

A Reader's Guide to the Qumran Calendar Texts

We in the modern world are obsessed with time. We tell time, keep time, mark time, fill time, kill time-- some even do time. We have alarm clocks, atomic clocks, cuckoo clocks, pocket watches, and stopwatches. We consult chronicles, registries, annals, journals, time sheets, time cards, logs, date books, date slips, and timetables. Time obsesses us, time possesses us. It was not so for the ancients.

Inhabitants of the ancient world generally did without the chronometric cycles that structure our lives. Farmers for the most part, they were concerned with little more than the seasons and the changing weather the seasons brought with them. Though it seems incredible to us, ancient testimony shows that the average person often did not know what year it was. Longer spans of time were utterly beyond normal comprehension. Peasants appearing before the Spanish Inquisition (for which ample documentation exists) could not say, when asked, how old they were. Most members of ancient society just did not think measuring time was very important.

But there were two groups for whom it was important: astronomers and priests. In antiquity the two were often one and the same. Priests were interested in time for different reasons than we are. Our interest in timekeeping usually springs from economic concerns ("Time is money"). Ancient priests kept track of it as a way of serving God. For them, time was sacred. The astronomical bodies by which time was measured had been created by God; consequently, its measurement was a sacred priestly task. This task gave rise to festival calendars. Alongside all our other concerns with time, we still follow such festival calendars, we who celebrate Passover or Easter.

Calendars, or writings that presuppose them, comprise a very substantial percentage of the Dead Sea caches. Indeed, as stated in the Introduction, adherence to a peculiar calendar is the thread that runs through hundreds of the Dead Sea Scrolls. More than any other single element, the calendar binds these works together. It is the calendar that makes the scrolls a collection. The calendar is the intentional element. No matter who wrote the scrolls or put them in the caves, the manuscripts do, in some sense, form a library, because they all embrace one particular type of solar calendar and its ancillary developments. Therefore, if we want to understand the Dead Sea Scrolls, we must come to terms with their system for measuring sacred time. Understanding this system can be demanding, as matters get technical; the best approach is to read the next few pages once over, to get a rough idea of what's involved, and then, when reading the calendars themselves, return to this discussion as needed.

The authors and readers of the scrolls differed from most Jews of their day in the importance they ascribed to the sun. The sun's annual journey through the heavens was the basis for their calendar. Most Jews, in contrast, embraced a lunar calendar that was the primitive ancestor of the modern Jewish calendar. The difference in outlook was not absolute, but rather a matter of degree. The writers of the scrolls were interested in the moon; the other side perforce kept an eye on the sun. The lunar calendar of most Jews employed a system of intercalation (intermittent adding of months) based on the solar cycle. The dispute--and it was a bitter dispute, to judge from the polemics we read in the scrolls--was really about which heavenly body was more important. Logically, the more important body should rule, should govern sacred time. Would the sun and its cycle govern the festivals of Israel's sacred year, or would the moon have pride of place? The authors of the scrolls cast their vote for the sun.

The calendar of the scrolls proposed a 364-day solar year. The moon, as a secondary body, was sometimes considered, and when it was, its movements were described in terms of the sun. The movements of the moon are inherently much more complicated than those of the sun, and the scroll writers knew this fact. Their struggles to describe those movements are evident in erasures and marginal comments on the scrolls. In fact, despite the pleasing symmetry of their solar system, these calendrical works were not very accurate in the long term. Their solar year fell behind the astronomical year by more than a day each time the earth revolved around the sun. Likewise, their lunar calendars lost nearly half an hour a month. These differences might be relatively insignificant for a few years, but eventually the seasons would begin to wander through the year, and the phases of the moon would not correspond to

what was expected. Inaccuracy would become a major problem. Yet so far scholars have been unable to identify any system of intercalation that the writers would have used to make the differences good. How did the calendars actually function in real life?

For they did function; these writings were not mere abstract theory. We know that from the *Commentary on Habakkuk*, which describes a Day of Atonement on which the Teacher of Righteousness and his followers were attacked by the Wicked Priest (see text 2, 11:4-8). As Shemaryahu Talmon has shown, ^{*} this attack was only possible because the Teacher was following one calendar, the Wicked Priest another. For the Teacher, it was the Day of Atonement. Battle, as a type of work, was forbidden. For the Priest, it was an ordinary day and a perfect opportunity to strike. At least in this instance, people were actually trying to live by the Qumran calendar. Did they keep doing so long enough to perceive an incipient inaccuracy, and did they try to fix it?

Logic would suggest they did, but we must be wary of assuming our logic was that of the ancients. Perhaps no system of intercalation ever did develop. A passage in *1 Enoch* points to this possibility, as Roger Beckwith has noted. ^{**} *1 Enoch* was a work that embraced the solar calendar; indeed, nearly a dozen

^{*}Shemaryahu Talmon, "Yom Hakippurim in the Habakkuk Scroll," *Biblica* 32 (1951): 549-63.

^{**}Roger Beckwith, "The Modern Attempt to Reconcile the Qumran Calendar with the True Solar Year," *Revue de Qumran* 7 (1969-71): 379-96.

copies of this work were found among the scrolls. *1 Enoch* 80:2-4 contains a prophecy couched in literary fiction: "In the days of the sinners the years shall be shortened, and their seed shall be tardy on their lands and fields, and all things on the earth shall alter, and not appear in their time. . . . The moon shall alter her order, and not appear at her time." These lines seem to describe the seasonal and lunar drift that would arise without intercalation of the Qumran calendar. The author's explanation is noteworthy: "Many chiefs of the stars shall transgress the order" (80:6). Seasonal drift was not, in his view, the result of an imperfect calendrical system; no, it stemmed from angelic sin. Yet given his presuppositions, this was a logical move. The problem could not be with the calendar, for that had been divinely revealed and was therefore perfect. The *Damascus Document* argues that God revealed to his chosen "things hidden, in which all Israel had gone wrong: His holy Sabbaths, His glorious festivals, His righteous laws, His reliable ways" (text 1, 3:14-15). The revelations about the Sabbaths and festivals involved the solar calendar, which the author of the *Damascus Document* knew most Jews did not follow. He blamed that fact on ignorance. Other scrolls show that followers of the solar calendar found support for their ideas in the creation narratives and, explicitly, in time references in the story of Noah and the Flood (Gen. 6-8; see *Commentaries on Genesis*, text 53).

Beyond the problem of intercalation, another basic area of ignorance hindering complete understanding of the calendars involves the meaning of the recurrent Hebrew term *duq*. ^{*} This word, describing one of the phases of the moon, occurs frequently in the *Synchronistic Calendars* (text 72). The system of lunar observation associated with the term clearly underlies other texts as well, even though they don't mention *duq*. Before the discovery of the scrolls, scholars had never encountered this word. (Knowledge of ancient Hebrew is far from perfect; quite a bit of lost vocabulary has been recovered from the scrolls.) Reasoning from etymology, *duq* most likely means "carefully examined." But what is being examined?

Given the context in which *duq* occurs, the options are just two: the first crescent or the full moon. Either understanding implies that the scroll writers once again differed from other Jews. Not only did they support a solar calendar, but they evidently also used an unorthodox lunar calendar. As with the modern

Jewish calendar, for most ancient Jews the lunar month began with the first sighting of the moon's crescent. But if *duq* refers to the observation of the first crescent, then the lunar month of the scrolls must have begun with a full moon. If, on the other hand, *duq* refers to observation of the full moon,

*The lack of vowels in Hebrew would also allow for the word to be pronounced *daveq*.

then the lunar month of the scrolls must have begun with a "dark day," i. e. , with the (invisible) astronomical new moon, as in modern astronomy. For both options analogs exist.

The medieval writer Albiruni spoke of a Jewish sect called the "cave dwellers" (the *Yahad* or its descendants?). This group followed a lunar calendar in which the month began with a full moon. Albiruni wrote that their practice stood "in opposition to the custom of the majority of the Jews, and to the prescriptions of [the Law]." * Perhaps the lunar practice of the Qumran calendars lived on among the "cave dwellers," and Albiruni is our key to understanding them.

On the other hand, the ancient Egyptians held to a lunar calendar based upon the astronomical new moon. Moreover, so did a Jewish sect, the Samaritans, who were contemporary with the scrolls. For both peoples, the month began with a dark day.

