YITZHAK MAGEN AND YUVAL PELEG

THE QUMRAN EXCAVATIONS 1993–2004

PRELIMINARY REPORT

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PREFACE

This is a preliminary report recording ten years of continuous archaeological excavations at Qumran, and is an extended version of Y. Magen and Y. Peleg, "Back to Qumran: Ten Years of Excavation and Research, 1993–2004," in K. Galor, J.-B. Humbert and J. Zangenberg (eds.), *Qumran. The Site of the Dead Sea Scrolls: Archaeological Interpretation and Debates. Proceedings of a Conference held at Brown University, November 17–19, 2002* (Studies on the Texts of the Desert of Judah 57), Leiden 2006. See also H. Shank's article, "Qumran—The Pottery Factory," in *BAR* 32 (2006). This article will also appear shortly in the sixth volume of the *Judea and Samaria Publications* series (JSP) published by the Staff Officer for Archaeology in Judea and Samaria and the Israel Antiquities Authority. We felt it necessary to separately publish this article due to the fact that until now, most of the discussion regarding our new theory on the nature of the site has been in newspapers—in articles not initiated by us—and has been based upon unsubstantiated evidence from certain scholars.

The chief point that should be addressed when debating Qumran is the discovery at the site of a large pottery manufacturing center. Here were found eight firing kilns and great quantities of burning material, mainly dates; numerous pools for soaking the raw material; piles of imperfect vessels rejected for sale; a storeroom for vessels before their sale; and great amounts of raw material for producing high-quality pottery, found in the pools termed "ritual baths" and brought in by floods. After analyzing this material, we produced from it fine vessels of our own, seen for the first time after some two thousand years.

Certain scholars have attempted to ignore the above evidence, and even view the kilns as part of a pottery "occupational therapy." Yet now the question of Qumran is no longer based upon conjecture but upon fact.

Yitzhak Magen and Yuval Peleg
Jerusalem 2007

ABBREVIATIONS

ADAJ	Annual of the Department of Antiquities of Jordan
Ant.	Josephus, *Jewish Antiquities*, H. st. J. Thackeray, R. Marcus and L. Feldman trans., 9 vols. (Loeb Classical Library), Cambridge 1930–1969
BAR	Biblical Archaeology Review
BASOR	Bulletin of the American Schools of Oriental Research
BT	Babylonian Talmud
Chron.	Chronicles
DSD	Dead Sea Discoveries
Early Christianity	E. Testa and E. Alliata (eds.), *Early Christianity in Context* (Studium Biblicum Franciscanum, Collectio Maior 38), Jerusalem 1993
ESI	Excavations and Surveys in Israel
IEJ	Israel Exploration Journal
Jer.	Jeremiah
JJS	Journal of Jewish Studies
Josh.	Joshua
JNES	Journal of Near Eastern Studies
JRA	Journal of Roman Archaeology
Khirbet Qumrân et ʿAïn Feshkha II	J.-B. Humbert and J. Gunneweg (eds.), *Khirbet Qumrân et ʿAïn Feshkha* II. *Études d'anthropologie, de physique et de chimie*, (Novum Testamentum Orbis Antiquus Series Archaeologica 3), Fribourg 2003
Lev.	Leviticus
M	Mishnah
MT	Mishneh Torah
NEAEHL	The New Encyclopedia of Archaeological Excavations in the Holy Land
Numb.	Numbers
One Land—Many Cultures	G.C. Bottini, L. Di Segni and L.D. Chrupcala (eds.), *One Land—Many Cultures. Archaeological Studies in Honour of S. Loffreda*, Jerusalem 1993
Obad.	Obadiah
PEQ	Palestine Exploration Quarterly
PEFQS	Palestine Exploration Fund Quarterly Statement
QC	Qumran Chronicle

Qumran. The Site of the Dead Sea Scrolls	K. Galor, J.-B. Humbert and J. Zangenberg (eds.), *Qumran. The Site of the Dead Sea Scrolls: Archaeological Interpretations and Debates. Proceedings of a Conference held at Brown University, November 17–19, 2002* (Studies on the Texts of the Desert of Judah 57), Leiden 2006
RB	Revue Biblique
RevQ	Revue Qumran
T	Tosefta
The Land of Benjamin	Y. Magen, T. D. Ariel, G. Bijovsky, Y. Tzionit and O. Sirkis. *The Land of Benjamin* (JSP 3), Jerusalem 2004
War	Josephus, *The Jewish War*, H. st. J. Thackeray trans., 8 vols. (Loeb Classical Library), Cambridge 1927–1928
ZDPV	Zeitschrift des Deutschen Palaestina-Vereins

THE QUMRAN EXCAVATIONS 1993–2004

PRELIMINARY REPORT

YITZHAK MAGEN AND YUVAL PELEG*

In 1993, some forty years after the excavations at Qumran under the direction of R. de Vaux came to an end, they were renewed under the auspices of the Staff Officer for Archaeology in Judea and Samaria, as part of a comprehensive project entitled "Operation Scroll".[1] Hundreds of caves along the fault scarp of the Judean Desert were surveyed and excavated, from Jericho in the north to ʿEn Gedi in the south. As part of the operation excavations at Qumran were renewed as well. These lasted for a number of months, during which the southern plateau and a refuse dump on the southeastern part of the site were excavated, and numerous test excavations were undertaken throughout the built-up part of Qumran.

In the wake of development activities undertaken by the National Parks Authority, excavations were renewed in 1996 and continued uninterrupted until 1999. This time the entire area north of the site was investigated. The northern refuse dump was found, and adjacent to it a built and roofed overflow channel. The entire aqueduct running through the plain, from the fault scarp to the site, was exposed, and the paved square south of L-77 (known as the "refectory") was excavated.[2] Southeast of the site some Iron Age remains were unearthed. In addition, a number of test squares were opened in the built-up area.

Excavations were again conducted during 2001 and 2002, following a request for the erection of a sun shelter between the built-up area and the cemetery. More than six months of continuous excavation exposed a considerable area along the site's eastern wall in which thousands of finds were discovered, dating from the Iron Age to the destruction of the site during the Great Revolt. The area to the east of the cracked water pool (L-48, L-49) was also excavated. At the time of writing (early 2004), excavations are again being conducted, yielding surprising results.

The final report of the renewed excavations at Qumran will appear in a separate volume of the Judea and Samaria Publications series (JSP) published by the Staff Officer for Archaeology in Judea and Samaria and the Israel Antiquities Authority.[3]

The main problem that we faced during the renewed excavations at Qumran, and still face today when engaged in preparing a definitive publication of our finds, is how to deal with the original excavation of fifty years ago, which has never been published in full but has nevertheless over the years become a focus of intensive research worldwide. Our purpose in the present article is to provide a preliminary presentation of some of the new finds at Qumran, accompanied by a critical scientific analysis of the results of both the original and the renewed excavations. Furthermore, we examine the remains and their implications for issues that have been at the heart of scholarly attention for over 50 years now.[4]

RESULTS OF THE RENEWED EXCAVATIONS

The excavations at Qumran between the years 1993 and 2004 have brought to light remains and finds that have enabled us to more fully understand the site (Figs. 1–3). Four refuse dumps were excavated, one in the southeastern part of the site, another in the northwestern part of the site, another north of the site, and a fourth east of the eastern bounding wall. South of the refectory (L-77) a paved square was exposed, and the eastern part of the main building was re-excavated (Fig. 4).

* This article is an extended version of Y. Magen and Y. Peleg, "Back to Qumran: Ten Years of Excavation of Research, 1993–2004," in K. Galor, J.-B. Humbert and J. Zangenberg (eds.), *Qumran. The Site of the Dead Sea Scrolls: Archaeological Interpretations and Debates. Proceedings of a Conference held at Brown University, November 17–19, 2002* (Studies on the Texts of the Desert of Judah 57), Leiden 2006, pp. 55–113.

Fig. 1. Aerial photograph of Qumran, northern view.

Fig. 2. Qumran, western view.

Fig. 3. Qumran, eastern view.

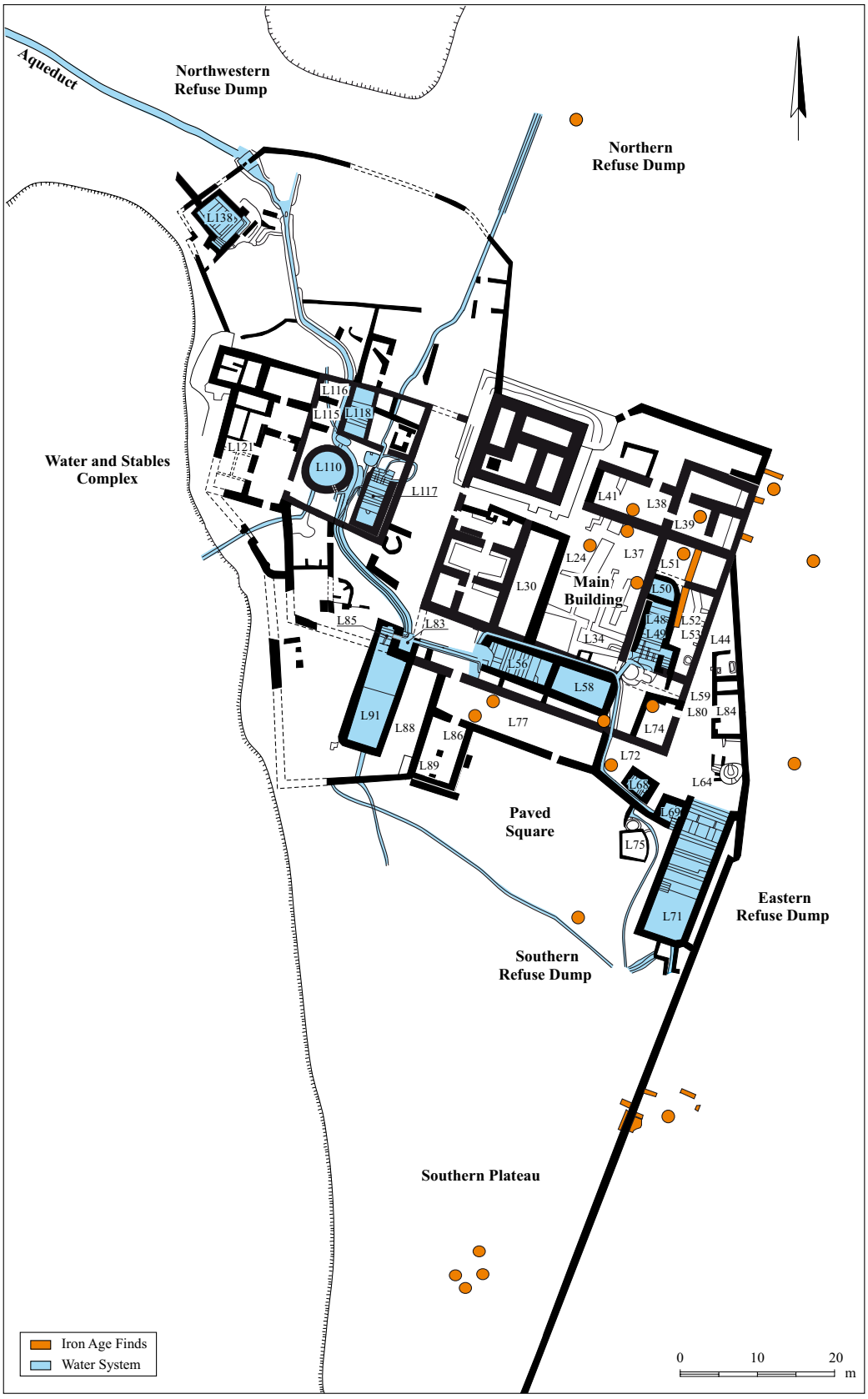

Fig. 4. Qumran, general plan.

In the center of the southern plateau three underground silos were found. Remains of Iron Age structures were unearthed east of the eastern bounding wall. On the site's northern side we unearthed a built overflow channel covered with stone slabs that directed surplus water from the graded pool (L-117) to the northern riverbed. The aqueduct on the plateau that carried water from the fault scarp and from Naḥal Qumran was excavated in its entirety, as were the stone walls north and east of the aqueduct (see below). What was for us "the discovery" was found as the excavation neared its end, at the beginning of 2004. We were digging again in Pools L-71 and L-58, which de Vaux had only partially excavated, when we found a thick layer of clay used for the manufacture of pottery. The reason for the importance of this find is that it sheds new light on the use of the pools at Qumran.

In what follows we shall survey and briefly describe the major finds of the renewed excavations. A full and detailed account will appear in the final report.[5]

THE SOUTHERN REFUSE DUMP

The southern refuse dump, excavated in 1993 and again in 1998, lay south of Press L-75 (probably used for pressing dates) and west of Pool L-71 (Fig. 5). This is the earliest disposal site at Qumran, in use from the Iron Age through the first half of the first century BCE. Its lowest level contained Iron Age pottery, above which lay intact pottery vessels, animal bones inside clay vessels, basalt grindstones, a bronze jug (Figs. 6–7), various organic materials, and a very large quantity of burnt dates dated to the first half of the first century BCE. It is very likely that dates were grown in this area, along the Dead Sea shore, as early as the Hasmonean period and perhaps even earlier. They were used for the production of date honey, the most common sweetener in antiquity (M *Terumoth* 11:2–3; *Nedarim* 6:8–9; T *Berakoth* 4:2; T *Terumoth* 9:8; T *Ṭohoroth* 2:5; T *Maʿaser Rishon* 2:2–3).[6] The honey was produced in Press L-75, and

Fig. 5. Southern refuse dump, southern view.

Fig. 6. Intact pottery from the southern refuse dump.

Fig. 7. Basalt grindstones and a bronze jug from the southern refuse dump.

Fig. 8. Press L-75.

Fig. 9. Layers of burnt dates in the southern refuse dump.

Fig. 10. Remains of burnt dates from the southern refuse dump.

those employed in its production purified themselves in Ritual Bath L-68 (Fig. 8).[7]

The dump in question was used for the disposal of animal bones and dates (Fig. 9–10), since these would attract predators, bees, and flies (see below). It was in use during the Hasmonean period and abandoned already in the first century BCE, due to changes in the main building.

THE NORTHERN AND NORTHWESTERN REFUSE DUMPS

The northern refuse dump was discovered some 10 m north of the site, in a branch of the northern riverbed, and was excavated in 1996–1997 (Fig. 11).[8] East of the dump lies a white plaster floor with no signs of construction. The dump is about 2.5 m deep. In its lowest level it contained Iron Age material, above which lay five distinct strata, topped by a conflagration layer. In the dump's center ran a north–south crack that cut through all it layers; it is likely that this is a continuation of the crack in Pool L-48, L-49. On the dump's western side ran a water channel covered with stone slabs, which drained surplus water from Pool L-117. Among the many finds in the dump were pottery vessels, coins, ostraca, various organic materials and burnt dates. Its use as a refuse pit postdates that of the southern dump.

In 2004, a 3.5-m section of an east-west wall, built of various-sized fieldstones, was found on the upper part of the southern bank of the riverbed bounding the site on the north, at a distance of about 20 m west of the dump. The wall, constructed on top of the soft local marl, had been preserved to a height of 1.3 m.

Fig. 11. Northern refuse dump, northwestern view.

Fig. 12. Northwestern refuse dump, northern view.

It appears to have served as a retaining wall for the central aqueduct leading into the site. North of the wall another, much smaller dump was found, containing numerous pottery vessels (some of them defective), fragments of a potter's kiln, coins, and organic materials (Fig. 12). These finds date to the first half of the first century BCE.

