sources that mention such issues, see Stern, *Calendar and Community*, 229. On the Muslim approach to avoiding the disruption to administration entailed in using a purely lunar observational calendar, see de Blois et al., "Ta'rikh."

53 Qaraite typically prefer the biblical name of this festival, although some medieval Qaraite scholars called this day Rosh Hashanah (as remarked by Levi b. Yefet, *Commandments*, Hebrew transl., Bodleian, Reggio 5, fol. 63r).

All Qaraite authorities who discussed this question stipulated that one should treat this period as part of the festival and not engage in forbidden types of work. Sahl b. Masliaḥ wrote:⁵⁴

Supporters of seeking the crescent in our times cancel their work and purify themselves and get ready on the 29th of Elul. If they find it (the crescent), they sanctify the 30th night and do *miqra qodesh* for Tishri. And if it is not found, they repeat it [their preparation] in the 30th day and prepare for the 31st night.

The second difficulty was related to the correct celebration of Rosh Hodesh and festivals when sighting the crescent was impossible due to clouds. In such cases, months were made 30 days long, but one could not be certain that the new month began on the actual night of first visibility, making the dates of festivals also potentially wrong. In the chapter “How to perform religious duties when the crescent is hidden from us,” Levi b. Yefet explained that Qaraite dealt with these uncertainties in a number of ways.⁵⁵

In the first approach – supported by, e. g., Yefet b. Eli and Sahl b. Masliaḥ – all religious obligations related to Rosh Hodesh and festivals were performed once, on their expected dates as counted from the 31st day of the outgoing month. This was considered a safer choice, because the 31st day was always part of a new month, while the 30th day might also belong to the old month. If news arrived that the crescent was sighted elsewhere in the 30th night, the date was retroactively corrected. When news of a sighting reached a community at any time during the 30th day itself, what remained of the day was then taken as the beginning of the month, and all ritual obligations were fulfilled during the remainder of the day.⁵⁶ At least some Qaraite did this also in Tishri, abstaining from works forbidden on Yom Teru’ah only from the time during the 30th day when they received news of the sighting.⁵⁷ Arguing against this approach, Levi b. Yefet assumed that its supporters could miss Yom Teru’ah and Yom Kippur altogether if news of a sighting reached them at the end of the respective days.⁵⁸

54 Comm. Exodus, RNL Evr Arab I 1166, fol. 20r. See also al-Qirqisani, *Kitab al-Anwar* VII.15.6; Yefet b. Eli, Comm. Leviticus, Evr Arab I 73, fols. 108r–108v; Levi b. Yefet, *Commandments*, Hebrew transl., Bodleian, Reggio 5, fol. 4v.

55 Levi b. Yefet, *Commandments*, Evr Arab I 3920, fols. 63r–71v.

56 Yefet b. Eli, Comm. Leviticus, Evr Arab I 73, fol. 105v, followed by fol. 108r. What these obligations included was a matter of debate. Some Qaraite believed that Rosh Hodesh had the status of *hol ha-mo’ed*, when only the preparation of food was allowed, but earning money was forbidden, and bakeries were the only business allowed to open to sell food. Others maintained that only the new month prayer was required, but all activities were allowed; Levi b. Yefet, *Commandments*, Evr Arab I 3920, fols. 73r–74v.

57 Al-Qirqisani, *Kitab al-Anwar* VII.13.16; Levi b. Yefet, *Differences*, BL Or 2573, fol. 5v.

58 Levi b. Yefet, *Commandments*, Evr Arab I 3920, fols. 70r–70v.

Supporters of the second approach, including Levi b. Yefet himself, believed that the crescent was equally likely to appear in the 30th and the 31st night, and maintained that days 30 and 31 together must be the beginning of the month.⁵⁹ As a consequence they celebrated all festivals for two days until doubts about the correct beginning of the month were resolved, either via news from a place where the sky was clear or by assessing the shape, position and brightness of the moon when the crescent was eventually sighted.⁶⁰ In the early 11th century this approach was argued against on the grounds that it was an innovation,⁶¹ but later it became accepted.⁶² According to Hadassi, in the 12th century Constantinople Qaraite sent letters to Jerusalem to enquire about the correct behaviour in case of doubts regarding the sighting of the crescent and received a clear reply that two festival days should be observed until doubts about the true beginning of the month were resolved.⁶³