In short, scholars are still debating the options for *duq*, and a reasonable case can be made for either approach. The authors of this book do not themselves agree on what it means but have decided to translate according to the full-moon option. Hence, we will take *duq* to refer to observation of the first crescent.

The calendars of the Dead Sea Scrolls plot time using five different cycles. None of the calendars uses them all, but frequently more than one cycle appears in the same work. These cycles are as follows, beginning with the shortest:

(1) The 364-day year. Some writers further divide the year into four equal quarters of thirteen weeks each (ninety-one days). *Priestly Service as the Seasons Change* (text 77) is an example of such a work. Each quarter comprises three solar months--thirty, thirty, and thirty-one days long, respectively. The year begins in the spring, and New Year's Day--day one of month seven--is always on a Wednesday. The reason is that the writers understood time to begin only with the fourth day of creation week, Wednesday, when God made the sun, moon, and stars. The *Sabbaths and Festivals of the Year* (text 99) is an example of a one-year calendar.

(2) A three-year lunar cycle. Lunar months (as opposed to the solar months above) alternate between twenty-nine and thirty days long (the cycle always beginning with a twenty-nine-day month). After thirty-six lunar months the moon is exactly thirty days behind the solar calendar. Then a thirty-day "leap month" is added to synchronize sun and moon once again. The three-year lunar cycle is the subject of *Calendar of the Heavenly Signs* (text 71).

*C. E. Sachau, ed. , *The Chronology of Ancient Nations:An English Version of the Arabic Text of the Athar-ul-Bakiya of Albiruni* (London:Wm. H. Allen, 1879), 278.

(3) A six-year cycle of priestly service in the Temple. Twenty-four priestly divisions, or courses, took turns serving in the Temple. Each division would serve for a week, then rotate out as a new division arrived. Because there were twenty-four divisions for the fifty-two weeks of the solar calendar, each division would serve twice a year, and four divisions would serve a third week. Six years were needed to equalize the courses; that is, only after six years would all have served the same number of weeks. This six-year cycle is very important for the Scroll writers. They name years and other periods of time according to the priestly division in service at the point in question. The names of the priestly divisions are those we know from 1 Chronicles 24:7-18. *Synchronistic Calendars* (text 72) is a good example of a calendar employing the priestly cycle.

(4) A forty-nine-year cycle, called a jubilee. *Calendar of the Heavenly Signs* (text 71) relies heavily upon this cycle; see the introduction to that work for more on jubilees.

(5) A 294-year cycle of six jubilees. This is the cycle that plots a rare occurrence: the service of the first priestly division, named Gamul, on New Year's Day at the beginning of a jubilee period. Two hundred and ninety-four years would pass between occurrences. The scroll writers believed that this situation reprised that of the fourth day of creation. The only text that mentions this cycle is *Calendar of the Heavenly Signs* (text 71).

In the Western world we take the calendar for granted, but this is the first century in history in which all major cultures use the same calendar. Even quite recently, travel across certain borders in Europe entailed a thirteen-day shift in the date. Only in 1923 did Greece embrace the current Gregorian calendar; France, Italy, Spain, Portugal, and Luxembourg had adopted it in 1582. The Russian Orthodox church and several Middle Eastern Christian groups still reckon by the old Julian calendar, now fallen nearly fourteen days behind the Gregorian. These differences are not something we really fight about anymore, but we once did. History is replete with Christian imbroglios over the date of Easter. Essentially these were calendar controversies. Medieval rabbinic Jews likewise fought neighboring Karaite Jews about which of two calendars ought to regulate life. This was the climate in which the Dead Sea Scrolls were written.

Calendar wars can be vicious, and they are irresistibly divisive. How can people compromise on whether today or two days from now is the Day of Atonement? Easter may be this week or two weeks away, but one cannot split the difference and celebrate it next week. So calendars are polarizing documents. When the belief that time is sacred is factored in--well, people have always fought wars to defend their beliefs about God. That is the historical and philosophic context in which to read the Qumran calendar writings. Technicalities aside, these works set forth inherently divisive ideas that must, at times, have set neighbor against neighbor.

The man on the ancient street may not have cared about time or known what year it was, but the Qumran calendar texts shine a light on a different corner of the ancient world. Their priestly authors were perhaps even more obsessed with time than we are.

69. The Phases of the Moon

4Q317

Phases of the Moon is unique among the Dead Sea calendrical writings in that it deals solely with the moon and its phases. The author makes no mention of priestly divisions, festival days, or Sabbaths; rather, with an almost mind-numbing regular cadence, he plots the lunar phases according to the solar

calendar, day after day after day. The system that he uses to describe the moon may strike the reader as peculiar. It's really not so much peculiar as theological-- certainly "biblical" in the eyes of its adherents. The writer conceives of the lunar month in terms of the moon's being "obscured" or "revealed." When the moon is more and more "obscured," the writer means that the moon is in the process of waning; when it is progressively "revealed," he means that the moon is waxing. Each stage of movement he describes as fractions of fourteen: for example, when the moon is one-fourteenth "revealed," the crescent is just barely visible. This system is, as noted, only very roughly accurate, but it enjoyed a certain popularity in the Second Temple period. The same basic fourteen-stage progression underlies a Qumran liturgical work *Daily Prayers* (text 126) and appears in *Astronomical Enoch* (text 38) and *1 Enoch* 78:7-9.

The largest surviving portion of *Phases*, frag. 1, plots days 4-25 of a certain month. Just which month-- and indeed, which year of the six-year cycle--is uncertain and debatable. The answer to these questions depends on how one understands the Hebrew term *duq* (on which, see "A Reader's Guide to the Qumran Calendar Texts" above). According to the understanding that we are following here, the text records the movement of the moon on days 4-25 of month twelve, year one of the cycle. *

Frag. 1 Col. 2 ¹[On the fourth of the month, eleven parts [are obscured. And thus the moon enters the day.] ²[On the fifth of the month,

*If *duq* denotes the full moon, the calendar would indicate days 4-25 of year three, month six. A series of errors, only partially corrected, creates problems for either interpretation.

[twelve [parts are obscured.] ³And thus [the moon enters the day. On the sixth of the month,] ⁴thirteen parts are obscured. [And thus the moon enters the day.] ⁵On the seventh of the month, [fourteen parts] are obscured. And thus] ⁶the moon enters the day. [. . .]

⁷On the eighth of the month, the moon [rules all the day in the midst] ⁸of the sky [, fourteen and one-half (?) parts being obscured. And when the sun sets,] its light [ceases] ⁹to be obscured, [and thus the moon begins to be revealed] ¹⁰on the first day of the week.

[On the ninth of the month,] ¹¹one part [is revealed. And thus the moon enters the night.]

¹²On the tenth of the month, [two parts] are revealed. And thus the moon enters] ¹³the night.

On the eleventh of the month, three parts are revealed.] ¹⁴And thus the moon enters the night. [. . .]

¹⁵On the twelfth of the month, [four parts] are revealed. And thus] ¹⁶the moon enters the night.

On the thirteenth of the month,] ¹⁷five parts are revealed. And thus the moon enters] the night.]

¹⁸On the {thirteenth} <fourteenth> of the month, [six parts] are revealed. And thus the moon enters the night.]

¹⁹[On the fifteenth [of the month, seven parts are revealed. And thus the moon enters] ²⁰the night.

On the sixteenth of the month,] eight [parts are revealed.] ²¹And thus [the moon enters the night.]

²²[On the seventeenth [of the month, nine parts are revealed. And thus the moon enters the night.] ²³[On the eighteenth of the month, ten parts are revealed. And thus the moon enters the night.] ²⁴On the

{eighteenth} <ni[n]ete[enth]> of the month, eleven parts are revealed. And thus the moon enters the night.]²⁵On the {nineteenth} <twentieth> [of the month, twelve parts are revealed. And thus the moon enters the night.]²⁶On the {twentieth} <twenty-first> [of the month, thirteen parts are revealed. And thus the moon enters the night.]²⁷On the {twenty-first} <twenty-second> [of the month, the moon rules all the night in the midst of the sky,]²⁸fourteen and one-half (?) parts being revealed.] And when [the sun] sets, [its light ceases to be revealed,]²⁹ and thus the moon begins to be [obscured on the first day of the week (the twenty-second of the month).]

³⁰On the {twe[nty-seco]nd} <tw[enty]-third> [of the month, one part is obscured. And thus]³¹the moon [en]ters the day. [. . .]