THE EASTERN REFUSE DUMP

The eastern refuse dump, located adjacent to the external side of the site's eastern bounding wall, was excavated in 2001–2002 (Figs. 13–14). Two deep cracks (Fig. 15), similar to the one found in Pool L-48, L-49, transverse it from north to south. These cracks postdate the dump, as finds clearly fell into them after their formation. They are about 0.7 m wide, 30 m long, and descend to a maximal depth of 1.4 m. The cracks found in the pool, the northern dump and the paved square (see below) are consistent with their having been formed as the result of ground movement, perhaps an earthquake. However, the finds in the eastern dump (Fig. 16) clearly indicate that the cracks were not caused by the earthquake of 31 BCE, as noted by Josephus (*Ant.* XV, 121–124; *War* I, 370–372), but by a later event that occurred

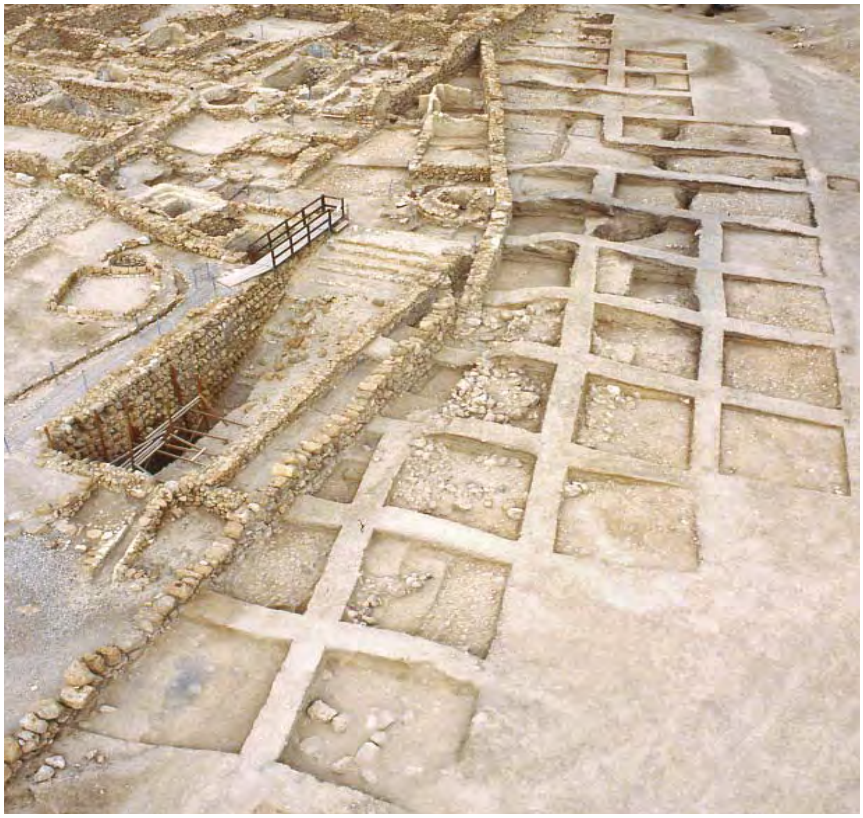

Fig. 13. Eastern refuse dump, southern view.

Fig. 14. Eastern refuse dump, eastern view.

Fig. 15. Two deep cracks seen in the eastern refuse dump, southern view.

Fig. 16. Section of the eastern refuse dump, northern view. Notice the penetration of the dark upper layer into the crack.

after the site had been abandoned. Perhaps the culprit was the earthquake of 749 CE, which destroyed the Hisham Palace north of Jericho (see below).[9]

The very rich finds here, dating from the Iron Age to the destruction of the site during the Great Revolt, include pottery industry waste, a large number of stone vessels, glass artifacts, coins, metal objects, jewelry, ostraca, animal bones and other organic materials.

On the northern side of the dump a ditch or channel was found that began in the room north of the kiln (L-64) and ran along the site's eastern wall for a distance of some 30 m. Its function is not known. The finds indicate that the dump stood on Iron Age remains and was used for waste disposal beginning in the mid-first century BCE.

THE PAVED SQUARE

In 1993 and again in 1998 we exposed a paved square (Fig. 17), measuring 18×33 m, south of the room known as "the refectory" (L-77) and the adjacent storeroom (L-86, L-89). The square's floor, a flat surface with a slight southeastern inclination, consisted of smoothed stones and pebbles. Covering part of the southern refuse dump, the square was constructed either before or at the same time as Pool L-71, and concurrently with the "refectory" and its adjacent storeroom. A narrow water channel lined with stone slabs ran along the square's southern side. The channel probably drained the roof of L-77 and the square itself, from where it conducted the water into Pool L-71. The western part of the square was cut by a plastered overflow channel exiting Pool L-91. Intact vessels containing animal bones were found on the floor and between the paving stones.

Fig. 17. Paved square, eastern view.

EXCAVATIONS IN THE EASTERN PART OF THE BUILT-UP AREA

In 2001–2002 excavations were conducted on the eastern part of the built-up area, yielding a large number of finds. In L-84 a small kiln was unearthed, north of Kiln L-64.[10] The room to the north of the kilns, basically a corridor opening to the east, featured a floor of plaster mixed with potsherds, under which an earlier floor was found. On top of the latter lay a number of pottery vessels, some intact, as well as two silver half-shekel coins. In L-59, numerous intact pottery vessels, along with an oven, were found (Fig. 18). At the northern end of L-80 we found a covered overflow channel that conducted surplus water eastward out of the site from the plastered installations found by de Vaux in L-34. The eastern end of this channel, which passes underneath the cracked pool (L-48, L-49), was found to lie beyond the site's eastern bounding wall. Various discoveries were also made in L-44, L-59 and L-61. These included intact pottery vessels, remains of a cooking oven and buried animal bones.

East of the cracked pool, inside L-51, L-52 and L-53, are installations which de Vaux termed a "laundry" (Fig. 19).[11] The renewed excavations brought to light sophisticated industrial installations consisting of two plastered surfaces and a large stone basin, 40 cm in diameter and 30 cm deep, sunk into the center of the southern surface (1.2×1.6 m). A hole in the eastern wall of Pool L-48 enabled water to be fed into the basin, from the bottom of which a pipe led north.

Fig. 18. Intact pottery from L-59.

Fig. 19. Installations in L-51, L-52, L-53; southern view.

North of this surface, at a lower level was lying another plastered surface (1.1×1.3 m) with a stone in its center pierced by three holes. Here was perhaps a facility for the production of perfume.[12] New finds discovered in this area will be described in the final report.

Recently we have completed the excavation of Pool L-71, the largest at the site, which de Vaux had only partially excavated.[13] We discovered that water entered the pool from the adjacent sedimentation basin (L-69), through a short channel entering the pool on the northern part of the west wall. A staircase taking up the entire width of the pool led from north to south. The pool measured 4.9×19.6 m with a maximum depth of 5.3 m, and had a total capacity of 310 m^3.[14]

EXCAVATIONS IN THE WESTERN PART OF THE BUILT-UP AREA

Renewed excavations were also conducted in the western part of the site, near Pools L-110, L-117 and L-118. We rediscovered an early system of channels underneath the one currently visible, which had fed the site's western waterworks during the first, Hasmonean, construction phase. This early system contained a water channel, located under the main channel conducting rainwater collected from the area to the northwest of the site.[15] The entrance to the channel, found in the northern wall of L-116, was plastered and covered. The channel travelled south in a course that took it beneath the floor level of L-116 and L-115, and ended in the sedimentation basin (L-119) between the round pool (L-110) and the pool to the north (L-118). Sediments sank into the pit and clean water would flow into the pools. During this time, the round pool was about 1 m lower than it is today; its walls were raised at a later stage, as its internal structure clearly demonstrates. The location of this channel indicates that the western pools predated those in the southern part of the site.

EXCAVATION OF THE WATER RESERVOIR (L-71)

The two main questions which accompanied our work at Qumran from its beginning ten years ago were: what was the function of the large pools at the site which, as we realized already at the outset, were not used for ritual bathing[16]; and why was pottery produced at Qumran, supposedly a communal center of the Judean Desert sect? To claim that members of the sect produced their own pottery for reasons of ritual purity is to ignore the simple fact that during the Second Temple period ritually pure pottery was being produced by all strata of society.[17] We thus suspected already during the initial stages of our work that a logical connection must exist between the large water pools and the production of clay vessels. But at first we were unable to prove this claim.

In January 2004, while still examining the site, we decided to complete the excavation of the largest pool (L-71), which de Vaux had only partially exposed. We also decided to expose a small (1×2 m) section of Pool L-58 which de Vaux had left unexcavated (Figs. 20–21). De Vaux did not separate the various layers of sediment at the bottom of the pool. Nor did he differentiate between the bottom layer of sediment, consisting mainly of clay brought in by rainwater, and the refuse thrown on top of it after the pools had been abandoned. During our renewed excavation we were careful to keep the two layers separate, thus paving the way to an extraordinary discovery: underneath the refuse layer was a fairly thick (0.2–0.7 m) layer of high-quality potters' clay, a material mentioned in the Mishnah (Fig. 22).[18] This clay was part of the sediment that flowed together with rainwater into the site through the sophisticated water collection system at Qumran.

The estimated total amount of clay that we found is in the range of three tons, enough to manufacture thousands of pottery vessels. The material for producing pottery was thus not brought in from the outside. Rather, we posit that the main purpose of the entire complex water supply system, with its channels and large pools, was to provide potters' clay. It was probably in the Hasmonean period that the potential of the sediments flowing into the site was realized, and it was thus decided to improve the clay collection system. We agree with de Vaux that pottery production at the site began during the first half of the first century BCE.[19]

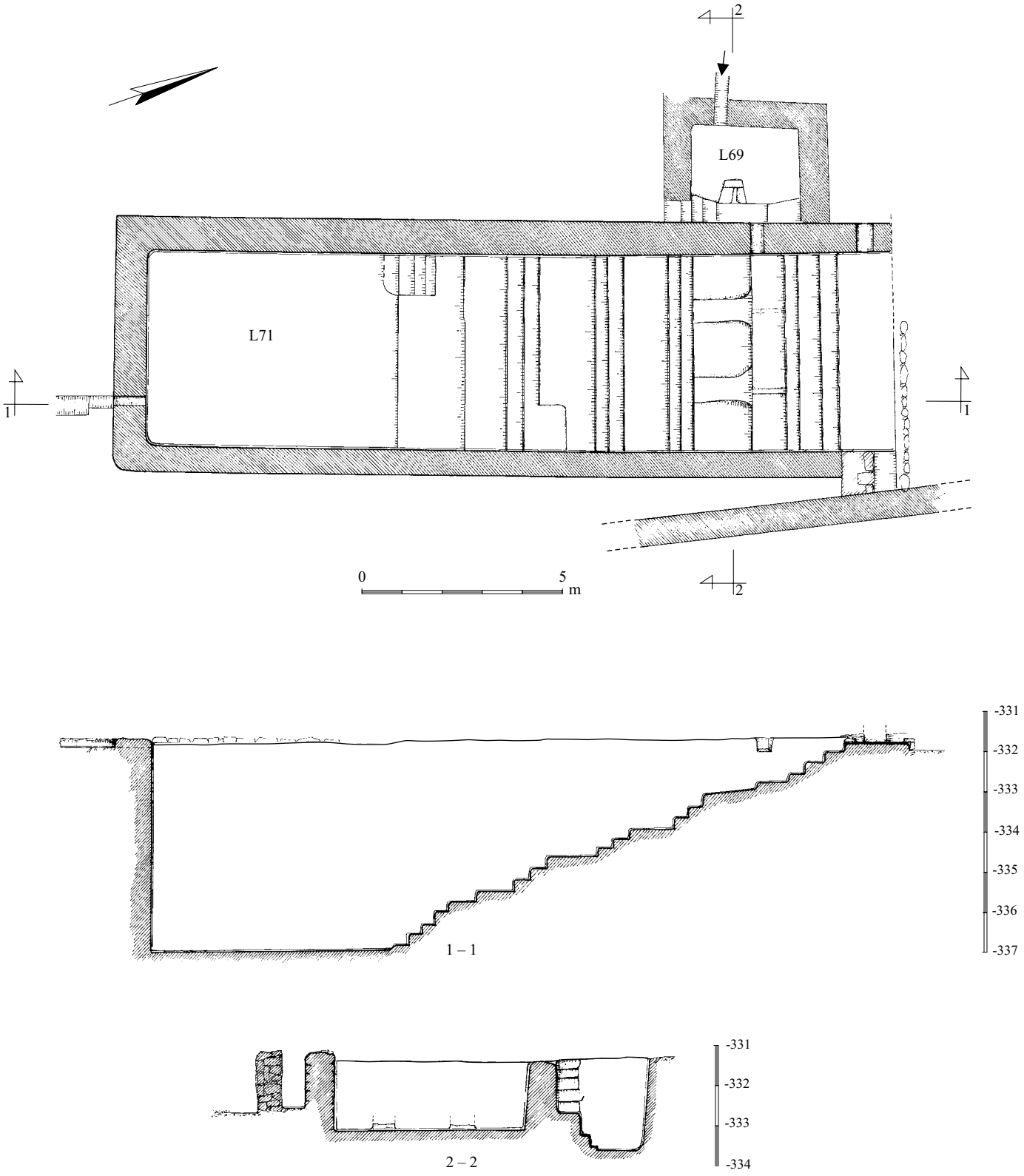

Fig. 20. Pool L-71, plan and sections.

Fig. 21. Pool L-71 during excavation, northern view.

Fig. 22. Pool L-71 after excavation, northern view. Notice the lowest layer of clay in the bottom of the pool.

