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A Newly Reconstructed Calendrical Scroll from Qumran in Cryptic Script

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In this article we offer a reconstruction and edition of one of the last unpublished Dead Sea Scrolls. It is an extremely fragmentary calendrical scroll written in the Cryptic A code. While images of 4Q324d were included in the DJD series, no formal edition of it exists. The suggested jigsaw-puzzlelike reconstruction integrates forty-two extremely small fragments into a stretch of five consecutive columns of what we consider to be one continuous scroll (*pace* earlier preliminary editions). In terms of its content, the calendar contained in this scroll resembles the one found at the top of 4Q394 3–7 (a copy of 4QMMT) and in 4Q394 1–2. An intriguing interlinear gloss in both shape and content offers a ruling on the Festival of Wood Offering that follows the halakic rulings of the Temple Scroll.

A distinctive corpus of scrolls written in cryptic script stands out among the scrolls found in Qumran. While the final publication of all Qumran scrolls is often celebrated, several scrolls in cryptic script are the only scrolls left that have not been

This study was written with the support of the Israel Science Foundation, grant number 1330/14. We would like to express our gratitude to Asaf Gayer, who has been deeply involved in the material reconstruction of this scroll and offered invaluable help. Composite images in this article are based on the PAM images, supplied to us courtesy of the Leon Levy Dead Sea Scrolls Digital Library, Israel Antiquities Authority. In addition, we gained much benefit from the new multispectral images supplied to us by the same library (photographer: Shai Halevy).

¹For a description of this corpus, see Stephen J. Pfann, "The Character of the Early Essene Movement in the Light of the Manuscripts Written in Esoteric Scripts from Qumran" (PhD diss., The Hebrew University, Jerusalem, 2001); Pfann, "Writings in Esoteric Script from Qumran," in *The Dead Sea Scrolls Fifty Years after Their Discovery: Proceedings of the Jerusalem Congress, July 20–25, 1997*, ed. Lawrence H. Schiffman, Emanuel Tov, and James C. VanderKam (Jerusalem: Israel Exploration Society, 2000), 177–90.

furnished with a full scientific edition. In effect, they are the last unpublished Dead Sea Scrolls. We are privileged to have completed an edition of one of these last scrolls and present it here. We assign the scroll presented here the number 4Q324d.

The reconstruction suggested here for one of these extremely fragmentary scrolls presented outstanding difficulties and required extraordinary efforts, much like assembling a jigsaw puzzle with individual pieces measuring 1.5 cm \times 1.5 cm on average. Important preliminary work on this scroll was carried out by Józef T. Milik and Stephen J. Pfann, to whom we are greatly indebted. The final result, as presented here, is a calendar text covering a 364-day year, with pronounced concluding formulas at the conclusion of each of the seasons. A calendar list of the same kind was famously preserved at the top of 4Q394 3–7, a copy of the important halakic scroll Miqṣat Macaśe haTorah. There only its last line can be read, but more information can be gleaned from the better-preserved scroll 4Q394 1–2. Notwithstanding the partial information of the above scrolls, we are now able to trace the structure of the whole year according to that—or a very similar—order.

A complete publication of this modest-looking scroll is significant for Qumran studies, even for the entire field of biblical studies, in several respects. It alerts scholars to the opportunities that are still present in the Dead Sea Scrolls corpus if older editions are reexamined with the proper attention and with new technologies available today.⁴ The scribal practice of this little scroll adds particularly telling

²The number 324d was used by Pfann for only a small part of the sixty or so fragments discussed here, as he divided them into six different copies 4Q324d-i. Since we now see all fragments as constituting a single copy, we name it 4Q324d, the first available siglum in the sequence. Although we are alert to the confusion that choosing this siglum may cause, we prefer to use it in order to preserve the direct flow of 4Q324 numbers, rather than invent a whole new siglum. Since no publication was written about this scroll beyond the mere editions, the risk of confusion seems limited.

³See the initial publication of 4Q394 1–2 and 3–7 in Elisha Qimron and John Strugnell, *Qumran Cave 4.V: Miqṣat Maʿaśe ha-Torah*, DJD X (Oxford: Clarendon, 1994), 6–9, 44–45. While DJD X assigns frags. 1–2 and 3–7 to one and the same manuscript, Strugnell (ibid., 203) doubted this association, and VanderKam concluded against it; see James C. VanderKam, "The Calendar, 4Q327 and 4Q394," in *Legal Texts and Legal Issues: Proceedings of the Second Meeting of the International Organization for Qumran Studies, Cambridge, 1995*, ed. Moshe Bernstein, Florentino García Martínez, and John Kampen, STDJ 23 (Leiden: Brill, 1997), 179–94. In his title, VanderKam called frags. 1–2 by the old designation "4Q327." His arguments were accepted by Shemaryahu Talmon; see S. Talmon, J. Ben-Dov, and U. Glessmer, *Qumran Cave 4.XVI: Calendrical Texts*, DJD XXI (Oxford: Clarendon, 2001), 158. Elisha Qimron leaves the question open in his new edition: *The Dead Sea Scrolls: The Hebrew Writings* [in Hebrew] (Jerusalem: Yad Ben-Zvi, 2013), 2:204. For the relation between MMT and the calendar of 4Q394, see Hanne von Weissenberg, *4QMMT: Reevaluating the Text, the Function, and the Meaning of the Epilogue*, STDJ 82 (Leiden: Brill, 2009), 33–38.

⁴See, e.g., Jonathan Ben-Dov, Daniel Stökl Ben Ezra, and Asaf Gayer, "Reconstruction of a Single Copy of the Qumran Cave 4 Cryptic-Script Serekh haEdah," *RevQ* 29 (2017): 21–77;

examples to the record of scribal practices assembled by Emanuel Tov. In addition, our reconstruction adds several significant details about the 364-day calendar, specifically about the nature of the Feast of Wood Offering and about the $taq\hat{u}p\hat{o}t$, that is, the days standing at the turn of the seasons. Finally, the reconstruction of 4Q324d as a single scroll rather than as a collection of six separate scrolls, as suggested in earlier research, is significant for assessing the nature and scope of encryption in sectarian circles. The religious phenomenon of secrecy and encryption in the ancient Near East, Judaism, Christianity, and other late-antique religions, keeps attracting scholarly attention and will benefit from the finds of the present project. These three aspects are discussed below, followed by a detailed edition of 4Q324d. The extent of material work performed here requires an extensive technical apparatus, without which the more general results cannot stand.

I. THE 364-DAY CALENDAR TRADITION

The calendar constituted a central part of the sectarian identity. Members of the Yaḥad adhered to a year of 364 days, which was different from the luni-solar year of the Jerusalem temple and the Hasmonean state.⁷ The sectarian calendrical tradition is well represented in a variety of documents from Qumran and outside it.⁸ It is a highly schematic year with ideal relations between its numerical

Chanan Ariel, Alexei Yuditsky, and Elisha Qimron, "The *Pesher on the Periods* A–B (4Q180–4Q181): Editing, Language, and Interpretation" [in Hebrew], *Meghillot* 11–12 (2015): 3–39.

⁵Emanuel Tov, Scribal Practices and Approaches Reflected in the Texts Found in the Judean Desert, STDJ 54 (Leiden: Brill, 2004).

⁶See, e.g., Alan Lenzi, Secrecy and the Gods: Secret Knowledge in Ancient Mesopotamia and Biblical Israel, SAAS 19 (Helsinki: Neo-Assyrian Text Corpus Project, 2008); Adela Yarbro Collins, "Messianic Secret and the Gospel of Mark: Secrecy in Jewish Apocalypticism, the Hellenistic Mystery Religions, and Magic," in Rending the Veil: Concealment and Secrecy in the History of Religions, ed. Elliot R. Wolfson (New York: Seven Bridges, 1999), 11–30.

⁷For the role of the calendar in sectarian polemics, see the ever-relevant Shemaryahu Talmon, "Yom Hakippurim in the Habakkuk Scroll," *Bib* 32 (1951): 549–63. Although much of the criticism leveled against Talmon by Sacha Stern ("Qumran Calendars and Sectarianism," in *The Oxford Handbook of the Dead Sea Scrolls*, ed. Timothy H. Lim and John J. Collins [Oxford: Oxford University Press, 2010], 232–53) is valid, the core sectarian value of the calendar cannot be denied.

⁸Uwe Glessmer, "Calendars in the Qumran Scrolls," in *The Dead Sea Scrolls after Fifty Years: A Comprehensive Assessment*, ed. Peter W. Flint and James C. VanderKam, 2 vols. (Leiden: Brill, 1999), 2:213–78; James C. VanderKam, *Calendars in the Dead Sea Scrolls: Measuring Time*, Literature of the Dead Sea Scrolls (London: Routledge, 1998); Jonathan Ben-Dov, "The 364-Day Year in the Dead Sea Scrolls and Jewish Pseudepigrapha," in *Calendars and Years II: Astronomy and Time in the Ancient and Medieval World*, ed. John M. Steele (Oxford: Oxbow, 2011), 69–105. The Qumran calendrical texts 4Q319–324c and 4Q325–330 were published by Talmon, Ben-Dov, and Glessmer in DJD XXI.

constituents. The number of 364 days is neatly divided by seven, a typological number with significant religious connotation. Each 364-day year contains exactly fifty-two weeks, a fact that allows anchoring the festivals to fixed weekdays, thus avoiding their coincidence with the Sabbath. In addition, the number 364 divides neatly by four as well, yielding a good symmetry of the four seasons, each season containing exactly 91 days. Finally, the synchronization of the 364-day year with a schematic lunar calendar of alternating twenty-nine- and thirty-day months is easily achieved, using an intercalation of one thirty-day month every three years (a triennial cycle of three years of 364 days = three lunar years of 354 days + an intercalary month of thirty days).

A distinct part of the 364-day calendar tradition appears in a collection of calendar texts from Qumran that present the characteristics mentioned above in the form of detailed rosters in addition to the following: the triennial cycle involving lunar months; a six-year cycle that incorporates the times of service of priestly families (mišmārôt) in the temple; and a detailed record of lunar phases along the six-year cycle. Each type of calendrical scroll represents only some of these traits, and thus a variety of calendrical "genre" is created. The scroll 4Q324d represents the Sabbaths and festivals as well as a simple record of the names of priestly courses but does not go into the details of either the mishmarot service or of the lunar phenomena. It is unique in phrasing a distinct type of formula indicating the dates of transition between the seasons. The scroll specific content of the seasons.

The vocabulary and style of the calendrical texts are typically very limited and monotonous, a fact that eases the task of reconstructing fragmentary scrolls. We benefited greatly from this characteristic when assembling the jigsaw puzzle of 4Q324d.

The account of annual festivals recorded in 4Q324d generally agrees with the record of festivals in other scrolls. An exception pertains to the Festival of Wood Offering, as explained below. In this case, a long marginal note specifies some details about the performance of this particular feast, in accordance with the halakah of the Temple Scroll and in contrast to other practices reflected in Second Temple literature. The inclusion of this note seems to indicate an awareness of halakic disagreements and the need of additional clarification.

⁹For a classification of types of calendar texts, see DJD XXI:7–14.

¹⁰For these transition days, see Jonathan Ben-Dov, *Head of All Years: Astronomy and Calendars at Qumran in Their Ancient Near Eastern Context*, STDJ 78 (Leiden: Brill, 2008), 31–52.