³²On the {twenty-third} <twenty-fourth> [of the month, two parts are obscured. And thus the moon enters the day.]³³On the twenty-fifth [of the month, three parts are obscured. And thus the moon enters the day.]

--M. G. A.

70. A Divination Text (Brontologion)

4Q318

The scroll 4Q318, of which two large fragments remain, is an example of ancient Jewish astrological lore, like *A Horoscope in Code* (text 35) and *An Aramaic Horoscope* (text 147). But instead of predicting human behavior through analysis of physical traits as those texts do, this writing belongs to the ancient genre of *brontologia* (from Greek *brontos*, "thunder," and *logion*, "discourse"), which relied upon thunder to foretell the future. The ancient Mesopotamians had much earlier exploited thunder for this purpose. One such early example reads, "When Rammanu thunders in the great gate of the Moon, there will be a slaying of Elamite troops with the sword; the goods of the land will be gathered into another land." *

The technique was refined to a greater degree of complexity in the Greco-Roman period, particularly in Alexandria, Egypt. In connecting thunder to both the moon and the zodiac, the present work manifests one such refinement. According to the system of our text, the occurrence of thunder when the moon was in a particular sign of the zodiac portended definite events.

The Qumran brontologion consists of two parts. The first is a list of the days of the Jewish months according to the lunar position in the zodiac. 4Q318 is almost alone among the Qumran calendrical scrolls in giving the names, rather than the numbers, of the Jewish months. Moreover, this writing contains the earliest list of zodiacal signs ever discovered in Aramaic. By and large, they are the names familiar to use from modern astrology and newspaper columns; thus we begin to see astrological doctrines take on recognizably modern dress. In earlier Mesopotamian form, the number and names of the signs had been different. The signs are the Ram (Aries), the Ox (Taurus), the Twins (Gemini), the Crab (Cancer), the Lion (Leo), the Virgin (Virgo), the Scales (Libra), the Scorpion (Scorpio), the Archer (Sagittarius), the Kid (Capricorn), the Drawer (Aquarius), and the Fish (Pisces).

The text introduces one particularly crucial innovation into the genre: the Jewish seven-day week, in which the zodiac is structured by a pattern of two, two, and three days. In this way the moon could "rest" on the Sabbath (the extra day in the pattern).

*In R. Campbell Thompson, *The Reports of the Magicians and Astrologers of Nineveh and Babylon* 2 vols. (London: Luzac, 1900), 2:lxxx (no. 256a).

The first part of the text gives the days of the month in which the moon was to be found in a given sign of the zodiac. Originally, the text gave this information for all the days of a 364-day year.

Col. 4 ⁵[. . .] 13th and 1[4th,] ⁶[. . . on the 1]9th and on the 20th and on the 2[1st] ⁷[. . . on the] 27th and on the 28th ⁸[. . .] ⁹[. . . on the 7th], the Kid; on the 8th [. . .]

Cols. 5-6 are lost.

Col. 7 ¹and on the 13th and on the 14th, the Crab; on the 15th and on the 16th, the Lion; on the 17th and on the 18th, ²the Virgin; on the 19th and on the 20th and on the 21st, the Scales; on the 2[2nd and the 2]3rd, the Scorpion; on the 24th ³and on the 25th, the Ar[cher]; on the 26th and on the 27th and on the 28th, the [Kid]; on the [2]9th ⁴and on the 30th, [the] Drawer.

Shebat. On the 1st and on the 2nd, the [Fishes]; on the [3rd and on the] 4th, ⁵[the Ram; on the] 5th and on the [6th and on the] 7th, the Ox; on the 8[th and on the 9th, the Twins]; on the 10th ⁶[and on the 11th], the Crab; on the 12th [and on the] 13th and on the 14th, the Lion; [on the 15th and on the 16th, the Virgin;] ⁷on the 17th and on the 18th, the Scales; on the 19th and on the [20th and on the 21st, the S]corpion; on the 22nd ⁸and the 23rd the Archer; on the 24th and on the 25th, the Kid; on the 2[6th and on the] 27th and on the 28th, ⁹the Drawer; on the 29th and on the 30th, the Fishes.

Col. 8 ¹Adar. On the 1st and on the 2nd, the Ram; on the 3rd and on the 4th, the Ox; on the [5th and on the 6th and on the 7th, the Twins;] ²on the 8th and on the 9th, the Crab; [on the 10th and on the 11th, the [L]ion; on the 12th and on the [13th and on the 14th,] ³the Vir[gin]; on the 15th and on the [16th, the Scales; on the 1]7th, on the 1[8th, the Scorpion;] ⁴on the [1]9th and on the 20th, 21st, the Ar[cher; on the 22nd] and on the 2[3rd], the [K]id; [on the 24th and on the 25th,] ⁵the Drawer; on the 26th and on the 2[7th and on the 28th, the] Fi[shes]; on the 2[9th and on the 30th,] ⁶the Ram.

The second part of the scroll is a list of the omens that the thunder portends. Unfortunately little of this section remains. The reference to "Arabs" is probably to the kingdom of the Nabateans, directly east of Palestine across the Jordan River.

[If] it thunders [in the Ox], a siege against [the city . . .] ⁷[and] trouble for the nation and violence [in the co]jurt of the king, and among the nations in [. . .] ⁸there shall be; and as for the Arabs, [. . .] famine, and they will plunder each oth[er . . .] ⁹If it thunders in the Twins, panic and sickness due to foreigners and [. . .]

--E. M. C.

71. Calendar of the Heavenly Signs

4Q319

Today the contents of this text would be presented as a table in an almanac. In ancient Judea, however, tables of that sort did not yet exist. So our author presents his ideas in prose form, and they do not make for easy reading. (Those who are mathematically challenged, be advised: proceed at your own risk!)

Essentially, the writer wants to track the relationships between three elements: jubilee periods, the phenomenon he calls in Hebrew *'ot*, and sabbatical years. In order to calculate these relationships, he employs a sort of algorithm that he never explains. He expected his specialized audience to be familiar with it already. This algorithm is the correspondence between the solar and lunar calendars (see text 72). So, to follow this text, we must bear in mind a total of five items: the three elements that the author wants to track and the two components that function in the algorithm.

The first element is the jubilee period. In a modern table, the jubilees would be in the first column. Although the Bible defines the jubilee as the fiftieth year (Lev. 25:11), the Qumran calendar uses the term to bracket a forty-nine-year period. Counting inclusively, the fiftieth year is then the last year of one jubilee and the first year of the next. The calendar before us tabulates by forty-nine-year periods. The work covers six such jubilees.

The "second column's" element, 'ot, refers to the fairly uncommon appearance of the full moon* on the first day of the solar year. More generally, 'ot means "sign," so our author took this conjunction as a sort of sign from God. He believed that this conjunction had first occurred on the fourth day of creation week. That day was significant because on it the sun and the moon were created, and time reckoning depended on their movement. (Thus, the first three days of creation were, in a sense, "outside time"--long before modern physics, black holes, and such.) The biblical passage that provided the mandate for an interest

*Or possibly the conjunction of the astronomical new moon and the first day of the solar year. This and other issues regarding the calendrical texts are discussed in "A Reader's Guide to the Qumran Calendar Texts" above.

in the conjunction was Genesis 1:14:"God said, 'Let there be lights in the expanse of the heavens to distinguish the day from the night, and let them be for *signs* and for seasons and years. ' "The author designates each new conjunction with a name. In every case the name is that of the priestly division that would be in service at the time. Because of the peculiarities of the rotation of priests, the names of the conjunctions are always the same, alternating between the priestly families of Gamul and Shecaniah.

According to our author's understanding, the 'ot recurred every three years. To figure out this fact he needed to know solar and lunar correspondences. So we must understand his algorithm, the motor that made his conceptual machine run. The equation for the solar calendar covering three years is: 364-day solar year \times 3 years = 1092 days. This solar period then had to be correlated with lunar movement. In the Qumran calendar, the lunar month alternates between twenty-nine and thirty days, beginning with twenty-nine. Accordingly, twelve lunar months equal 354 days; each year the lunar calendar falls ten days behind the solar calendar. At the end of three lunar years, with the two calendars now thirty days out of kilter, the difference is made good. An additional thirty-day month is added. (What would have been expected, according to the pattern of alternation described above, is a twenty-nine-day month. But thirty days are added, in order to force the desired conjunction on New Year's Day of year four.) In sum, the equation for the lunar calendar is: 354-day lunar year \times 3 years = 1062 days + 30-day month = 1092 days.