On the surface, this policy promoted by Levi b. Yefet resembled the Rabbanite practice of observing two days of Rosh Hodesh (after 30-day months) and two festival days (in the Diaspora). However, the Qaraite always rejected this practice, arguing (among other things) that it went against the biblical principle “You must not add anything to what I command you” (Deut 4:2 and Deut 13:1).⁶⁴ Levi b. Yefet himself spoke out against two days of Rosh Hodesh. When commenting on the phrases *mi-moḥorat ha-ḥodesh ha-sheni* and *be-yom ha-ḥodesh ha-sheni* (1 Sam 20:27 and 34), which were presented by Saadya Gaon as biblical proofs for the second day of Rosh Hodesh,⁶⁵ Levi adopted the traditional Qaraite interpretation “the second day of the month,” rather than “the second day of Rosh Hodesh,” and wrote:

59 Levi b. Yefet, *Commandments*, Evr Arab I 3920, fols. 63r–63v, 67v–71v. Levi b. Yefet also mentioned that some Qaraite took the 30th day as the beginning of the month by precaution (*istizharan*) and the 31st in firm belief (*i'tiqadan*) (*Commandments*, Evr Arab I 3920, fols. 63r, 71r). It is not clear if this approach differed in practice from that of Levi b. Yefet or if the only difference was in the groups' view of the status of the two days.

60 Levi b. Yefet, *Commandments*, Evr Arab I 3920, fols. 69v–70r.

61 Levi b. Yefet, *Commandments*, Evr Arab I 3920, fol. 70v. Levi b. Yefet is the earliest author currently known to me who advocated it.

62 Judah Hadassi (12th c.), *Eshkol ha-Kofer*, alphabet 187 (Gozlow 1836), fols. 75v–76r; Yefet Ibn Saghir (14th c.), *Commandments*, Evr Arab I 910, fols. 19r–20v; Samuel b. Moses al-Maghrebi (15th c.), *al-Murshid*, Kauffmann, *Traktat*, 9* (text), 13 (transl.).

63 *Eshkol ha-Kofer*, alphabet 187 (Gozlow 1836), fol. 76r.

64 Al-Qirqisani, *Kitab al-Anwar* VII.12; Israel b. Daniel, *Book of Commandments*, RNL Evr Arab I 715, fols. 11v–13v; Yefet b. Eli, Comm. Leviticus, Evr Arab I 73, fol. 112v, followed by fol. 106r. See also Rustow, *Heresy*, 63–65.

65 Samuel Poznanski, “The Anti-Karaite Writings of Saadia Gaon,” *Jewish Quarterly Review* 10 (1898) 238–276, esp. 246–247.

“We have not found even one place in Scripture where it is written that Rosh Hodesh is two days. Rather, it is one day.”⁶⁶

The reason why Levi b. Yefet and his followers did not regard their own method as adding to the commandments is articulated by Yefet Ibn Saghir, who explained that observing two days of Rosh Hodesh amounted to adding to the commandments only when one of the two days was known or believed to be the more likely beginning of the month, but not if both days were equally possible and there was no basis for choosing one over the other.⁶⁷ This view was linked to the concept of equipollence of proofs (*takafu’ al-adilla*), when two proofs of equal weight made it necessary to suspend judgement,⁶⁸ and to Muslim discussions about the beginning of the fast of Ramadan. When the sky was clouded at the end of the 29th day of the outgoing month Sha’ban, it was doubtful whether the incoming day was the last day of the old month and had no special obligations, or the first day of Ramadan when fasting was required. Jurists debated whether fasting on this doubtful day (*siyam yawm al-shakk*) was permitted and with what intention (*niyya*) it might be done. Was it for the fast of Ramadan, or only a voluntary fast not intrinsically related to Ramadan? Should one’s intention be conditional: the fast is for Ramadan if it later turns out that the doubtful day belongs to it, and a voluntary fast if the day is later found to be part of the outgoing month?⁶⁹ Imami and Zaydi Shi’ite jurists contemporaneous with Levi b. Yefet were of the opinion that it was preferable to fast on the doubtful day, but the intention of the fast should be conditional and might be changed in the course of the day if new information was received.⁷⁰ This position is reflected in the Qaraite view that observing days 30 and 31 of the outgoing month as an equally possible (and equally doubtful) first day of the new month in case of clouds did not constitute an addition to the commandments. (The same logic did not apply to the calculated Rabbanite calendar in which it was always known in advance when months begin.)