¹¹ For this festival, see mainly Cana Werman, "The Wood-Offering: The Convoluted Evolution of a Halakhah in Qumran and Rabbinic Law," in *New Perspectives on Old Texts: Proceedings of the Tenth International Symposium of the Orion Center for the Study of the Dead Sea Scrolls and Associated Literature, 9–11 January, 2005*, ed. Esther G. Chazon, Betsy Halpern-Amaru in collaboration with Ruth A. Clements, STDJ 88 (Leiden: Brill, 2010), 151–81.

II. THE CRYPTIC SCRIPT AND ESOTERICISM

While more than one code was employed in the Dead Sea Scrolls, the main one in use was dubbed Cryptic A by its decipherer, J. T. Milik. ¹² The general aim of encryption in Qumran is not entirely clear, as we hope to discuss elsewhere. Most of the encrypted texts are attested elsewhere in a completely unesoteric edition, such as the Rule of the Congregation from Cave 1 and the present calendrical scroll 4Q324d, which resembles other calendrical scrolls written in the square Jewish script. Those that are not encountered elsewhere—insofar as we can read them in their current condition—do not betray any sign of exceptional secrets or hidden wisdom. Such is the case, for example, with 4Q249 Midrash Moshe or even 4Q317 Phases of the Moon. It generally seems that encryption was a means of conveying prestige to the initiated but not a means of 100-percent security or preventing comprehension by other community members. ¹³

Cryptic A is a simple replacement code, with each letter represented by a designated sign. Some of these signs correspond to paleo-Hebrew or Greek letters, while others seem arbitrary. These signs played a part in the sectarian scribal practice, as some of them appear as scribal marks in various scrolls. As it seems now, about eight scrolls were written in the Cryptic A script; some of these texts are known from other Dead Sea Scrolls, while others are uniquely attested. The inventory includes Midrash Moshe (4Q249); the Rule of the Congregation (4Q249a); a yet-unknown composition written on papyrus 4Q250; Words of the Maskil to the Sons of Dawn (4Q298); Phases of the Moon (4Q317); the calendrical scroll 4Q324d; and several other smaller fragments. Of these, the first three are written on

¹² J. T. Milik, "Milkî-şedeq et Milkî-reša^c dans les anciens écrits juifs et chrétiens," JJS 23 (1972): 94–144; Milik, The Books of Enoch: Aramaic Fragments of Qumran Cave 4 (Oxford: Clarendon, 1976), 68–69; Émile Puech, "L'alphabet cryptique A en 4QSe (4Q259)," RevQ 18 (1998): 425–35. For the story of the decipherment, see Frank Moore Cross, The Ancient Library of Qumran, 3rd ed., BibSem 30 (Sheffield: Sheffield Academic, 1995), 45. See also the publications by Pfann mentioned in n. 1 above. The Cryptic B script is represented in the fragments 4Q362, 4Q363, and 4Q363b, while Cryptic C is represented in 4Q363a.

¹³This general feature of encryption resembles the find in other ancient cultures. See Jacco Dieleman, *Priests, Tongues, and Rites: The London-Leiden Magical Manuscripts and Translation in Egyptian Ritual (100–300 CE)*, RGRW 153 (Leiden: Brill, 2005); Kathryn Stevens, "Secrets in the Library: Protected Knowledge and Professional Identity in Late Babylonian Uruk," *Iraq* 75 (2013): 211–53; Mladen Popović, "Physiognomic Knowledge in Qumran and Babylonia: Form, Interdisciplinarity, and Secrecy," *DSD* 13 (2006): 150–76.

¹⁴See Tov, Scribal Practices, 203-6.

¹⁵These last pieces are 11Q23 CryptA Unidentified Text, and 4Q313 MMT (the latter document was divided into three different scrolls in Stephen J. Pfann, *Qumran Cave 4.XXVI: Cryptic Texts and Miscellanea, Part 1*, DJD XXXVI [Oxford: Clarendon, 2000], 697–701). The identification of MMT remains dubious. The hundreds of tiny fragments contained under the

papyrus, while the rest are on skin. In contrast to the earlier discussions by Pfann, we are inclined to see each of these works as represented by one copy only, a position that will be defended in detail below for 4Q324d.

Since 4Q298 is explicitly connected with the figure of the Maskil by means of its title (written in square letters), other cryptic scrolls used by the Maskil may indicate the fields of interest of that functionary. Maintaining times and seasons seems to have taken pride of place among these interests, as corroborated also by the Hymn of the Maskil in 1QS X–XI. 16 Another significant find is that the Cryptic A script find amounts to no more than eight to ten scrolls, which places the entire phenomenon of encryption relatively in the margins of the sectarian discourse on mystery and secrecy. 17 The fine-grained material work on 4Q324d and other scrolls can lead the way to a better assessment of secrecy and esotericism in the Yaḥad.

III. 4Q324d

Against this background, we now turn to an edition of 4Q324d, which, as indicated above, remains as one of the few Dead Sea Scrolls of which there has not yet been a detailed edition.

Milik did not publish 4Q324d even preliminarily, but his opinion may be recalled from the way he placed the fragments on the historical PAM plates. ¹⁸ 4Q324d contains nearly sixty poorly preserved fragments. None of these fragments contains more than four lines of script, and no line contains more than three broken words. The general content of the scroll was revealed by means of the vocabulary legible on some of the fragments. The recurring word *Sabbath* alongside numbers and date formulas, together with several names of priestly families, reveals that 4Q324d comprises a calendar and a *mishmarot* list. In 1992, as Milik released all scrolls remaining in his responsibility, the cryptic scrolls were assigned to Pfann.

umbrella name 4Q249 (DJD XXXVI:547–677) may represent more than the two scrolls mentioned here. Their meager content, however, renders any further judgment difficult.

¹⁶See Carol A. Newsom, *The Self as Symbolic Space: Constructing Identity and Community at Qumran*, STDJ 52 (Leiden: Brill, 2004), 178–86.

¹⁷Cf. Samuel I. Thomas, *The "Mysteries" of Qumran: Mystery, Secrecy, and Esotericism in the Dead Sea Scrolls*, EJL 25 (Atlanta: Society of Biblical Literature, 2009).

¹⁸Only a few fragments with cryptic script are found on the early images PAM 40.985, 40.979 (taken in 1954). Milik left notes with numbers ranging from 1 to 4 next to some of the fragments on PAM 41.692 (taken in 1955). Most fragments are represented on PAM 42.429, 42.430 (taken in 1957), and PAM 43.333, 43.340 (taken in 1960). Apart from his work on the cryptic fragments, Milik prepared reconstructions of the calendrical scrolls, which he classified into groups and subgroups (thus, e.g., 4Q327, which he called "Mishmarot E^{b"}). We do not have any transcription by Milik of the present cryptic scroll, however.

Pfann wrote an insightful dissertation on this corpus and documented his significant discoveries in various volumes of the DJD series. ¹⁹ His work on 4Q324d remained incomplete, however. Images of the fragments with new joins appeared in DJD XXVIII, presenting Pfann's new division of the fragments into six different scrolls, which he designated 4Q324d–i. ²⁰ An edition of these fragments was published by Martin Abegg, retaining the DJD division of copies. ²¹ Until today this is the only available edition of 4Q324d.

We accept Pfann's joins and follow his path in adding many more similar joins. Since approximately two-thirds of the fragments can now be reconstructed to a single, physically joined and textually coherent copy, there is no reason to assume that 4Q324d comprised more than one scroll.²² As is often the case, most of the preserved fragments are concentrated around a certain area of the scroll, in this case around the bottom parts of five consecutive columns. The present framework does not allow for publishing a full edition of the scroll, which we hope to achieve elsewhere. Here we present only an overall material reconstruction of the scroll and the readings resulting from it, as support for our view that 4Q324d comprises a single scroll. No detailed notes on readings will be presented, but pertinent comments are unavoidable.

According to the classification principles offered by Talmon in DJD XXI, this

¹⁹ Pfann, "Character of the Early Essene Movement"; Pfann, "Cryptic Texts," in Pfann, DJD XXXVI:515–701. Pfann's preliminary transcription was presented to the late Shemaryahu Talmon as he was working on DJD XXI. One line of this reconstruction was accordingly quoted in DJD XXI:5, "courtesy of S. J. Pfann."

²⁰ Stephen J. Pfann, "Cryptic A Calendrical Documents," in D. Gropp, *Wadi Daliyeh II: The Samaria Papyri from Wadi Daliyeh* and *Qumran Cave 4.XXVIII: Miscellanea, Part 2*, DJD XXVIII (Oxford: Clarendon, 2000), pls. LII–LXII.

²¹ Martin G. Abegg, "4Q324i (4QcryptA Mishmarot J)," "4Q324f (4QcryptA Liturgical Calendar^c?)," "4Q324g (4QcryptA Cal. Doc. F?)," "4Q324h (4QcryptA Cal. Doc. G?)," "4Q324d (4QCryptA Liturgical Calendar^a)," "4Q324e (4QcryptA Liturgical Calendar^b)," in *The Dead Sea Scrolls Reader*, ed. Donald W. Parry and Emanuel Tov, 6 vols. (Leiden: Brill, 2004), 4:14–15, 52–56 ("Calendrical and Sapiential Texts"). The same edition is reproduced in the electronic databases Accordance and DSS Electronic Library.

²²Pfann seems to have supported his division of the fragments by a newly introduced method of discerning the direction of hair follicles, although he never applied this method specifically to 4Q324d (see Pfann, DJD XXXVI:517–23; Pfann, in T. Elgvin et al., in consultation with J. A. Fitzmyer, *Qumran Cave 4.XV: Sapiential Texts, Part 1*, DJD XX [Oxford: Clarendon, 1997], 2–4; and Pfann, "Character of the Early Essene Movement," 94–95). See also Emanuel Tov, "The Sciences and the Reconstruction of the Ancient Scrolls: Possibilities and Impossibilities," in *The Dead Sea Scrolls in Context: Integrating the Dead Sea Scrolls in the Study of Ancient Texts, Languages, and Cultures*, ed. Armin Lange, Emanuel Tov, and Matthias Weigold, 2 vols., VTSup 140 (Leiden: Brill, 2011), 1:3–25, here 17–18. This evidence, however, is not sufficient grounds for dividing the tiny fragments of 4Q324d into separate scrolls. As clarified to us by Ira Rabin (November 2015), this method is difficult to apply to such small fragments.

reconstructed scroll should be classified as "Calendrical Document/Mishmarot C" since it contains lists of two kinds: a table of festivals and Sabbaths as well as a *mishmarot* list (see in detail below).

For the sake of the present discussion it was essential to assign a new number to each fragment of 4Q324d, with each of these numbers corresponding to a DJD fragment number. We allocated the numbers according to the placement of the fragments in our suggested reconstruction. The following table facilitates the conversion between the various methods of naming the fragments. The two rightmost columns refer the reader to all known images of each fragment.

Although we joined many fragments into a continuous scroll, the table below assigns a number for each separate piece of leather, called here a "fragment." This methodological decision required us to disband some of Pfann's earlier joins, which had been assigned one number in DJD although they contain several pieces of leather.