The author thus calculates the number of conjunctions using this method. He goes on to tabulate the conjunctions that fall on sabbatical years, the third element he is tracking. That would be the third column of a modern table. As their name implies, on analogy with the weekly Sabbath, sabbatical years occurred once every seven years. Among other things, biblical laws required that in the sabbatical year the land must lie fallow. A good deal of planning was therefore necessary to avoid starvation in these years.

Since 4Q319 covers a period of six jubilees, it reveals the longest cycle of the Qumran calendars, 294 years (6 \times 49). In year 295 the cycle returns to the beginning. A mystery of the cycle is that the author reckons the year of creation as the beginning of the second jubilee, not the first. That is, the jubilees are counted as two through seven, not one through six. We still do not understand the reason. Perhaps it is simply that a completed 294-year cycle thus coincides with the end of the *seventh* jubilee. The number seven was regarded as a holy number.

A Cave 4 copy (4Q259) of the Charter of a Jewish Sectarian Association (text 7) preceded the Calendar of the Heavenly Signs. In essence, this calendar replaces the hymn concerning times of prayer found in cols. 10-11 of the Charter.

The lunar-solar conjunctions of the second jubilee.

Frag. 1 Col. 4 ⁹[. . .] blessed [. . .] ¹⁰[. . .] its light on the fourth day of the wee[k . . .] ¹¹[. . . the] creation on the fourth day of (the priestly course of) G[amul; the conjunction of Shecaniah in the fourth year; the conjunction of Gamul in the Sabbath year;] ¹²[the conjunction of Shecaniah in the thi]rd year; the c[onjunction of Gamu]l in the sixth year; the conjunction of [Shecaniah in the second year; the conjunction of Gamul] ¹³[in the fifth year; the conjunct]ion of Shecaniah in the year after the Sabbath year (first year); the conjunction of Gamu[l in the fourth year; the conjunction of Shecaniah] ¹⁴[in the Sabbath year; the conjunct]ion of Gamul in the third year; the conjunction of Shecaniah [in the sixth year; the conjunction of Gamul] ¹⁵[in the second year; the conjunct]ion of Sh[ecaniah] in the [fi]fth year; the conjunction of Gamu[l in the year after the Sabba]th year (first year); the conjunction of ¹⁶[Shecaniah in the fo]urth year; the conjunction of Gamul in the Sabbath year; the conjunction of the e[nd of the jubilee. The conjunctions of the second j]ubilee ¹⁷are seventeen, of which [three] are in sabbatical years. [. . .] the creation ¹⁸[. . .]

The lunar-solar conjunctions of the third jubilee.

(The conjunction of) Sheca[ni]ah in the third year; the conjunction of Gamu[l in the sixth year; the conj]unction of Shecaniah ¹⁹[in the second year; the conjunction of G]amul in the fifth year; the conjunction of Shecaniah in the year after the Sa[bbath year (first year); the conjunction of Ga]mul **Col. 5** ¹[in the fourth year; the conjunction of Shecaniah in the Sabbath year; the conjunction of Gamul in the third year; the conjunction of Shecaniah] ²[in the sixth year; the conjunction of Gamul in the secon]d year; the conj]unction of Shecaniah in the fi]fth year; [the conjunction of Gamul] ³[in the year after the Sabba]th year (first year); the conjunction of Shecaniah in the fo]urth year; the conjunction of] Gam[ul in the Sabbath year; the conjunction] ⁴[of Shecaniah in the thi]rd year; the conjunction of Gamul in the si]xth year; the conjunction of] Shecania[h is the end of] ⁵the thi[r]d jubilee. The conjunctions of [the third] jubilee are [seven]teen, of which ⁶two are in sabbatical years.

The lunar-solar conjunctions of the fourth jubilee.

(The conjunction of) Shecaniah [in the second year; the conjunction of Gamu]l in the fifth year; the conjunction of Shecaniah ⁷in the year after the Sabbath year (first year); the conjunct[ion of Gamul in the fourth year; the conjunction] of Shecaniah in the Sabbath year; the conjunction of ⁸[Ga]mul in the third year; the conjunction of [Shecaniah in the sixth year; the conjunction of Ga]mul in the second year; the conjunction of ⁹Shecaniah in the fifth year; the conjunction of [Gamul in the year after] the Sabbath year (first year); the conjunction of Shecaniah ¹⁰in the fourth year; the conjunction of Gamul [in the Sabbath year; the conjunction] of Shecaniah in the third year; the conjunction of Gamul ¹¹in the sixth year; the conjunction of Sheca[ni]ah in the second year; the conjunction of] Gamul in the fifth year; the conjunction of Shecaniah ¹²in the year after the Sabbath year (first year); this conj]unction is the end of the fourth jubilee. The conjunctions of the fou]rth jubilee are seventeen, ¹³of which two are in sabbatical years.

The lunar-solar conjunctions of the fifth jubilee.

(The conjunction of) G[amul] in the fourth year; the conjunction of Shecaniah ¹⁴[in the Sa]bbath year; the conjunction of Gamul in the [third year; the conjunction of Shecaniah in the sixth year; the conjunction of Gamul] ¹⁵in the second year; the conjunction of Shecaniah in the fi]fth year; the conjunction of Gamul in the year after the Sabbath year (first year); the conjunction of Shecaniah] ¹⁶in the fourth year; the conjunction of [Ga]mul in the [Sabbath year; the conjunction of Shecaniah in the third year; the conjunction of Gamul] ¹⁷in the six[th year; the con] junction of She[caniah in the second year; the

conjunction of Gamul in the fifth year; the conjunction of Shecaniah]¹⁸[in the year after the] Sabbath year (first year); the conjunction of G[amul in the fourth year; the conjunction of Shecaniah in the Sabbath year; the conjunction of the end of]¹⁹[the fif]th [jubilee is] in Jeshebeab. [The conjunctions of the fifth jubilee are sixteen, of which] **Col. 6**¹[three are in sabbatical years.]

The lunar-solar conjunctions of the sixth jubilee.

[The conjunction of Gamul in the third year; the conjunction of Shecaniah in the sixth year; the conjunction]²[of Gamul in the] second year; the con]junction of] Shecaniah in the [fifth year; the conju]nction of Gam[ul in the year after the Sab]bath year (first year);³[the conjunct]ion of Shecaniah in the fourth year; the conjunction of Gamul in the [Sab]bath year; [the conjunction of Shecaniah] in the third year;⁴the conjunction of Gamul in the sixth year; the conjunction of Shecaniah [in the second year; the conjunction of] Gamul⁵in the f[if]th year; the conjunction of Shecaniah in the year after [the] S[abbath year (first year);] the conjunction of⁶Gamul in the fo[u]rth year; the conjunction of Shecaniah in the Sab[bath year; the conjunction of Gamul in the] third year;⁷the conjunction of [Shecaniah in the si]xth year; the conjunction of the end of [the sixth jubilee. The conjunctions of]⁸[the sixth] jubilee are [six]teen, of which two are in [sabbatical years.]⁹the fi[ft]h . . .]in the Jubi[lee . . .]¹⁰and for the jubi[lee.]

The lunar-solar conjunctions of the seventh jubilee.

[(The conjunction of Gamul) in the second year; the conjunction of Shecaniah in the fifth year; the conjunction of Gamul in the year after]¹¹the Sabba[th] year (first year); [the conjunction of Shecaniah in the four]th year; the conjunction of Gam[ul in the] Sabba[th year;]¹²[the conjunction of Shecaniah in the third year; the conjunction of] Gamul in the sixth year; the conjunct]ion of Shecaniah]¹³[in the] second year;the con]junction of Gamul] in the fifth year; the conjunction of Shecaniah in the year [after]¹⁴the Sabbath year (first year);[the conjunction of Ga]mul in the fourth year;the conjunction of Shecaniah in the Sa[bath year; the conjunction of]¹⁵Gamul [in the thir]d year; the conjunction of <Shecaniah> (MS. : year) in the sixth year; the <conjunction> (MS. : end) of [Gamul]¹⁶in the se[cond year; the conjunction of Shecaniah] in the fifth year; the conjunction of the end of the jubilee.