THE FINDS

Pottery

Thousands of clay vessels were found in de Vaux's and in the renewed excavations alike, many of them intact, as well as tens of thousands of pottery fragments, including a large amount of production waste (Pls. 1–5).[20] The pottery dates from the Iron Age and from the first century BCE to the destruction of the site during the Great Revolt and to the Bar Kokhba Revolt. In the cemetery a number of sealed jars with "fastened lids" (*tzamid patil*; Numb. 19:14–15;

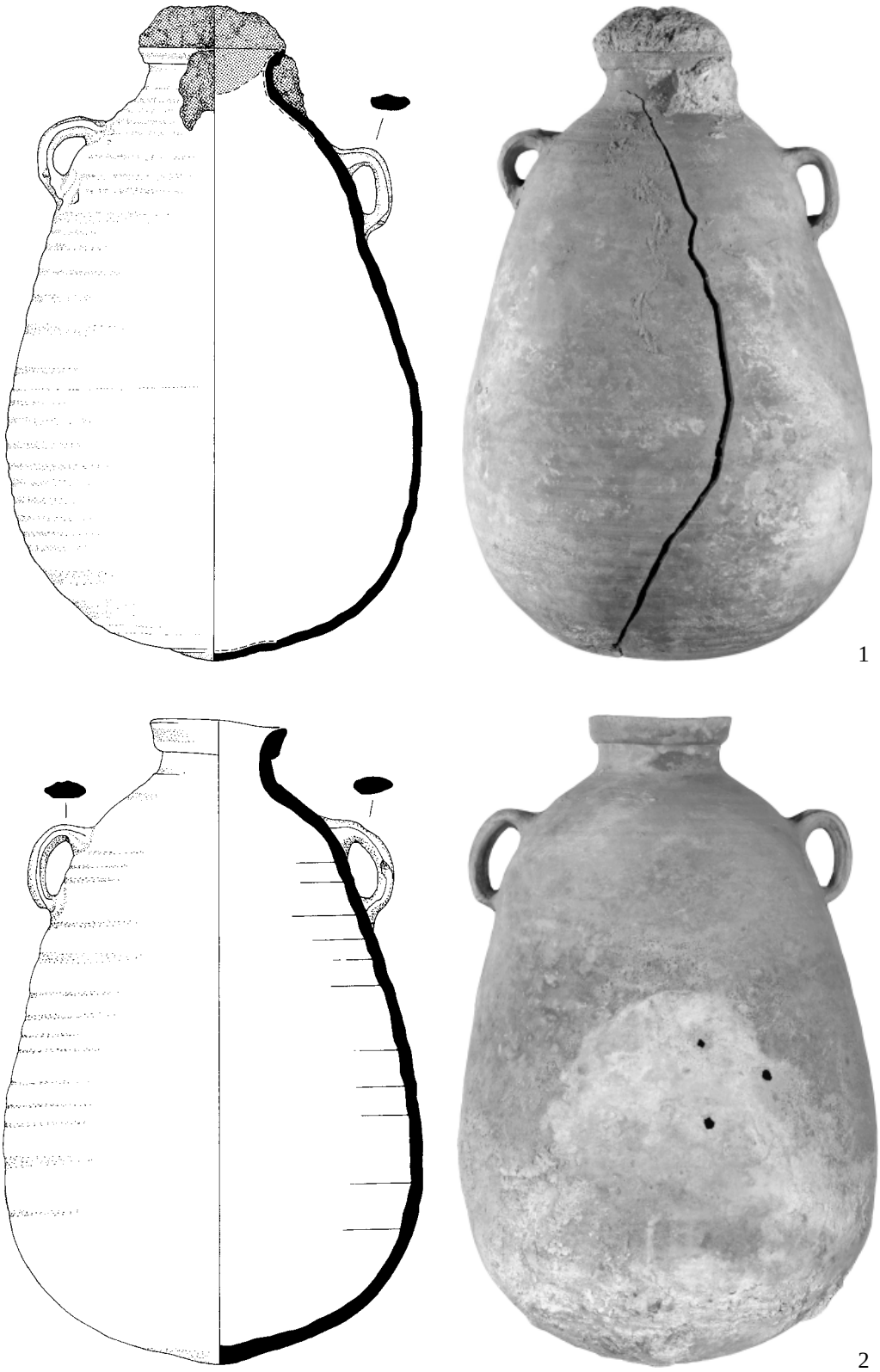

Plate 1.

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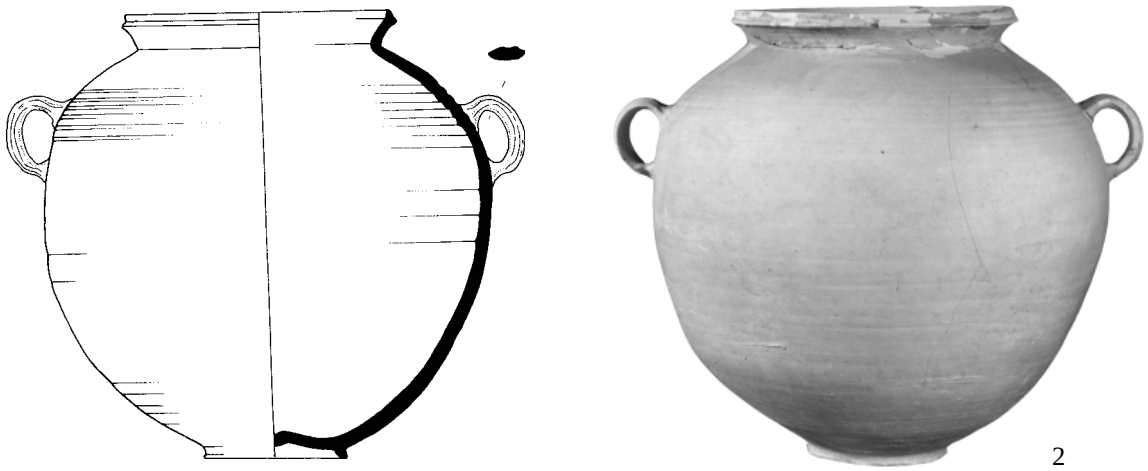

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Plate 2.

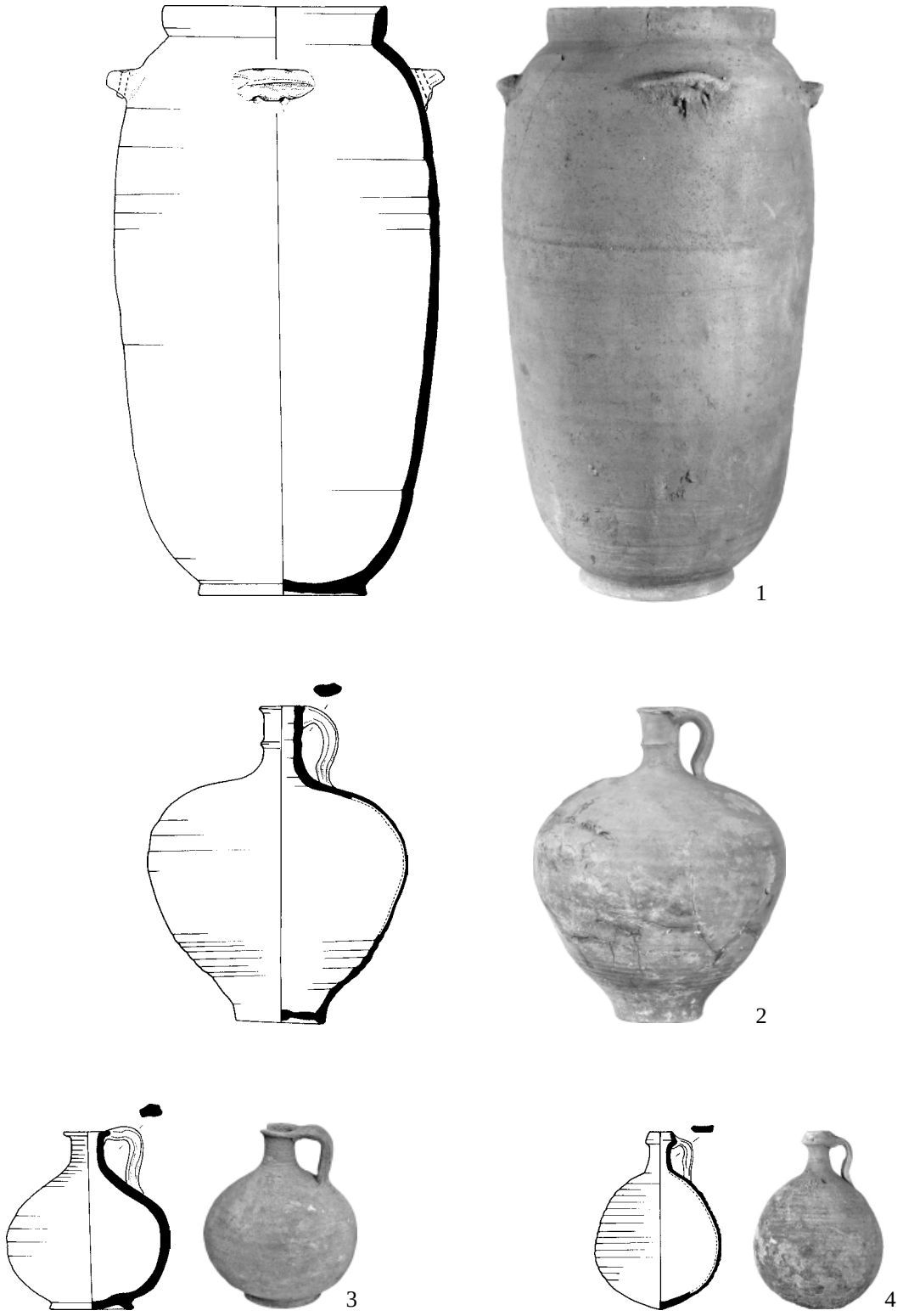

Plate 3.

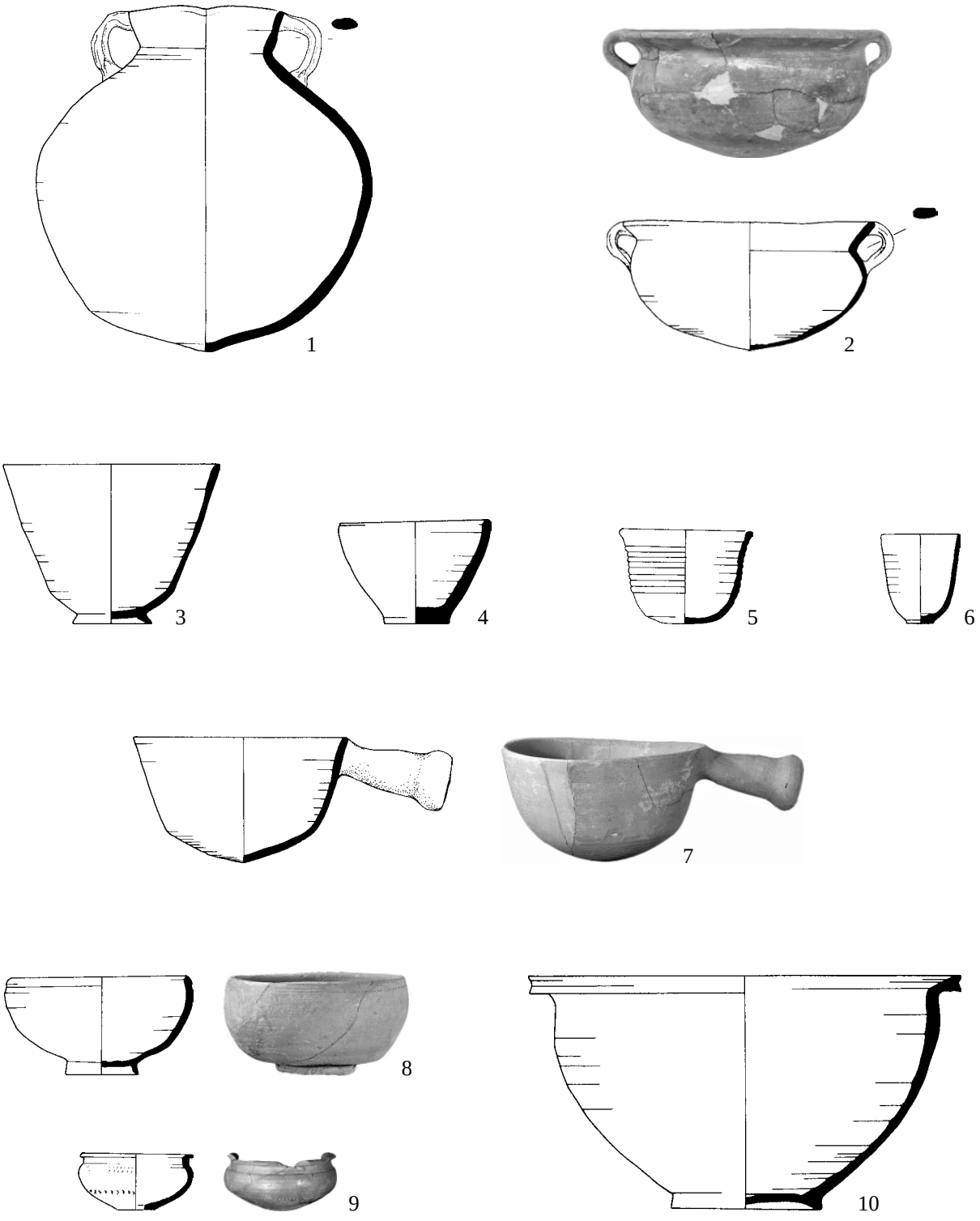

Plate 4.

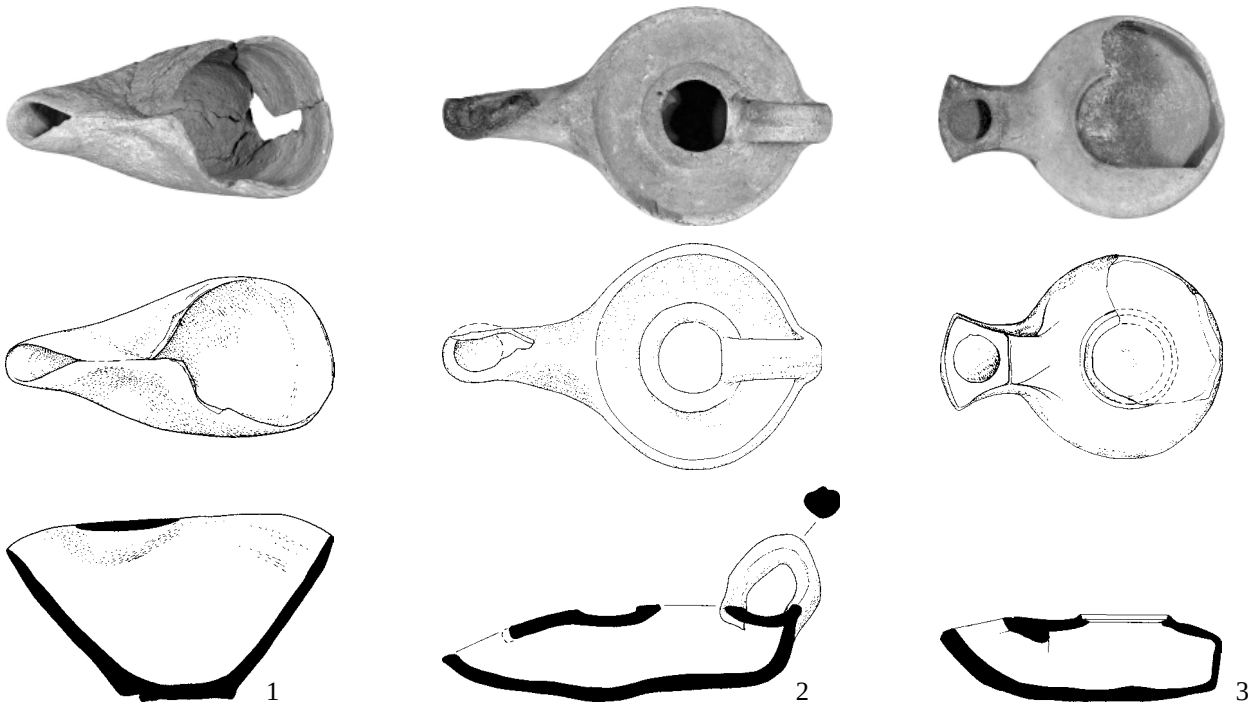

Plate 5.

M *Kelim* 10:1) were found that date, we believe, to the late second or early first century BCE. In addition, we found some wide-rimmed jars of the kind that mistakenly received the name "scroll jars," as they were originally found inside the caves where the scrolls were discovered. Similar jars, however, have been found also in Jericho, Amman, and even in the farmstead at Qalandiya.[21] In our opinion, such jars were used for the storage of dried dates and figs. In addition to the numerous jars, many other artifacts were found, including lamps from the early first century BCE, "Jerusalem" bowls, cooking pots, jugs, juglets, bowls, mugs, and many fragments of Nabatean vessels of Eastern terra sigillata. It is not surprising to find imported ware at a site which contained a large and sophisticated pottery production facility and that certainly also traded pottery vessels. Some of the trade was probably done by barter. This would explain the presence at the site of many glass and stone vessels, as well as coins.

We wish to note the discovery of an inkwell from the eastern dump (Pl. 5:5). This find joins the inkwells found at the site by de Vaux, which we believe to have been used for writing on the numerous ostraca also discovered at the site.[22]

Stone Vessels

Many types of stone vessels were found in most parts of the site. Among these are mugs (Pl. 5:6), lathe-turned bowls and fragments of large lathe-turned vessels, such as the krater (*kallal*) found.[23] Stone vessels do not become ritually unclean and can thus be confidently attributed to the Jewish inhabitants of the site.[24] The vessels were all made of soft limestone, except for a number of basalt grindstones, including one large example dating from the Hasmonean period which was found in the southern refuse dump (Fig. 23).

