

OLD CAVES AND YOUNG CAVES A STATISTICAL REEVALUATION OF A QUMRAN CONSENSUS

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In memoriam Andreas Stökl (1939–2006)

*Introduction*¹

There are many theories about the relation of the Qumran caves and their manuscripts to the people living in and around the settlement.² Some scholars completely separate the scrolls from the settlement.

¹ This paper evolved during my appointment as Mandel Fellow at the Scholion Center for Interdisciplinary Jewish Studies at the Hebrew University. Much of the necessary work would have been impossible without the unique atmosphere of this inspiring institution and its team. Parts of this study were first presented at the Orion conference 2004, in the research seminar of the *Canonization* group at the Scholion Center; the third annual symposium of the Nordic Network in Qumran Studies at the École Biblique, 2005; in the department of classics at the Hebrew University; and again at the SBL 2006 in Washington, D.C. I am most grateful to the organizers and participants of these ventures for the invitation. Another part of the Orion presentation, a comparative study of Jewish and Christian sectarianism according to Qumran and the Jewish and Christian papyri from Oxyrhynchus, will appear in a separate publication. Some of the people who have helped me during the course of the investigations for this paper are mentioned at the appropriate places. Here I would like to express my special gratitude to Magen Broshi, Hanan Eshel, Clemens Leonhard, Jodi Magness, Eibert Tigchelaar, Amram Tropper, and Ada Yardeni as well as to the distinguished participants of a lunch at the École Biblique, who most helpfully discussed several points of this paper with me. I am also most grateful for the many responses and questions on the email lists ANE, G-Megillot, Ioudaios, and Papy-List following the publication of the abbreviated online version at www.geocities.com/shunrata on October 22, 2005. Many thanks are due to my former research assistants Moshe Levi and Avi Perrodin, who lent me a hand (and a head) with the database and to two experts in statistics who most kindly explained some of the statistical ramifications to me. Asaph Ben-Tov, Alessandra Sulzer, and Jonathan Stökl considerably improved the English. I am, of course, responsible for any errors.

² For a brief survey of theories, see M. Broshi and H. Eshel, "Qumran and the Dead Sea Scrolls: The Contention of Twelve Theories," in *Religion and Society in Roman Palestine: Old Questions, New Approaches* (ed. D. Edwards; New York: Routledge, 2004), 162–69.

Particularly Norman Golb, the Donceel-Voûtes, and the late Yizhar Hirschfeld have aroused much interest without, however, gaining wider acceptance.³ The theory that is still probably the best known, and closest to a consensus, was originally proposed by Roland de Vaux and connects the caves and their manuscripts closely with Khirbet Qumran: the manuscripts are the remains of the library of a community that had been living in the settlement for about 200 years (with an interruption towards the end of the first century BCE)⁴ before being destroyed by the Romans in 68 CE. Some of the caves were emergency hiding places for the Qumran library, among them Caves 1, 2, 3, 6, and 11.⁵ Other Caves (5 and 7–9) served as dwellings, and the manuscripts found therein reflect the readings of people living there at the time of the Roman attack.⁶ With regard to Cave 4, the most important manuscript cave,⁷ de Vaux concluded that “it is here that the community library, normally kept together in the central

³ E.g. N. Golb, *Who Wrote the Dead Sea Scrolls* (New York: Scribner, 1995); P. H. E. Donceel-Voûte, “Les ruines de Qumran réinterprétées,” *Archeologia* 298 (1994): 24–35; Y. Hirschfeld, *Qumran in Context: Reassessing the Archaeological Evidence* (Peabody, Mass.: Hendrickson., 2004).

⁴ J. Magness proposes a shorter period of settlement for about 150 years from about 80 BCE until 68 CE. See her review of R. Bar-Nathan, *Hasmonean and Herodian Palaces at Jericho, Final Reports of the 1973–1987 Excavations. Volume III: The Pottery*, *DSD* 10 (2003): 422. For a different perspective from both Magness and de Vaux, cf. J.-B. Humbert, “L’espace sacré à Qumran: Propositions pour l’archéologie,” *RB* 101 (1994): 161–214.

⁵ “Si l’on considère seulement les grottes qui contenaient des documents écrits, la présence de ceux-ci s’explique de différentes façons. Ces textes peuvent être ceux qu’un membre ou un petit group de la communauté avaient à leur usage et qu’ils ont abandonnés dans la grotte qu’ils habitaient (grottes 5Q, 7 à 9Q, 11Q) ou qu’ils ont entreposés ou cachés, avec leur vaisselle, dans une cavité voisine de leur lieu de campement (grottes 2Q, 3Q, 6Q). Mais la grotte 4Q avait reçu près de 400 manuscrits et elle est située tout près de Khirbet Qumrân : c’est là que fut cachée en hâte, au moment de l’abandon, la bibliothèque commune qui était normalement dans les bâtiments centraux. Le lot important de la grotte 1Q peut s’expliquer comme une partie de cette bibliothèque mise en lieu sûr avec plus de soin et plus loin du Khirbeh, ou comme une cachette choisie par un groupe plus nombreux que les autres et vivant aux environs.” R. de Vaux, M. Baillet, and J. T. Milik, eds., *Les “Petites Grottes” de Qumran: Vol. 1: Textes* (DJD 3; Oxford: Clarendon Press, 1962), 34. See also R. de Vaux, *Archaeology and the Dead Sea Scrolls* (rev. ed.; Schweich Lectures 1959; London: Oxford University Press, 1973), 56 and the discussion below.

⁶ See the statement quoted in the previous footnote and de Vaux, *Archaeology and the Dead Sea Scrolls*, 105. Also Cave 4 was used as dwelling place at some point. For a reassessment of some and reconfirmation of much of de Vaux’s theories, see J. Magness, *The Archaeology of Qumran and the Dead Sea Scrolls* (Grand Rapids, Mich.: Eerdmans, 2002).

⁷ The name “Cave 4” is in fact makeshift, designating *two* caves, 4a and 4b, which were discovered by the Bedouins in August 1952.

buildings, was hastily hidden at the moment when the settlement was abandoned.”⁸ Many others followed these general lines. Hartmut Stegemann developed a particularly detailed and intriguing, though speculative, scenario as to how and when which scrolls came to be hidden in each cave in the days and hours preceding the attack.⁹ Others, such as Lawrence Schiffman, remain cautious stating simply that “the majority of [the caves] served as hiding places for scrolls endangered by the invading Roman forces.”¹⁰

The recent publication of Emanuel Tov’s introductory volume to the DJD series with its rich statistical data provides a good opportunity to readdress issues related to the Qumran scrolls and caves from a quantitative perspective.¹¹ Of the many questions raised in the texts surrounding the tables, the following one attracted my attention: “Why do almost all the texts from Caves 1 and 7 have BCE dates, while virtually all the Cave 2, 3, 6, 8, and 9 texts have CE dates?”¹² I also wondered what happened to Caves 4, 5, and 11, omitted in this preliminary observation.¹³

In this paper, I try to answer this question by analyzing the distribution of older and younger manuscripts in the various caves. According to the calculations below, the average age of the dated scrolls from Cave 4 and from Cave 1 differs to such an extent from that of the manuscripts of Caves 2, 3, 5, 6, and 11 that the possibility that they are all randomly chosen samples of the same “population,”¹⁴ the same library, becomes improbable. In other words, it can be shown statistically to be highly unlikely that the manuscripts from Caves 1 and 4 are random samples coming from the same collection of manuscripts as those from Caves 2, 3, 5, 6, and 11, hidden in an

⁸ De Vaux, *Archaeology and the Dead Sea Scrolls*, 105.