New			
Numbering	DJD XXI	Plate	PAM
1	4Q324h 12	Plate 240, frag. 14	42.428, 43.333
2	4Q324d 4	Plate 241, frag. 5	41.692, 42.429, 43.340
3	4Q324d 12	Plate 241, frag. 14	41.692, 42.429, 43.340
4	4Q324d 11	Plate 241, frag. 6	41.692, 42.430, 43.340
5	4Q324d 5	Plate 241, frag. 31	42.430, 43.340
6	4Q324d 3 i	Plate 241, frag. 25	41.692, 42.429, 43.340
7	4Q324d 6	Plate 241, frag. 21	40.979, 41.692, 42.429, 43.340
8	4Q324d 3 ii	Plate 241, frag. 31	41.372, 42.430, 43.340
9	4Q324d 3 ii	Plate 240, frag. 9	41.867, 42.430, 43.333
10	4Q324d 2	Plate 240, frag. 1	42.430, 43.333
11	4Q324d 2	Plate 240, frag. 16	43.333
12	4Q324d 7	Plate 241, frag. 9	40.985, 41.692, 42.429, 43.340
13	4Q324d 3 ii	Plate 241, frag. 23	41.692, 42.429, 43.340
14	4Q324d 3 ii	Plate 241, frag. 24	41.692, 42.429, 43.340
15	4Q324d 2	Plate 241, frag. 38	42.426, 43.340
16	4Q324d 2	Plate 240, frag. 4+18	42.430, 43.333
17	4Q324d 7	Plate 240, frag. 8	41.867, 42.430, 43.340
18	4Q324f 1	Plate 240, frag. 12	42.430, 43.333
19	4Q324e 6	Plate 240, frag. 15	42.428, 43.333
20	4Q324f 2	Plate 240, frag. 13	41.643, 42.430, 43.333

21 4Q324e 1 Plate 241, frag. 26 40.985, 41.692, 42.429, 43.340 22 4Q324d 7 Plate 241, frag. 9 40.985, 41.692, 42.429, 43.340 23 4Q324d 8 Plate 241, frag. 12 41.692, 42.429, 43.340 24 4Q324e 9 Plate 241, frag. 19 41.692, 42.429, 43.340 25 4Q324e 4 Plate 241, frag. 11 41.692, 42.429, 43.340 26 4Q324e 4 Plate 240, frag. 2 41.867, 42.430, 43.333 27 4Q324d 9 Plate 241, frag. 15 41.692, 42.429, 43.340 28 4Q324d 9 Plate 241, frag. 32 42.430, 43.340 29 4Q324d 10 Plate 309, frag. 8 41.867, 42.430, 43.333 30 4Q324e 12 Plate 241, frag. 33 41.692, 42.429, 43.340 31 4Q324h 3 Plate 241, frag. 18 41.692, 42.429, 43.340 32 4Q324h 8 Plate 241, frag. 18 41.692, 42.429, 43.340 33 4Q324e 5 Plate 240, frag. 5 41.461, 42.430, 43.333 34 4Q324e 8 Plate 241, frag. 10 41.692, 42.429, 43.340 35 4Q324e 8 Plate 241, frag. 16 41.692, 42.429, 43.340 36 4Q324i 1c Plate 241, frag. 16 41.692, 42.429, 43.340 37 4Q324i 1a Plate 241, frag. 1 41.692, 42.429, 43.340 38 4Q324i 1a Plate 241, frag. 1 41.692, 42.429, 43.340 Not found in the DJD edition 40 4Q324i 1b Plate 241, frag. 1 41.692, 42.429, 43.340 41 4Q324h 9 Plate 241, frag. 1 41.692, 42.429, 43.340 42 4Q324d 1 Plate 241, frag. 3 41.692, 42.429, 43.340 43 4Q324i 1 Plate 241, frag. 3 41.692, 42.429, 43.340 44 4Q324h 9 Plate 241, frag. 1 41.692, 42.429, 43.340 45 4Q324f 1 Plate 240, frag. 7 43.333 ANOT found in the DJD edition 46 4Q324f 1 Plate 240, frag. 7 43.333 47 4Q324f 1 Plate 240, frag. 7 43.333 48 4Q324f 3 Plate 240, frag. 7 43.333 49 4Q324f 3 Plate 240, frag. 7 43.333 40 4Q324f 3 Plate 240, frag. 7 43.333 41 69 4Q324f 9 Plate 240, frag. 7 43.333 42 4Q324f 9 Plate 240, frag. 17 41.692, 42.430, 43.333 47 4Q324f 1 Plate 240, frag. 17 41.692, 42.430, 43.333 48 4Q324f 2 Plate 240, frag. 17 43.333 49 4Q324f 3 Plate 240, frag. 7 43.333 40 4Q324f 4 Plate 240, frag. 17 43.333 40 4Q324f 9 Plate 240, frag. 17 43.333 41 69 4Q324f 9 Plate 240, frag. 17 43.333 42 4Q324f 9 Plate 240, frag. 17 43.333 43 4Q324f 9 Plate 240, frag. 17 43.333		1		1
23	21	4Q324e 1	Plate 241, frag. 26	40.985, 41.692, 42.429, 43.340
24	22	4Q324d 7	Plate 241, frag. 9	40.985, 41.692, 42.429, 43.340
25 4Q324e 4 Plate 241, frag. 11 41.692, 42.429, 43.340 26 4Q324d 9 Plate 240, frag. 2 41.867, 42.430, 43.333 27 4Q324d 9 Plate 241, frag. 15 41.692, 42.429, 43.340 28 4Q324d 10 Plate 309, frag. 8 41.867, 42.430, 43.333 30 4Q324e 12 Plate 241, frag. 33 41.692, 42.429, 43.340 31 4Q324h 3 Plate 241, frag. 18 41.692, 42.429, 43.340 32 4Q324h 8 Plate 241, frag. 37 41.867, 42.430, 43.340 33 4Q324e 5 Plate 240, frag. 5 41.461, 42.430, 43.333 34 4Q324e 8 Plate 241, frag. 10 41.692, 42.429, 43.340 35 4Q324e 3 Plate 241, frag. 16 41.692, 42.429, 43.340 36 4Q324i 1 c Plate 241, frag. 1 41.692, 42.429, 43.340 37 4Q324i 1 a Plate 241, frag. 1 41.692, 42.429, 43.340 38 4Q324i 1 a Plate 241, frag. 1 41.692, 42.429, 43.340 39 Not found in the DJD edition 40 4Q324i 1 b Plate 241, frag. 2 41.692, 42.429, 43.340 41 4Q324h 9 Plate 241, frag. 17 41.692, 43.340 41 4Q324e 13 Plate 241, frag. 39 42.430, 43.340 42 4Q324d 1 Plate 241, frag. 39 42.430, 43.340 43 4Q324e 13 Plate 241, frag. 3 41.692, 43.340 44 4Q324e 13 Plate 240, frag. 3 41.660, 42.430, 43.333 46 4Q324f 4 Plate 240, frag. 6 42.429, 43.333 47 4Q324f 4 Plate 240, frag. 7 43.333 48 Plate 240, frag. 7 43.333 49 AQ324f 3 Plate 240, frag. 7 43.333 40 AQ324f 4 Plate 240, frag. 7 43.333 40 AQ324f 4 Plate 240, frag. 7 43.333 41 AQ324f 4 Plate 240, frag. 7 43.333 42 AQ324f 4 Plate 240, frag. 7 43.333 43 AQ324f 4 Plate 240, frag. 7 43.333 44 AQ324f 7 Plate 240, frag. 7 43.333 45 AQ324f 7 Plate 240, frag. 7 43.333 46 AQ324f 7 Plate 240, frag. 7 43.333 47 AQ324f 9 Plate 240, frag. 7 43.333 48 AQ324f 9 Plate 240, frag. 7 43.333	23	4Q324d 8	Plate 241, frag. 12	41.692, 42.429, 43.340
26 4Q324e 4 Plate 240, frag. 2 41.867, 42.430, 43.333 27 4Q324d 9 Plate 241, frag. 15 41.692, 42.429, 43.340 28 4Q324d 10 Plate 309, frag. 8 41.867, 42.430, 43.333 30 4Q324e 12 Plate 241, frag. 33 41.692, 42.429, 43.340 31 4Q324h 3 Plate 241, frag. 18 41.692, 42.429, 43.340 32 4Q324h 8 Plate 241, frag. 37 41.867, 42.430, 43.333 34 4Q324e 5 Plate 240, frag. 5 41.461, 42.430, 43.333 34 4Q324e 8 Plate 241, frag. 10 41.692, 42.429, 43.340 35 4Q324e 3 Plate 241, frag. 16 41.692, 42.429, 43.340 36 4Q324i 1 c Plate 241, frag. 1 41.692, 42.429, 43.340 37 4Q324i 1 a Plate 241, frag. 1 41.692, 42.429, 43.340 38 4Q324i 1 a Plate 241, frag. 1 41.692, 42.429, 43.340 Not found in the DJD edition Not on the IAA website 40 4Q324i 1 b Plate 241, frag. 17 41.692, 43.340 41 4Q324h 9 Plate 241, frag. 17 41.692, 43.340 41 4Q324d 1 Plate 241, frag. 36 41.457, 42.429, 43.340 42 4Q324d 1 Plate 241, frag. 39 42.430, 43.330 Not found in the DJD edition Plate 240, frag. 3 41.660, 42.430, 43.333 A 4Q324e 13 Plate 240, frag. 3 41.692, 43.340 44 Plate 240, frag. 6 42.429, 43.3340 45 4Q324f 3 Plate 240, frag. 6 42.429, 43.333 A 4Q324f 3 Plate 240, frag. 7 43.333 A 4Q324h 10 Plate 240, frag. 7 43.333 A 4Q324h 10 Plate 240, frag. 17 43.333	24	4Q324e 9	Plate 241, frag. 19	41.692, 42.429, 43.340
27 4Q324d 9 Plate 241, frag. 15 41.692, 42.429, 43.340 28 4Q324d 10 Plate 309, frag. 8 41.867, 42.430, 43.333 30 4Q324e 12 Plate 241, frag. 33 41.692, 42.429, 43.340 31 4Q324h 3 Plate 241, frag. 18 41.692, 42.429, 43.340 32 4Q324h 8 Plate 241, frag. 37 41.867, 42.430, 43.333 34 4Q324e 5 Plate 240, frag. 5 41.461, 42.430,43.333 34 4Q324e 8 Plate 241, frag. 10 41.692, 42.429, 43.340 35 4Q324e 3 Plate 241, frag. 16 41.692, 42.429, 43.340 36 4Q324i 1 c Plate 241, frag. 3 41.692, 42.429, 43.340 37 4Q324i 1 a Plate 241, frag. 1 41.692, 42.429, 43.340 38 4Q324i 1 a Plate 241, frag. 1 41.692, 42.429, 43.340 39 Not found in the DJD edition 40 4Q324i 1 b Plate 241, frag. 2 41.692, 42.429, 43.340 41 4Q324h 9 Plate 241, frag. 37 41.692, 42.429, 43.340 42 4Q324d 1 Plate 241, frag. 37 41.692, 42.429, 43.340 43 4Q324e 13 Plate 241, frag. 37 41.692, 42.429, 43.340 44 4Q324d 1 Plate 241, frag. 36 41.457, 42.429, 43.340 45 4Q324d 1 Plate 241, frag. 39 42.430, 43.340 46 4Q324f 3 Plate 240, frag. 3 41.660, 42.430, 43.333 46 4Q324f 3 Plate 240, frag. 6 42.429, 43.333 47 4Q324h 10 Plate 240, frag. 7 43.333 48 4Q324f 3 Plate 240, frag. 7 43.333 49 4Q324f 1 Plate 240, frag. 6 42.429, 43.333 40 4Q324f 3 Plate 240, frag. 7 43.333 40 4Q324f 1 Plate 240, frag. 10 41.867, 42.430, 43.333 40 4Q324f 1 Plate 240, frag. 11 43.333 40 4Q324f 1 Plate 240, frag. 11 43.333 41 4Q324h 10 Plate 240, frag. 11 43.333	25	4Q324e 4	Plate 241, frag. 11	41.692, 42.429, 43.340
28	26	4Q324e 4	Plate 240, frag. 2	41.867, 42.430, 43.333
29	27	4Q324d 9	Plate 241, frag. 15	41.692, 42.429, 43.340
30	28	4Q324d 9	Plate 241, frag. 32	42.430, 43.340
31 4Q324h 3 Plate 241, frag. 18 41.692, 42.429, 43.340 32 4Q324h 8 Plate 241, frag. 37 41.867, 42.430, 43.340 33 4Q324e 5 Plate 240, frag. 5 41.461, 42.430,43.333 34 4Q324e 8 Plate 241, frag. 10 41.692, 42.429, 43.340 35 4Q324e 3 Plate 241, frag. 16 41.692, 42.429, 43.340 36 4Q324i 1 c Plate 241, frag. 3 41.692, 42.429, 43.340 37 4Q324i 1 a Plate 241, frag. 1 41.692, 42.429, 43.340 38 4Q324i 1 a Plate 241, frag. 2 41.692, 42.429, 43.340 39 Not found in the DJD edition Not on the IAA website 40 4Q324i 1 b Plate 241, frag. 17 41.692, 43.340 41 4Q324h 9 Plate 241, frag. 36 41.457, 42.429, 43.340 42 4Q324d 1 Plate 241, frag. 39 42.430, 43.340 43 4Q324e 13 Plate 240, frag. 3 41.660, 42.430, 43.333 Not found in the DJD edition Plate 240, frag. 6 42.429, 43.333 47 4Q324f 4 Plate 240, frag. 7 43.333 48 4Q324h 10 Plate 240, frag. 11 43.333 Not found in the DJD edition Plate 240, frag. 11 43.333 ANO found in the DJD edition Plate 240, frag. 11 43.333 Cannot be found in the PAM photos	29	4Q324d 10	Plate 309, frag. 8	41.867, 42.430, 43.333
32	30	4Q324e 12	Plate 241, frag. 33	41.692, 42.429, 43.340
33	31	4Q324h 3	Plate 241, frag. 18	41.692, 42.429, 43.340
34	32	4Q324h 8	Plate 241, frag. 37	41.867, 42.430, 43.340
35	33	4Q324e 5	Plate 240, frag. 5	41.461, 42.430,43.333
36	34	4Q324e 8	Plate 241, frag. 10	41.692, 42.429, 43.340
37	35	4Q324e 3	Plate 241, frag. 16	41.692, 42.429, 43.340
38	36	4Q324i 1 c	Plate 241, frag. 3	41.692, 42.429, 43.340
Not found in the DJD edition Not on the IAA website 41.867	37	4Q324i 1 a	Plate 241, frag. 1	41.692,42.429, 43.340
39 in the DJD edition Not on the IAA website 41.867 40 4Q324i 1 b Plate 241, frag. 17 41.692, 43.340 41 4Q324h 9 Plate 241, frag. 36 41.457, 42.429, 43.340 42 4Q324d 1 Plate 241, frag. 39 42.430, 43.340 43 4Q324e 13 Plate 240, frag. 3 41.660, 42.430, 43.333 Not found in the DJD edition Plate 240, frag. 6 42.429, 43.333 45 4Q324f 4 Plate 240, frag. 7 43.333 46 4Q324f 3 Plate 240, frag. 10 41.867, 42.430, 43.333 47 4Q324h 10 Plate 240, frag. 11 43.333 Not found in the DJD edition Plate 240, frag. 17 Cannot be found in the PAM photos	38	4Q324i 1 a	Plate 241, frag. 2	41.692, 42.429, 43.340
41 4Q324h 9 Plate 241, frag. 36 41.457, 42.429, 43.340 42 4Q324d 1 Plate 241, frag. 39 42.430, 43.340 43 4Q324e 13 Plate 240, frag. 3 41.660, 42.430, 43.333 Not found in the DJD edition Plate 240, frag. 6 42.429, 43.333 45 4Q324f 4 Plate 240, frag. 7 43.333 46 4Q324f 3 Plate 240, frag. 10 41.867, 42.430, 43.333 47 4Q324h 10 Plate 240, frag. 11 43.333 Not found in the DJD edition Plate 240, frag. 17 Cannot be found in the PAM photos	39	in the DJD		41.867
42 4Q324d 1 Plate 241, frag. 39 42.430, 43.340 43 4Q324e 13 Plate 240, frag. 3 41.660, 42.430, 43.333 Not found in the DJD edition 45 4Q324f 4 Plate 240, frag. 7 43.333 46 4Q324f 3 Plate 240, frag. 10 41.867, 42.430, 43.333 47 4Q324h 10 Plate 240, frag. 11 43.333 Not found in the DJD edition Plate 240, frag. 11 Cannot be found in the PAM photos	40	4Q324i 1 b	Plate 241, frag. 17	41.692, 43.340
43 4Q324e 13 Plate 240, frag. 3 41.660, 42.430, 43.333 Not found in the DJD edition Plate 240, frag. 6 42.429, 43.333 45 4Q324f 4 Plate 240, frag. 7 43.333 46 4Q324f 3 Plate 240, frag. 10 41.867, 42.430, 43.333 47 4Q324h 10 Plate 240, frag. 11 43.333 Not found in the DJD edition Plate 240, frag. 17 Cannot be found in the PAM photos	41	4Q324h 9	Plate 241, frag. 36	41.457, 42.429, 43.340
Not found in the DJD edition 45	42	4Q324d 1	Plate 241, frag. 39	42.430, 43.340
44 in the DJD edition Plate 240, frag. 6 42.429, 43.333 45 4Q324f 4 Plate 240, frag. 7 43.333 46 4Q324f 3 Plate 240, frag. 10 41.867, 42.430, 43.333 47 4Q324h 10 Plate 240, frag. 11 43.333 Not found in the DJD edition Plate 240, frag. 17 Cannot be found in the PAM photos	43	4Q324e 13	Plate 240, frag. 3	41.660, 42.430, 43.333
46 4Q324f 3 Plate 240, frag. 10 41.867, 42.430, 43.333 47 4Q324h 10 Plate 240, frag. 11 43.333 Not found in the DJD edition Plate 240, frag. 17 Cannot be found in the PAM photos	44	in the DJD	Plate 240, frag. 6	42.429, 43.333
47 4Q324h 10 Plate 240, frag. 11 43.333 Not found in the DJD edition Plate 240, frag. 17 Cannot be found in the PAM photos	45	4Q324f 4	Plate 240, frag. 7	43.333
Not found in the DJD edition Plate 240, frag. 17 Cannot be found in the PAM photos	46	4Q324f 3	Plate 240, frag. 10	41.867, 42.430, 43.333
48 in the DJD edition Plate 240, frag. 17 Cannot be found in the PAM photos	47	4Q324h 10	Plate 240, frag. 11	43.333
49 4Q324i 2 Plate 241, frag. 4 41.692, 42.429, 43.340	48	in the DJD	Plate 240, frag. 17	
	49	4Q324i 2	Plate 241, frag. 4	41.692, 42.429, 43.340