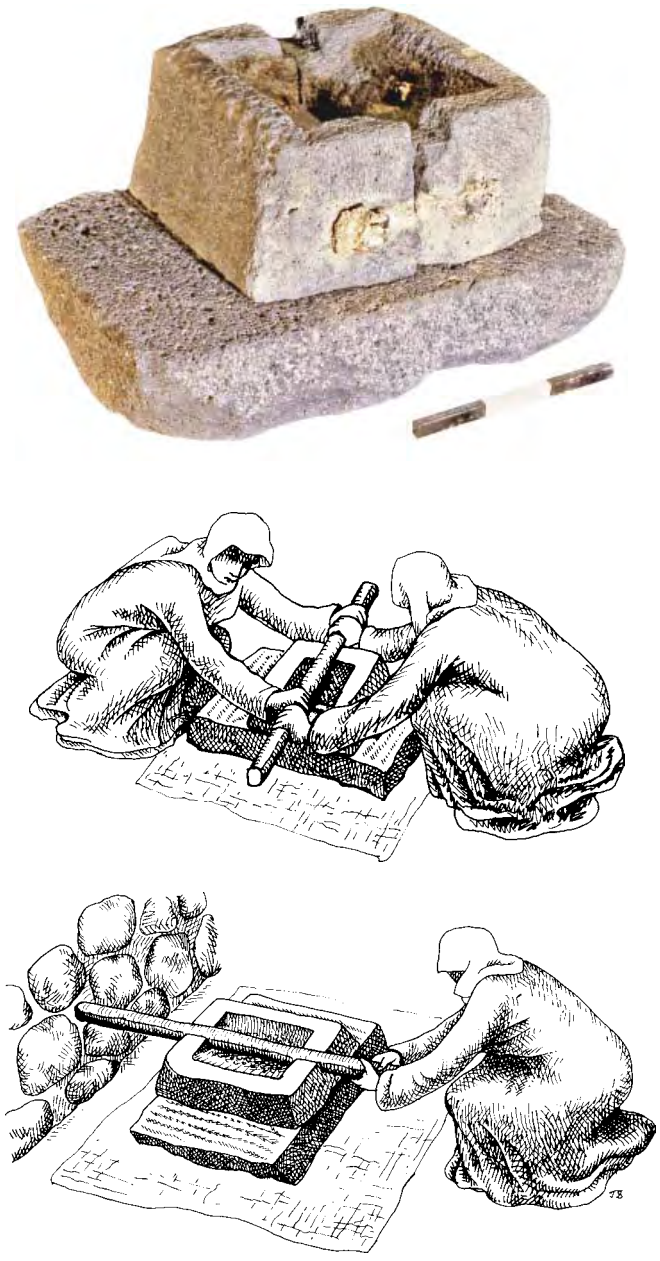

Fig. 23. Basalt grindstone from the southern refuse dump and reconstruction.

Metal Utensils and Jewelry

The excavations brought to light a large number of assorted iron and bronze utensils, a bronze jug (Pl. 5:4), bracelets, rings (some with stone insets), a kohl stick, a needle, fibulae (Fig. 24), belt buckles, iron and bronze nails, lead weights (for catching fish or birds), iron knives, and arrowheads (Fig. 25).[25]

Ostraca

Some ten ostraca were among the finds. Most were found in the eastern, others in the northern, dump. They are in Hebrew, Aramaic and Greek. One features a three-line inscription: אלעזר בר ישוע הבורית (*Elʿazar bar Yeshuʿa Haborit*; Fig. 26).[26]

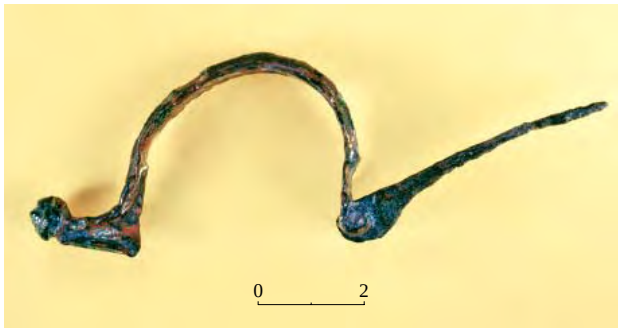

Fig. 24. Fibula from the eastern refuse dump.

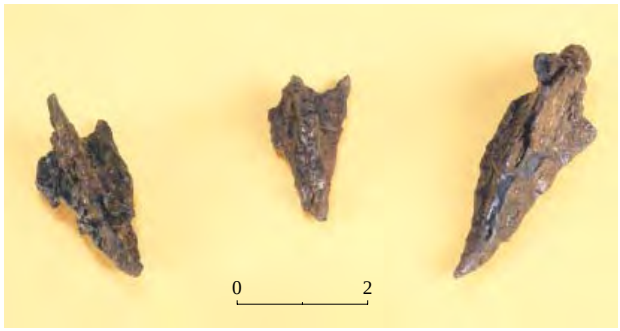

Fig. 25. Arrowheads from the eastern refuse dump.

Fig. 26. Ostracon from the eastern refuse dump.

Glass Vessels

We found numerous glass fragments, particularly in the eastern dump (Fig. 27).[27] These included goblets, bottles, bowls, as well as a large number of vessels known as "Sidonian ware." In fact, traces of Greek inscriptions were found on a number of fragments. Many glass vessels and fragments had been melted down by great heat, probably during the fire that destroyed the site when it was captured by the Romans in 68 CE.

Fig. 27. Glass bottle from the eastern refuse dump.

Coins

De Vaux unearthed 1231 silver and bronze coins at the site,[28] to which our excavations added another 180 (Pl. 6). These coins are not helpful for stratigraphic purposes, but do provide evidence for the period between Qumran's establishment and its destruction. The seven Ptolemaic and Seleucid coins are not evidence that the settlement already existed during that time, as such coins, particularly those made of silver, remained in use during the Hasmonean period. Most of the eighty Hasmonean coins date from the reign of Alexander Janneus. None were found from the reign of John Hyrcanus I. From the next phase we have five coins of Herod the Great and one Nabatean coin dated to ca. 17–5 BCE. Four coins of Archelaus, a number of coins of various Roman procurators, and eighteen coins of Agrippa I testify to the existence of the site from the first century CE until the beginning of the Great Revolt. Another eighteen coins date to the Revolt (67–68 CE), followed by some Roman coins dated from after the Revolt until 73 CE.

Plate 6. Coins from Qumran.

(1) Ptolemy II; (2) Alexander Janneus, 78 BCE; (3) Half-shekel, Tyre, 126/125 BCE–65/66 CE; (4) Half-shekel, Tyre, 18/17 BCE–65/66 CE; (5) Herod the Great, 37–6 BCE; (6) Herod Archelaus, 6 BCE–4 CE; (7) Procurator under Augustus, 6–12 CE; (8) Procurator under Tiberius (Valerius Gratus), 16 CE; (9) Procurator under Tiberius (Pontius Pilatus), 29 CE; (10) Procurator under Tiberius (Pontius Pilatus), 30 CE; (11) Agrippa I, 41/42 CE; (12) Procurator under Claudius (Antonius Felix), 54 CE; (13) Procurator under Claudius (Antonius Felix), 54 CE; (14) Procurator under Nero (Festus), 59 CE; (15) Second year of the Great Revolt, 67/68 CE; (16) Nero, Caesarea, 68 CE; (17) Dor, Autonomous, 68/69 CE; (18) Ashkelon, Autonomous, 72/73 CE; (19) Titus, Caesarea, 70–81 CE.

QUMRAN DURING THE IRON AGE AND HELLENISTIC PERIOD

THE IRON AGE

Qumran was first settled toward the late eighth or early seventh century BCE and remained in existence until the destruction of the First Temple. Its location both during the Iron Age and later in the Hasmonean period was chosen with great care: this was an optimal (and perhaps the only) spot on the upper marl terrace along the northwestern shore of the Dead Sea whose topographical situation afforded natural protection, and where rainwater flowing from the fault scarp could be conveniently collected with no danger of flooding. These two advantages were the sole reason for the choice of location (see below).[29]

The establishment of the village at Qumran during the Iron Age was part of an unprecedented wave of settlement in the Land of Benjamin, Judea, and the Jordan Valley at the late eighth and early seventh century BCE (Fig. 28).[30] Many new settlements were constructed in previously uninhabited areas. It was only in the Hasmonean period that we again find a population of this magnitude.[31]

What brought about this sudden expansion? Was it the result of a rapid increase in the Jewish population, of improved economic conditions, of the many years of peace between the Assyrian and Babylonian conquests, or something else? How can we explain the huge difference between the very small number of settlements in Judea, the Land of Benjamin and the Jordan Valley in the Iron Age I and the much greater number in the Iron Ages II and III? From where did this population come?

True, with respect to the Land of Benjamin and Judea, one can argue that it was the result of a natural population increase; but this argument is untenable in regards to the Jordan Valley and the Dead Sea coast. This was no official, planned colonization; none of the settlements in question were constructed by the state. There were no cities among them, or great fortresses as in the Hasmonean period. Rather, these were very small villages, or even individual caves in which one or several families lived and utilized the seasonal water sources and other, limited resources in order to survive in the blazing desert.[32]

This sudden wave of settlement in the Land of Benjamin and Judea began after Samaria was destroyed in 720 BCE and became an Assyrian province. The Assyrians exiled most of the local Israelite population and brought in foreigners in their stead (II Kings 17:24). Numerous inhabitants of Samaria fled the Assyrians and came to Judea, Benjamin, the Jordan Valley, the borders of the Judean Desert and other uninhabited areas where they could find shelter and minimal conditions for survival. Biblical sources make explicit mention of such Israelite survivors (Jer. 41:5; II Chron. 30:10–11, 34:9).

The settlements that were established in the Jordan Valley and along the Dead Sea coast during the Iron Age can be divided into two distinct types: settlements near springs, such as Kh. el-ʾUja,[33] Tell Jericho (Elisha's Spring),[34] Naʾaran,[35] ʿEin el-Ghuweir,[36] ʿEin et-Turaba[37] and ʿEn Gedi[38]; and settlements that collected rainwater.

Two sites that are not located near a source of water are Ard al-Mafjar[39] and Tell es-Samarat southwest of Tell Jericho.[40] A ten-dunam Iron Age site on the southern bank of Wadi Qelt, south of the Jericho Hasmonean palaces, had a ready supply of water from the wadi itself, where rainwater flowed in the winter and spring, as well as water from the wadi springs in summer and autumn. A large amount of pottery dating to the seventh century BCE was found at this site, which was destroyed by fire during the Babylonian conquest.[41] Another Iron Age site which used rainwater, located southeast of Vered Jeriḥo, featured a stone-built structure dating to the seventh century BCE.[42] A considerable number of Iron Age sites was discovered along the shore of the Dead Sea, among them Rujm el-Baḥr[43] and a site on the northern bank of Naḥal Kidron near its mouth, consisting of remains of a small hamlet with a few houses and caves.[44] Another area that was also linked to the wave of settlement in the Jordan Valley is the Hyrcania Valley,[45] where some of the settlements may have been occupied only part of the year, since their inhabitants would have had to move in the summer months to settlements located near springs. It is highly likely that such settlements were established by refugees who had been driven from their homes and forced to settle in an inhospitable area and make maximal use of the limited resources available in the desert.

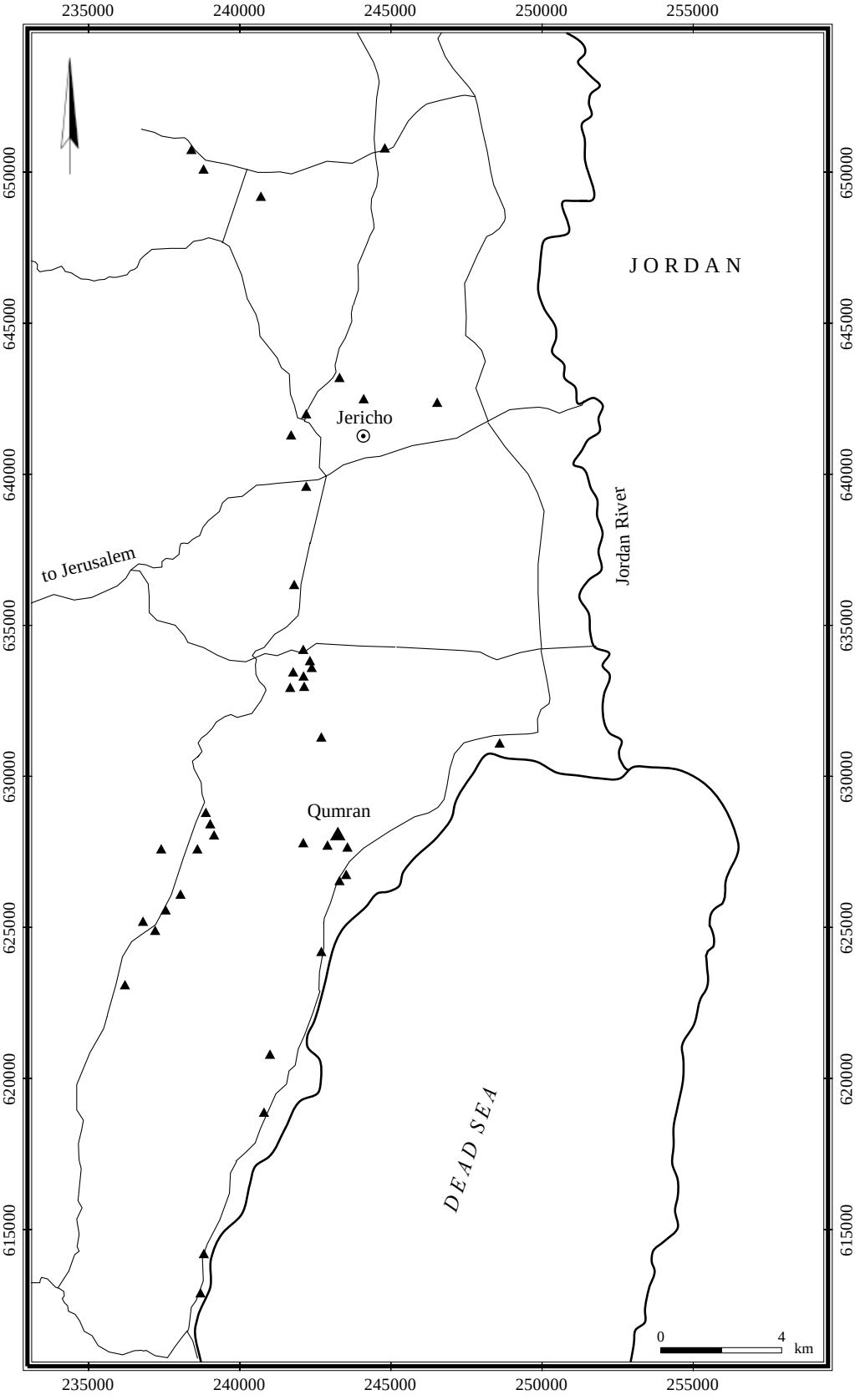

Fig. 28. Iron Age settlements in the Jordan Valley, location map.

Fig. 29. Iron Age remains east of the eastern bounding wall, northern view.

Fig. 30. Iron Age remains east of the eastern bounding wall, northeastern view. Notice the conflagration layer underneath the wall.