⁹ H. Stegemann, *The Library of Qumran* (Grand Rapids, Mich.: Eerdmans, 1998), 61–63.

¹⁰ L. H. Schiffman, *Reclaiming the Dead Sea Scrolls* (Philadelphia: Jewish Publication Society, 1994), 56.

¹¹ E. Tov, ed., *The Texts from the Judean Desert: Indices and an Introduction to the Discoveries in the Judean Desert Series* (DJD 39; Oxford: Clarendon Press, 2002).

¹² Webster, “Chronological Index of the Texts from the Judean Desert,” in *DJD* 39:377.

¹³ The paleographical dates of the scrolls from Caves 4, 5, and 11 vary highly from 200 BCE to 82.5 CE, and therefore, their average age cannot be recognized without calculations.

¹⁴ In statistics, a population is the whole ensemble of items measured—in our case the original collection of Qumran’s library (population of manuscripts), of which only some fragments survived.

emergency just before 68 CE. Instead, I propose that the manuscripts from Cave 1 and Cave 4 represent an older form of the Qumran manuscript collection than those from Caves 2, 3, 5, 6, and 11. The latter caves represent the manuscript collection of the same community but at a later stage. In one hypothetical scenario, the scrolls from Cave 1 were hidden there long before 68 CE, around the turn of the era when Qumran was destroyed by a fire after an attack. Cave 4 might have been used as an emergency hiding place, library, or as a depository already around the same time, though some manuscripts were added later.

This has important consequences for several of the basic issues surrounding the Qumran scrolls: What exactly is the relation between the Qumran scrolls and the caves? What was the function of Cave 4 and the other caves during periods Ib and II? Which of the scrolls were hidden in the wake of emergency around 68 CE, and which were already there? Is there anything we can learn about these scrolls and scroll collections in the settlement (outside the caves) at the time of the Roman attack? Even if the different caves represent one ideological group—do their origins lie in one or in several manuscript collections?

Findings

Let me first briefly explain how I calculated the average scroll age (ASA) of a cave. The probable time period of a Qumran scroll is usually established paleographically¹⁵ and is generally described verbally with words such as “early Herodian era” or “second half of first century BCE.” Table J in DJD 39 conveniently assembles and translates these verbal definitions to calculable year ranges for each scroll, e.g. “early Herodian” becomes 30 BCE to 1 BCE.¹⁶ The same list also

¹⁵ The fundamental publication about Qumran paleography is still F. M. Cross, “The Development of the Jewish Scripts,” in *The Bible and the Ancient Near East: Essays in Honor of William Foxwell Albright* (ed. G. Wright; Garden City, N.Y.: Doubleday, 1961), 133–202. See also A. Yardeni, “The Paleography of 4QJer^a: A Comparative Study,” *Textus* 15 (1990): 233–68. A few scrolls have also been dated with ¹⁴C, see Webster, *DJD* 39:362–68. For a recent reassessment of the possibilities and impossibilities of ¹⁴C, see J. van der Plicht, “Radiocarbon Dating and the Dead Sea Scrolls: A Comment on ‘Redating,’” *DSD* 14 (2007): 77–89.

¹⁶ Webster, *DJD* 39:351–446. The brief online version of this article was published based on the shorter list on pp. 371–75. The present calculations are based on the detailed list on pp. 378–434. I have made very few necessary adjustments, of which none changed any test result substantially. 4Q15 is obviously wrongly translated into numbers. “Hasmonean hand, similar to that of 4QEzek,” from approximately the late

gives the mean of these numbers, i.e. –15.5 for the above example. The average scroll age (ASA) of a certain cave is then simply the sum of the means of all its paleographically dated scrolls divided by the number of paleographically dated scrolls in the cave, i.e. the mean age of the paleographically dated scrolls. *Table 1*, below, shows the ASA and the number of dated scrolls for each cave, calculated according to this procedure (negative numbers indicate BCE dates).

TABLE 1

	“old caves”		“young caves”								total
	1Q	4Q	2Q	3Q	5Q	6Q	11Q	7Q	8Q	9Q	
approx. number of scrolls	80	680	33	15	25	31	31	19?	5	1	901
number of dated scrolls (n)	15	543	25	10	23	24	28	5	3	1	677
average scroll age (ASA)	–33.6	–43.2	12.2	25.9	11.4	7.4	6.9	–80	–4.2	83	–34.1
median ¹⁷	–32.8	–37.5	19	19	27.5	50.0	25.5	–	–	–	–25.5
σ	38.9	56.8	27.7	27.2	58.7	82.3	48.4	40	40.1	–	59.5

After excluding those caves with less than ten dated scrolls and therefore statistically less reliable (Caves 7–9),¹⁸ two groups seem clearly discernable. Only two caves have BCE dates for their ASA: Cave 1

second, or probably the early first, century BCE” should not be 225–175 BCE but 125–75 BCE. Similarly, two scrolls should not have been listed among the “150–125 BCE.”: 4Q24 (“late Hasmonean hand from approximately the mid-first century BCE”) should be 50–25 BCE, and 4Q164 (“date h rodienn e ancienne”) should be 30–1 BCE 4Q390 and 4Q424 should be 30 BCE to 20 CE instead of 30–20 BCE. Some manuscripts are mentioned with two different datings: 1Q24 (–50 Maier, –15.5 Stuckenbruck), 1Q26 (–50.5 Maier, 0 Strugnell & Harrington), 2Q26 (–15.5 Stuckenbruck, 19 Baillet). I have taken the average of both of the ASA’s of these doublettes. I have also taken the average (37.25) of the two dates given for 11Q5 (Sanders: 25.5 vs Garc a Mart nez, Tigchelaar, and Van der Woude: 49). With regard to 1Q19 and 1Q19bis, the two separate entries are considered as one scroll with one date (–15) in my calculations. 1Q28, 1Q28a, and 1Q28b have four entries altogether, 1Q28b being honored with two different datings (–100 Brooke, –85 New Sch rer). I consider 1Q28 and 1Q28a as one scroll with the date 75 BCE and 1Q28b as another scroll with the same date. Finally, I did not reckon the phylacteries 4Q128–4Q148 (dated 200 BCE to 70 CE) absent also in the brief version of list J. In order to make my calculations easily repeatable by others, I decided not to include datings from other discussions (cf. e.g. footnotes 36, 55, and 62), but to stick to list J with the adjustments mentioned here.

¹⁷ The median gives the age of that scroll where one half of other scrolls in this cave are older and the other half are younger.