50	4Q324e 2	Plate 241, frag. 7	41.692, 42.429, 43.340
51	4Q324h 1	Plate 241, frag. 8	41.692, 42.429, 43.340
52	4Q324h 2	Plate 241, frag. 13	41.692, 42.429, 43.340
53	4Q324h 4	Plate 241, frag. 20	42.429, 43.340
54	4Q324e 7	Plate 241, frag. 22	42.430, 43.340
55	4Q324g 2	Plate 241, frag. 27	40.985, 43.340
56	4Q324g 1	Plate 241, frag. 28	40.985,42.429, 43.340
57	4Q324g 6	Plate 241, frag. 29	40.985, 43.340
58	4Q324h 5	Plate 241, frag. 30	43.340
59	4Q324e 10	Plate 241, frag. 34	40.985, 42.429, 43.340
60	4Q324e 11	Plate 241, frag. 35	40.985, 41.692, 42.429, 43.333
61	4Q324h 7	Plate 241, frag. 40	42.426, 43.340
62	4Q324h 11	Plate 241, frag. 41	42.430, 43.340

Material Description, Paleography, and Measurements

The fragments vary in size from $3.9~\text{cm}\times2.8~\text{cm}$ for the largest fragment to many small fragments not larger than $1.5~\text{cm}\times1.5~\text{cm}$. The color of all fragments is dark brown but not black, so that all fragments can be read in the original without recourse to the infrared images. Fragments 21, 30, 59, and 60 are slightly lighter. Four fragments (numbers 18, 19, 20, 24) accumulated a whitish granular residue. 23

When one compares 4Q324d with the two other cryptic scrolls written on leather—4Q298 and 4Q317—it emerges that 4Q324d is more similar to 4Q317 than to 4Q298. The latter scroll manifests better preparation work of the leather and a more formal hand, as well as dry rulings limiting the columns and lines, while no such rulings are preserved on 4Q324d and 4Q317. Since the dimensions of 4Q324d are considerably smaller than both 4Q317 and 4Q298, it seems to have been a more provisory copy, in keeping with the material characteristics of many other calendar scrolls from Cave 4.

The present framework does not suffice for presenting a full analysis of the cryptic paleography. Such an analysis will be offered by Daniel Stökl Ben Ezra in a separate publication. While Pfann has developed a classification of the cryptic hands and used it to date the various scrolls, we doubt whether such a scant corpus is sufficient for establishing this typology.²⁴ Since the cryptic corpus is by definition

²³ What seems like a white substance on frags. 44 (which is absent from the images published in DJD XXVIII) and 53 is in fact remnants of the rice paper used during the reconstruction.

²⁴ Pfann, "Character of the Early Essene Movement," 179–203; Pfann, "The Ancient 'Library' or 'Libraries' of Qumran: The Specter of Cave 1Q," in *The Dead Sea Scrolls at Qumran and the*

less stable than the persistent tradition of the Jewish script, the establishment of a rigid typology seems less secure. Generally speaking, the scroll 4Q298 Words of Maskil to All the Sons of Dawn is written in the most formal book hand of Cryptic A, while the two other leather scrolls 4Q324d and 4Q317 use a less-ordered hand. Letters in 4Q324d are sometimes irregularly executed: for example, the head of the *bet* can often be round and open but sometimes also sharp and closed; the right downstroke of *tav* can be either horizontal or tilted inward. Special attention should be given to the curly left leg of *vav*, in contrast to the vertical orientation of this leg in other cryptic hands. Largely, the hand of 4Q324d is close to that of 4Q317 and the papyri. Compared to the latter, 4Q324d is unique in its *alef*, which stands vertically rather than spreading horizontally; in its *samek*, which contains only the upper right strokes of the composite letter of 4Q317 and the papyri; and in its *tav*, whose right stroke is much longer and more open than the spiked *tav* of 4Q317 and the papyri.

It is mainly the bottom part of this scroll that has survived, preserving two to five lines from the bottom of each column and a bottom margin of 1.2 cm on average. Three fragments are preserved at the top of column IV, showing a top margin of 0.8 cm, but it seems that the original margin was larger than this figure.

Letters are normally 4 mm high (disregarding the shorter letters yod and ayin). The height of lines is not uniform, approximately 7.5 mm on average, measured from the top of one line to the top of the next. According to the reconstruction below, each column contained ten lines. Thus, the approximate height of a column is 10 lines + 2 margins of 1.5 cm each = 10.5 cm in height.