As said, this was no official colonization, whether military, commercial or agricultural. Rather, here were hamlets built by people who were forced into the area and made their living from seasonal agriculture, grazing, and perhaps also utilized the resources of the Dead Sea itself, salt and asphalt. Most of these Iron Age sites were very small, and left behind the remains of buildings and huts, rock shelters and caves used for habitation.[46]

The Iron Age settlement at Qumran was thus not unique. Rather, it formed part of a broad pattern of settlement in the Jordan Valley during the Iron Age. Many Iron Age artifacts were found in various parts of the site in both the excavations of de Vaux and our own (see Fig. 4).[47] Iron Age pottery was found in the lowest stratum of the northern refuse dump. On the northeastern side of Qumran are foundations of Iron Age buildings and a conflagration layer in which potsherds and an intact Iron Age juglet were found.[48]

On the site's southeastern side, adjacent to and underneath the eastern bounding wall, a conflagration layer was also found (Figs. 29–30), containing Iron Age pottery and a jar handle with a *lamelekh* seal impression (Fig. 31).[49] A large quantity of Iron Age pottery was also discovered in the lowest stratum of the eastern dump. Underneath the "refectory" (L-77), a conflagration layer containing a large amount of Iron Age pottery was found above the remains of a plaster floor. In the center of the southern plateau three silos were unearthed, apparently dating to the Iron Age (Fig. 32). The many test excavations conducted inside the main building all encountered the conflagration layer, consisting of ashes and Iron Age pottery. A broad north-south wall was discovered inside L-51 and L-53, and continued east of Pool L-48 and the pool to its north (L-50). Other Iron Age finds, including a stone weight calibrated with lead, were discovered in the southeastern part of the main building. Interestingly enough, no Iron Age artifacts were found in the test excavations we conducted on the western side of the site; it would thus appear that already then this area was used for collecting rainwater.

On the basis of his own Iron Age findings, de Vaux reconstructed a rectangular structure consisting of a row of rooms along the eastern side of an open courtyard. He also attributes the earliest phase of the round Pool L-110 on its western side to the Iron Age.[50] De Vaux's proposed reconstruction of the building is based on the assumption that some of the walls of the Hasmonean phase of the building stood upon Iron Age foundations. However, the many test

Fig. 31. *Lamelekh* seal impression.

Fig. 32. Iron Age silos found in the southern plateau.

excavations we performed inside the Hasmonean building, adjacent to the foundations which de Vaux ascribed to the Iron Age and elsewhere, clearly refute his proposal. In fact, the said foundations are an integral part of the Hasmonean structure. Furthermore, since Iron Age remains have now been found in the southern and eastern parts of the site, underneath the "refectory" (L-77) and under the eastern wall bounding the southern plateau from the east, we can only conclude that the latter wall postdates the Iron Age and that the Iron Age settlement continued beyond the building which de Vaux had reconstructed.[51]

The results of the renewed excavations at Qumran now lead us to believe that the Iron Age settlement at the site consisted of clay and wooden huts built partly on fieldstone foundations. It is quite possible that there was a public building or a stone tower in the center of the site, around which settlement life centered. We reject de Vaux's claim that the round Pool L-110 was constructed during the Iron Age, as it was constructed at the same time as the two stepped pools (L-117 and L-118) located to its north and east. It defies belief that the Iron Age inhabitants of Qumran, who themselves lived in huts, were capable of digging such a huge pool and covering its inner walls with such thick layers of hydraulic plaster. In short, the powerful character of Pool L-110 is inconsistent with that of the site's Iron Age structures. It is very likely that the Iron Age pools here were quite small, and probably dried up before the end of summer. In fact, Iron Age Qumran was quite small, and may well have been inhabited only in winter and spring.

Much has been written about the possible name of the site at Qumran in the First Temple period, and the site's possible connection with the list of settlements in the Book of Joshua (Josh. 15:61–62). Some identify the site with the City of Salt, others with Secacah.[52] Qumran of the Iron Age was no city, not even a village, in comparison to contemporaneous settlements in the Land of Benjamin and in Judea. If, indeed, Qumran is mentioned in the Book of Joshua, the most fitting name would be Secacah, meaning "hut" in Hebrew. We do not know what the site was called in the Second Temple period; if it was still "Secacah," it is unclear as to how the name managed to survive during the 500 years after the destruction and subsequent abandonment of the Iron Age settlement. Perhaps it was called by the name of the nearby stream, Naḥal Secacah (Naḥal Qumran), and in this way, the name was preserved.[53] The modern name of the site, Qumran, has also received some scholarly attention. One theory is that the name is derived from the Arabic *qamar* ("moon"), or that it denotes the light-colored local marl upon which the site was built.[54] It is our opinion, however, that the name is a distorted form of the Greek *kalamon* ("reeds"), by which the area was known during the Byzantine period.[55]

Following the Babylonian conquest in 586 BCE, the site was abandoned for almost 500 years. During the Persian and early Hellenistic periods, the site remained uninhabited, although a few Ptolemaic and Seleucid coins have been found. At that time, only settlements in the vicinity of springs were inhabited, such as ʿEn Gedi, Jericho and, perhaps, Naʿaran.[56]

THE HELLENISTIC PERIOD

After a prolonged period during which the site remained uninhabited, it was settled once again in the early first century BCE. Again, as was the case in the Iron Age, the renewed settlement was not a unique historical occurrence, but rather part of a widespread military and civilian colonization movement along the Jordan Valley, Jericho and the Dead Sea coast.

The colonization of the Jordan Valley and the Dead Sea coast came in the wake of the expansion of the Hasmonean state through the conquests of John Hyrcanus I and his two sons, Judah Aristobulus I and Alexander Janneus. Josephus relates that immediately following the death of Antiochus VII (Sidetes) in 128 BCE, Hyrcanus began a campaign of conquest. He conquered Samaria and destroyed the Samaritan temple on Mt. Gerizim; in Idumea, he captured the city of Maresha; and in Transjordan, he conquered Madaba and Samea (*Ant.* XIII, 254–258; *War* I, 62–63).[57] Excavations conducted at sites conquered by Hyrcanus revealed that the campaign mentioned by Josephus did not take place immediately after the death of Antiochus VII but many years later, probably during the reign of Antiochus IX (Cyzicenus), in 111–110 BCE, some six years before Hyrcanus' death.[58] It thus follows that the widespread military and civilian colonization of the Jordan Valley and the Dead Sea coast became possible only after 110 BCE; in other words, after the conquest of Samaria, Idumea

and Transjordan had been completed (I *Maccabbees* 16:11–17; Jos., *Ant.* XIII, 230–234).[59] The campaign of building settlements in the area probably began not much before Hyrcanus's death in 104 BCE, and was most likely carried out by his sons, Alexander Janneus in particular. The fact that coins of John Hyrcanus I were found does not challenge this claim, as coins minted by one king certainly continued to be in use for some years after his death.[60]

The Hasmoneans undertook the development of the Jordan Valley and the Dead Sea area mainly for the purpose of protecting their eastern border from Nabatean incursions. The Hasmoneans stationed garrisons not only in fortresses along the Jordan Valley and the Dead Sea, but also in territories that they conquered and whose population was perceived as potentially rebellious.[61]

The northern end of the chain of fortresses protecting the kingdom's eastern border was Alexandrion-Sartaba. Then came Dok overlooking Jericho, and Cypros on the road to Jerusalem. In the south was Masada, and in Transjordan, Machaerus.[62] No fortresses were built atop the cliffs overlooking the Dead Sea, but two fortified docks were constructed on the shore, Rujm al-Baḥr and Kh. Mezin,[63] as well as two fortified outposts with towers, Qumran and ʿEin et-Turaba.[64] The docks protected ships landing on the Dead Sea shore and made it possible to send forces to ʿEn Gedi, Masada and Machaerus. In addition to the fortress of Cypros protecting the main road to Jerusalem, alternative passes leading westward from the shore of the Dead Sea were also fortified.[65] No docks or other structures were found between ʿEin et-Turaba and ʿEn Gedi, probably indicating that there was no road along this part of the coast, as the water reached the scarp. ʿEn Gedi could thus be reached only by boat.[66] The issue of ʿEn Gedi—its status, its population make-up, and whether or not it was part of the Hasmonean system of fortifications—merits a separate discussion.[67]

The fortified docks and the protected westward passes leading inland from the Dead Sea constituted a reliable defense system whose main purpose was surveillance of the Dead Sea coast and providing an early warning of attack. In addition, the Hasmoneans constructed another fortification line further inland, that of Hyrcania, which would prevent whomever succeeded in landing on the Dead Sea shore from advancing westward.[68] The chain of fortifications not only provided protection against armies in time of war, but also against nomads and Bedouin shepherds.

The Hasmoneans therefore established a line of fortifications along the Jordan Valley and the Dead Sea, developed the site of Jericho and constructed a palace there. Among these official military fortifications, only Qumran, so similar in its physical attributes to all the other fortresses in the area, could have been the work of a sect of dissenters—if we are to believe those who have identified it as a headquarters of the Essenes. Previously, P. Bar-Adon noticed the similarities between Qumran and the Hasmonean fortifications in the Dead Sea area and suggested that perhaps John Hyrcanus I himself brought in the Essenes as soldiers and had them man his fortifications.[69] M. Broshi rightly rejectes this proposal, for the simple reason that the scrolls show conclusively that the Qumran sect was extremely hostile toward the Hasmoneans, and would therefore scarcely have cooperated with them in this manner.[70] The hostility was probably mutual, leading us to conclude that the problems raised by both scholars can only be resolved if we assume that the first inhabitants of Qumran were not Essenes but rather Hasmonean soldiers.

Qumran was not a fortress capable of withstanding the assault of an attacking army, but rather a forward observation and supervision point that controlled land and sea traffic along the Dead Sea coast. Using modern military terminology, Qumran should be defined as the headquarters of the commander of the Dead Sea coast and its docks, subordinate to the main headquarters at Hyrcania, one that provided early warning of imminent danger. Hyrcania constituted the rear fortification, where a large garrison could be stationed and deployed when necessary to block and defend the main and secondary routes leading to Jerusalem from the Dead Sea and the Judean Desert.

Qumran was located at a terminus of two roads: one ran north along the fault scarp in the direction of Jericho, passed over Naḥal Og and met the "Sugar and Salt" route to Jerusalem[71]; the other, more important road ascended the scarp to the Buqêʿah (the Hyrcania Valley), and then continued along the Kidron Valley to Jerusalem. It appears that the Hasmoneans improved this latter route and used it as a rapid means

of communication between the forward position at Qumran and the fortress of Hyrcania.[72]

We believe that stables were built at Qumran during this time, to the west of the large round Pool L-110 (Figs. 33–34). These were comprised of three rooms (L-111; L-121; L-120, L-122, L-123), with rather wide entrances (1.5 m) and, at this phase, standing adjacent to the site's pools. In our opinion, the fact that this relatively small site contained stables indicates the presence of a cavalry unit, able to respond to local incidents or to summon aid from Hyrcania.

Tactical military considerations and the ease of collecting rainwater dictated the location of Qumran—not the desire of members of the Dead Sea sect to live somewhere remote. The site was part of a state-planned system of fortifications that served the strategic needs of the Hasmonean kingdom.[73] Even after the great conquests, its eastern borders remained vulnerable to Nabatean attack until Judea was conquered by Rome in 63 BCE.[74]

The Hasmonean rulers, Janneus in particular, were notoriously intolerant toward other religions and sects. They attempted to root out the pagan cults in the Greek cities under their control, destroyed the temple dedicated to Yahweh on Mt. Gerizim (*Ant.* III, 255–256; *War* I, 62–63),[75] forcibly converted the Idumeans, abandoned the sacred site of Mizpah (Nebi Samwil) because of the veneration it had enjoyed since the days of the Maccabees (*Ant.* XIII, 257–258; XV, 253–254),[76] and were hostile toward the Pharisees (*Ant.* XIII, 398–411).[77] In light of all this, and of the mutual hostility between the Essenes and Hasmoneans (termed by the former as "the Wicked Priest"), it is quite inconceivable that Janneus would have permitted the construction, at great expense, of an Essene commune or monastery with a tower, water pools and animal sacrifices, right in the middle of the Hasmonean chain of fortifications. In the face of this, to argue that it must have been the Essenes who came to this site—uninhabited for five centuries—and undertook a project that required hundreds of skilled workers, merely because they were looking for an isolated location, is unconvincing, to say the least.

We also disagree with the proposal that Qumran was initially a Hasmonean farmstead.[78] What exactly did the supposed builders of the site expect to grow in this remote and arid area, that they were willing to make the huge investments necessary for the construction of the site and its water supply system? It was mainly dates that were grown here, and that only after the built complex had been standing for some time. It is highly unlikely that any private individual, even a very wealthy one, would have established a farmstead where no agriculture had ever existed before and water was in scarce supply. Certainly it would have been much more logical to have built the villa on the Dead Sea shore, e.g. at ʿEin Feshkha. Even were we to suppose that the Hasmonean authorities built Qumran as a farm, we would still have to explain the motive for doing so. Certainly it was not for the purpose of making a profit. We are thus left with the conclusion that the site was developed by the Hasmoneans, like other sites along the Jordan Valley, as part of their defense system and not for commercial purposes. The nature of the site changed only after the Roman conquest. Consequently, we also reject the proposal that the site served as a commercial way-station.[79]

The many imposing structures erected by the Hasmoneans raise the question of how they managed to obtain the required large skilled workforce. No doubt thousands were needed for building the many Hasmonean fortresses and palaces throughout the land, and almost certainly also in Jerusalem. The question becomes more poignant when taking into account the quality of the work, the engineering skills demonstrated in the construction of aqueducts and pools, the architectural sophistication, the fresco paintings, the mosaics, etc. What is more, we know that the Hasmoneans suffered from a great manpower shortage. John Hyrcanus, Janneus and Salome Alexandra all employed mercenary soldiers due to a lack of sufficient Jewish manpower (*Ant.* XIII, 249; XIV, 377–378; XVI, 409; *War* I, 61).[80]

One possibility is that the craftsmen who worked on the Hasmonean building projects were forced laborers taken from the areas conquered by the Hasmoneans and from the Hellenistic cities along the Mediterranean coast and elsewhere.[81] Qumran and the other desert fortifications were not built by Jewish soldiers or masons, but rather by highly skilled craftsmen, resulting in structures whose quality was much higher than what was required by the army units which manned them. Interestingly, Josephus reports that Salome Alexandra entrusted Janneus' senior officers with the fortresses in the Jordan Valley, except for Hyrcania, Alexandrion and Machaerus (*Ant.* XIII,

Fig. 33. Water and stables complex, eastern view.