¹⁸ In the remaining text I will explicitly mention when I include caves with less than ten manuscripts in statements.

and Cave 4. The ASA of all other caves lies in the CE range (2, 3, 5, 6, and 11). How meaningful is this distinction? The difference between the ASA of the youngest BCE cave (Cave 1) to the oldest CE cave (Cave 11), i.e. between 33.6 BCE and 6.9 CE, is about 40 years. Yet, the difference between the ASA of the oldest BCE cave (Cave 4) and that of the youngest BCE cave (Cave 1) is much smaller: 43.2 BCE to 33.6 BCE makes a mere 9.6 years. This would be group one, the “old caves.” Finally, the difference of the ASA of the oldest CE cave (Cave 11) to that of the youngest CE cave (Cave 3) is: 6.9 CE to 25.9 CE, i.e. 19 years. This is a broader range than that for the old caves, but still much smaller a difference than that between Cave 1 and Cave 11. Let us, therefore, call this second group the “young caves.” Both groups appear to be distinct from each other since their internal range (9.6 and 19) is much smaller than the difference between them (ca. 40).

The datable scrolls of Cave 4 are on average much older than those of the young caves. However, this does not mean that young caves have no old texts or vice versa. About 97 texts (ca. 17.9%) from Cave 4 were written in the first century CE, but the cave is still considered “old” since a disproportionally great number of Cave 4 manuscripts is dated to the first century BCE or before (425, or 78.6%). Caves 5 and 11 have a young ASA of 11.4 CE and 6.9 CE but both include very old scrolls. What interests me in the following is not the absolute age of the oldest or youngest scroll in a given cave, but the average age, the median and the standard deviation, which give a much better indication as to the bulk of the evidence. The ASA of both old caves together is 42.9 BCE as opposed to the ASA of all young caves (10.9 CE). The manuscripts from the old caves are on average more than 50 years older than those of the young caves. Already at first glance, these 50 years seem to make a huge difference.¹⁹

¹⁹ Were we to compare two *single* scrolls, 50 years difference in age would not be significant since the paleographical dating usually gives broader ranges of 50 or 100 years. In the present paper, however, we compare scroll *groups* of considerable size. Let us assume that we have two collections A and B of ten scrolls each, all paleographically ascribed to the early Herodian period. Each one is randomly assigned an actual date of writing between 30 and 1 BCE. The probability that the *average* of these actual dates of writing (not the paleographical estimation) of A differs by 20 years from that of B is practically nil according to a computer simulation. Even for groups of only two scrolls each, the chance to differ by 20 years or more with regard to their average age is only about 2%. More concretely spoken, we would have to find in the young caves over 1100 additional scrolls from around 50 BCE (the average age of Cave 4); or 45 scrolls from around 200 BCE (the oldest Qumran manuscripts); or

This intuition can be statistically corroborated by a so called Kruskal-Wallis Test (H-Test).²⁰ Like other tests,²¹ a Kruskal-Wallis test can calculate a probability whether a number of independent random samples come from “populations”²² with the same or with different central statistic tendencies.²³ If the scrolls of the various caves stem from the same collection and were hidden hastily, i.e. randomly, they would, in statistical terms, have to come from the same “population.” If the scrolls come from different collections with varying statistic characteristics (e.g. of the Average Scroll Age), the probability that they stem from the same “population” should be low. Usually a result of $p < 0.05$ (5%) is considered as significant. This means that the probability that the scrolls stem from a single collection and the age difference between the caves is random is smaller than 5%. In our

3 scrolls from 2700 BCE (the oldest extant papyri from Egypt), to reach the same average age as Cave 4.

²⁰ While many tests exist for evaluating relations between two or more samples, the Kruskal-Wallis test is particularly useful for comparing three or more samples of different size, distribution, mean, and median. An introduction to this test can be found online at <http://faculty.vassar.edu/lowry/ch14a.html> and <http://faculty.vassar.edu/lowry/PDF/c14a.pdf> by Richard Lowry. See also Y. Chan and R. Walmsley, “Learning and Understanding the Kruskal-Wallis One-Way Analysis-of-Variance-by-Ranks Test for Differences Among Three or More Independent Groups,” *Physical Therapy* 77 (1997): 1755–61. For the reasons to apply this test, see also the next footnote. Before applying the statistical tests, I wrote a PASCAL computer program able to simulate caves out of a combination of the scrolls of any two caves a very high number of instances (1.000.000) and to calculate how often the cave is at least as old (or at least as young) as the cave to be simulated. To do this, it builds a set union of the scrolls of two given caves, establishing their date randomly in the given range of dates for this scroll. It then picks as many scrolls as the cave to be simulated contains. The results reached had the same tendency as the Kruskal-Wallis test. For combinations of the old caves, the program succeeded between 319.703 and 388.844 times to simulate each cave. For combinations of the young caves, the program succeeded between 173.322 (Caves 2 and 3) and 480.390 (Caves 2 and 6) times. For combinations of young and old caves, however, the highest was merely 46.364 (Caves 3 and 4), i.e. 4.6%, and the lowest number of successes reached even 0 (for Caves 4 and 2 as well as Caves 4 and 5). I would like to thank Guy Reuveni and Carl-Ludwig von Schlabrendorff for suggesting me this procedure, Uzi Galili for helping me to find a suitable Pascal platform, and the programmers of Free-Pascal for providing internet users with a free copy of their Pascal compiler.

²¹ The easiest and most widespread test, a so called T-Test, is less reliable for these samples since the distribution is not normal and $n < 30$ for a number of caves. Nevertheless, when performed it confirmed the same results reached through the Kruskal-Wallis tests.

²² See the explanation of “population” above.

²³ A result indicating a low probability that the test-groups are random samples from one population with the same statistical characteristics is called a refutation of the “null-hypothesis.”

case, we can also use the much stricter measure of $p < 0.01$ (1%). A result $p < 0.01$ would indicate a 99% chance that the scrolls do *not* stem from the same collection (or that the scrolls were not distributed *randomly* with regard to their average age). I decided to run a series of three tests:²⁴ one for all caves together (test A), a second for the old caves (test B), and a third for the young caves (test C).

Test A) All Qumran scroll caves: $p < 0.0001$

n = 668;		Kruskal-Wallis statistic: 93.93	
	n	Rank sum	Mean rank
Cave 1	15	4726.5	315.10
Cave 2	25	12402.0	496.08
Cave 3	10	5524.5	552.45
Cave 4	543	164159.0	302.32
Cave 5	23	11540.0	501.74
Cave 6	24	11902.5	495.94
Cave 11	28	13191.5	471.13

Test B) All old caves: $p = 0.7517$

n = 558;		Kruskal-Wallis statistic: 0.10	
	n	Rank sum	Mean rank
Cave 1	15	4387.0	292.47
Cave 4	543	151574.0	279.14

Test C) All young caves: $p = 0.1173$

n = 110;		Kruskal-Wallis statistic: 7.38	
	n	Rank sum	Mean rank
Cave 2	25	1122.0	44.88
Cave 3	10	618.5	61.85
Cave 5	23	1471.5	63.98
Cave 6	24	1514.0	63.08
Cave 11	28	1379.0	49.25

²⁴ I used the *Analyse-it*TM add-in for ExcelTM.