⁶⁶ Levi b. Yefet, *Commandments*, Hebrew transl., Bodleian, Reggio 5, fol. 7v. For other Qaraite interpretations of this verse, see, e.g. al-Qirqisani, *Kitab al-Anwar* VII.12.9–10; Israel b. Daniel, *Commandments*, Evr Arab I 715, fols. 12v–13r; Yefet b. Eli, *Commandments*, Evr Arab I 829, fols. 25r–25v.

⁶⁷ *Commandments*, Evr Arab I 910, fol. 19v.

⁶⁸ Patricia Crone, “Excursus II: Ungodly Cosmologies,” in *Oxford Handbook of Islamic Theology*, ed. Sabine Schmidtke (Oxford: Oxford University Press, 2018) 103–129, esp. 109–110.

⁶⁹ Lech, *Ramaḍān Fasten*, 114–130; Schacht and Ettinghausen, “Hilāl.”

⁷⁰ See, for example, Abu Talib Yahya b. al-Ḥusayn al-Buṭṭhāni, *Kitab al-Taḥrīr fī l-kashf ‘an nusūs al-a’imma al-naḥarir*, ed. Murtada b. Zayd al-Maḥatwari al-Ḥasani (Sanaa: Maktabat Badr, 2012) 106–107.

A standard Qaraite accusation was that the Rabbanites observed two festival days, but fasted for only one day on Yom Kippur.⁷¹ This inconsistency was eliminated in Levi b. Yefet's system, and a two-day fast was expected in case of doubts about the correct beginning of Tishri, although Levi admitted that the uncertainty would most likely be resolved before the 10th of the month.⁷² While some assumed that fasting for more than one day was too hard,⁷³ Levi b. Yefet maintained:

Many people can do it and even more than that. If some of them cannot do it, it is waived for them, in the same way as fasting for one day is waived for a sick person who cannot do it. They say that this jeopardizes [the fulfilment of] the commandment because one might fast on the first [day] and be unable to fast on the second, but it could be that the second day is the [real] 10th [day of the month]. ... in our view both days are equally doubtful, and hence they are equivalent to one day. So one is obligated to fast for as long as one can. If one fears that he might die, he should quickly eat an amount [of food] that would revive his spirit and get back to how he was (i. e., to fasting), the same as one is obligated to do on the one day that is certain.

3. Calendar Diversity

An important implication of using an observational calendar based on monthly lunar sightings was calendar diversity, both within the Qaraite movement and between Qaraites and Rabbanites. Since the decision to start a new month was made locally, different Qaraite communities often started a month a day or two apart. Guided by the Rabbanite idea that all Jews should follow the same calendar,⁷⁴ Zvi Ankori portrayed Qaraites in this regard as "victims of their own principle" who "helplessly admitted" their calendar differences.⁷⁵ However, this was not how medieval Qaraites themselves saw the issue.⁷⁶ They believed that all Qaraites should follow

71 E. g., al-Qirqisani, *Kitab al-Anwar* VII.12.3; Israel b. Daniel, *Commandments*, Evr Arab I 715, fols. 11v–12r; Yefet b. Eli, *Comm. Leviticus*, Evr Arab I 73, fol. 106r.

72 Levi b. Yefet, *Commandments*, Evr Arab I 3920, fols. 69v–70r.

73 This was the approach of the Rabbanites (see Stern, *Calendar Controversy*, 476 and references cited there) and the view of those Qaraites who required that festivals be celebrated for one day only (Levi b. Yefet, *Commandments*, Evr Arab I 3920, fol. 69v).