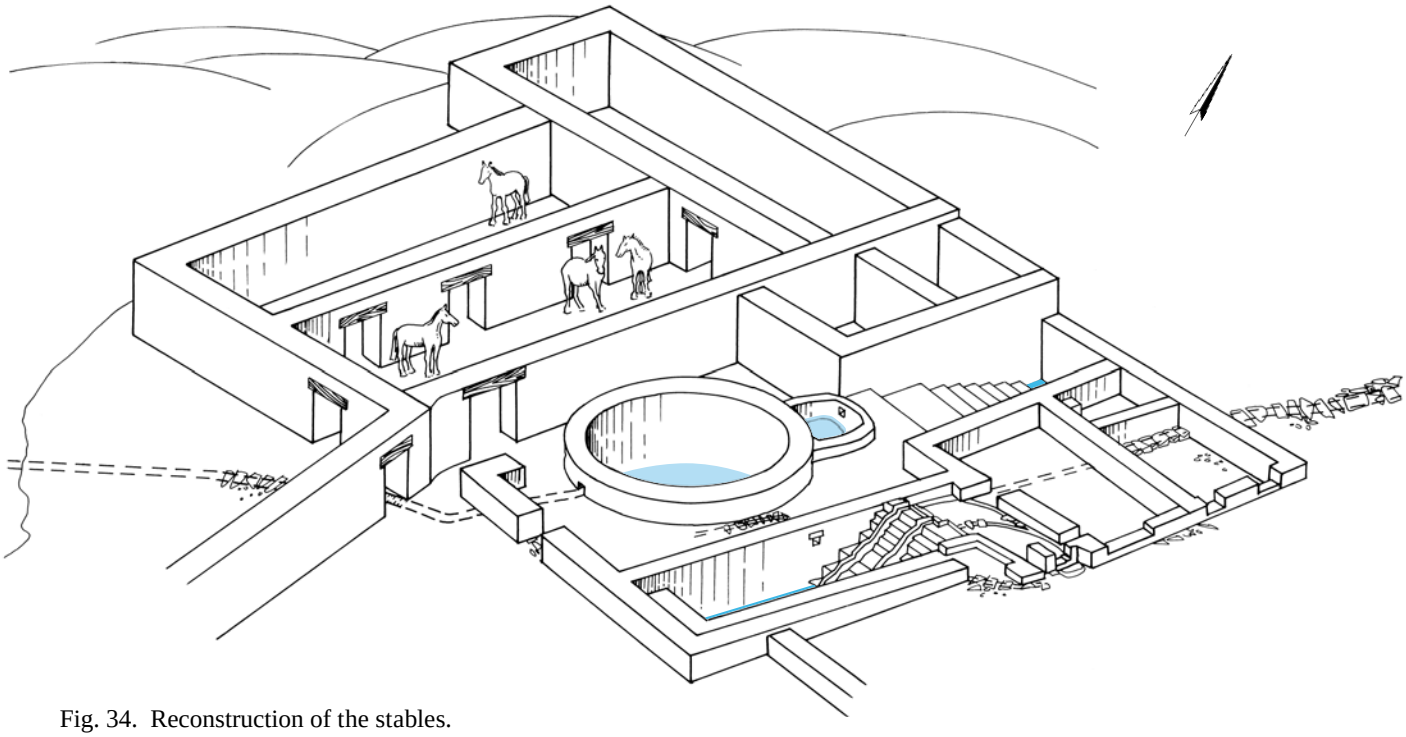

Fig. 34. Reconstruction of the stables.

415–417).[82] There were thus many other fortresses in addition to these three, in which Janneus' officers were stationed instead of being executed for their pro-Pharisee sympathies.

The conquest of the Land of Israel by Pompey in 63 BCE brought about a drastic change in security considerations throughout the entire area, and in Judea as well. Judea lost much of its former importance, and when Gabinius freed the Greek cities from Hasmonean control (*Ant.* V, 87–88; XIV, 75–76; *War* I, 155–158, 165–166), the position of Jews outside Judea weakened considerably and the area of the Hasmonean kingdom was greatly reduced.[83] The rising power of the Greek cities along the Mediterranean coast left Judea without an outlet to the sea. Samaria and Idumea were cut off from Hasmonean control and Jews were evicted from the Greek cities and the other areas that they had previously conquered. They were forced to return to the now-reduced Judean territory, and as a result the region came to suffer from over-population, land shortage, and economic deterioration.[84] Fortresses lost their value, and the soldiers who had manned them now found themselves out of a job and without the prestige they had enjoyed under Hasmonean rule. The major change that occurred at Qumran was thus linked to the Roman conquest, when many former soldiers in the Dead Sea area had to find a new way of making a living, such as rearing livestock, growing dates and balsam, manufacturing pottery and exploiting the resources of the Dead Sea itself.[85] Qumran thus deteriorated from a military outpost to a useless site.

QUMRAN AND WATER

THE WATER SUPPLY

As mentioned above, the location of Qumran was chosen in the Iron Age, with the Hasmonean-period settlement constructed at precisely the same spot. From aerial photographs and a study of the site's topography and water regime, we can understand why both in the Iron Age and in the Second Temple period, settlement was preferable here rather than elsewhere on the marl plateau overlooking the Dead Sea.

The site of the settlement and cemetery of Qumran is protected in both the north and west by riverbeds that prevented flooding, falling rocks, and flowing sediments from the fault scarp from pouring into the settlement and sweeping away buildings. Northwest of the site is a broad drainage area, which we shall term Flow Basin A (Fig. 35). It drains rainwater from the scarp located north of Naḥal Qumran. The depth of the riverbeds in the marl indicate the large quantities of water and the powerful floods that have flowed through the flow basin. Some of this water spilled into Naḥal Qumran B and into Riverbed C, whose course runs along the western boundary of the site and eventually into Naḥal Qumran (Figs. 36–37). North of the site, Riverbed D flows into the Dead Sea. Between the two riverbeds there is a narrow (10 m wide) passage (E) that links the flow basin to the west with Qumran itself. Along this passage it was thus possible to build a channel in which flood water could be diverted into Qumran in a controlled manner, or blocked by means of a dirt ramp. The site thus possessed two important advantages: rainwater could be collected and buildings could be protected against floods. In the Iron Age there was no aqueduct; rather, the rainwater which flowed into Passage E was gathered in small pools within the site.

We cannot know whether the Hasmoneans had noticed the ruins and dry pools and therefore decided to follow in the footsteps of their predecessors, or whether in both cases it was independently determined that this was the best site, for the reasons adduced above. However, it is worth mentioning that most of the Second Temple-period sites excavated in the Jordan Valley and along the Dead Sea coast contain Iron Age finds as well, despite the many centuries that had passed from the destruction of the First Temple.

Following the excavation of the aqueduct on the plateau and a reexamination of the potential water supply at the site, we have concluded that the pools of Qumran were fed by four distinct sources:

RAINWATER FROM THE ROOFTOPS

Rain at Qumran is infrequent, but when it does rain it usually takes the form of strong, brief showers. The annual rainfall is not very great (between 150 and 200 mm), but in concentrated form it can be effective. Water flowing down from the rooftops is usually clean, with no silt, since roofs are generally repaired and cleaned before the rainy season. During

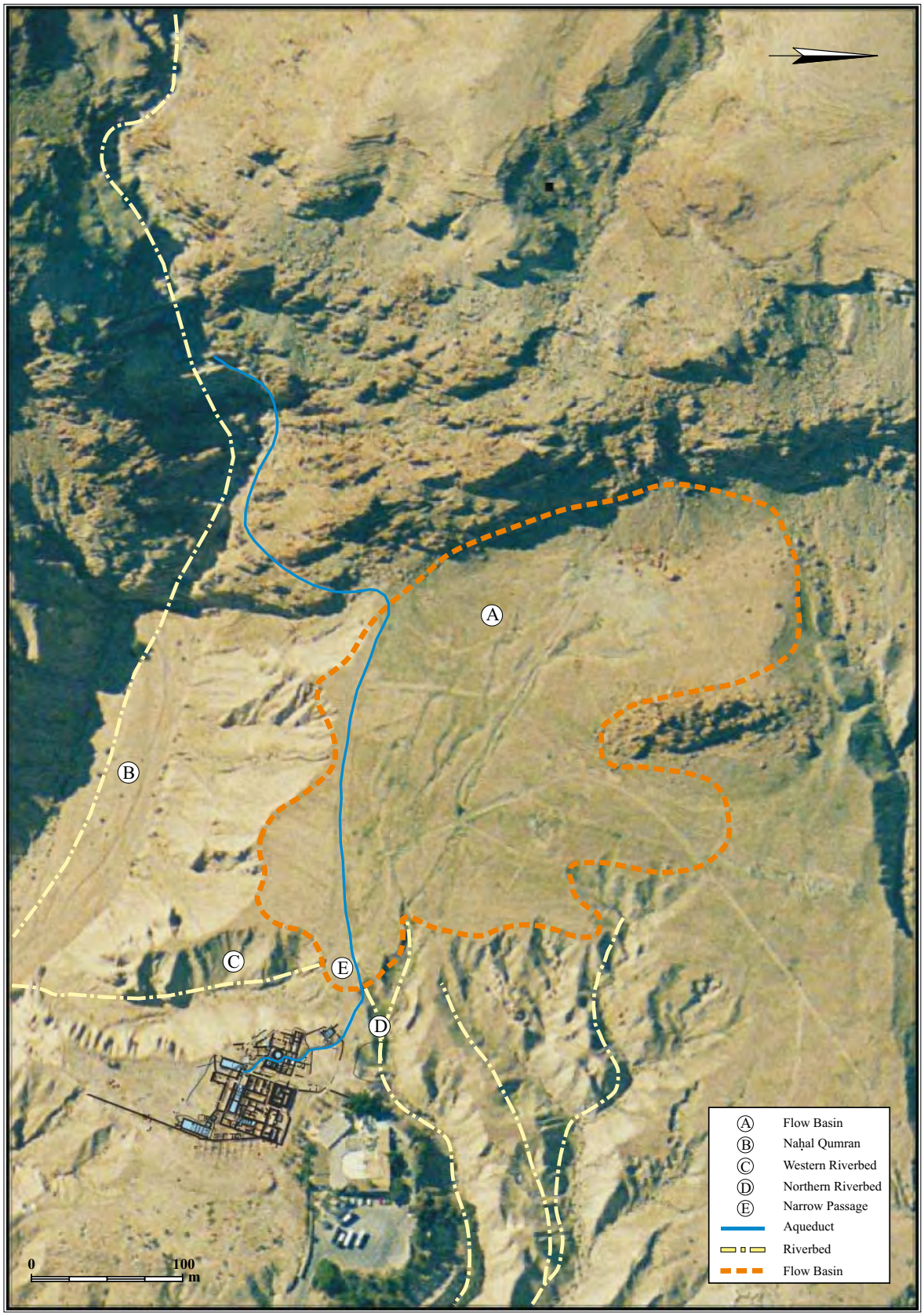

Fig. 35. Aerial photograph of the water system.

Fig. 36. Riverbed C bounding the site from the west, northern view.

Fig. 37. Naḥal Qumran, eastern view.

the first phase of the Hasmonean site, water from the rooftops was directed by gutters and channels into Pool L-117 on the main building's western side. Later, as more buildings and pools were constructed, drainage facilities were added as well. For example, gutters were found on the eastern wall of Pool L-91 which drained the roof of Storeroom L-86, L-89 and the area between the storeroom and Pool L-88. While the amount of water collected in this manner could not fill all the pools at Qumran, an efficient drainage system could certainly provide a considerable amount of good quality water.

FLOODWATER FROM NAḤAL QUMRAN

Upstream in Naḥal Qumran, an aqueduct—partly constructed and plastered and partly rock-cut—drew water from the stream.[86] The relatively narrow aqueduct, reminiscent of the Hasmonean aqueducts connecting the springs of Wadi Qelt with the palaces in Jericho,[87] led out of a natural pool in the upper part of the stream. Water from the narrow aqueduct spilled into a wide (1.1 m), 200 m-long open channel with 35 cm-high serrated walls and an unplastered pebble floor, and flowed over the plateau into the site.

RAINWATER COLLECTION FROM FLOW BASIN A

Our reexamination of the Qumran water supply system has revealed that the site's most abundant source of water was Flow Basin A northwest of the site, from which the water flowed into the site through the wide aqueduct on the plateau (Figs. 38–39). This aqueduct, with its serrated walls designed to filter mud and rocks, was excavated in its entirety during the renewed excavations (Fig. 40). It served the double function of conduit and dam for the water flowing from Flow Basin A into the site (Fig. 41). The eastern part of its course deviated slightly to the north, indicating that it was built in such a way as to drain all the rainwater in Flow Basin A. North of this aqueduct a stone wall blocked a small riverbed, probably forcing the eastward-flowing water in the latter to change direction to the south, into the aqueduct, and thence into the site. Both the aqueduct connected to Naḥal Qumran and the one on the plateau could operate simultaneously, although probably not always, as the water in Naḥal Qumran originated from rainfall in the Buqêʿah region, and that of Flow Basin A from rains at Qumran itself.

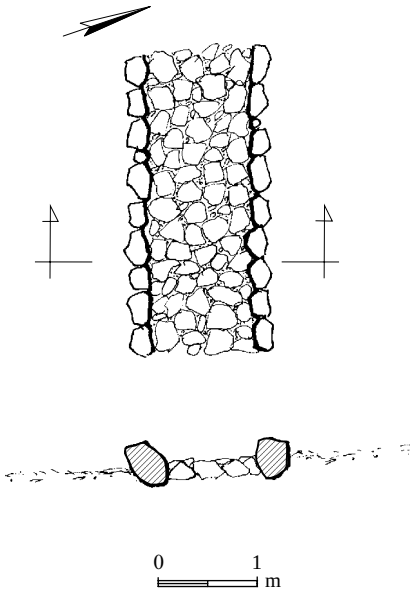

Fig. 38. Aqueduct, plan and section.

Fig. 39. Aqueduct situated in Flow Basin A, western view.

Fig. 40. Notice the construction of the aqueduct walls.

Fig. 41. Rainwater flowing in the aqueduct, Winter 2006 (courtesy of O. Gutfeld).

The pools inside the site reflect two distinct phases. The round pool (L-110) and the two pools adjacent to it (L-117 and L-118), which were filled primarily with locally drained rainwater, belong to the first phase. During the second phase the two large pools in the southern and southeastern parts of the site were added, and filled mainly with water from outside. It appears as though it was at this time that Qumran's impressive water supply system received its final form; the construction of the two large pools was related to that of the two aqueducts.

SPRING WATER

A fourth source of water, usually unmentioned in scholarly debate, was the sweet-water springs southeast of Qumran. Discussion of spring water in the context of Qumran generally refers to that of ʿEin Feshkha, located some 2.5 km south of Qumran. However, a few hundred meters east of the site lies a rather large area suffused with sweet water, where even today tamarisks and reeds grow. This area, higher than ʿEin Feshkha, was not under water during the Second Temple period, and the ground water was yet to be depleted by modern pumping methods. It is thus very likely that it was possible to conduct water from here into the site. It is impossible, however, to determine whether the water was suitable for drinking. At any rate, this particular water source eventually dried up because of a drop in sea level and the southward movement of the springs.[88]

THE QUMRAN POOLS: RITUAL BATHS OR CISTERNS?