The result of test A, $p < 0.0001$, clearly refutes the null-hypothesis for the combination of all caves. The probability that the scrolls from Caves 1–6 and 11 are random samples from the same collection of manuscripts is smaller than 0.1 per mil! Test B, performed on the two “old caves” 1 and 4, yields a result of $p = 0.7517$;²⁵ test C, performed on the “young caves,” yields a result of $p = 0.1173$. In both cases p is greater than 0.01. That the scrolls from the “old caves” come from one collection and those from the “young caves” from another is therefore reasonable.²⁶ I repeated the tests without the Cryptic, paleo-Hebrew and Greek scrolls, whose paleography is not as well assessed. These results, too, seem to confirm the classification of the Qumran caves into two distinct groups, old and young caves.²⁷

In sum, according to the statistical calculations presented above, it is highly improbable that the same single book collection was distributed hastily among the Caves 2, 3, 5, 6, and 11 as well as Caves 1 and 4. Vice versa, it seems not unlikely that Caves 1 and 4 come from one collection and Caves 2, 3, 5, 6, and 11 from another. Finally, whoever dislikes the idea of basing an argument on calculations of paleographical dates, may perhaps find more comfort in the striking difference between old and young caves with regard to the ratio of Herodian scripts (ca. 40% vs. 75% and more).²⁸

Discussion

If the calculations above and the data they are based upon are correct,²⁹ we can assume either that the two groups of caves are samples

²⁵ For comparing only two samples, a Mann Whitney U-Test would normally be used since its precision is higher than the Kruskal-Wallis test. However, of course, the results of both tests agree in our case ($U=3878$; $p=0.7517$).

²⁶ It is important to remember that, while the H-Test can *disprove* that two or more samples come from the same population, it cannot actually prove that two or more samples come from one population. It can only indicate that the samples *could* come from one or more populations with similar statistical tendencies. The origin of Caves 1 and 4 could lie in two libraries with very similar age structure. That p is smaller for the H-Test of the young caves than for the old caves might hint to a slight (!) *possibility* that one or several of the young caves might perhaps stem from different sources than one or several of the other young caves. This however, *cannot* be proven with a statistical analysis of the average scroll age. Cf. also the previous footnote.

²⁷ The results reached are similar to the ones above (Test A: $p<0.0001$; Test B: $p=0.7851$; Test C: $p=0.0717$).

²⁸ See the graphs at www.geocities.com/shunrata/Discussion_of_Q_article.html.

²⁹ I see the following possible errors: paleographical dating as a rather inexact discipline with secure pegs to delimit the different periods still missing; subjectivity, i.e.

from two distinct populations—one collection for the old and the other for the young caves—or that the distribution of the scrolls among the caves did not happen randomly *with regard to manuscript age*. Let us begin with a discussion of the latter possibility, that there was an external selection factor that had an influence on the age distribution of the manuscripts among the caves: a “librarian” might protect old manuscripts from leaving the main library; readers could be reluctant to read old manuscripts; some caves might reflect a specific library section; or maybe pillagers preferred to take out old texts (or only new texts).

As stated in the introduction, one important distinction between the Qumran caves is between those uninhabited and those used as dwellings. Manuscripts found in dwelling caves could reflect the reading list of their inhabitants in the time of the Roman assault. The marl caves (Caves 4, 5, and 7–9) were designed as dwelling places,³⁰ while the limestone caves (Caves 1–3, 6, and 11) were not.³¹ If a librarian were reluctant to lend old manuscripts or readers preferred to demand young manuscripts, we should be able to observe that the manuscripts from those caves that were emergency hide-outs include a smaller

different paleographical datings by various authors; amateurishness, i.e. paleographical datings done by editors of scrolls without extensive paleographic experience; the reduction of a paleographical date given as a range to its mean; the exclusion of undated scrolls, especially with regard to Cave 1. Most errors should be more or less neutralized by the bulk of the data (especially with regard to Cave 4). An exception could be the error accumulation caused by the subjective tendency of a single author who is responsible for all or most scrolls in a single cave. Caves 2, 3, 5, and 6 have been dated by one author only, Cave 11 by a group of three scholars. However, Milik, responsible for Cave 5, is one of the founding fathers and greatest experts of Hebrew paleography. The difference between Cave 5 and Cave 4 is therefore particularly noteworthy and shows that our basic observation of two different groups is likely to be correct. Still, a reevaluation of all Qumran scrolls by one of the leading paleographers is a desideratum.

³⁰ De Vaux, *Archaeology and the Dead Sea Scrolls*, 56.

³¹ Roland de Vaux assumed that among the limestone caves, Cave 3 (before the collapse) and 11 could have been temporarily habitable: *Archaeology and the Dead Sea Scrolls*, 56–57. Regarding Cave 11, see *DJD* 3:34. He explicitly names the manuscripts of Caves 5 and 11 as examples for those read by the cave-dwellers at the time of the attack (p. 26). There are, however, strong arguments against the assumption that either Cave 3 or Cave 11 served as a dwelling place during the Roman attack. According to J. Patrich, “Khirbet Qumran in Light of New Archaeological Explorations in the Qumran Caves,” in *Methods of Investigation of the Dead Sea Scrolls* (ed. M. Wise et al.; Annals of the New York Academy of Sciences 722; New York: New York Academy of Sciences, 1994), 73–95, there is no evidence for habitation in the limestone caves. According to Hanan Eshel (oral communication, 25.7.2005), Cave 11 cannot possibly have been used for habitation, since among other reasons, the floor is uneven and there is not enough air.

number of young and a greater number of old manuscripts than those caves that reflect the reading material of their inhabitants. Yet, dwelling Cave 5 is on the average older and contains *more* archaic manuscripts than the emergency hideaways Caves 2 and 3.³² Therefore, the hypotheses of a protective librarian or fastidious readers become unlikely.

Some of the minor caves do indeed reflect a choice by the librarian or the reader. The most palpable case is Cave 7, which contains exclusively Greek documents and is the only cave to have revealed a considerable amount of Greek texts. Somebody with a particular taste for Greek readings probably dwelled in this cave at the time of the attack. The scrolls may reflect his private collection or borrowings from the main library. Alternatively, if the manuscripts were hidden in Cave 7 in an emergency, Cave 7 could reflect the Greek section of the library being secured in this cave just as Roman libraries usually had two sections, one for the Greek, one for the Latin books.³³ The three scrolls from Cave 8 and the single manuscript from Cave 9, which may also reflect the private reading interests of their inhabitants or private property, are too few to sustain any argument.

Michael Wise has raised the possibility that the manuscripts from Cave 6 represent the remains of a collection of private study copies.³⁴ A large part was written on papyrus,³⁵ many with a cursive or a semi-cursive hand.³⁶ However, this possibility becomes somewhat less likely, since the papyri were not written by the same person or during the same generation, but include manuscripts from around 200 BCE to 68 CE, some of them among the oldest manuscripts found at Qumran.³⁷ Alternatively, looters may have taken all the parchment scrolls from Cave 6 as in the caves of Ketef Jericho, where Byzantine monks took

³² For the dwelling Cave 5: 5Q1, 5Q2, 5Q20, 5Q22, 5Q24; and one could add 5Q12 with a BCE date. For the emergency hiding Caves 2 and 3: 2Q5. One could add 2Q7, 2Q10, 2Q17, 2Q18, 2Q26, 3Q8 with BCE dates. I left out Caves 6 and 11 from this comparison, since scholars do not agree as to their function. Both of them have a substantial number of old manuscripts: 6Q1, 6Q2, 6Q4, 6Q9, 6Q10, 11Q13, 11Q22, 11Q23, 11Q24, 11Q29. One could add 11Q6, 11Q25, 11Q26, 11Q30 with BCE dates.

³³ Cf. e.g. the library in the baths of Caracalla.

³⁴ M. Wise, *Thunder in Gemini* (JSPSup 15; Sheffield: JSOT Press, 1994), 120–22.