¹⁷[The conjunctions of the] seventh [jubilee] are sixteen, of which¹⁸[two are] in sa[bbati]cal years. [. . .] sign of the j[u]bilees, the [ye]ar of the jubilees, according to the da[ys holiness.]¹⁹[In Gamul the first, in Jedaiah the] secon[d,] in Mijamin the third, [in Shecaniah . . .]

Col. 7 of the Calendar of the Heavenly Signs continued with a roster of the courses serving at the beginning of each of the four yearly quarters. A similar table is also found in Priestly Service as the Seasons Change (text 77).

--M. G. A.

72. Synchronistic Calendars

4Q320-4Q321a

The three Dead Sea Scrolls manuscripts grouped together here have one purpose in common: to synchronize the 354-day lunar calendar with the 364-day solar calendar. * In addition, two of these writings, 4Q320 and 4Q321,

*For a fuller discussion see "A Reader's Guide to the Qumran Calendar Texts," above. As discussed more fully there, the following translations follow the assumption that at the creation, the moon was full, and that the word *duq*, which occurs frequently in 4Q321-321a, means the first crescent.

record the beginnings of the solar months and the festivals. The third, 4Q321a, may have done so as well, but the relevant portion of the text has perished. All of these texts designate dates by the name of the priestly rotation in service at the time in question. Twenty-four courses of priests served altogether, rotating into service for a week at a time. The names of the courses follow the biblical list of 1 Chronicles 24:7-18.

4Q320 Mishmerot A

Frag. 1, cols. 1-2, and frag. 2 tabulate the dates of the full moon through three years of the calendar. Although the dates of this phenomenon would begin to recycle at this point (year four being the same as year one), the priestly divisions do not begin to repeat until year seven. Therefore it must be assumed that three additional columns of this fragment have been lost.

Frag. 3 and 4 record the priestly divisions serving in the sanctuary at the beginning of each of the solar months, followed by a table of the festivals. These calendars record a complete six-year cycle. Note that 4Q321 below records these two tables together.

Calendar of full moons for the first year. The "courses" were the priestly families who rotated into service in the Temple at Jerusalem.

Frag. 1 Col. 1 ¹[. . .] to show itself from the east ²[and] to shine forth [in] the center of the sky at the base of ³[the . . .], from evening to morning on the fourth day of the week ⁴[of G]amul, in the first month of the ⁵[firs]t year.

⁶[On the fifth day of Jeda]jah is the twenty-ninth day (of the lunar month), on the thirtieth day of the (first solar) month. ⁷[On the Sabbath of Ha]kkoz is the thirtieth day (of the lunar month), on the thirtieth day of the second (solar month). ⁸[On the first day of Elia]shib is the twenty-ninth day (of the lunar month), on the twenty-ninth day of the third (solar month). ⁹[On the third day of Bilga]h is the thirtieth day (of the lunar month), on the twenty-eighth day of the fourth (solar month). ¹⁰[On the fourth day of Petha]hiah is the twenty-ninth day (of the lunar month), on the twenty-seventh day of the fifth (solar month). ¹¹[On the sixth day of Delaiah] is the thirtieth day (of the lunar month), on the twenty-seventh day of the sixth (solar month). ¹²[On the Sabbath of Seori]m is the twenty-ninth day (of the lunar month), on the twenty-fifth day of the seventh (solar month). ¹³[On the second day of Abijah is the thirtieth day (of the lunar month),] on the twenty-fifth day of the eighth (solar month). ¹⁴[On the third day of Jakim is the] twenty-[ninth day (of the lunar month,)] on the twenty-fourth day of the ninth (solar month). **Col. 2** ¹On the fifth day of Immer is the thirtieth day (of the lunar month), on the twenty-third day of the tenth (solar month). ²On the sixth day of Jehezkel is the twenty-ninth day (of the lunar month), on the twenty-second day of the eleventh (solar month). ³On the first day of Jehoiarib is the thirtieth day (of the lunar month), on the twenty-second day of the twelfth (solar month).

The remainder of col. 2 and frag. 2 record the calendar of full moons for the second and third years.

Introduction to the calendar of the solar months.

Frag. 3 Col. 1 ⁹[. . .] the second [day.] The holy ¹⁰[. . . the] creation. Holy ¹¹[. . . on] the fourth day of, ¹²[Gamu]!, at the beginning of all the years ¹³[. . . conjunctio]ns of the second jubilee ¹⁴[. . . seventeen conjunctio]ns . . .

A list of the solar months of the first year.

Col. 2 ⁸[. . .] ⁹with the sacrifice[s . . .] ¹⁰days [. . .] ¹¹holy. [The first month has thirty days and begins in Gamul.] ¹²The second month has thirty days [and begins in Jedaiah.] ¹³The third month has thirty-[one days and begins in Hakkoz.] ¹⁴The fourth month has thirty days [and begins in Eliashib.]

Solar months of the fifth year.

Frag. 4 Col. 1 ¹¹[The ninth month has thirty-one days] and begins in Jehoiari[b.] ¹²[The tenth month has thirty days] and begins in Malchijah. ¹³[The eleventh month has thirty days] and begins in [J]eshua. ¹⁴[The twelfth month has thirty-one days] and begins in Jeshebeab.

Conclusion of the calendar of solar months and introduction to the calendar of festivals.

Col. 2 ¹⁰the days, and for the Sabbaths; ¹¹for the months, ¹²[for] the years, for sabbatical years, ¹³and for jubilees. On the fourth day ¹⁴of the week of the sons of Gamul [. . .]

Festivals of the first year.

Col. 3 ¹The festivals of the first year: ²On the third day of the week of the sons of Maaziah is the Passover. ³On the first day [of] Jeda[iah] is the Waving of the [Omer.] ⁴On the fifth day of Seorim is the [Second] Passover. ⁵On the first day of Jeshua is the Feast of Weeks. ⁶On the fourth day of Maaziah is the Day of Remembrance. ⁷[On the] sixth day of Jehoiarib is the Day of Atonement, ⁸[On the tenth day of the] seventh (month), ⁹[on the fourth day of Jeda]jah is the Feast of Booths.

The festivals of the second through sixth years are detailed in the remainder of cols. 3-6.

4Q321-321a Mishmerot B and C

These two manuscripts record the same calendar. The original work appears to have tabulated a complete six-year cycle of full and first crescent moons, followed by a calendar that listed the first day of each solar month and each festival.

Lunar calendar for the first year (months two through five).

4Q321a Frag. 1 Col. 1 ¹[. . .] ²[The first year: (the full moon is) on the fourth day of Gamul, on the first day of the first month. On the fifth day] ³[of Jedaiah, on the thirtieth day of the month, is the second (full moon), and the first crescent is on the sixth day of Maaziah, on the seventeenth of the month.] ⁴[(The full moon is on the) Sabbath of Koz, on the thirtieth day of the second month, and the first crescent is on the first day of Malchijah, on the seventeenth] of the month. ⁵[(The full moon is) on the first day of Eliashib, on the twenty-ninth day of the third month, and the first crescent] is on the second day of Jeshua, on the [sixteenth] ⁶[of the month. (The full moon is) on the third day of Bilgah, on the] twenty-[eig]hth day of the fourth month, ⁷[and the first crescent is on the fourth day of Huppah, on the fifteenth of the month.]

⁸[(The full moon is) on the fourth day of Pethahiah, on the twenty-seventh day of the fifth month, and the first crescent is on the fifth day of Hezi]r, ⁹[on the fourteenth of the month.]

Lunar calendar for the first year (months seven through twelve).

4Q321 Col. 1 ¹[. . . and the first crescent is on the first day of Jedaiah on the twe]lft of the (seventh) month. (The full moon is) on the second day of Abija[h, on the] twe[n]ty-fifth day of the eighth month, and the first crescent is on the third day] ²[of Mijamin, on the twelfth] of the month. (The full moon is) on the third day of Jakim, on the [twenty-]fou[r]th day of the ninth month, and the first crescent is on the fourth day] ³[of Shecaniah, on the elev]enth of the month. (The full moon is) on the fifth day of Immer, on the tw[en]ty-third day of the ten[th] month, and the first crescent is on the sixth day of Je]shebeab, ⁴[on the

tenth of the mo]nth. (The full moon is) on the [si]xth day of Jehezkel, on the twenty-second day of the eleventh month, and [the first crescent is on the Sabbath of] Pethahiah, ⁵[on the ninth of the month.] (The full moon is) on the first day of Jehoiarib, on the twenty-second day of the twelfth month, and [the first crescent is on the secon]d day of Delaiah, ⁶[on the ninth of the month.]