Ritual baths first appeared in Judea in the late second and early first century BCE. In the Old Testament, ritual bathing is indicated by the verb רחץ (bathe): "… and bathe himself with fresh water, and he will be clean" (Lev. 15:13). Today it is customary to refer to any plastered water pool with steps leading to the bottom as a ritual bath (*miqweh*). Ritual baths are discussed in great detail in the rabbinical literature.[89]

Immersion in a ritual bath is based on the verse "A spring, however, or a cistern for collecting water remains clean" (Lev. 11:36). According to *Halakhah*, a ritual bath must be connected to the ground and filled with either rain or spring water, which must enter the pool on its own, without any manual or mechanical assistance. Water that has entered the pool through such means is called "drawn water" and disqualifies the *miqweh*. The minimal required amount of water in a ritual bath is 40 seah, equal to about 750 to 800 liters. Most Jewish ritual baths dating from the Second Temple to the Byzantine period are rather small, with a capacity of between four and nine m^3. Standard Jewish ritual baths were all quite small (800 liters or more) and replaced the bathtubs that were used for bathing in Hellenistic times.[90]

Many stepped pools, some small, some very large, have been found at Qumran. The capacity of the largest (L-71) was about 310 m^3. The earliest of these installations date from the early first century BCE, not long after the use of ritual baths first became common among Jews. Scholars have referred to these

installations under the sweeping heading of ritual baths,[91] and explained their high numbers and size as resulting from the Essenes'—most of whose adherents resided at Qumran—religious beliefs, which required frequent ritual bathing.[92]

De Vaux, the first scholar to propose that Qumran was an Essene site, did not use the term "ritual bath" for the pools. Rather, he called them "cisterns," despite the fact that he was doubtless familiar with the concept of the *miqweh* in Jewish law, and with the findings at Second Temple-period Jewish sites.[93]

We would like to stress that we have no objection to the claim that ritual baths existed at Qumran, just as at many other Second Temple-period settlements in Judea—especially Jerusalem—and in the Land of Benjamin. The issue is not whether or not there were ritual baths in Qumran, but whether the large pools were also ritual baths. If the answer is negative, the question arises of where to draw the line between stepped pools that served as ritual baths and similar pools that did not. If most of the pools were used for ritual purposes, what was then left for the inhabitants' other needs: drinking (humans and animals), non-ritual bathing and washing, and cooking—not to mention the great amounts of water needed for the pottery industry. One should not forget that the site is located in a very hot and arid region where water evaporates rapidly. Moreover, water must also have dissipated through cracks in the plaster, complicating the question at hand. In all, eight stepped pools at Qumran have been identified as ritual baths[94]; to these must be added a number of small sedimentation basins, also featuring steps, which some have mistakenly defined as ritual baths.[95]

In the following pages we shall discuss each pool separately and determine whether or not it is consistent with the definition of a ritual bath. Two concentrations of pools exist at Qumran. In the west are a round pool (L-110) and two stepped pools (L-117 and L-118), constituting the early phase. Pool L-138 stands alone at the northwestern edge of the site. In the south are two pools inside the main building (L-48, L-49 and L-50), a large pool divided into two (L-58 and L-59), and three installations (L-68, L-91 and L-71) outside the main building.

As mentioned above, the earlier phase consisted of three pools: L-118, fed by rainwater that was collected north and west of the site and flowed through the sedimentation basin that also fed the round pool (L-110); and L-117, fed by rainwater drained from within the site, including rooftops. According to Jewish law, water that has passed through a sedimentation basin is like drawn water, and cannot be used in a ritual bath.[96] If, indeed, there was a ritual bath at the site during the first phase, it could only have been Pool L-117, which was fed by rainwater and had no sedimentation basin. However, it appears unreasonable to claim that a ritual bath was constructed at a site intended as a military garrison, manned by soldiers who were perhaps not even Jewish, and in the early second century BCE—when the institution of the Jewish ritual bath was still in its infancy.

We believe that the only pool that may have conceivably have served as a ritual bath is Pool L-138, located to the northwest of the water and stables complex. It dates to a later phase and may have been used by the potters who worked in the complex. But in fact, ritual bathing in large deep pools is not attested anywhere; if attempted, it would have been difficult and even dangerous for anyone who did not know how to swim. The bather could easily have slipped on the steps, and perhaps even drowned.

The major elements of the water supply system, namely the external channels and the pools on the southern side, were constructed during the second, Hasmonean, phase. Were these stepped pools ritual baths for a growing population, constructed at the expense of part of the original building, now reduced in size as a result? The construction of these pools was related to improvements in the water collection system. The rainwater collected from the surrounding area contained large amounts of silt and clay; therefore, sedimentation basins were added through which the water flowed before entering the pools. It was also decided to build rectangular pools instead of round ones, as the latter were more difficult to build and to clean. According to our calculations, it would have been necessary to dig seven round pools like Pool L-110 in order to obtain the same capacity as the rectangular pools on the southern side.

The questions yet to be answered are why the pools contained steps, and whether they were intended as ritual baths. The answer to the latter is no. The ground at Qumran consists of unstable marl, which swells when wet, applying pressure to walls.

Every mason in antiquity knew that if a wall had absorbent earth on one side and only air or water on the other, it would eventually collapse under the pressure. Various techniques were used to prevent such an occurrence, usually involving the creation of internal cells that would relieve some pressure off the external walls.[97]

The builders of Qumran faced a similar problem. In order to prevent the collapse of the lengthwise walls of the huge pools, it was necessary to add a number of breadthwise walls. But such a solution would have made both the collection of water and its transfer from the first pool to the next all the more difficult. Thus, instead of breadthwise walls, they added a staircase that ran the entire width of the pool, achieving the desired effect of strengthening the walls. The steps were, therefore, not intended for ritual bathers, but were built for structural reasons. In addition, they did not reach the pool floor, thus allowing room for a large pool at the bottom. An additional advantage of the staircase was that it caused most of the silt and clay in the water to move toward the lower end of the pool, thus keeping most of the water clear. The steps also facilitated the removal of clay, which was then used for making pottery.

In Pool L-91, another engineering solution to the problem of strengthening the pool walls was implemented (Fig. 42).[98] Its overall length (including L-85, which was an integral part of the same pool) was 15.5 m, its maximal width and depth being 4.7 and 5.4 m, respectively. Here, too, a staircase was added on the northern side (L-85), but not along the entire length of the pool. Rather, it ended in a high step, which created a deep pool that took up most of the pool's southern side.[99] In order to prevent the walls from collapsing inward, they were built at an outward incline, resulting in a difference of 35 cm between the top and the bottom of the wall. Such inclines were common in the construction of retaining walls, as seen in the Temple Mount and the Cave of Machpelah in Hebron. A similar technique was also used in L-138, a pool in which the walls were inclined outward.

Further evidence for our claim was found in the pool north of the "refectory" (Pool L-56, L-58).[100] Here a breadthwise staircase was built, as well as a massive breadthwise wall standing in the center of the pool. The pool's width was 5 m, with an overall length of 18 m and a maximum depth of 4 m (Fig. 43). As it was located inside the existing building, the builders—fearing the possible collapse not only of the pool walls but also of the building walls, especially the one south of the pool—added the breadthwise wall as an additional safeguard.[101] This wall probably also helped filter the water: its eastern side was inclined so as to withstand the pressure of the water on the pool's western side (L-56). After the latter filled up and the sedimentation there sank, the surplus filtered water would have passed over the wall into the eastern side (L-58), which did not feature a staircase.

To summarize, not all the stepped pools were ritual baths; rather, most served as cisterns and as sources for potters' clay. The steps had both a structural and functional use: to stabilize the pool walls and facilitate the collection of clay—and were not related to ritual immersion.

We now turn to the question of whether the stepped pools satisfy halakhic standards for ritual baths. Most of the ritual baths found in Jerusalem and at many other Second Temple-period sites are quite small. Rainwater flowed into them directly, rather than through an interceding sedimentation basin. The pools of Qumran, on the other hand, were filled with water that flowed down from the mountains, and is what in rabbinical literature is called "drained water" (M *Miḳwaʾoth* 1:4). While such "drained water" does not in and of itself disqualify the *miqweh*, the fact that it enters the pool by dripping and trickling does. A ritual bath can purify only when its water collects in one place without human or mechanical help—not when the water trickles along the ground, and certainly not when it flows through a built channel (in contrast to spring water, which purifies even when it advances by trickles; M *Miḳwaʾoth* 1:7).[102] All these pools suffer from another halakhic flaw, as they are preceded by large sedimentation basins. Some scholars also identify these basins as ritual baths. However, the basins, whose actual purpose was to remove silt and clay from the incoming rainwater, disqualified the pools from serving as ritual baths.[103] From a halakhic point of view they are vessels, and using a vessel with a capacity of more than three log (about 1.5 liters) disqualifies a ritual bath and transforms its contents into "drawn water."[104]

We therefore conclude that the large stepped pools at Qumran do not reflect the structure of ritual baths, and that their steps were not installed for the purpose

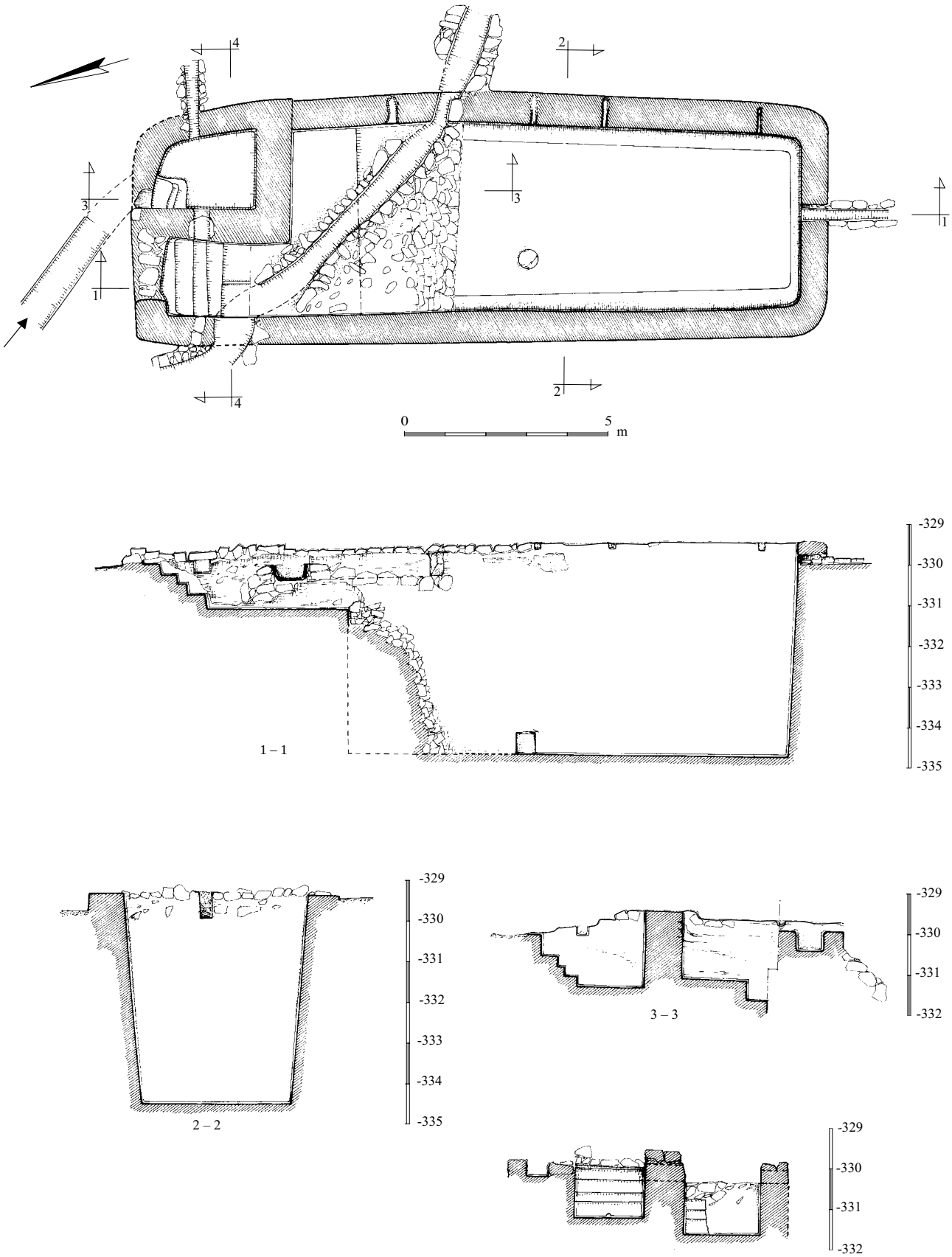

Fig. 42. Pool L-91, plan and sections.

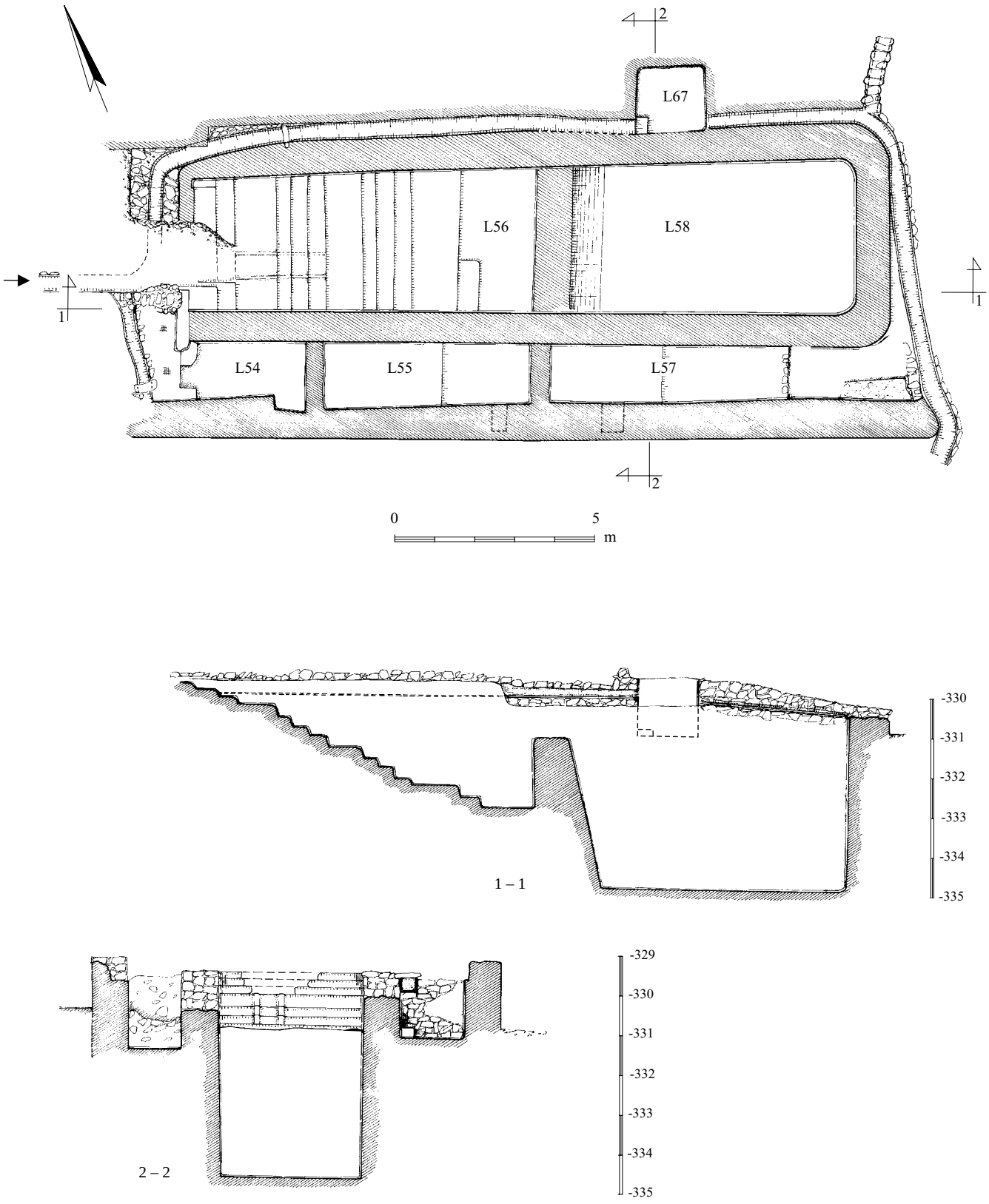

Fig. 43. Pool L-56, L-58; plan and sections.

of immersion. Furthermore, the water they contained was "drawn water," unfit for ritual purification. On the other hand, we do believe that there were two or three stepped pools that may have been ritual baths. These are L-68, in which rainwater was collected directly; L-138, which was filled by water that did not flow through a sedimentation basin; and L-117, which was at least partly filled with rainwater, primarily from the main building. Despite all the abovementioned halakhic reservations, these may possible have been ritual baths used by the potters. Pool L-49, L-48 was not a ritual bath; rather, we believe that it functioned as a store of clay for the pottery industry.