74 Stern, *Calendar and Community*, 241–247.

75 Ankori, *Karaites*, 352.

76 E. g., al-Qirqisani, *Kitab al-Anwar* VII.13.1–2; Israel b. Daniel, *Commandments*, Evr Arab I 1012, fol. 44r; Salmon b. Yeruham, *Commentary on Psalms*, Evr I 558, fols. 74r–75r; Yefet b. Eli, *Commandments*, Evr Arab I 829, fols. 31r–31v; Levi b. Yefet, *Commandments*, RNL Evr Arab I 1713, fols. 8r–8v; Jeshu'ah b. Judah, *Commentary on Genesis*, RNL Evr Arab I 3204, fol. 21v. For the later period, see, e. g., Israel ha-Ma'aravi,

the crescent, the indicator of the new month commanded by the Bible, as it was visible to them. They regarded calendar diversity as a normal outcome of this commandment:⁷⁷ there could be clouds in Tiberias and clear skies in Ramla on the night of seeking,⁷⁸ and people in Sri Lanka, Baghdad and Palestine could not always see the crescent in the same night because the distances were great and the Earth was round.⁷⁹ Qaraite argued that God must have known that Jews would be dispersed throughout the world and nonetheless commanded lunar observation, indicating that calendar unanimity was not important⁸⁰ and God “accepted from everyone”⁸¹ their divergent calendar decisions. To refute the Qaraite calendar on the basis of calendar diversity, they claimed, was to concentrate on a secondary matter (*far’*);⁸² they felt the calendar was no different from other commandments that depend on the movement of heavenly bodies and are observed in different locations at different times, such as the beginning of the Sabbath or the commandments related to purity, which must be observed from the time of sunset.⁸³ Turning to attack as the best form of defence, Qaraite scholars pointed out that calendar diversity affected Rabbanites, too, and in a more immediate way: Qaraite began months on different days only when the crescent was seen in one place but not in another, so that all Qaraite of a given place celebrated together. In contrast, Rabbanites within the same city and even in the same household could be divided if some celebrated festivals for one day according to the custom of the Palestinians and others

Tiqqun ha-Qaraim (14th c., Cairo), in Jo. Christ. Wolf, *Bibliotheca Hebraea* (Apud B. Theod. Christoph. Felginer Viduam, 1733) vol. 4, 1069–1086, esp. 1080. In the 13th and 14th-c. sources cited by Ankori (*Karaite in Byzantium*, 352 nn. 144, 145), Qaraite admit calendar diversity although it is a matter of interpretation that they do so “helplessly.”

77 This was also the perception in the ancient societies, Jewish and non-Jewish (see Stern, *Calendar and Community*, 241) and is the Muslim view concerning the beginning of Ramadan.

78 Yefet b. Eli, *Commandments*, Evr Arab I 829, fol. 31v.

79 Jeshu’ah b. Judah, Comm. Genesis, Evr Arab I 3204, fol. 21v.

80 Israel b. Daniel, *Commandments*, Evr Arab I 715, fol. 10r.

81 Israel b. Daniel, *Commandments*, Evr Arab I 1012, fol. 44r. The same phrase is used by Salmon b. Yeruham, Comm. Psalms, Evr I 558, fol. 75r. See also al-Qirqisani, *Kitab al-Anwar* VII.13.2: “Each group of people celebrates according to what is visible to them. And God is pleased with everyone.”

82 Jeshu’ah b. Judah, Comm. Genesis, Evr Arab I 3204, fol. 21v.

83 Al-Qirqisani, *Kitab al-Anwar* VII.13.2; Israel b. Daniel, *Commandments*, Evr Arab I 1012, fols. 44r–44v; Salmon b. Yeruham, Comm. Psalms, Evr I 558, fols. 75r–75v; Levi b. Yefet, *Commandments*, Evr Arab I 1713, fol. 8v, supplemented by Hebrew transl., Bodleian, Reggio 5, fol. 7r; Jeshu’ah b. Judah, Comm. Genesis, Evr Arab I 3204, fol. 21v.

observed the second day of festivals according to the custom of the Babylonians and the Maghrebis.⁸⁴

The earliest proto-Qaraite author known to me who expressed this pluralistic attitude towards the calendar was al-Nahawandi (9th c., Babylonia), who stated:

All the world and each and every band (Heb. *havila*) conduct the counting of their own months of the year. [Each band] initiates and carries out the counting for the intercalation of its months (i. e., adding the 30th day in some months), until it returns to the principle of the moon (i. e., synchronizes its calendar with observable astronomical reality).⁸⁵

In contrast, Anan b. David may have supported the rabbinic ideal of calendar unanimity. He is said to have provided the following reason for fixing a new month only on the basis of the crescent that is clearly seen: “So that all Israel [celebrate] together on the same day ... if it is hard to see, there is no guarantee that in another place it will be seen at all.”⁸⁶ Unlike Anan’s principle itself, which is quoted in Aramaic, this justification is in Judaeo-Arabic and may stem from a later Ananite commentary.⁸⁷ The same justification is reflected in Saadya’s argument – against Anan – that the crescent can be clearly visible in one place but hard to see in another (so that residents of these places will not begin the month on the same day).⁸⁸ Although Saadya does not say so explicitly, his argument implies that he believed Anan’s objective was to ensure calendar unanimity.

In the observational calendar, months regularly began on a different day from those in the calculated calendar used by the Rabbanites.⁸⁹ As a

84 Al-Qirqisani, *Kitab al-Anwar* VII.13.3; Israel b. Daniel, *Commandments*, Evr Arab I 715, fols. 11r–11v. For evidence of Diaspora Jews celebrating the second day of festivals in Palestine and Palestinian Jews celebrating only one day of festivals in the Diaspora, see Mordechai Akiva Friedman, “‘Your Circumstances Are the Same as Your Ancestors’: A Responsum from the Geniza on the Additional Festival Days in the Diaspora” (Hebrew), *Tarbiz* 83/4 (2015) 557–603, esp. 593–595, 602 and references cited there.

85 Harkavy, *Aus den ältesten*, 178. On al-Nahawandi’s calendar, see Vidro, “Non-Rabbanite,” 173–175.

86 T-S 8Ka7.1, fol. 1r; T-S Ar.51.238, fol. 2v.

87 Compare Ben Shammai, “Between Ananites and Karaites,” 21–22.

88 T-S Misc.35.83v; Moshe Zucker, *Saadya’s Commentary on Genesis* (Hebrew; New York: Jewish Theological Seminary, 1984) App. 2, 439 (text), 445 (transl.).

89 In a partially preserved 11th-c. Qaraite calendar roster, beginnings of months were systematically recorded for 1045/6, 1047/8 and 1049/50–1050/51 (ENA 4010.35, ENA 4196.15, T-S K2.107r and T-S NS J 609r). Of the 19 months that survive, nine started on the same day in the Rabbanite and the Qaraite calendars; in nine months the Qaraite lagged one or two days behind, and in one month the Qaraite were one day ahead. ENA 4010.35, ENA 4196.15 and T-S NS J 609 are edited in Moshe Gil, *The Tustaris*:

result, Qaraite and Rabbanite often celebrated festivals on different days. For example, in 922 Yom Kippur fell on Thursday for the Palestinian Rabbanites, on Saturday for the Babylonian Rabbanites and on Friday for the Qaraite.⁹⁰ In Tishri 1049 the Rabbanites fasted on Saturday and the Qaraite on Monday.⁹¹ To these discrepancies of a few days were added differences of a whole month caused by the groups' different methods of intercalation.⁹²

In a chapter entitled "Calendar Feuds," Zvi Ankori stated that calendar differences between groups within a religious body "widen almost irreparably the *social* rift between the opposing camps."⁹³ However, evidence, which was at least partially known already to Ankori himself, suggests that the situation was more complex. Calendar differences did lead to tensions between the Rabbanite and Qaraite communities, and these tensions occasionally developed into open conflicts. Thus, an 11th-c. Byzantine Rabbanite (probably from Thessaloniki) wrote to his brother in Egypt that when the Qaraite celebrated Passover and the following New Year a month after the Rabbanites "a violent enmity has developed between us, and great quarrels have taken place."⁹⁴ But in other contexts the communities adopted tolerance. Some Rabbanite–Qaraite marriage contracts included clauses of mutual toleration.⁹⁵ For example, the contract of the Rabbanite *nasi* David b. Daniel and his Qaraite bride Nashiya bat Moses (Fustat, 1082), written according to the Rabbanite formula, stipulated that the husband "took upon himself not to force this Nashiya, his wife ... to desecrate her festivals, on condition that she observe with him his festivals."⁹⁶ A slightly later contract written according to the Qaraite formula (Fustat, 1117 CE) stated that the

The Family and the Sect (Hebrew; Tel Aviv: Tel Aviv University Press, 1981) 86–94. T-S K2.107r is unpublished.