The width of a column can be reconstructed in the places where the entire width has been preserved on the joined fragments. We estimate that the width of column II is 12.2 cm (containing 31 letter spaces); column III is 12.2 cm (31 letter spaces); column IV is 13.3 cm (33 letter spaces); column V is 10.8 cm (25 letter spaces); and column VI is 10.7 cm (20 letter spaces). The space between columns measures 0.9 cm between columns II and III; 1.7 cm between columns III and IV; and 1.4 cm between columns IV and V. If, as we posit below, the scroll consisted of at least seven columns, the overall length of these columns would have been approximately 90 cm.

An interlinear addition appears in column III between lines 9 and 10. In addition, an especially long marginal gloss appears to the left of column III. The scribe started a gloss in the margin between columns III and IV, writing it downward as is often the case in the Dead Sea Scrolls; after writing all the way down the margin, the scribe rotated the scroll and continued writing the gloss on the bottom margin,

Concept of a Library, ed. Sidnie White Crawford and Cecilia Wassen, STDJ 116 (Leiden: Brill, 2016), 168–213, here 205–7. The analysis by Pfann (DJD XXXVI:525–32) relates primarily to the cursive script on the papyri and is thus less relevant for 4Q324d. For a critique of Pfann's system of dating, see Jonathan Ben-Dov and Daniel Stökl Ben Ezra, "4Q249 Midrash Moshe: A New Reading and Its Implications," DSD 21 (2014): 131–49; Puech, "Lalphabet cryptique A."

with the letters appearing upside down from the point of view of the observer. This peculiar setting supplied us with an invaluable tool for reconstructing the jigsaw puzzle. Pfann had noticed it but did not trace the 90-degree turn. He thus suggested that the inverted line "may serve to convey some hidden meaning in an esoteric text." In contrast, we think that this line was written upside down not as a means of encryption but simply because the scribe ran out of space between the columns and had to continue his note at the bottom of the column. ²⁶

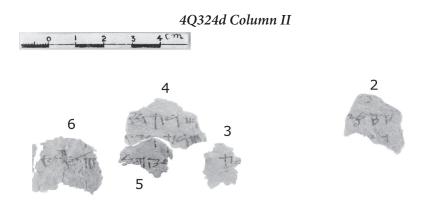


FIGURE 1. Reconstruction of Column II (frags. 2-6). PAM 41.692, 42.430

- י י]וֹמْ[השלישי נואספ vacat הרביעי יומ הרביעי]
 8 תקופֹ[ה בארבעה ב]וֹ שַׁבת באֹ[חד עשר בו]
 9 שבֹתُ[בשמונה עשר ב]וֹ שבת בֹעשׁ[רימ]
 10 [וחמשה בו ש]בֹת '[ום]חמישי[ב]וֹ שלושים
- 7. [(Week)d]ay[three is additional. *vacat* (The beginning of the) fourth (month) is on (week)day four.]
- 8. *Tequf* [ah. On the fourth in] it Sabbath. On the e[leventh in it]
- 9. Sabbath. [On the eighteenth in] it Sabbath. On the twe[nty-]
- [fifth in it Sab]bath. (Week)d[ay] five[in] it (falls) the thirtieth (day of the month).

²⁵ Pfann, "Character of the Early Essene Movement," 126.

²⁶ A similar scribal practice is found in 4QJer^a III (Jer 7:30–8:3), where a scribe added three lines between lines 5 and 7, continued them vertically alongside the text (four lines), and moved on below the column in upside-down writing (one line). See Emanuel Tov, "4QJer^a," in E. Ulrich et al., *Qumran Cave 4.X: The Prophets*, DJD XV (Oxford: Clarendon, 1997), 155–56; Tov, *Scribal Practices*, 223–27. Unlike in 4Q324d, the addition in 4QJer^a seems to be a correction due to the erroneous omission of the first scribe.

The first reconstructed column does not preserve a text from the beginning of the year but rather from the fourth month onward (see below). We calculate that an additional previous column was required to accommodate the beginning of the year; hence we designate the first preserved column as column II. A reconstruction of the hypothetical column I is suggested below.

Joins and Layout

In contrast to columns III–VI, most fragments in column II are not physically joined. Regardless of whether the scroll was rolled from the beginning or from the end, it seems that the middle part is best preserved while the beginning and end are less so. Thus, the reconstruction of column II, although appearing here first in chronological order, is the least convincing one. The details of this column depend on the more-established guidelines of the subsequent columns. Since the text of 4Q324d is highly formulaic and repetitive, most reconstructions are hard to contest.

The anchor for the reconstruction is frag. 6, which physically touches the remains of a left margin and of the subsequent column III. Fragments 4–5 must be joined due to the agreement in physical contours and to the continuation of subject matter. The letters *tav* and *bet* in line 9 spread across the two fragments and buttress the join.²⁷ The composite frags. 4–5 does not touch frag. 6, and thus its placement depends on our reconstruction of the formula for describing the end of the month (see in detail below). At the top of frag. 4, the blank space without lettering is somewhat larger than the normal space between lines. We are reluctant to see this space as the remains of a top margin, not only because the scroll preserves almost exclusively bottom parts of columns but also because the space is only slightly larger than the normal space between lines. We explain this space as a short *vacat* inserted in line 7, before the beginning of the fourth month.

Fragment 3 contains the bottom margin, remains of two letters in line 10, and faint remains of another letter to the left of the same line and on the line above. We place it here according to content.

Fragment 2 preserves three lines from the righthand side of a column. It does not physically join frags. 3–6, and its placement here is based on considerations of content presented below. Altogether, column II comprises ten lines, as do all other reconstructed columns in 4Q324d.

Comments

The lines reconstructed here recount the very end of the third month as well as the entire fourth month of the year. Fragment 2 preserves the significant term

 27 We thus disagree with the present placement of the fragments on IAA plate 241, where frag. 5 (our new numbering) is joined with our frag. 8. Curiously, this join is not represented in the plates of DJD XXVIII. Close examination of the joins reveals, however, that frag. 4 offers a far better match than frag. 8.

tequfah, indicating that it refers to the beginning of a season (months 1, 4, 7, or 10). Two of the four annual days of tequfah are already incorporated in the reconstruction below: the tequfah of the seventh month in III, 10 and that of the tenth month in IV, 9. The only possible dates are thus the beginnings of the first and fourth months. Since another annotation precedes the tequfah in line 1, the fragment cannot be related to the first day of the year. Hence, it must be the tequfah of the fourth month, located in II, 7–9. 4Q324d employs an exceptionally long and somewhat unusual formula for indicating the end of each season, placing greater emphasis on the days of the week than do other cognate calendrical texts. For the reconstruction of the tequfah formula, see the excursus below. For the awkward reconstructed spelling in line 7, see the note on IV, 9 below.

The column preserves all Sabbaths of month 4 as expected. At the end of the month, however, the occurrence of the word ממישי is surprising,²⁸ and so is the proximity of that word to שלושים at the end of the line on frag. 5. This must in some way relate to the end of the month, but we are dealing here with the end of the fourth month, not the fifth. The mention of the ordinal number "חמיש" ("fifth") must thus be a reference to the fifth day of the week. In the fixed 364-day year, the fifth day of the week appears at the end of months 1, 4, 7, and 10, of which the end of month 4 is encountered here.

4Q324d Column III

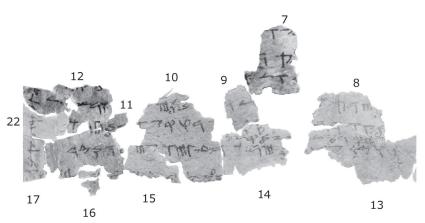


FIGURE 2. Reconstruction of Column III (frags. 7–17, 22). PAM 40.979, 40.985, 41.372, 41.692, 41.867, 42.426, 42.430, 43.333

²⁸ The letter *yod* at the end of the word is clearer on PAM 42.430, verifying that the word is not the cardinal number חמישה but rather the ordinal.

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5 [הששי אחר השבת בש]בٌעה[ בו שבת] 6 [בארבעה עשר בו שב]ת ב[עשרימ ואחד בו שבת] 6 [אחר השבת מוע] היצ[הר בעשרימ] (ש]מٌוננה 8 ב] שבת הֹ[יומ השנ]י ב[ו ש]לושי מ הושבי[ע]י 9 י]ומ הרٌב (יעי חֻתׄקוֹפּה בארעה בו שבת בו יונמ ה חֹכפורימ 9 בחד בו יונמ ה בת בתמשה עשר בו חג
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- 5. [The (beginning of the) sixth (month) is after the Sabbath. On the se]venth [in it Sabbath.]
- 6. [On the fourteenth in it Sabba]th. On [the twenty-first in it Sabbath.]
- 7. [After the Sabbath (is) the Festiva] of Oi[l. On the twenty-e]igh[th]
- 8. [in] it Sabbath. [(Week)day tw]o in [it (falls) the th]irt[ieth (day of the month). The] (beginning of the) sev[en]th (month)
- 9. [(is on) (week)d]ay fou[r]. *Tequfah*. On the fourth in it (= the seventh month) Sabbath.
- 9a. [On the] tenth in it the Da[y of At]onement
- 10. On the eleven[th in] it Sabbath. On the fifteenth in it the Feast of

The foundation for the reconstruction of column III was laid by Pfann, who joined frags. 10, 11, 15, and 16 into a cluster, apparently based on the gloss written upside down at their bottom margin. Pfann also assembled a second cluster, containing frags. 6, 8, 9, 13, and 14. This second cluster preserves the remains of columns II–III with the margin separating them. A third cluster comprises frags. 12, 17, and 22 and shows the vertical part of the gloss. We now suggest combining these three clusters together. Fragments 17 + 12 physically join the left side of frag. 16. The righthand side of frag. 10, in turn, joins perfectly with frag. 14; note the completion of words and even letters across the join.

Joins and Layout

Abegg read Pfann's first cluster (i.e., frags. 10, 11, 15, 16) as follows and interpreted it to refer to the third month of the year.

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1 בש]לושי (ם בו שבת
2 כ ארעה (2 עשר )בו שב (ת
3 בארעה עשר בו חג
1 השבועים ] ססס ( ] סור ( ססר ) ססר ( ) סער (
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According to the new join suggested here, however, there is not enough space for the word עשר in the lacuna in line 2, since the word בו immediately follows באר(ב) The date of the Sabbath in line 2 should thus be the fourth day of the

²⁹ Note the scribal mistake in this word by the omission of *bet*.

³⁰ The exact layout of this join is further verified by the subsequent line 3, which is based on the continuous text and the physical contact of the two pieces.

month, rather than the fourteenth. Since in the 364-day year the dates are anchored to specific days of the week, this Sabbath cannot occur in the third month, as previously assumed, but rather in month 1, 4, 7, or 10. The next line lists a feast on the fifteenth of the same month and thus narrows our options to either month 1 or month 7 (with either the Feast of Unleavened Bread or the Feast of Tabernacles, respectively). This column ends with the word אות, with the identity of that feast left to the next column. The line quoted as line 4 is in fact the upside-down part of the marginal gloss. While Abegg thought that this was the last line of the column, which continues line 3, we now know that this is not the case and that this line constitutes the end of the gloss. The reading "Feast of Weeks" thus cannot be accepted. We perceive the continuation of line 3 as referring to the Feast of Tabernacles חלה שלוכות, with the letters שלוכות preserved on frag. 18 at the righthand top of the next column.