³⁵ 6Q3–5, 6Q7–10, 6Q16, 6Q18, 6Q22–24, 6Q26–31.

³⁶ 6Q7–8, 6Q22–23, 6Q26–30, cf 6Q4–5, 6Q20, and 6Q31.

³⁷ On the recent identification and redating of 6Q30 from post-destruction to 68 CE or earlier, cf. H. Eshel, “6Q30, a Cursive Šin, and Proverbs 11,” *JBL* 122 (2003): 544–46.

all the parchment scrolls for secondary use while leaving the papyri.³⁸ Yet, this seems less likely to me: 18% of the Qumran scrolls have been written on papyrus. In Cave 6, more than 50% have been written on papyrus. In order to turn Cave 6 into a “normal” cave with approximately the same ratio of papyri and parchments as the other caves, we would have to assume that it once included about 100 manuscripts. Looters should have taken about 70 parchments, quite large a number. It seems more probable to me that this rich collection of manuscripts reflects a special “papyrus” section in the library.³⁹

What if the work of ancient or modern looters adulterated the statistics? Some of the Qumran caves were discovered and pillaged in antiquity (Caves 3, 7, 8, 9) or by the Bedouins (Caves 1, 4, 11) or both (Caves 2, 4?, and 6).⁴⁰ One might think that these caves display a greater number of young texts. In fact, no manuscript from Caves 2 or 3, both pillaged in antiquity, is dated before the first century BCE. However, another looted cave, Cave 7, has an exceptionally high ASA.⁴¹ Moreover, among the caves that remained undiscovered until our times (Caves 1, 4?, 5, 11) are also young caves (Caves 5, 11). Also among the caves detected (and pillaged) by the Bedouins are both old and young caves. Looters, modern as well as ancient, might not have had the same interest in old manuscripts as modern day

³⁸ I would like to thank an anonymous reviewer for pointing me to this issue.

³⁹ With regard to the other caves, I have not been convinced by the arguments for their special character with regard to a special library section. Recently Emanuel Tov has suggested that the scrolls from Cave 11 are “more sectarian” than the other caves, possibly coming from a specific location in the library. E. Tov, “The Special Character of the Texts Found in Qumran Cave 11,” in *Things Revealed: Studies in Early Jewish and Christian Literature in Honor of Michael E. Stone* (ed. E. Chazon, D. Satran, and R. Clements; JSJSup 89; Leiden: Brill, 2004), 187–96. Florentino García Martínez has dismissed this claim in his recently published “The Study of the Texts from Qumran: A Groningen Perspective,” in *Qumranica Minora I: Qumran Origins and Apocalypticism* (STDJ 63; Leiden: Brill, 2007), 297–310 (306–9). In his opinion, it is possible that relatively few of the compositions found in Cave 11 are “sectarian.” Hartmut Stegemann suggests that the manuscripts from Cave 1 represent the part of the library that was the most precious in the eyes of those who concealed it. They are the only ones to have been carefully wrapped with cloth before being put in jars. “They show only relatively minor traces of use” and were therefore “mastercopies.” Stegemann, *The Library of Qumran*, 81.

⁴⁰ See the brief discussion in Stegemann, *The Library of Qumran*, 67–78. As to Cave 4, see H. Cotton and E. Larson, “4Q460/4Q350 and Tampering with Qumran Texts in Antiquity?” in *Emanuel: Studies in Hebrew Bible, Septuagint and Dead Sea Scrolls in Honor of Emanuel Tov* (ed. S. Paul et al.; VTSup 94; Leiden: Brill, 2003), 113–26. I would like to thank Eibert Tigchelaar for drawing my attention to this scroll.

⁴¹ Also the almost empty Caves 8 and 9. But the Greek paleography needs a reassessment.

scholars. They might have preferred the best preserved manuscripts, i.e. most likely the youngest, or not have been interested in manuscripts at all (like the Romans). One might, therefore, expect the looted caves to be *older*. But this, too, is not the case. Also the possibility that looters took all parchment scrolls from Cave 6, influencing the average age of this cave and changing it from an originally old to a young cave, seems rather unlikely. The average age of Qumran papyri is *the same* or *higher* than that of parchments.⁴² Cave 6, however, is a young cave *despite* having an exceptionally high ratio of papyri. We can conclude that while a quantum of uncertainty remains, pillage, too, becomes an unlikely cause of the unequal age distribution.

Let us, therefore, return to the first possibility: Do the young and the old caves reflect *two* “populations” (collections) of manuscripts? Against theories such as those by Norman Golb or Henri del Medico,⁴³ Devorah Dimant and others have clearly shown that Cave 4 and the other caves are interlinked in their contents, ideology and selection of genre.⁴⁴ Comparing the ratio of three groups of texts, (1) biblical, (2) texts with community terminology (CT), and (3) texts without community terminology (NCT)⁴⁵ among the caves, she

⁴² If we include Paleo-Hebrew and Greek as well as Cryptic material, the Qumran papyri are about 47 years older than the parchments. Considering only manuscripts in Jewish script, the Qumran papyri and parchments have practically the same average age. If we disregard the material written in Cryptic script, which is particularly difficult to date, but include Paleo-Hebrew and Greek, papyri are on the average only five years older than the parchments. As long as we do not assume that the average age of parchments, *possibly* taken from Cave 6, was not *much* older than that of the other Qumran parchments, Cave 6 remains a “young” cave.

⁴³ Golb, *Who Wrote the Dead Sea Scrolls*, claimed the scrolls represent libraries from Jerusalem; H. Del Medico, *L'Enigme des manuscrits de la Mer Morte* (Paris: Librairie Plon, 1957) argued that the caves are Genizot; E. Sukenik, *Megillot Genuzot Metokh Genizah Kedumah she-Nimtse'ah be-Midbar Yehuda* (2 vols.; Jerusalem: Magnes Press, 1948–1950) had claimed that for Cave 1.

⁴⁴ D. Dimant, “The Qumran Manuscripts: Contents and Significance,” in *Time to Prepare the Way in the Wilderness: Papers on the Qumran Scrolls by Fellows of the Institute for Advanced Studies of the Hebrew University, Jerusalem, 1989–1990* (ed. D. Dimant and L. H. Schiffman; STDJ 16; Leiden: Brill, 1995), 23–58. To my knowledge, this groundbreaking study, qualified by her as “modest beginning” and “rudimentary” (24), is still the most recent investigation of this kind.