⁹⁰ Stern, *Calendar Controversy*, 476.

⁹¹ T-S K2.107r.

⁹² Ankori, *Karaite*, 327; Nadia Vidro, "Aviv Barley and Calendar Diversity among Jews in Eleventh-century Palestine," *Journal of Jewish Studies* 72 (2021) 283–312, esp. 304–306, 309–312.

⁹³ Ankori, *Karaite*, 292–353, esp. 293 (italics in Ankori; Ankori was influenced by Shemaryahu Talmon [Ankori, *Karaite*, 293 n.2]). See also Yoram Erder, "The Split between the Rabbanite and Karaite Communities in the Geonic Period" (Hebrew), *Zion* 78 (2013) 321–349, esp. 332–334.

⁹⁴ T-S 20.45, discussed in Ankori, *Karaite*, 328–336; quoted passage is on 329.

⁹⁵ Ankori, *Karaite*, 297–298; Olszowy-Schlanger, *Karaite Marriage*, 255; Rustow, *Heresy*, 242. Other contracts protect the festivals of one side only (Rustow, *Heresy*, 250–251).

⁹⁶ T-S 24.1; Solomon Schechter, "Geniza Specimens: A Marriage Settlement," *Jewish Quarterly Review* 13/2 (1901) 218–221, esp. 221, transl. in Rustow, *Heresy*, 336–337, esp. 337.

husband “shall not profane against his aforementioned wife [the festivals of the Lord] according to the sighting of the Moon ... she shall not profane against him the festivals of our brethren the Rabbanites all the time she is with him.”⁹⁷

There is some evidence that government authorities tried to stop calendar-related conflicts. In the above-mentioned incident that resulted in “violent enmity,” the Qaraites complained about the Rabbanites to the Byzantine government, who then made the Rabbanite community pay a penalty (*’onesh*) of nearly a thousand dinars.⁹⁸ While interference in the Qaraites’ observance of the festivals may not have been the only reason for this penalty, it must have been one of them. In Palestine and Egypt, orders from the government safeguarded each party’s right to conduct their commercial affairs according to their calendar. An edict issued to the Qaraites in 1030 (or late 1029) states: “If their (the Qaraites’) festival does not come at the same time as that of the Rabbanites and if they want to desecrate it (the Rabbanite festival) by opening their shops, the Rabbanites should not raise objections against them.”⁹⁹ Two further caliphal decrees issued during the 1030s stipulated that “the merchants of the two parties should conduct themselves according to their customs with regard to transactions of buying

97 Bodleian, Heb.a.3.42; Olszowy-Schlanger, *Karaite Marriage*, doc. 56, 470–478, esp. 472 (text), 476 (transl.), lines 32–33, 35.

98 Ankori, *Karaites*, 329–330, 334–335.

99 T-S 13J13.28:

וכי אם יהיה ה[חג] שלהם לא יבוא עם הרבנים וירצו לחלל בו ולפתוח את חנויותיהם [לא ימחו לרבנים עליהם]

This is from a letter of the Palestinian gaon Solomon b. Judah quoting the edict. The letter is edited in Moshe Gil, *Palestine during the First Muslim Period (634–1099)* (Hebrew; Tel Aviv: Tel Aviv University, 1983) vol. 2, doc. 90, 165–169, esp. 167, lines 23–24, and discussed in Rustow, *Heresy*, 215–217, esp. 217. My reading and translation differ from theirs. Gil reads:

וכי אם יהיה ה[חג] שלהם לא יבוא עם הרבנים וירצו לחלל בו ולפתוח את חנויותיהם [לא יהיה דבר לרבנים עליהם]