Abegg read the second cluster (frags. 6, 8, 9, 13, 14) as follows:

Column ii	Column i	
00[1	
ב]ו שבת הׄ[]∘י בׄ[2	
י]ום הרב[יעי]תֶקופָׁ[ה	3	∘[1
]עשר בו יוْ[ם ה]כْפורים[4a	
באחד עשרׁ[ב]ו שבת בֹ[חמשה עשר בו	4	ס שלו ^ש ים ∘[2

We place this cluster to the right of the previous one, preceding it in the scroll. It preserves the beginnings of lines of frag. 8, describing the festivals of the seventh month, as well as the tip of the preceding column. The join is confirmed by the bet of משה, which continues over from frag. 14 to frag. 10. So does the upside-down mem on the marginal note, which can be detected on the new IAA images of frag. 14 and should be joined to the partial mem on frag. 10. Faint traces of the righthand end of the marginal note can possibly be traced also on frag. 13, which further substantiates the join. To this cluster we add frag. 7, which touches frag. 9 and completes the expected text perfectly.

Fragments 12, 17, and 22 contain two columns as well as a marginal note, which is the key for the placement of this cluster. At the end of the vertical gloss on frag. 17, the new IAA images show how the writing direction switches 90 degrees to the left and continues in an upside-down manner with regard to the main written column. Fragment 12 may accordingly be joined with fragments 11 and 16.

Comments

These lines describe the end of month 6 and the beginning of month 7, together with an expanded *tequfah* formula. Such an expanded formula is the norm in 4Q324d, as will be shown below. In this particular case, however, it is

abbreviated. The text then continues to describe the initial days of month 7, albeit with substantial omissions, some of which were subsequently corrected. The scribe had omitted the Day of Atonement, which was later added between the lines (9a). The omitted Festival of Wood Offering was completed in a long marginal gloss, for which see below. Omitted also is the holiday of the first day of the seventh month (called יום הזיכרון in 4Q320 III, 6; 4Q321 V, 2; etc.), which is represented here only as the day of tequfah and as heading the month, not as a holiday. In addition, the thirty-first day of the sixth month is omitted. These omissions were not corrected. Finally, the omitted letter bet in the word באר(ב)על constitute minor copying mistakes. While the multiple omissions admittedly raise doubt about the reconstruction of the column, two factors make it compelling: the completion of two broken letters across frags. 14 and 10 and the fact that the omission (and subsequent completion) of the Day of Atonement is not a matter of reconstruction but rather is attested quite clearly on frags. 13–14.

The Marginal Gloss

Column III ends with the words בו המשה עשר בו חג, "on the fifteenth in it (the seventh month) – the feast of." We expect that the next column will begin with the word הסוכות (Tabernacles). Luckily enough, frag. 18 with the remains of the top right margin of an unknown column preserved the letters [סוף]. The text thus runs directly from column III to column IV. Fragments 19 and 20, which, like frag. 18 accumulated white residue and preserve a part of the top margin, are placed at the top of column IV and make good sense as the continuation of the text.

Similar to the interlinear mention of the Day of Atonement in line 9a, the gloss completes information that had been left out of the main calendar by mistake—the Festival of Wood Offering. As mentioned above, Pfann and Abegg did not connect the vertical, intercolumnar gloss between columns III and IV to the upside-down note on the bottom margin. Both of them read the bottom note as a record of the Feast of Weeks. They differ regarding the intercolumnal note. Abegg's reading the intercolumnal note. Abegg's reading picture, "cal]culations of days," is difficult for several reasons. Abegg assumes a deficient spelling of the word חשבנות without vav following the bet. The absence of the vav is very clear in frag. 12. The spelling is very frequent in Aramaic, in which the bet is pronounced with the long vowel ā (ḥušbān). 4Q324d is a Hebrew

 31 This feast is always called או ת הסוכות with the definite article he (e.g., 4Q3204 III, 9; V, 7; VI, 2). Its designation here א סוכות is admittedly awkward but hard to deny. The letters of are not part of the calendrical vocabulary in any other way. Close examination of the new multispectral images of frag. 18 at the top of the column reveals the faint remains of shin, written perpendicularly to the main text. This trace is best seen on plate 240 frag. 12, IAA image number B-360071. It may indicate another, albeit shorter, marginal gloss.

³² Pfann's reading of the gloss in the bottom margin was [וע]ים השר בו חג השב בוחג השב [וע]ים ביום א[חד (see n. 19 above). Abegg did not read a substantial statement here.

scroll, however, and the spelling השבונות should be expected (cf. 1Q27 1 II, 2). In addition, the second letter of the second word cannot be a *yod*. The right curve of an *ayin* is clearly seen on frag. 22. Finally, a comparison with *mem* at the end of the word makes it highly unlikely that the middle letter is *mem*.

Pfann's suggestion that the vertical gloss recounts the Wood Offering solves all of the above reservations. In this case the vertical note should read קר]בנוֹת. The gloss begins exactly next to III, 7, where, according to our reconstruction, the Wood Offering is mentioned. Admittedly the shape of the <code>sade</code> is somewhat unusual (compared with the same letter in III, 6 on frag. 7), but a similar <code>sade</code> is found in the cryptic document 4Q298 (1 I, 9 and 3, 2). This fact supports the possibility that the gloss was written by a second hand.

Since the upside-down gloss in the bottom margin continues the vertical gloss, we expect it to take up the theme of the Wood Offering rather than the Festival of Weeks. The preservation of the bottom gloss is extremely bad; therefore, we offer the following reading cautiously:

The composite gloss thus yields a curious statement on the Festival of Wood Offering:

The Off]erings of Wood [pl.] (last) six [d]ays, t[w]o in (each) day [

This note is quite interesting for halakic reasons, as it clearly echoes the sectarian view of the Festival of Wood Offering and disagrees with the rabbinic opinion. 11QTa XI, 12 mentions בששת ימי[קרבן העצים, based on a certain reconstruction since it is the feast immediately following the Feast of Oil (cf. 4Q394 1–2 col. V and DJD XXI:165). In these six days, the twelve tribes of Israel offer trees, two on each day, as mentioned in 11QTa XXIII–XXIV. A similar account is preserved in the rewritten Pentateuch scroll 4Q365 frag. 23, which is often considered the source of the Temple Scroll. In contrast, m. Tacan. 4:5 assigns the wood offerings to nine days spread throughout the year (cf. Josephus, J. W. 2.17.6 §§429–430). The author of the gloss in 4Q324d thus found it appropriate to complement the mention of the Wood Offering in III, 7 with a gloss expanding the conduct of that festival.

³³ Pfann, "Ancient 'Library' or 'Libraries," 192.

³⁴For a detailed discussion of this festival, see Werman, "Wood-Offering."

³⁵Molly M. Zahn, "4QReworked Pentateuch C and the Literary Sources of the Temple Scroll: A New (Old) Proposal," *DSD* 19 (2012): 133–58.

4Q324d Column IV





FIGURE 3. Reconstruction of Column IV (frags. 21-28). PAM 40.985, 41.692, 41.867, 42.430

- ם סו[כות יומ רביעי]בשמ[ונה]עש[ר בו שבת]
- [בו שבת בעשרים ואח]דֹ בוֹן שבת בעשרים]
 - 8 ושמו[נה בו שבת]יוֹ[מ ש]ני בו שלושי[מ]
- 9 יומ השֹׁ[לי]שַׁ[י נו]אספ בּ[אחד]בּעשרי תקופה
 - וֹמ רֹביעי בארבעה בוֹ שֶּׁ[ב]ת באחד 10
- 1. Tab[ernacles on (week)day four]. On the ei[ghte]ent[h in it Sabbath.]
- 7. [in it Sabbath. On the twenty-firs]t in it [Sabbath. On the twenty-]
- 8. eigh[th in it Sabbath]. (Week)da[y t]wo in it (falls the) thirti[eth (day of the month)]
- 9. (Week)day th[ree is additio]nal. On [the first day of] the tenth (month) *Tequfah*
- 10. (on) (week)day four. On the fourth in it (= the tenth month) S[ab]bath. On the eleve[

Joins and Layout

Fragments 19 and 20 share the same physical characteristics as frag. 18: all three fragments preserve the remains of a top margin and show white residue on the leather.³⁶ They should thus all be taken as one sequence.

The first words of the bottom lines of column IV are preserved on fragment 22, where days of the week are listed in lines 9–10. Since after the Feast of Tabernacles there are no more holidays in the seventh month, these two weekdays must belong to the formula which concludes the *tequfah*, as attested earlier in column III and as partly reconstructed in 4Q394 1–2 II, 3–14 and 4Q394 3–7 I, 1–3.³⁷ These lines thus correspond to the end of the ninth month and the beginning of the tenth.

We join frags. 22 and 23 based on the continuity of the lines. These two fragments were associated by Milik already on PAM 41.692. The composite piece reveals that line 9 mentions the third day of the week (השלישי), while line 10 mentions the fourth day (רביעי). 38 The fourth day of the week is the beginning of month 10, and the next Sabbath of this month thus falls on the fourth day of the month. This contiguity confirms the join of frag. 24, which mentions the fourth day of a certain month in the line right above a bottom margin. In addition, its contours perfectly fit those of frag. 23. The join of frags. 24 and 23 requires a refinement of the readings suggested by Abegg. 39 We reconstruct in the penultimate line: אומ השׁ[לי]שׁ[י נ]וֹאַספּ, "The third da[y (of the week) is additio]nal." Despite the unique spelling of אווא פאפונים לא נואספ the end of the season in the cognate calendar scroll 4Q394 3–7 I, 2. A Sabbath on the fourth day of the following month, reported in the bottom line 10, lends yet more credibility to the join of frags. 22–23–24 and to the suggested reconstruction.

Considerations of content allow the placement of frags. 21, 25–28 at the ends of the lines begun in frags. 22–24, together forming column IV. Fragments 25 and 26 contain a bottom margin and adjoin each other perfectly according to the

```
ןיו[ם
<sup>חג</sup>]האסף ∘[
ב]ארבע[ה
```

This reconstruction is difficult for several reasons. First, there is no important date on the 4th, 14th, or 24th of the month in which the Feast of Tabernacle (= אָסיף, "ingathering," Exod 34:22) occurs. Second, the biblical term אַסיף is never used in the Dead Sea Scrolls. Third, that feast appears already in frag. 18, where it is named או as expected. Last, the traces of the first letter in line 2 protrude below the line and can thus only be *dalet* or *vav*.

 $^{^{36}}$ The similarity of these three fragments was acknowledged by Milik, who placed them side by side on PAM 43.333. Pfann, however, considered frag. 19 part of a third scroll (4Q324e 6). We reinstate Milik's insight and consider these three fragments part of 4Q324d.

³⁷See DJD XXI:164.

 $^{^{38}}$ Note that the serial number of the day can be preceded by the definite article but also stand without it, seemingly with no regularity. Cf. similarly the awkward formulation או (IV, 10–V, 1) without the definite article.

³⁹ Abegg reads frag. 24 as follows:

breakage of lines; they thus form a natural sequel to the previous cluster. Despite the fact that frag. 21 does not touch any of the other fragments, it shares with frag. 27 both the letter *lamed* of the word שלושים on line 8 and the word העשרי on line 9. Note that the word ישרים in line 7 exceeds the end of the column and reaches column V. The remains of its *mem* are visible on frag. 30. Although Pfann assigned some of these fragments to separate scrolls, we consider it improbable to see such a perfect match of text and contour across so many fragments and thus consider them as stemming from one scroll.