⁴⁵ For her criteria, see pp. 27–29 and the footnotes in table I. I see the following problems, most of which she is aware of: First, her main criterion to characterize a manuscript as NCT is a typical *argumentum e silentio*. For very fragmentary manuscripts this is clearly not a good criterion, and the number of “unidentified manuscripts” in this regard (96 total, 35 only for Cave 4) seems very low to me. Second, it is sometimes a matter of dispute what is community terminology. Third, “biblical” is a kind of anachronism, in a period when the canon was not yet fixed and Ben Sira, *Jubilees*, or Ps 151–153 could be considered canonical, while Esther could be boycotted.

reached the conclusion that “the contents of most of the caves are essentially similar and interlinked.”⁴⁶ The ratio of biblical, sectarian, and non-sectarian texts in each cave is very similar to the ratio in the whole collection: 1/3 biblical manuscripts, 1/3 NCT, 1/4 CT, and about 1/8 unidentified texts.⁴⁷ At least one copy of a Cave 4 text is found in all other “manuscript caves” (1Q–6Q and 11Q).⁴⁸ All caves are similarly exclusive: whole text groups current in Roman Palestine are not present in any cave—neither pagan nor Greek-Hellenistic, neither Pharisaic nor Christian nor proto-Tannaitic works; several genres such as history are absent altogether. At the same time, all caves include similar material: All texts are of a religious character, and Bible fragments as well as clearly sectarian texts have been discovered in all scroll caves. With regard to their material form and scribal practice, the Qumran caves are remarkably uniform, too.⁴⁹ With the exception of a few texts on single sheets, all books are rolls.⁵⁰ The vast majority of the texts have been written on leather, only about 18% are on papyrus (162 texts), and the number of ostraca and copper-rolls is negligible.⁵¹ In short, with regard to contents, genres and sectarianism “most of the minor caves mirror the picture of cave 4.”⁵²

Fourth, even with regard to the Hebrew Bible, the category “biblical” is not well-defined either, since it is often unclear whether a given fragment is a biblical manuscript or simply a quotation of a biblical text in a commentary, an anthology, an excerpt, or a “rewritten Bible” (cf. Tov, *DJD* 39:165–67). Finally, as usual in table work developing over time, there seem to be some minor miscalculations: e.g., the figures for the number of manuscripts in Cave 4 both CT and NCT that differ in Table II (with: 158, without 203, total 554) and Table III (with: 156, without 213, total 562).

⁴⁶ Dimant, “The Qumran Manuscripts,” 30. The same had been stated by F. García Martínez and A.S. van der Woude, “A ‘Groningen’ Hypothesis of Qumran Origins and Early History,” *RevQ* 14/56 (1990): 521–41 (522–25); Repr. in *Qumranica Minora I*, 31–52.

⁴⁷ Dimant, “The Qumran Manuscripts,” 31–32. This is, however, not true for Cave 2 that contains a high ratio of biblical scrolls.

⁴⁸ Dimant, “The Qumran Manuscripts,” 31.

⁴⁹ As noted above, Cave 6 is an exception from this rule.

⁵⁰ E. Tov, “The Dimensions of the Qumran Scrolls,” *DSD* 5 (1998): 70. As was the *usus* with rolls and unlike early Christian codices, apart from opisthographs, each Qumran scroll contained only one literary text.

⁵¹ Tov, *DJD* 39:204–10. Some of the papyri are documentary texts that may come from Nahal Hever and not Qumran (17 texts). Regarding the papyri, in many cases, the writing material seems to be connected to the contents and/or the purpose. All 19 Greek rolls from Cave 7 and two thirds of the texts in cryptic script (38 out of 54) have been written on papyrus. In addition, two thirds of the scrolls from Cave 6 have been written on papyrus (20 texts). If we deduct these special texts from the total, only about 7% of Qumran texts have been written on papyrus.

⁵² Dimant, “The Qumran Manuscripts,” 35.

Accordingly, Caves 1 and 4 come from the same sectarian collection as Caves 2, 3, 5, 6, and 11. Only at first glance, however, does this conclusion seem to contradict the results of the statistical analysis of the age distribution above.

I consider the following explanation the most plausible, as it clarifies the problem of the age of the scrolls without supposing completely distinct libraries: Caves 1 and 4 are samples from the collection of the same group as Caves 2, 3, 5–11, but with one difference: two samples (the “old caves”) were taken from the collection at an earlier time in the life of this collection than the five other samples (the “young caves”). Unlike the “young” Caves 2, 3, 5, 6, and 11, the “old” Caves 1 and 4 were not emergency hiding places in 68 CE, but contained most or all of their manuscripts already at an earlier point in history: Cave 1 as an emergency hide out, Cave 4 as an emergency hiding place, library, or depository. Can we point to specific historical circumstances, when such a scenario might have taken place?

Jodi Magness recently pointed out that the fire that destroyed the Qumran settlement at the end of period Ib took place some time between 9/8 BCE and 4 BCE. The fire was probably caused by an attack.⁵³ If there were any scrolls in buildings above the ground, they were presumably destroyed. A second fire devastated again the settlement including any manuscripts above the ground (if there were any) during the Roman attack at the end of period II in 68 CE. Scrolls in caves would have escaped this type of destruction twice. To the best of my knowledge, nobody so far has raised the question of how it came to be that we have manuscripts older than the first fire. It seems rather unlikely that all of the old Qumran scrolls were imported after 4 BCE. If most of the scrolls unearthed in Caves 1 and 4 were already there during the fire between 9/8 BCE and 4 BCE, they would have been protected as they had been in 68 CE. They survived both devastations. Cave 4 already served as a library or depository before the first fire, or it was an emergency hiding place. After the fire, the scrolls remained largely there, and it became a library/depository,

⁵³ Magness, *The Archaeology of Qumran and the Dead Sea Scrolls*, 67. Cf. already J. T. Milik, *Ten Years of Discovery in the Wilderness of Judaea* (trans. J. Strugnell; SBT 26; London: SCM Press, 1959), 52: “there is a thick layer of ashes beneath the level of the Phase II reconstruction, showing the extent and violence of the fire . . . The thick layers of ashes suggests a very violent conflagration, better to be explained as the result of a conscious attempt to burn down the whole building; so the ashes may show the traces of an intentional destruction of Qumrân.”

which explains the presence of some yet few young manuscripts in Cave 4.⁵⁴

The scrolls from Caves 2, 3, 5, 6, and 11, on the other hand, represent a younger collection. This younger collection was nothing else than the last stage of the library in the settlement. This library was destroyed twice, once at the end of period Ib (between 9 and 4 BCE) and once at the end of period II in 68 CE. Due to the destruction of the first library this collection was considerably younger than that represented by the scrolls in Caves 1 and 4. It contained few ancient manuscripts from before the fire between 9/8 BCE and 4 BCE.⁵⁵ These old manuscripts may have been retrieved from Cave 4 after the first fire, or newly imported from the outside.⁵⁶ The vast majority of the scrolls in this new library, however, were written after the first-century CE fire, in period II.

Other scholars, such as Dimant and Schiffman, have argued for Cave 4a as a library.⁵⁷ Cave 4a is an artificial cave, roomy, well-lit, ventilated, and has leveled floors.⁵⁸ Schiffman notes the existence in Cave 4a of holes whose position would suggest they served for fastening wooden poles to support bookshelves.⁵⁹ The scrolls of Cave 4 were found lying unprotected on the floor—as if they had fallen from the shelves. The assumption that Cave 4a already served as a library

⁵⁴ Cave 1 might have been forgotten (see below). If the Qumranites hid manuscripts in Cave 1 before the first fire, they probably hid more scrolls in other caves. When the people came back to the settlement, the manuscripts of most caves were retrieved. Those from Cave 1, however, were forgotten either because the specific people who brought them there did not survive, or because of simple forgetfulness.

⁵⁵ According to a (speculative) extrapolation from the remains of this library in Caves 2, 3, 5, 6, 11, around 13% of its manuscripts had BCE dates.