Tentatively adopting this reconstruction, Rustow translates: “that if it is a holiday for [the Qaraites], the Rabbanites not come and try to desecrate it by opening their shops; that the rabbis not exercise authority over them.” This suggests that the Qaraites sought to prevent Rabbanites from opening their shops on Karaite festivals, an imposition not attested elsewhere. It makes it a separate condition that the rabbis should have no authority over the Qaraites – a very general stipulation in contrast to others in the edict that address specific points of disagreement between the Karaite and the Rabbanite laws or the particulars of the conflict during which the edict was issued (Rustow, *Heresy*, 216–217). My translation avoids these difficulties. In addition, the reconstructed Hebrew phrase *לא ימחו הרבנים עליהם* (the Rabbanites should not raise objections against them) has parallels in the Arabic wording of the Rabbanite petition in T-S 13J7.29 (see fn. 100) demanding that the Qaraites “stop raising objections against them about their (the Rabbanites) festivals.”

and selling or abstaining from such, according to their wishes on the days of their feasts.”¹⁰⁰

Conclusions

In the Qaraite calendar, months began at the first sighting of the lunar crescent, established by local observations or on the basis of information from other Qaraite communities. Newly discovered evidence in Aramaic suggests that lunar observation was adopted already in the 8th century by Anan b. David, whose movement was later integrated into Qaraism. This procedure was in direct continuity with ancient Near Eastern practice attested in cuneiform sources, and exhibited many parallels to the Jewish mishnaic observational calendar and the contemporary Muslim calendar.

The Qaraite calendar was intended to closely follow the astronomical new moon, but this connection could be disrupted by atmospheric and meteorological conditions, such as clouds. Special rules were in place to limit the calendar’s deviations from the observable astronomical reality in the long run. But in each individual month clouds in the night of seeking the crescent meant that the beginning of a month was based on an estimate rather than direct observation and that all dates were potentially wrong compared with the actual age of the moon. This affected how Rosh Hodesh and festivals were celebrated. While 10th-c. Qaraites performed all religious obligations once, on their expected dates as counted from the 31st day of the outgoing month, in the early 11th century Levi b. Yefet decreed that Rosh Hodesh and all festivals, including Yom Kippur, should be observed for two days unless doubts about the correct beginning of the month were resolved. This practice was adopted by the following generations of Qaraites despite its superficial resemblance to the Rabbanite second festival day, which Qaraites criticized.

Medieval Qaraites did not have a central authority responsible for sanctifying new months, similar to the calendar court described in rabbinic sources. Decisions to begin a new month were made locally, but it remains

¹⁰⁰ T-S 13J7.29, a copy of the petition and subsequent caliphal decree issued to the Rabbanites in 1030; see Gil, *Palestine*, vol. 2, doc. 310, 565–567, esp. 566, lines 24–28, and Rustow, *Heresy*, 223–224, esp. 224. A practically identical stipulation is included in a decree issued in 1034; edited with a mistake in the date in Richard Gottheil, “A Decree in Favour of the Karaites in Cairo Dated 1024,” in *Festschrift zu Ehren des Dr. A. Harkavy*, ed. David Güntzburg and Isaac Markon (St. Petersburg, 1908) 115–125, esp. 121 (text), 124 (transl.), lines 7–12, and discussed in Rustow, *Heresy*, 228–229.

unclear who in each community was responsible for receiving observation reports from witnesses and declaring that a new month had begun. Since the crescent could be visible in one place but concealed in another, different Qaraite communities often started a month a day or two apart. The Qaraites regarded this calendar diversity as a natural outcome of the observational calendar, which they believed to be the only correct Jewish calendar as commanded in the Bible. This attitude is attested for the first time in the 9th century, in the writings of Benjamin al-Nahawandi, although in the 8th century Anan b. David appears to have advocated calendar unanimity. Months in the observational calendar regularly began on different days from those in the calculated calendar of the Rabbanites. While such discrepancies could create tensions among the two groups, some 10th and 11th-c. documents suggest that they did not always lead to conflict and a social rift.

Nadia Vidro (orcid.org/0000-0002-3668-100X)