4Q324d Column V



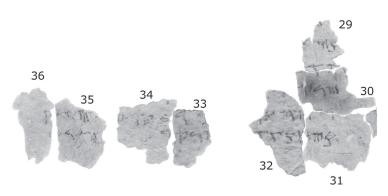


FIGURE 4. Reconstruction of Column V (frags. 29–36). PAM 41.461, 41.692, 41.867

- [ב]וֹ [שבת בששה עשר בו שבת בעשרימ]
 - [ושה בו שבת בשלושים בו שבת] 6
- [עשר החודש אחר השבת בשבעה בו] שׁנִיֹמֹ[
 - [רבעה עשר בו שבת] שבת בֿאָ[רבעה עשר בו
 - שבימ [ב]עשרימ אח]ד בו שבת [ב]עשרימ 9
 - 10 ושמונה[בו]שבת ב vacat [ש]ני בו
- 5. [in] it[Sabbath. On the sixteenth in it Sabbath. On the twenty-]
- 6. thi[rd in it Sabbath. On the thirtieth in it Sabbath.]
- 7. (The beginning of the) twelf[th month is after the Sabbath. On the seventh in it -]
- 8. Sabbath. On the fo[urteenth in it Sabbath.]
- 9. On the twenty-[firs]t in it Sabbath. [On the] twenty-
- 10. eighth [in it –] Sabbath. On *vacat* [(weekday)tw]o in it (falls)

Joins and Layout

After composing the bottom strip of columns II–IV, we are left with only nine fragments attesting to a bottom margin and not containing names of *mishmarot*. We were able to arrange six of them in column V, despite Pfann's earlier assigning of them to various separate scrolls. Fragments 30 and 31 contain the right margin and can be joined to frag. 28, standing at the left end of column IV. In addition, the last letter of line 7 in column IV is visible on frag. 30. Fragment 32 was joined already by Pfann in the plates of DJD XXVIII to frag. 31. The four other fragments are joined here based on their content. In addition, the contours of frag. 30 touch frags. 31 and 32, and it shares two letters with frag. 31. Fragment 29 also touches frag. 30 and shares the *shin* and the *nun* with it.

Comment

These lines cover half of month 11 and the entire month 12. If our reconstruction is correct, another line describing the thirty-first day of month 12, the very last day of the year, would have been written at the beginning of the next column (VI). It would not have employed more than the first line, and hence one may expect that another list or composition was copied in the rest of that column.

4Q324d Columns VI-VII

Joins and Layout

In addition to the fragments discussed thus far, seven fragments in Cryptic A script of a similar hand were preserved. Six of the fragments are physically joined here, preserving a bottom margin, while the seventh preserves a top margin. These fragments record names of priestly families (*mishmarot*) and are thus different from the content of columns I–V. Since the *mishmarot* list is rather short, it is the perfect candidate to fit into the next column (VI) of the scroll. The single fragment preserving a top margin would have belonged in yet another column VII. Although no physical join can be proven for the placement of frags. 37–41 in column VI, their overall material pattern resembles that of the previous columns.

An additional consideration supports the placement of the list in column VI. Most calendrical documents from Cave 4 constitute anthologies of various calendar lists. Some of these lists contain *mishmarot* in various constellations and some do not. Thus, lists of *mishmarot* follow the calendar in 4Q319.⁴¹ In addition, a list of the twenty-four *mishmarot* without any calendrical notation next to them appears preceding the calendar in 4Q329 and in the reconstructed "master list" that probably underlay that scroll.⁴²

⁴⁰ For those fragments containing names of *mishmarot*, see below.

 $^{^{41}}$ The miscellaneous calendrical lists are collected in 4Q319 7 II and on frags. 9–73 (DJD XXI:221–44.

⁴²See DJD XXI:145.







FIGURE 5. Reconstruction of Column VI (frags. 37-41). PAM 41.457, 41.692, 41.867, 43.340

- [גמול דליה מעזיה] 6
- [יהויריב ידעיה חרימ שערימ] 7
 - [מלכיה מימג]הקר[וצ אביה] 8
- [ישוע שכ]נֹיה אליּשׁיבר יקימ] 9
- 10 [חופה י] שובאב בלגה אמֹ[ר
- 6. [Gamul Delaiah Macoziah]
- 7. [Yoiarib Yeda^ciah Ḥarim Se^corim]
- 8. [Malkiah Miyyamin] Haqq[os Abiah]
- 9. [Yešu^ca Šek]aniah Eliašib[Yaqim]
- 10. [Huppah Ye]šubab Bilgah 'Imme[r

Milik had seemingly believed that the *mishmarot* fragments belong to a different scroll than the calendar, hence there are no images of these fragments on PAM 42.429 and 42.430 (taken in 1957). He later changed his mind, as the *mishmarot* fragments are placed next to the calendar on PAM 43.340 (taken in 1960). Pfann

regards frags. 37, 38, and 40 as part of 4Q324i; frag. 41 as 4Q324h 9; and frag. 42 as 4Q324d 1. Fragment 39 is not included in Pfann's edition.

The reconstructed sequence of fragments is based on the match of contours as well as on letters split between the pieces. Fragments 37 and 38 were squeezed together in PAM 41.692, 42.429; thus the right side of frag. 37 rose above the left side of frag. 38. Though they seem to have been torn when separated, it is still possible to join them quite neatly. Fragment 39 exists only on PAM 41.692 and can no longer be traced in the IAA collection. It contains the first two letters of the name בלגה and joins well with frag. 38. The rest of the name is found on frag. 40. Fragment 41 contains the first two letters of \$\frac{1}{2}\$, which is the next priestly family in order, and joins frag. 40.

Column VI commenced with one or more lines recording the end of the calendar year, as the previous column V ends at day 28 of month 12. One would expect that the formula ending the year is at least as long as the earlier *tequfah* formulas in 4Q324d or that of 4Q394 3–7 I, 1–3. Be that as it may, the *mishmarot* list would have begun at line 6 (assuming ten lines in column VI), leaving a place in the first five lines for the concluding formula of the year.

Column VI ends with the mishmar name אמר. The additional five *mishmarot* names expected at the end of the list would have been contained in the subsequent column VII. Remains of the names $\mathring{\neg}$ [מנע and מוֹן are preserved on frag. 42, just below the top margin. The fact that column VII contains only one line of *mishmarot* names implies that at least one more list or composition was copied on this scroll. Unfortunately, nothing was preserved from this list or composition.

Comments

The priestly name ישבאב (1 Chr 24:13) is variously spelled ישיבאב (4Q319 VII, 6) and appears here as יֹשְׁנֹבאב (frag. 37; legible only on the older images). Since *yod* and *vav* are graphically similar only in the square script, the variation might indicate that the scroll, or at least the list of the *mishmarot*, was copied from an earlier list written in the square script.

Fragments 1, 43-62

Fragments 1 and 43–62 are either too small to be identified and are placed too far away from the rest of the joined fragments or their placement in the scroll is equivocal. They are thus not discussed here but will be presented in the full edition of 4Q324d.

⁴³ It is also possible that the *mishmarot* list preceded the calendar, but the option chosen here fits better with the material reconstruction.

IV. Excursus: The *Tequfah* Formula and the Description of the Ends of Months

The *tequfah* formula describes the point of transition between seasons: the end of the third month of every season, followed by the beginning of the next season. ⁴⁴ In the unique structure of the 364-day year, regular months contain thirty days while the third (i.e., the last) month of each season contains thirty-one days. The *tequfah* formula appears in fragmentary form in the scrolls 4Q394 1–2, 4Q394 3–7, and 6Q17, where special effort is invested in naming the weekdays at the transition of the seasons. These occurrences, however, are highly fragmentary, so that our knowledge of the indication of the *tequfah* can be enriched from 4Q324d, where this formula is exceptionally pronounced. Since the latter scroll is also far from complete, problems arise when one attempts to reconstruct the *tequfah* formula.

One may expect to find full *tequfah* formulas three times in 4Q324d: in the third–fourth months (col. II), in the sixth–seven months (col. III), and in the ninth–tenth months (col. IV). Partial formulas are also expected to appear at the beginning of the first month and the end of the twelfth month. In the suggested reconstruction of 4Q324d, we have remains of all formulas but one, the opening line of the year. Their exact content is not entirely consistent, however.

The best-preserved formula is found in column IV, describing the transition between months 9 and 10. That formula begins with the thirtieth day of month 9, which falls on the second day of the week (Monday). This day is described as follows (IV, 8):

]יוֹ[מ ש]ני בו שלושי[מ

The seco[nd da]y (of the week) – in it (is day) thirt[y (of month X)

Although the syntax of this phrase is awkward, it gains support from a parallel in the small calendrical fragment 6Q17, which reads:⁴⁵

שני בו 30[

M. Baillet reconstructed here: 30 החדש ה', "the second month – in it (are) 30 (days)," assuming that the preserved words count the number of days in the second month. What we know today, however, about the recording of weekdays in 4Q324d suggests that 6Q17 rather records the second weekday on the thirtieth day of an unknown month. A reference to the second day of the week, on the thirtieth day of the third month, is found also in the *tequfah* formula of 4Q394 1–2 II,

 $^{^{44}}$ For the significance of the seasons in the 364-day year, see Ben-Dov, *Head of All Years*, 31–52.

⁴⁵ Maurice Baillet, in *Les 'petites grottes' de Qumran*, 2 vols., DJD III (Oxford: Clarendon, 1962), 1:132–33.

⁴⁶ Talmon followed this reconstruction in DJD XXI:7.

5–7. That unit also mentions the previous day, the twenty-ninth, named after its weekday designation אחר השבת, "the day after the Sabbath." The above sources demonstrate how important it was for the authors of this type of calendar to specifically mention and number the weekdays at the transition of the seasons.

Going back now to 4Q324d IV, 9, the next day in the formula is the third day of the week (Tuesday) = the thirty-first of the month. This day is designated here by the adjective נואסם, "an additional/epagomenal day," indicating the simple fact that a thirty-first day is a special addition, enacted only at the end of the season. A parallel to this expression is fragmentarily attested at the end of the year in 4Q394 3–7, 1–2: "וֹם וֹארבעה וֹשִּשׁ (יִם וֹארבעה וֹשִׁשׁ (יִם וֹארבעה יָּוֹם, "additio] nal and the year is complete three hundred and six[ty-four] days."

Subsequently in 4Q324d IV, 9, the first day of month 10 is mentioned by its weekday רביעי (the fourth day, i.e., Wednesday) and is named תקופה.

The *tequfah* formula at the transition from month 6 to 7 is also preserved in 4Q324d column III. That text suffered substantial omissions, however, neglecting to mention holidays and elements of the *tequfah* formula and attesting to several spelling mistakes. Thus, in this occurrence of the *tequfah* formula, the second day of the week (= the thirtieth of month 6) was specified, but the following day, the third weekday (= the thirty-first), was omitted. Word order is also different: while on column IV the order is: month name – *tequfah* – weekday (fourth), the order in column III is: month name – weekday (fourth) – *tequfah*. It is difficult to determine whether this difference is a simple mistake like other omissions in column III or whether it indicates flexibility—or maybe indeterminacy—of the formula.

The preservation of column II, at the end of the first season, is even worse than the columns discussed so far in the excursus. Here, only the word הקופה remains from the entire tequfah formula (II, 8).