The continuation of cols. 1.6-4.7 tabulates the second through the sixth year of the lunar calendar.

Solar months and festivals of the first year.

4Q321 Col. 4 ⁸[The fi]rst [year:] the [firs]t mon[th] begins in G[amul. On the thi]rd day of Maa[ziah] is [the Passover.] ⁹[The Waving of the Omer is in Jedaiah. The second month begins in Jedaiah. The Second Passover is in] Seorim. [The third month begins in Koz.] **Col. 5** ¹The Feast of Week[s] is in Jeshua. [The fo]u[rth] month begins in E]liashib. The fifth month begins in [Bilgah. The sixth month begins in Jehe]zkel. The sev[enth] month begins in Maaziah.] ²The Day of Remembrance is in Maaziah. The Day of Atonement is in Jehoiarib. [The Feast of] Booths is in Jedaiah. The eighth month begins [in Seorim.] ³The ninth month begins in Jeshua. The tenth month begins in Huppah. The eleventh month begins in Hezir. The twelfth month begins in Gamul.

The continuation of cols. 2-4 records years two through six of the solar months and festivals.

--M. G. A.

73. Priestly Service: Sabbath Entrance

4Q322-324a

These fragments were originally thought to be part of an annalistic calendar that plotted historical events on the 364-day calendar in conjunction with the priestly rotation. That type of writing is evident in *Fragmentary Historical Writings* (text 74). If the present organization is correct, these four manuscripts are concerned solely with plotting the date of the entrance of the twenty-four priestly courses as they began their week of Temple service on the Sabbath.

This text pertains to the eighth and the beginning of the ninth months of year two in the six-year cycle of the courses. The reference in l. 2a to some important event or remembrance on the second day of Jakim's service is obscure. Indeed, the scribe wrote this note above the line, and it is unclear how to integrate it into the remaining text.

4Q322 ¹[. . . of the eigh]th; on the nint[h of the eighth month is the entrance] ²[of the course of Shecaniah.] On [. . . in] the course of Shecaniah, which is ^{2a}on the second day in the course of Jakim (?) ³[On the twenty-thi]rd of the month is the entrance of the course of Jakim, and on the fo[urth] day of Jakim . . .] ^{3a}[. . .] second [da]y of the course of Huppah, which is [the second day of the ninth month . . .]

This text presents portions concerning the tenth and eleventh months of year two in the cycle of courses.

4Q323 ¹[. . . the fou]rth [day] of Hez[i]r is the [fi]rst day of the t[enth] month . . .] ²[on the fourth of the month is the entrance of the course of Pi]zzez. On the ele[v]enth of the month is [the entrance of the priestly course of Pethahiah.] ³[On the eighteenth of the month is the entran]ce of the course of Jehezkel. On the twent[y-fifth] of the month is the entrance] ⁴[of the course of Jachin . . .] ⁵[. . . On the second of the eleventh month] is the entrance of [the course of Gamul . . .]

The cycle of priestly courses in the fifth through seventh months of the fifth year. The reference to covenants in ll. 3 and 7 remains unexplained.

4Q324 Frag. 1 ¹[the entrance of Shecaniah. On the twenty-third of the fifth month is the entrance of the course of Eliashib. On the thirtieth of the fifth month] ²[is the entrance of the course of Jakim. The first day of Jakim is the fir]st day of the si[x]th month. On the seventh of the sixth month is the entrance of the course of Huppah.] ³[. . . On the four]teenth of the fifth month is [the entrance of the course of Jeshebeab:] a covenant (?). On the tw[en]ty-] ⁴[first of the fifth month is the entrance of the course of Bilga]h. On the twenty-[eighth of the fifth mo]nth is the entrance of the course of Imm[er.] ⁵[The fourth day of the course of Immer is the fi]rst day of the seventh month. On the fo[u]rth of the seventh month is the entrance of the course of H[ezir.] ⁶[The sixth day of] the course of Hezir, which is the tenth day of the seventh month, is the Day ⁷[of Atonement, it is] as a covenant (?). On the eleventh of the seventh month is the entrance of [the course of Pizzatez . . .]

The cycle from the middle of the ninth to the middle of the tenth month of the fifth year.

4Q324a Frag. 1 Col. 2 ¹day [. . .] On the fou[r]teenth of the ninth month is the entrance of the course of Ha]r[im. On the] twe[n]ty-first day] ²[of the mon]th is the entrance of the course of S[eor]im. On the twenty-eighth of the month is the entrance of the course of Malchi]jah.] ³The fourth day [of] Malchijah is the first day of the tenth month.

⁴On the fourth day of the tenth month is the entrance of the course of Mija[m]in. On the eleventh of the month is the entrance of the course of K[oz.]

--M. O. W.

74. Fragmentary Historical Writings

4Q322a, 4Q331-333, 4Q468e, 4Q578

Among the Qumran texts very few are what we moderns would consider to be historical writings. Even those that mention historical events generally do so while interpreting Scripture or in the context of an apocalyptic vi-sion. This predilection among the scrolls seems to reflect Jewish sensibilities of the time more generally, for with few exceptions (1 Maccabees, Josephus) the Jews of these years did not compose history in the manner fashionable in the broader Greco-Roman world. The writings gathered here may represent the exceptions that help prove that rule, for these works do seem to be historical writings in the proper sense. Of course, given their fragmentary character, such a judgment must be ventured very cautiously.

Arguably all of the persons mentioned fit into the period 135-30 B. C. E. , a time of tremendous upheaval in Jewish society. Several of the most clearly identifiable persons can be dated even more narrowly to the years 76-50 B. C. E. First, Alexandra (called in these texts Shelamzion, her Hebrew name) came to the throne and gave the Pharisees carte blanche in the nation's affairs, thereby sounding the starter's gun for a persecution of the ruling coalition that had functioned under her husband and predecessor, the anti-Pharisaic Alexander Jannaeus. Then when Alexandra died in 67 B. C. E. , her son Hyrcanus II, who figures at several points below, took the throne. He soon abdicated his rights to his brother, Aristobulus II, another figure in this collection. Under the goading of several self-serving advisers--including the Idumean Antipater, father of Herod the Great--Hyrcanus had second thoughts and tried to take power back from Aristobulus. The result was that from 67 to 63 B. C. E. , the nation was wracked by civil war. In the latter stages of that conflict, the Roman Pompey decided to inject himself into the situation and seek Rome's advantage. The Romans ultimately sided with Hyrcanus, and events climaxed with the siege of Aristobulus's priestly supporters in the Temple at Jerusalem in 63 B. C. E. After several months, the Romans broke through; they surged into the Temple environs and put to the sword everyone they

encountered. Josephus reports that a total of twelve thousand Jews lost their lives, many of them priests. Along with the king himself, large numbers of Aristobulus's supporters who survived the massacre ended up being taken to Rome as prisoners and slaves. In all of these Roman actions, a leading general of Pompey's, M. Aemilius Scaurus, played a decisive role. He too is named in the writings below, where he seems to be credited with the Temple massacre.

After the Roman triumph, Palestine for some thirty years remained a simmering caldron of tensions. Conflict between the parties of Hyrcanus and Aristobulus continued into the next generation, occasionally erupting into violence and only settling down when the Romans enabled Herod the Great to take the throne as a client (read, "puppet") king in 37 B. C. E.

The texts here are arranged in approximate chronological order.

Between 305 and 30 B. C. E. , no fewer than fourteen men who bore the name Ptolemy ruled Egypt. Many had some doings with the Jews of Palestine, so it is impossible to determine with certainty which figures find mention in the present fragmentary scroll. Paleographical analysis has suggested to one scholar that the text was copied about 125 B. C. E. This suggestion would limit the number of possible men to seven or eight, but precise dating by the method is hardly reliable even when one has a substantial sample of the scribe's handwriting. Here we have almost nothing. We must be content with the conclusion that the text describes events that probably occurred in the first or second centuries B. C. E.

4Q578 ²[. . .] Ptolemy [. . .] ³[. . . Ptole]my his son [. . .] ⁴[. . .] Ptole[my . . .]