⁵⁶ Almost all of the identified manuscripts (most probably) written before the fire are biblical (2Q5, 2Q10, 2Q17, 5Q1, 5Q2, 6Q1, 6Q2, 6Q4), cf. the unidentified (3Q8, 5Q20, 22, 24, 11Q22–24). The only identified nonbiblical texts from the young caves almost certainly older than the fire are the four following texts: 6Q9 (Apocryphon to Sam-Kgs), 6Q10 (papProph), 11Q29 (frg. to Serekh Hayahad), and 11Q13 (Melchizedek). But cf. also Puech's reassessment of the paleographical date of 6Q23 in *DJD* 31:3 n 3.

⁵⁷ Dimant, "The Qumran Manuscripts," 36; Schiffman, *Reclaiming the Dead Sea Scrolls*, 54–56; cf. also Humbert, "L'espace sacré à Qumran," 194.

⁵⁸ M. Broshi, "Qumran: Archaeology," in *Encyclopedia of the Dead Sea Scrolls* (ed. J. C. VanderKam and L. H. Schiffman; New York: Oxford University Press, 2000), 2:734.

⁵⁹ Schiffman, *Reclaiming the Dead Sea Scrolls*, 56. As Emile Puech kindly remarked to me (oral communication, 7.1.2004), we should expect to have found remnants of the wood of these shelves in the same way as remains of the wooden staircase (*DJD* 6:9) were found. Yet, this is an argumentum *e silentio*, and the regular holes in the wall need an explanation.

or depository would also explain why Cave 4 alone contained about two thirds of the Qumran scrolls, though other caves as well (5 and 7–9) could have taken more scrolls and are even slightly closer to the settlement if people were looking for a quick hiding place.⁶⁰

The entrances to Caves 4a and 4b and the terrace of Cave 4a are too apparent to remain hidden to anybody living in the settlement over a prolonged period. Therefore, we have to look for an explanation as to why scrolls placed in Cave 4 in or before 4 BCE remained there during period II. The library hypothesis is one possible rationale: Cave 4 continued to serve the community as “stacks.” After the reconstruction of the library in the settlement, new manuscripts were kept mostly above the ground. Only rarely would people deposit new scrolls in Cave 4. Less than 18% of the dated Cave 4 manuscripts *may* come from period II, and only 10% have been dated definitively to period II.⁶¹ The hypothesis that the bulk of the Cave 4 manuscripts remained in situ after 4 BCE and after the return of the group during period II could be explained even more easily if we assume that the scrolls were useless. This would be the case if Cave 4 had served as a depository for defective scrolls (a kind of “Geniza”), or if originally intact scrolls had been mutilated by the attackers. Under these circumstances we would have to assume that the scrolls added during period II had become useless as well and were put in Cave 4 for this precise reason.⁶²

What were the functions of the other caves? Here we can return to de Vaux: Caves 2, 3, 6, and 11 served as emergency hiding places (of the new library) just before the Roman attack—the papyrus section of the library ending up in Cave 6. Caves 5, 7, 8, and 9 might reflect the

⁶⁰ This does not rule out the possibility that some of the manuscripts from Cave 4 were thrown there in emergency, such as the Tefillin and Mezuzot (4Q128–148 and 4Q149–155). They could also have been put there as in a depository. See also above, the paper by Cotton and Larson.

⁶¹ Let us speculate a bit: The difference in ASA between the old and the young caves is approximately 55 years. If we discard the CE texts that were possibly deposited in Cave 4 after the fire, the ASA of Cave 4 becomes -61.6, and the difference in ASA between the old and young caves becomes 71.6. If we take this as the difference in years between the two fires, we get 3 or 4 BCE as a very tentative date for the first fire. Incidentally (?), the end of Herod's reign matches the date proposed also by Magness, *The Archaeology of Qumran and the Dead Sea Scrolls*, 68. However, this calculation remains entirely hypothetical.

⁶² However, as I hope to point out in a future paper, the age distribution of the young scrolls from Cave 4 is not completely congruent with that of the CE scrolls from the young caves. There is a very sharp drop in the number of Cave 4 manuscripts beginning with ca. 50 BCE until 1 CE. In the young caves, however, the number of manuscripts from these years is inclining. If Cave 4 served as a Geniza/depository, I had expected both curves to run parallel.

reading material on the “bedside table” of the cave dwellers, Cave 7 being occupied by somebody with a predilection for Greek.

Cave 1 is an interesting case. At this point, I see two possible explanations to account for the high ASA of Cave 1 that is so similar to Cave 4. In the first scenario, the scrolls might have been hidden there long before 68 CE, perhaps just before the same assault that caused the fire at the end of Magness’ period Ib. This is the most probable solution if none of the Cave 1 manuscripts has to be dated to the first century CE.⁶³ If Cave 1 contains a small number of manuscripts or artifacts from period II, we might consider the possibility that Cave 1, already filled with most of the scrolls at the end of period

⁶³ While I am very confident in the ability of paleography to give relative datings, I am extremely skeptical with regard to absolute dates or narrow spans of sometimes only 30 years for a style. A. Yardeni will soon publish a very long text from a stele of the Second Temple period with a script portraying features usually ascribed to the early Herodian period at the latest (e.g. narrow and long *kaf* and *pe*, open final *mem*) or late Herodian periods (e.g. extensive *keraiai* on *alef*, *gimel*, *zayin*, *nun*, *tet*). Moreover, as Doudna reminds, there are no definite “pegs” to give an unambiguous *absolute* date to the transition from late Hasmonean to early Herodian and from there to developed Herodian script.

List J in *DJD* 39 ascribes a definite CE dating only to 1QpHab, but F. M. Cross describes 1QpHab as “Early Herodian hand (ca. 30–1 B.C.),” see *Scrolls from Qumrân Cave I: The Great Isaiah Scroll, the Order of the Community, the Peshet to Habbakuk From Photographs by John C. Trever* (Jerusalem: The Albright Institute of Archaeological Research and the Shrine of the Book, 1972), 4. In addition, list J gives dates ranging from BCE to CE dates for 1Q20, 1Q26, and 1Q32. All of them have a good chance of having been written before the Common Era. As far as I understand, this is true also for the archaeological remains. The possibly latest artifact is a wheelmade “Herodian” lamp (*DJD* 1:11 and fig. 3.1). R. Rosenthal and R. Sivan, *Ancient Lamps in the Schloessinger Collection* (Qedem 8; Jerusalem: Institute of Archaeology, Hebrew University, 1978), 80, give 25 BCE as earliest date for the wheelmade “Herodian” lamp, a date consistent with our scenario. Cf. also G. Doudna “The Legacy of an Error in Archaeological Interpretation: The Dating of the Qumran Cave Scroll Deposits,” in *Qumran, the Site of the Dead Sea Scrolls: Archaeological Interpretation and Debate* (ed. K. Galor, J.-B. Humbert, and J. Zangenberg; STDJ 57; Leiden: Brill, 2006), 147–58. However, there are some scrolls missing in List J of *DJD* 39 that might have good chances to have been written during period II. After I had submitted the article, Greg Doudna kindly drew my attention to 1Q71 Dan^a and 1Q72 Dan^b: see J. Trever, “Completion of the Publication of Some Fragments from Qumran Cave 1,” *RevQ* 5/19 (1965): 333–34. In addition, Webster gives 30 to 1 BCE for 1QH^a (*DJD* 39:412) and no dates for 1Q30, yet, both have been classified as developed Herodian, though not the latest type of Herodian script, by Cross, *The Development of the Jewish Script*, 199 n. 136. I would like to emphasize that the young dates suggested for some of these Cave 1 scrolls do *not* turn Cave 1 into a young cave. Moreover, a preliminary survey reveals that almost all of the other undated manuscripts from Cave 1 are early Herodian or older. See already Cross, *ibid.*: “The formal scripts of the final phase of the Herodian era are poorly represented in Cave I, Qumran, but are not excessively rare in Cave IV.”