Finally, at the end of month 12 the evidence is spread across the (extant) end of column V and the (not extant) beginning of column VI. For this month only a reference to the second day of the week, even without its date, has survived. The word "("day") itself is missing in that line, and a *vacat* appears instead.

We turn now to the special way in which the endings of months are enumerated in 4Q324d. This matter bears on the *tequfah* formula but does not entirely overlap it since not all months stand at the end of seasons. Of the three months in each season, the *tequfah* formula demanded a reference to the weekday of the thirtieth and thirty-first days of the third month of every season. In addition, the weekday of the thirtieth day of the second month of every season was also mentioned, by force of its being a Sabbath day. It seems likely, therefore, that the author of 4Q324d sought to make the records of the thirtieth day of every month more systematic, unlike the author of 4Q394, and thus recorded even the ending of the first

⁴⁷ DJD X:8.

month in each season. An example of that practice is partly preserved at the end of month 4 (4Q324d II, 10; frags. 3–6): שלושים.

To conclude, it turns out that the author of 4Q324d was exceptionally keen on recording weekdays in his calendrical notations, keener than the authors of comparable calendrical texts. $^{\rm 48}$

V. TEXTUAL RECONSTRUCTION OF 4Q324d (See fig. 6, p. 932.)

- 3. [(The beginning of the) first (month) on (week)d]ay[four. *Tequfah*. On the fourth]
- 4. [in it Sabbath.] On the e[leventh in it Sabbath. On the four-]
- 5. [teenth in it the Passah, (week)day three. On the fifteenth]
- 6. [in it the Feast of Mazzot, (week)day four. On the eighteenth]
- 7. [in it Sabbath. On the twenty-fifth in it Sabbath. The Waving]
- 8. [of the Sheaf is on the twenty-sixth in it, after the Sabbath. (Week)day]
- 9. [Five in it (falls) the thirtieth (day of the month). (The beginning of the) second (month) is on (week)day six. On the second]
- 10. [in it Sabbath. On the ninth in it Sabbath. On the sixteenth in it –]

⁴⁸ For the insertion of weekdays in dating formulas, see Ben-Dov, *Head of All Years*, 62–67.



FIGURE 6. 4Q324d Columns II-VI

Column II

1 [שבת בעשרימ ושלושה בו שבת בשלושימ]
2 [בו שבת השלישי אחר השבת בשבעה]
3 [בו שבת בארבעה עשר בו שבת בחמשה]
4 [עשר בו אחר השבת חג השבועימ]
5 [בעשרימ ואחד בו שבת בעשרימ]
6 [ושמונה בו שבת יום שני בו שלושים]
7 י]וֹמْ[השלישי נואספ vacat הרביעי יומ הרביעי]
8 תקופׁ[ה בארבעה ב]וֹ שבת באׁ[חד עשר בו]

שבֹת בשמונה עש]ר ב]ו שבת בעשורים

ים שלו^שים [וחמשה בו ש]בׄת i [ום i מישי ב i שלו i

- 1. [Sabbath. On the twenty-third in it Sabbath. On the thirtieth]
- 2. [in it Sabbath. (The beginning of the) third (month) is after the Sabbath. On the seventh]
- 3. [in it Sabbath. On the fourteenth in it Sabbath. On the fif-]
- 4. [teenth in it, after the Sabbath, the Feast of Weeks.]
- 5. [On the twenty-first in it Sabbath. On the twenty-]
- 6. [eighth in it Sabbath. (Week)day two in it (falls) the thirtieth (day of the month).]
- 7. [(Week)d]ay [three is additional. *vacat* (The beginning of the) fourth (month) is on (week)day four.]
- 8. *Tequf* [ah. On the fourth in] it Sabbath. On the e[leventh in it –]
- 9. Sabbath. [On the eighteenth in] it Sabbath. On the twe[nty-]
- [fifth in it Sab]bath. (Week)d[ay] five [in] it (falls) the thirtieth (day of the month).

Column III

	[החמישי יומ הששי בשנימ בו שבת]	1
קר]בׁנוֹת העצימ	[בשלושה בו מועד התירוש אחר השבת]	2
	[בתשעה בו שבת בששה עשר בו שבת בעשרימ]	3
	[ושלושה בו שבת בשלושימ בו שבת]	4
	[הששי אחר השבת בש]בْעה[בו שבת]	5
	[בארבעה עשר בו שב]ת ב[עשרימ ואחד בו שבת]	6
	[אחר השבת מוע]דْ היצ[הר בעשרימ]וֹּ[ש]מונג[ה	7
	ב]וْ שבת הֹ[יומ השנ]י ב[ו ש]לושוּ[מ ה]שֹבי[ע]י	8
	י]ומ הרْבْ[יעי]תُקֹוֹפُהْ בארעהֹ בْו שֹׁבْת	9
	9 ב]עשר בו יוْ[מ ה]כֹפורימْ	∂a
	1 באחד עשנר ב]i שבת בחמשה עשר בו חג	0
	bottom margin	

ששת (י)מימן שנויןמ ביומן

- 1. [The (beginning of the) fifth (month) is on (week)day six. On the second (day) in it Sabbath.]
- 2. [On the third in it The Feast of Wine, after the Sabbath.
- 3. [On the ninth in it Sabbath. On the sixteenth in it Sabbath. On the twenty-]
- 4. [third in it Sabbath. On the thirtieth in it Sabbath.]
- 5. [The (beginning of the) sixth (month) is after the Sabbath. On the se]venth [in it Sabbath.]
- 6. [On the fourteenth in it Sabba]th. On [the twenty-first in it Sabbath.]
- 7. [After the Sabbath (is) the Festiva]l of Oi[l. On the twenty-e]igh[th]
- 8. [in] it Sabbath. [(Week)day tw]o in [it (falls) the th]irti[eth (day of the month). The] (beginning of the) sev[en]th (month)
- 9. [(is on) (week)d]ay fou[r]. *Tequfah*. On the fourth in it (= the seventh month) Sabbath.
- 9a. [On the] tenth in it the Da[y of At]onement
- 10. On the eleven[th in] it Sabbath. On the fifteenth in it the Feast of

Marginal gloss:

The Off]erings of Wood [pl.] (last) six [d]ays, t[w]o in (each) day

Column IV

top margin

1 סו[כות יומ רביעי]בٌשמ[ונה]עשר ב"ן שבת]
2 [בעשרימ וחמשה בו שבת יומ חמשי בו שלושימ]
3 [השמיני יומ הששי בשנימ בו שבת בתשעה]
4 [בו שבת בששה עשר בו שבת בעשרימ]
5 [ושלושה בו שבת בשלושימ בו שבת התשיעי]
6 [אחר השבת בשבעה בו שבת בארבעה עשר]
7 [בו שבת בעשרימ ואח]ד ב"ו שבת בעשרי]מ^{*}
8 ושמו[נה בו שבת][†][מ ש]ני בו שלושי[מ]
9 יומ השׁ[לי]שֿ[י נו]אספ ב"(אחד]ב"עשר תקופה

bottom margin

- 1. Tab[ernacles on (week)day four]. On the ei[ghte]ent[h] in it Sabbath.]
- 2. [On the twenty-fifth in it Sabbath. (Week)day five in it (falls) the thirtieth (day of the month).]
- 3. [The (beginning of the) eighth (month) is on (week)day six. On the second in it Sabbath. On the ninth]
- 4. [in it Sabbath. On the sixteenth in it Sabbath. On the twenty-]
- 5. [third in it Sabbath. On the thirtieth in it Sabbath. (The beginning of the) ninth (month)]
- 6. [is after the Sabbath. On the seventh in it Sabbath. On the fourteenth]
- 7. [in it Sabbath. On the twenty-firs]t in it [Sabbath. On the twent]y-

- 8. eigh[th in it Sabbath.]. (Week)da[y t]wo in it (falls) the thirti[eth (day of the month)]
- 9. (Week)day th[ree is additio]nal. On [the first (day) of]the tenth (month)Tequfah
- 10. (on) (week)day four. On the fourth in it S[ab]bath. On the eleve-

Column V

bottom margin

- 1. [-nth in it Sabbath. On the eighteenth in it –]
- 2. [Sabbath. On the twenty-fifth in it Sabbath. (Week)day]
- 3. [five in it (falls) the thirtieth (day of the month). (The beginning of the) eleventh (month)]
- 4. [is on (week)day six. On the second in it Sabbath. On the ninth]
- 5. [in] it[Sabbath. On the sixteenth in it Sabbath. On the twenty-]
- 6. thi[rd in it Sabbath. On the thirtieth in it Sabbath.]
- 7. (The beginning of the) twelf[th month is after the Sabbath. On the seventh in it –]
- 8. Sabbath. On the fo[urteenth in it Sabbath.]
- 9. On the twenty-[firs]t in it Sabbath. [On the] twenty-
- 10. eighth [in it -] Sabbath. On *vacat* [(weekday) tw]o in it (falls)

Column VI

[שלושימ יומ השלישי נואספ]	1
[2
[3
[4
[5
[גמול דליה מעזיה]	6
[יהויריב ידעיה חרימ שערימ]	7
[מלכיה מימנ]הקْ[וצ אביה]	8
[ישוע ש]בנוֹה אַליּשׁיבׁ[יקימ]	9
[חופה י]שובאב בלגה אמֹ[ר	10

bottom margin

- 1. [the thirtieth day (of the month). (Week)day three is additional]
- 6. [Gamul Delaiah Macoziah]
- 7. [Yoiarib Yeda^ciah Ḥarim Se^corim]
- 8. [Malkiah Miyyamin] Haqq[os Abiah]
- 9. [Yešu^ca Šek]aniah Eliašib[Yaqim]
- 10. [Ḥuppah Ye]šubab Bilgah ¹Imme[r

Column VII

top margin

[חזי]ר הפ[צצ פתחיה יחזקאל יכינ] 1

1. [Ḥezi]r Happ[iṣṣeṣ Petaḥia Yeḥezqel Yakin]

VI. Conclusion

Meticulous work led us to a material reconstruction of a well-preserved sequence of text from the calendrical scroll 4Q324d. Only the main lines of our work are presented here, as we intend to present the full edition elsewhere. We hope to have proven that what had been formerly conceived as the remains of six different scrolls can now stand as one scroll only. Other cryptic scrolls from Cave 4 should be treated similarly.⁴⁹ The limited circulation of the cryptic script in the Yaḥad is useful for the study of secrecy and esotericism in that community. It is also valuable for enriching our knowledge about other cases of cryptology in writings from antiquity, a well-known and intriguing aspect of ongoing research.

The calendrical document 4Q324d resembles the one contained at the beginning of the scroll 4Q394 3–7 ($4QMMT^a$). 4Q324d differs from 4Q394 in the way it assigns special attention to weekdays included in the *tequfah* formula. In addition, a unique intercolumnar gloss surprisingly aligns this text with the halakah of the Temple Scroll. This scroll thus adds a small albeit unique detail to the study of the sectarian calendar.

We feel privileged to have achieved the publication of one of the last unpublished Dead Sea Scrolls. It is our contention that further study of the scrolls, whether published or unpublished, with renewed attention and newly available techniques, will be able to produce more new and exciting information for students of Second Temple Judaism.

⁴⁹ For a similar claim with regard to the Cryptic A copies of Serekh haEdah from Cave 4 see Asaf Gayer, Daniel Stökl Ben Ezra, and Jonathan Ben-Dov, "A New Join of Two Fragments of Serekh haEdah from Cave 4 and Its Implications," *DSD* 23 (2016): 139–54.