An undated event involving one Yohanan. The reference is probably to John Hyrcanus I, 134-104 B. C. E. , but it is also possible that the author had in mind John Hyrcanus II, with whom Aristobulus fought for the kingdom in the civil war of 67-63 B. C. E. The reason to favor the first option is that Hyrcanus II is elsewhere referenced by the name "Hyrcanus," not "Yohanan" (4Q332 frag. 2).

4Q331 Frag. 1 Col. 1 ⁶[. . . the high] priest, ⁷[. . .] Yohanan, to bring to [. . .]

An undated event involving Shelamzion (Salome Alexandra, 76-67 B. C. E.).

Col. 2 ⁵a man [. . .] ⁶the [. . .] ⁷Shelamzion [. . .]

An undated event possibly involving an act against Aristobulus II (67-63 B. C. E.).

4Q322a Frag. 1 ⁵[. . .] men [of . . .] ⁶[. . .] and against Ar[istobulus . . .] ⁷[. . .] they said [. . .] ⁸[. . .] seventy [. . .] ⁹that he [. . .]

Opaque references to an unknown person and to the eighth month, Marheshvan, the latter perhaps an element in a dating formula.

Frag. 2 ¹[. . .] subdued [. . .] ⁴[. . .] a man [. . .] ⁵[. . .] from Ma[rhe]shvan [. . .] ⁶[. . .] eighty [. . .]

Frag. 1 lists a number of historical events impossible to identify specifically, but they involve military conflict generating prisoners, and some of the forces are apparently Roman.

4Q332 Frag. 1 ¹[. . .] on the tent[h of the sixth month . . .] ²[on the fourteenth of the month is the entran]ce of the course of Jedaiah, on the sixteen[th of the month . . .] ³[on the twenty-]seventh of the [seventh] month [. . .] ⁴[. . .] he settled [. . .] ⁵[. . . Gen]tiles (or Kit[ti]m) and also [. . .] ⁶[. . .] those who are [bi]tter of spirit [. . .] ⁷[. . .] prisoners [. . .]

Line 1 records an undated event connected with gaining honor among the Nabateans. This may be a reference to Hyrcanus II and his flight to seek asylum in that kingdom early in the civil war. Line 2 makes some reference to the eleventh month of the Jewish calendar, Shevat. Line 4 records an undated event involving Shelamzion. Line 6 records a rebellion involving Hyrcanus, perhaps referring to the outbreak of the civil war. The statement that "Hyrcanus rebelled" implies the author's sympathy with Aristobulus, since no partisan of Hyrcanus would describe his attempt to regain his birthright and return to power as rebellion.

Frag. 2 ¹[. . . to] give him honor among the Nabate[ans . . .] ²[. . . on the n]inth [day] of Shevat, this is [. . .] ³[. . .] that is the twentieth of the month [. . .] ⁴[. . .] Shelamzion secretly came [. . .] ⁵[. . .] to confront the [. . .] ⁶[. . .] Hyrcanus rebelled [against Aristobolus . . .] ⁷[. . .] to confront [. . .]

An undated murder or massacre.

Frag. 3 ²[. . . the leader of the Gen]tiles (or Kit]tim) murdered [. . .] ³[. . .] on the fifth [day] of the course of Jedaiah, this is [. . .]

This fragment describes certain slayings by M. Aemilius Scaurus, one of the leading Roman generals involved in the Roman capture of Jerusalem in 63 B. C. E.

4Q333 Frag. 1 ¹[. . . On the] twenty ²[first day of the month is the entrance of the course of Pethahiah. On the twenty-eig]hth day ³[of the month is the entrance of the course of Jehezkel. On the first (or second, or third) day of Je]hezkel, which is ⁴[the twenty-ninth (or thirtieth, or thirty-first) day of the sixth month,] Aemilius killed ⁵[. . . The fourth day of Jehezkel is the first of the] seventh [mont]h. ⁶[On the fourth of the month is the entrance of the course of Jachin. On the eleventh of the month is the en]tr[ance of] the course of Gamul. ⁷[. . . The fourth day of Gamul, which] is ⁸[the fifteenth day of the seventh month, is the Feast of Booths. On this day] Aemilius killed [. . .]

Frag. 2 ¹[. . .] a Judean man [. . .]

This fragment seems to describe a massacre or battle involving Peitholaus, a Jewish general who was a party to warfare and violent massacres in the years 55-51 B. C. E. according to Josephus. Peitholaus first aligned himself with the Romans and helped punish Jewish rebels who supported Aristobulus's wing of the Hasmoneans. Later, he switched sides and became an ally of those same partisans. In this role he took part in a battle with the Romans in which many Jews lost their lives. Shortly thereafter, having been captured, Peitholaus was executed by the Romans.

4Q468e ²[. . . to k]ill many of the me[n . . .] ³[. . .] Peitholaus and the people who [. . .]

--M. O. W.

75. Priestly Service: Sabbath, Month, and Festival--Year One

4Q325

The work before us records the Sabbaths, first days of the months, and the festivals by priestly division and according to the solar calendar. All that remains of the composition is part of the record for the first year of the six-year cycle. The Festival of Wood Offering in frag. 2 is striking, for this was a controversial festival. Not even all the adherents of the solar calendar so ubiquitous among the scrolls held that there should be such a festival. Most of the calendars found in the Qumran caves do not include it. Josephus

seems to indicate that in his time no such regular week of bringing wood existed. Instead, people would supply wood to the temple at regular intervals throughout the year.

Sabbaths, solar months, and festivals of the first year (months one through three). The Barley Festival, mentioned in I.3, is elsewhere called the Waving of the Omer.

Frag. 1 ¹[. . . the Passover is on the fourteenth of the month on the thi]rd [day.] On the eighteenth of the month is the Sabbath o[f Jehoiarib. Passover ends] ²[on the third day] in the evening. On the twenty-fifth of the month is the Sabbath of Jedaiah, its responsibility [includes] ³the Barley [Festiva]l on the twenty-sixth of the month, on the day after the Sabbath. The beginning of the se[cond month is] ⁴[on the si]xth [day of the week] of Jedaiah. On the second of the month is the Sabbath of Harim. On the ninth of the month is the Sabbath of ⁵[Seorim.] On the sixteenth of the month is the Sabbath of Malchijah. On the twenty-third of the [month] ⁶[is the Sabbath of Mija]min. On the thirtieth of the month is the Sabbath of Hakkoz.

The beginning of the third month ⁷the day after the Sabbath [. . .]

Sabbaths, solar months, and festivals of the first year (months five and six). In addition to the wood offering, two firstfruits festivals--wine and oil--are dated here. Each of them falls seven weeks (fifty days counted inclusive of the start) after the previous, echoing the pentecostal count to the Feast of Weeks. See The Sabbaths and Festivals of the Year (text 99).

Frag. 2 ¹[The beginning of the fifth month is on the sixth day of the week of Bilgah. On the second of the month is the Sabbath of I]mmer. On the th[i]rd of the month ²[is the Wine Festival, the day after the Sabbath of Immer. On the] ninth of the month is the Sabbath of Hezir. ³[On the sixteenth of the month is the Sabbath of Happizzesz. On the twent]y-third of the month is the Sabbath of ⁴[Pethahiah. On the thirtieth of the month is the Sabbath of Jehezkel. The beginn]ing of the sixth month ⁵[is on the day after the Sabbath of Jehezkel. On the seventh of the month is the Sabbath of Jachin. On the fou]rteenth ⁶[of the month is the Sabbath of Gamul. On the twenty-first of the month is the Sabbath of Delaiah. On the twenty]-second ⁷[of the month, is the Oil Festival, on the day after the Sabbath of Delaiah. On the following day is the Wo]od [Offering.]

--M. G. A.

76. Priestly Service: Sabbath, Month, and Festival--Year Four

4Q326

4Q326 records the Sabbaths, first days of the solar months, and the festivals, apparently for the fourth year of the six-year cycle familiar from other calendrical works. The remains preserve the names of none of the priestly divisions, but frag. 1, l. 1, "In the first month: on the fourt[h of the month is a Sabbath. . . .]" suggests some connection to the priestly cycle.

Sabbaths were the only holy days on which the Jews of this period might have been in at least partial agreement, since the Sabbath always fell on a seventh day. All the other holy days, attached as they were by biblical mandate to dates rather than to days of the week, turned into matters of controversy. The Sabbaths might have been different. In fact, however, even the Sabbaths were not days of rest from controversy. As this text illustrates, the Qumran calendars attached the Sabbath, like all the other festivals, to a specific date. Thus even the Sabbaths, which might have offered a moment's peace, instead became battlegrounds for the calendar wars.