Ib, has been revisited at the end of period II (or even later), e.g. on the search for a new emergency hideout.⁶⁴

Hanan Eshel kindly suggested to me a second scenario: Cave 1 could reflect a selection of particular Cave 4 manuscripts hidden there around 68 CE, i.e. not from the library above the ground, but from the “stacks” in Cave 4. Therefore, Cave 1 would look older than the young caves.⁶⁵ This would only be possible if Cave 4 served as “old” library or stacks and not as “Geniza” during period II and a second “young” library, the source of the scrolls found in Caves 2, 3, 5, 6, and 11, existed elsewhere at the same time.

In sum, while we should be circumspect with these precise historical scenarios as explanations of the difference in age, the general hypothesis of a young library in the settlement (manuscripts of which were partially hidden in the young caves, while the main library was destroyed in the Roman attack) and the assumption of an older library that survived as “stacks” or depository in Cave 4 could account for the age disparities.⁶⁶

⁶⁴ I am indebted to Mireille Bélis (oral communication, April 2006) and Stephen Pfann (oral communication, November 2006) who kindly reminded me of this possibility. Evidence from the tissues currently analyzed by Bélis could further corroborate this possibility. In fact, focusing on the pottery rather than on the dates of the scrolls, Jodi Magness has argued that the scrolls and jars were not deposited in the caves at the same time but in an ongoing process starting even before the first fire: “The presence of ovoid jars (which appeared before 31 BCE), Hellenistic-type oil lamps (which date to the reign of Herod), and cylindrical jars and wheel-made (‘Herodian’) oil lamps (which date to the first century CE) in the caves demonstrates that these jars were deposited throughout Qumran’s sectarian occupation (in the pre-31 BCE phase of Period Ib; the post-31 BCE phase of Period Ib; and Period II). Although some of the jars might have been placed in the caves for safekeeping on the eve of the destructions in ca. 9/8 BCE and in 68 CE, their large numbers and the presence of types that antedate 31 BCE suggest that this was an ongoing process. In other words, the sectarians apparently hoarded stores of pure food and drink in the caves . . . [I]t is not clear whether scrolls were similarly hoarded in the caves, or whether they were all deposited on the eve of Qumran’s destruction in 68 CE . . . [S]ome of the *scrolls* could have been deposited in the caves before the destruction in 68 CE (my emphasis).” See Magness, *The Archaeology of Qumran*, 85–87. I am very grateful to Jodi Magness for drawing my attention to these phrases. To some extent, this comes back to a suggestion stated by Roland de Vaux in an early proposal (later retracted), see “La grotte des manuscrits hébreux,” *RB* 56 (1949): 587–88.

⁶⁵ Oral communication 19.9.2005.

⁶⁶ With regard to Cave 4, the scenario described on the previous pages seems to me the most probable. Theoretically, I see the seven possibilities (but there are probably more) with regard to Cave 4: It served as (1) a library (or its “stacks”) before and after 4 BCE; (2) an emergency hide out in 4 BCE and then a library (or its “stacks”); (3) a library before 4 BCE and then a Geniza; (4) an emergency hide out in 4 BCE and then a Geniza; (5) an emergency hide out in 4 BCE and again in 68 CE; (6) an

Conclusions and Implications

The manuscript collections from the “old” Caves 1 and 4 have a different age structure than those from the “young” Caves 2, 3, 5, 6, and 11. Statistically, it is highly improbable that both groups of caves reflect the same “population” or collection of manuscripts. Therefore, the standard theory that most Qumran caves were emergency hiding places for the same collection of manuscripts at the same point of time, just before 68 CE, has to be reassessed. The findings of the statistical analysis suggest that the old caves come from one collection, the young caves from another. Based on Dimant’s assessment that the ratio of different ideological composition of the scroll collections in all caves is very similar, the most straightforward assumption is that the old caves represent the same Qumran library but at an earlier stage than the young caves. I, therefore, put forward the following hypothetical scenario: Only manuscripts hidden in caves could survive the fire that destroyed the settlement between 9/8 BCE and 4 BCE. Cave 4 may have been an emergency hiding place for the library, or it may itself already have served as a library or depository at that time. The upper library in the settlement was destroyed with the other buildings. After their return the sectarians reconstructed a new upper library in the settlement for new manuscripts. Old manuscripts remained largely in Cave 4. The younger library is reflected in the manuscripts from Caves 2, 3, 5, 6, and 11. It was destroyed again in 68 CE. The manuscripts from Cave 1, reflecting the Qumran library of the same age as Cave 4, might have been hidden earlier than those from the Caves 2, 3, 5, 6 and 11, perhaps between 9/8 BCE and 4 BCE and for the same reason (attack?) that caused the fire destroying the settlement. Alternatively, the scrolls from Cave 1 are a selection of particular manuscripts from Cave 4 hidden there in 68 CE.

This revision of the standard thesis of the mutual relation between the caves and the relation of the caves and their scrolls with the settlement has some implications for the history of the Qumran movement. Questions such as “why is there a decrease in the number of

emergency hide out for two separate collections, both hidden in 68 CE (or afterwards); (7) a Geniza before and after 4 BCE. Some of the main questions to be answered in any scenario are: (1) How could scrolls survive the fire of 4 BCE? (2) How comes Cave 4 is mainly but not exclusively BCE? (3) Why did the Cave 4 manuscripts mainly stay in Cave 4 during the first century CE, if they did so? (4) Why has Cave 1, far up in the cliff, such a similar ASA? (5) Why has Cave 5 “just next door” such a different ASA?

texts, both biblical and non-biblical, during the first century CE?”⁶⁷ have to be readdressed from a new perspective. Our conception of Qumran may be distorted by the fact that Cave 4 is now by far the greatest depository of manuscripts, but perhaps reflects only a part of the manuscript collection, maybe even a part less “active” in the first century CE. Observations like the “greatest amount of scribal activity occurred during the late Hasmonean and early Herodian periods from 75–1 BCE.”⁶⁸ are based on the—perhaps faulty—assumption that the extant Qumran fragments, mostly from Cave 4, constitute a representative sample of all of Qumran’s manuscript possessions throughout all periods of its activity. In order to reconstruct the community of Qumran in the first century CE, we should look rather to caves 2, 3, 5, 6, and 11 and try to reconstruct by carefully extrapolating from them, without neglecting the young manuscripts from Cave 4. Only for cases in which the statistics for the old caves agree with those for the young caves should we draw conclusions for the Qumran library *in toto*.⁶⁹ Regardless of whether one of the hypothetical scenarios suggested above is to gain acceptance, hopefully, the findings of this study are going to trigger new discussions of fundamental issues related to paleography and the history of Qumran and Second Temple Judaism.

⁶⁷ *DJD* 39:377.

⁶⁸ *DJD* 39:375.

⁶⁹ As in the investigations by Dimant with regard to the amount of sectarian literature in each cave.