The Barley Festival, mentioned in I.4, is elsewhere called the Waving of the Omer.

Frag. 1 ¹In the first month: on the four[h of the month is a Sabbath. . . .] ²On the eleventh of the month is a Sabba[th. On the fourteenth of the month is the Passover, on the third day of the week. On the fifteenth of the month] ³is the Feast of Unleavened Bread, on the fou[rth day of the week. On the twenty-fifth of the month is] ⁴a Sabbath. On the twenty-sixth of the month is the B[arley] Festival, [on the day after the Sabbath. The first month] ⁵has thirty days. On the second of the [(second) month is a Sabbath. On the ninth of the month is a Sabbath. On the sixteenth . . .]

--M. G. A.

77. Priestly Service as the Seasons Change

4Q328

The first line of this fragmentary work lists the priestly families, or courses, that begin each year of the six-year cycle. Lines 2-6 list the course that begins each quarter of the year. Apparently our author held to the view, known from *Jubilees* and the *Charter of a Jewish Sectarian Association* (text 7, col. 10), that the year comprised four three-month seasons, each of which began with a sort of New Year's Day.

¹[At the beginning of the first year Gamul is serving; in the second is Jedaiah, in the third is Mijamin, in the fourth is Shecaniah, in the fifth is Jeshebe]ab, and in the sixth is Happizez. These are the heads of the years: ²[In] the first [year,] Gamul, Eliash[ib,] Maaziah, ³[and Huppah. In the] second, Jedaiah, Bilgah, Se[o]rim, and He[zir.] ⁴[In the third, Mija]m[in,] Pethahiah, Abi[jah, and Jachin.] ⁵[In the fourth, Shecaniah, De]laiah, Jakim, and Jeh[oiarib. In the fifth,] ⁶[Jeshebeab, Harim, Immer,] and Malchijah. In the si[xth, Happizez, Hakkoz, Jehezkel, and Jeshua.]

--M. G. A.

78. Priestly Rotation on the Sabbath

4Q329

The first fragment of this calendar is a listing of the twenty-four priestly courses recorded in 1 Chronicles 24:7-18. Then, like the preceding work, the first several lines of frag. 2 tabulate the name of the priestly course that is serving when each new quarter of the year begins. The fragment begins in year two. The author goes on to list the name of the priestly division that begins to serve in the Temple for each Sabbath of the year.

In this and other calendrical works among the scrolls, we see clearly illustrated the priestly concern for taxonomy, or classification. Life was to be described; life was to be orderly, its phases so regular that they could be compiled in lists. By such classification, the priests did not actually *describe* reality, of course, so much as *create* it. At the heart of what may strike modern readers as a dull and repetitive list, then, lies the desire to create a reality. And that desire is nothing but a will to power. So when we read the many calendrical works among the scrolls, we are reading the record of a struggle for authority among Second Temple Jews.

Frag. 1 ¹[Gamul, Delaiah, Maaziah, Jehoiarib,] Jedaiah, Harim, and Seo[rim, Malchijah, Mijamin,] ²[Hakkoz, Abijah, Jeshua, Shecaniah,] Eliashib, Jakim, and Huppah, [Jeshebeab, Bilgah, Immer,] ³[Hezir, Happizez, Pethahiah, Jehez]kel, Jac[hin . . .] ⁴[. . .]

Frag. 2 ¹Seorim, [and Hezir. The third year. Mijamin, Pethahiah, Abijah, and Jachin.] ²The {third} <fourth> year: [Shecaniah, Delaiah, Jaki]m, and Jehoiarib. [The fifth year: Jeshebeab,] ³[Ha]rim, Immer, [and Malchijah. The sixth year:] Happizez, Hakko[z, Jehezkel, and Jeshua.] ⁴The first year in the [first] mo[nth:

Gamul, Delaiah, Maaz]jah, and Jehoiarib. In the [second: Jedaiah,]⁵[Harim, Seorim, Malchijah, and Mijamin. In the] third month: Ha[kkoz Abijah, Jeshua, and Shecaniah.]

--M. G. A.

79. Priestly Service on the Passover

4Q329a

This calendar records the priestly course whose duty it was to sacrifice the lamb for Passover for the first five years of the six-year cycle. Passover was, and is, perhaps the most important of the Jewish festivals, for it celebrates the deliverance of the Jews from servitude in Egypt and their coming to live in the Holy Land as free people. The Passover occurs each year in March or April by the modern Western calendar.

¹[The festivals of the first year:] on th[e third of the] week ²[of Maaziah falls the Passover.] The f[estival]s [of the secon]d (year): [on the th]ird ³[of Seorim falls the Passover.] The festivals [of the thir]d (year): on the third ⁴[of Abijah falls the Passov]er. The festivals of the fourth (year): ⁵[on the third of Jakim falls the Pa]ssover. The festivals of the fifth (year): ⁶on the third of Imm[er falls the Passover. The festivals of the sixth (year) . . .]

--M. G. A.

80. Priestly Service on New Year's Day

4Q330

The first portion of the present work records the name of the priestly course serving in the Temple on New Year's Day. New Year's Day, according to the Qumran calendars, fell on the first day of Nisan, which equates to about March 20 or 21 in modern terms. This was the day of the vernal equinox. Even the proper accounting of New Year's Day was a matter of strife among Second Temple Jews, for some held that the year should begin on the first day of Tishri, that is, the seventh month.

The beginning of l. 2, "in the sixth week," does not fit the New Year pattern, so additional information must have been included, but we can only guess what it might have been.

Frag. 1 [In the third year,] **Col. 2** ¹Mijamin on the first of the f [irst] month [. . .] ²in the sixth week. In the [fourth] year, [Shecaniah on the first of the first month . . .] ³In the {second year} f[ifth] year, Jeshebeab on the [first of the first month . . .]

--M. G. A.

81. A Liturgical Calendar

4Q334

Basic to any calendar is the idea of order. Because there is order in the universe--because the sun, moon, and stars move on orderly and more or less predictable paths--a calendar is possible. Such an orderly creation calls for an orderly response, and that is what this text represents. Even what might seem

the least orderly and, by nature the most spontaneous type of human expression--praise--here has order imposed upon it.

This intriguing and orderly liturgical writing records the number of "songs" (Hebrew *shiroṭ*) and "words of praise" (Hebrew *divre tishbuhot*) for each of two daily services. In the following reconstruction the letter *x* indicates an unknown number, either the date or the number of songs or praises, according to context. The *Liturgical Calendar* is clearly a methodical work, but only one aspect of the method is still apparent: the number of "words of praise" that are sung during the day is double the date of the month (note particularly frag. 2, ll. 4-5).

An undated fragment.

Frag. 1 ¹[. . . On the *x*th] of the month, in the evening, [eight songs . . .] ²[. . . and *x* w]ords of prais[e . . .]

Record for the eighth, ninth, and tenth days of an unknown month.

Frag. 2-4 ¹[On the eighth of the month, in the evening, e]ight [s]ongs, and forty-[*x* w]ords of prai[se.] ²[During the day, *x* songs, and] sixtee[n wor]ds of [praise. On the nint]h of the month, in the evening, ³[eight songs] and fort[y-tw]o words of praise. [During the d]ay, [*x*] songs, ⁴[and eighteen words of praise.] On the tenth of the [month,] in the evening, eight songs ⁵[and forty-*x* words of praise. During the day, *x* songs,] and twent[y] wor[ds of p]raise.

A fragment whose dates have been lost.

Frag. 5 ¹[On the *x*th of the month, in the evening, eight songs and *x*-] teen [words of praise.] During the d[ay, *x* songs, and *x* words of praise.] ²[. . .] twenty-[*x* words of praise.]

Record for the sixteenth, seventeenth, and eighteenth of an unknown month.

Frag. 6-7 ¹On the sixt[eenth of the month, in the evening, *x* songs and *x* words of praise.] ²During the day, [*x*] s[ongs, and thirty-two words of praise. On the sevente]nth of the month, ³[in the evening, *x* songs and *x* words of praise. During the d]ay, [*x*] songs, ⁴[and *x* words of praise. On the eighteenth] of the month, ⁵[in the evening, *x* songs and *x* words of praise. During the day, *x* song]s [. . .]

--M. G. A.