RITUAL BATHS AND THE PRODUCTION OF POTTERY

It is a known secret that scholars who have in recent times analyzed the findings at Qumran do their best to ignore the fact, stressed already by de Vaux, that Qumran was an important pottery production center. The many kilns at the site, the pools in the water and stables complex (L-121) where clay was kept, the thousands of clay vessels found at the site, many of them production rejects, all point to the existence of an active pottery industry over a considerable period of time, whose products were sold in the entire region, including Jericho. It certainly was not a mere "workshop" catering to the needs of a few dozen local inhabitants.[105] As pottery was a major component of the material culture of the time, considerable efforts were made to keep it ritually pure.

During the Second Temple period the laws of purity and impurity were strictly adhered to, no longer just in Jerusalem and the Temple, but everywhere in the Jewish world. This had far-reaching consequences for everyday life and material culture, pottery being a major component of the latter. The laws concerning clay vessel purity and impurity appear in the Pentateuch (Lev. 11:33–34, 15:12). Clay vessels, and their contents, become unclean if the air inside them comes into contact with an impurity through their openings, but not from contact with their outer walls (Num. 19:15; M *Kelim* 10:1–3). An unclean clay vessel cannot be purified by immersion in a ritual bath and must, therefore, be broken to be made unusable. For this reason Jews were very careful when producing and touching pottery, especially after it had been fired in the kiln, for it was only then that clay vessels could become unclean. Before firing, clay vessels are considered as earthen vessels, which, like stone vessels, do not become unclean (M *Oholoth* 5:5).

Pottery vessels were used in all aspects of everyday life. Potters did not belong to the upper classes of Jewish society, and were not strict in the observance of the commandments concerning purity and impurity. According to the Sages, these were "unrefined people" suspected of impure habits, and were thus carefully supervised (M *ʿEduyyoth* 1:14; T *Oholoth* 5:11; T *Parah* 4: 13–14). And because potters were so unrefined, the Sages stated that a father should not teach his son the potter's trade, because it is a profession of robbers:

> Abba Guryan of Sadyan said in the name of Abba Gurya: "A man should not teach his son to become a donkey-driver, a camel-driver, a potter, a shepherd or a shopkeeper, for their trade is the trade of a robber" (BT *Ḳiddushin* 82a).

A dilemma thus arose. On the one hand, the producers of pottery were suspect and, on the other, their products were needed in all aspects of life. For this reason the production of pottery was supervised very strictly, especially during the stages after firing. The Mishnah tells of a man who stood by the kiln all night in order to make sure that the vessels did not become unclean, for "if one brings a pottery vessel as guilt offering must ritually immerse oneself and spend the night next to the kiln" (M *Parah* 5:1).[106] While this law concerns a guilt offering, in the case of a heave-offering there is no need to spend the night next to the kiln, and one can just "open the kiln and take [the vessel]" (M *Parah* 5:1). Still, there is no doubt that many in Jewish society observed the laws of ritual purity and impurity very strictly, and ate even unconsecrated food in a state of ritual purity. This was especially true of the temple priests.

Clearly then, pottery production, in particular during the stages following firing in the kiln, demanded that workers purify themselves in a ritual bath. We see this also in the production of olive oil and wine; there, too, the workers were suspected of neglecting the laws of ritual purity, and were consequently supervised by the owners of the oil and wine presses:

> Rabbi Meir says it is enough if he accompanies the press workers and grape pickers into the cave. Rabbi Yossi says that he must supervise them until after they have bathed. Rabbi Shimon says if they claim to be ritually pure one must supervise them until they have bathed, and if they claim to be ritually unclean there is no need to supervise them until they have bathed (M *Ṭohoroth* 10:3).

R. Meir only requires that the owner bring his workers into the *miqweh*; for R. Yossi this is not sufficient and he demands that the owner supervise his workers until they have ritually bathed; and R. Shimon says that if the workers claim to be ritually pure, they are not to be trusted and must be supervised until they have bathed, but if they admit to being unclean they can be trusted to bathe even without being supervised, since they are obviously aware of their state.

The preceding passage deals with oil and wine production, but is indicative of the strictness with which the laws concerning ritual purity were upheld in the Second Temple period. Ritual baths have been found near agricultural estates where oil and wine were produced.[107] Wine, oil and other foods such as date honey were produced in ritual purity, and this was certainly true also of the production of the vessels in which these foods were stored.

Pottery production at Qumran began in the Hasmonean period; the few ritual baths at the site may therefore have been used by the various craftsmen working there. Ritual Bath L-138 was built later and served the potters working on the site's western side, and Ritual Bath L-68 was used by the workers who were producing date honey in the nearby press. Locus 117 was constructed during the Hasmonean period and may have served either as a ritual bath or as a bathing pool. The three ritual baths can thus be explained as serving the needs of the local workers and craftsmen, without having recourse to positing hundreds of sect members who lived there and bathed each and every day. As mentioned above, a few hundred meters east of Qumran, near the shore of the Dead Sea, there were springs where ritual bathing could have been accomplished quite conveniently without the bother of such a huge construction project. The pools on the southern side of Qumran, which date to the second phase after the site had ceased to function as a military stronghold, were built for the purpose of collecting clay for the pottery industry. This is the only explanation that can justify both the construction of such large pools and the sophisticated water supply system that drained the run-off water from the fault scarp.

We must make note of another important fact that has been overlooked regarding the site. Qumran is the only site in all the Land of Israel of the Second Temple period whose water supply consisted of mostly floodwater, which flowed in stream gorges and collected the layer of sediment that sunk in them. In these streams sank the clay that was used in the pottery industry. Sites like Masada, Alexandrion-Sartaba, and Hyrcania were also supplied by run-off water, but not from the streams where clay sank. From this, it follows that Qumran is a unique site: a clay-collecting center for the pottery industry. In rainy years in which the streams flooded, the quantity of clay collected in its pools was beyond its production capability for pottery vessels. In these years, we assume that clay was transferred to other production centers, such as Jerusalem, Jericho, or other sites where pottery was made.

DAILY LIFE AT THE SITE

DISPOSAL OF ANIMAL BONES

It is well known that whenever archaeologists are at a loss to explain a building or some other find they tend to look to religion or cult. This is a rather common ploy where very early archaeological periods are concerned, but rather rare in the context of the Second Temple period, particularly in the case of finds related to Jewish worship, for which we possess a wealth of written sources. Still, perhaps because Qumran was from the first considered to be the headquarters of a unique dissident Jewish sect, any unusual feature that could not be explained in everyday terms immediately received an explanation from the domain of religion and/or cult, providing additional support for the deviant nature of the sect.

Scores of accumulations of animal bones—goats, sheep and cows—were found at the site, mainly beneath the main building. The piles of bones were found both by de Vaux and in our renewed excavations (Figs. 44–45).[108] The bones were found buried in the

ground or placed in jars and cooking pots, some of which were intact. The pots were covered with a small bowl or plate and were on occasion found upside down. De Vaux dated the buried bones to Periods Ib and II.[109] In our renewed excavations, vessels containing bones dating from the Hasmonean period were found in the southern dump, and elsewhere from later periods, up to the site's destruction. The disposal of bones within the site was thus a permanent feature. The bones that de Vaux found were analyzed by F.E. Zeuner, who identified them as belonging to sheep, goats, lambs, kids, cows and calves.[110]

The same animals have been identified in the renewed excavations. De Vaux believed the bones to have been the remains of ritual meals taken by members of the sect.[111] E.-M. Laperrousaz has raised the question of why the inhabitants insisted on burying the bones inside the site instead of finding a more convenient spot outside. He argues that the bones were not placed there intentionally, but were left where the inhabitants had their holiday feast, as they were reluctant to engage in work on that day. Furthermore, he suggests that some participants in the feast did not receive permission to enter the refectory and thus had no choice but to eat outside. At the meal's end, everyone placed their bones on the nearest plate or inside a larger broken vessel fragment and waited for the holy day to end so they could clean up. It was during this day that the site was attacked and the locals were never given the chance to remove the leftovers. Later, after the site was abandoned, the accumulations were covered with mud. He hypothesizes that Qumran was attacked twice, once before 63 BCE and once in 68 CE.[112]

Our motive for presenting Laperrousaz' explanation in such detail was not to ridicule, but rather to show the pernicious effects that preconceived notions about the nature of Qumran have on explanations offered for what was found there, and the kind of absurdities scholars are forced into when having to explain perfectly straightforward phenomena in the irrational terms of ritual. In this connection we would like to point out that the bones were in most cases placed in whole vessels, buried at a considerable depth, and found everywhere on the site, including next to building walls. They were not incidentally covered with mud; they were intentionally disposed of deep in the ground.

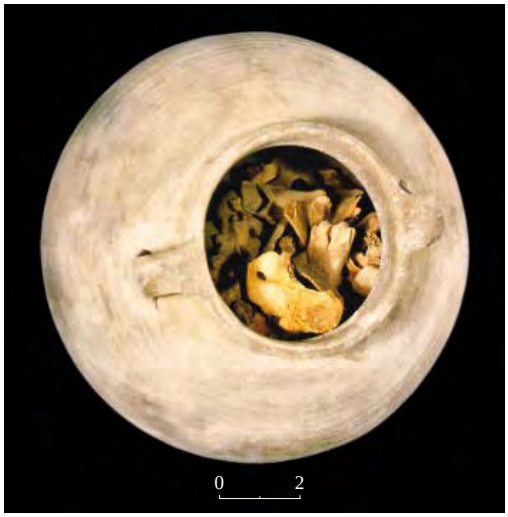

Fig. 44. Cooking pot containing bones, found in the paved square.

Fig. 45. Pottery sherds and bones from the southern refuse dump.

Another unacceptable idea was recently proposed, with Y. Hirschfeld stating that the buried bones were used for improving the fertility of the soil.[113] We also have difficulty in accepting J.-B. Humbert's proposal that they are the remains of sacrifices.[114] Humbert argues that an altar stood in the site's northwestern courtyard, in the vicinity of the water channel feeding the pools, before the construction of Ritual Bath L-138. It was here that members of the sect would bring their sacrifices. He also claims, contrary to de Vaux and Zeuner, who had analyzed the bones, that most of them were burned.[115] This is patently untrue, as most of the bones found both by de Vaux and in our

excavations were either cooked or broiled. Humbert concludes as follows: "A l'époque, tout le monde semblait d'accord pour y reconnaître les vestiges de sacrifices."[116] Furthermore, he identifies columns unearthed in L-77 as altars, and the room south of L-86, L-89 as a repository for gift-offerings.[117]

As a result of the extensive excavations carried out at Mt. Gerizim, where hundreds of thousands of bones of sacrificial animals were found, we now can identify for certain the appearance of bones from sacrifices performed according to the commandments of the Pentateuch.[118] All the bones found at Mt. Gerizim were burnt and surrounded by a thick layer of ash. They were neither buried nor placed inside vessels in the temple courtyard. Rather, they were collected when the altar was cleaned and then thrown over the walls of the sacred precinct or piled somewhere inside the precinct. In the Mishnah, it is said that bones are an ornament of the altar (M *Tamid* 2:2). The bones at Qumran are very different from those found at Mt. Gerizim, having been cooked and not burned, and thus could not have been the bones of sacrificial animals.

During the Second Temple period this rite came to be practiced exclusively in Jerusalem. The Hasmonean rulers did not only abolish pagan rituals, but also any cult of Yahweh outside of Jerusalem. Thus, they destroyed the temple of Yahweh on Mt. Gerizim, a temple whose rituals were in accordance with the commands of the Pentateuch. Even the Paschal lamb, a private sacrifice that could be performed anywhere, was now required to be slaughtered on the Temple Mount and eaten in Jerusalem. The Mishnah explicitly mentions Jerusalem as the only place where sacrifice was permitted: "When they entered Jerusalem the local altars were forbidden; they no longer had permission [to sacrifice]; it [Jerusalem] became the main sanctuary" (M *Zebaḥim* 14:8). Even if we were to agree that the inhabitants of Qumran belonged to a dissident sect with its own calendar and its own rules, it is still very unlikely that at in the early first century BCE—at the height of the Hasmonean kingdom—sacrifices would be conducted at Qumran rather than in Jerusalem. Even if we were to accept the possibility that the Paschal lamb was sacrificed at Qumran, this would not explain all the bones of sheep, goats and cattle found at the site. That such animals were also sacrificed there is completely out of the question. The idea that sacrifices were performed at Qumran must, therefore, be rejected once and for all.

The explanation of the buried bones is actually quite simple and prosaic. The reason why scholars have failed so far in clearing up this matter lies, again, in the fact that Qumran was treated as a religious site, and everything in it was explained in religious terms. This is an erroneous approach. The Judean Desert has always been home to numerous predators. To this day, leopards, hyenas, jackals and foxes roam the area, and lions existed here until the Middle Ages; birds of prey lived here as well, vultures, eagles, etc. In this arid region where food is scarce, any settlement whose inhabitants would leave their leftovers on the ground outside would soon become a favored spot for visits by these animals. To this day, predators live in the many caves in the vicinity of Qumran; in the Second Temple period they must have been even more numerous than today.

Had leftovers been thrown out, scores of animals, mainly predators, would have lurked around Qumran. The site would have become a "feeding center" in which life would have become ever more difficult. Burying the bones inside clay vessels within the confines of the settlement solved this problem. The bones were buried inside the site probably because people would have been afraid to venture out after dark. The clay vessels prevented even animals with a sharp sense of smell from finding the bones, especially as the vessels were often covered with a plate and buried upside down. For similar reasons, the spoiled dates we found in the refuse dumps, in particular in the southern refuse dump, had been burned; had they not been burned, the dates, even if spoiled, would have attracted innumerable insects. The inhabitants of Qumran realized that if they did not dispose of their refuse with great care, their lives would become unbearable.[119]

It is highly likely that the site's eastern bounding wall, and perhaps also a wall on the western side that reached up to where the western riverbed begins to run along a cliff, was constructed for the express purpose of keeping predators out. It is worth noting that many of the vessels used for the disposal of bones were intact. Only a settlement that possessed a thriving pottery industry and thus had a practically unlimited supply of vessels could afford such an apparent waste of pottery vessels.

BURIAL AT THE SITE: "A SETTLEMENT OF GRAVES" [120]

As is the case with every other aspect of Qumran, burial at the site has also been treated as a unique feature of the sect, and the cemetery has been termed "the Essene cemetery." East of the site lay a large burial field (over 20 dunams), featuring more than 1200 graves dug into the marl.[121]

An examination of the burial possibilities in the area revealed that this was the most reasonable, and perhaps the only, spot where buried corpses would be neither washed away nor eaten by predators. The location also dictated the form that burial took. The marl soil did not lend itself well to digging large family mausolea which could be opened from time to time in order to bury an additional person. The type of individual burial found here also suited the population at the site, first soldiers and then potters. Most of those buried here throughout the site's history did not have their families with them, and indeed, burial here was in single graves. The cemetery was perhaps in use as early as the Iron Age.[122]

Was the burial style at Qumran unique to the site? We believe it was not.[123] Dug graves or, as they are more commonly called, "field graves," have been in use from the dawn of history down to the present day. In the Second Temple period this was the method of burial used for the poor and solitary, who did not have the wherewithal to pay for a hewn tomb.[124] In antiquity, burial in the family mausoleum carried great prestige, but most could not afford a family tomb, particularly the landless, soldiers killed in battle, people condemned to death, and so forth. Burial caves in general survived for a long time and protected the bodies and artifacts in them, whereas field graves usually disappeared. As most of the latter were not located in areas containing archaeological sites, their identification did not survive and they were thus not excavated. As a result, we cannot today say with any degree of confidence what the proportion of field to hewn graves was in the period in question. However, it would certainly appear that despite the many field graves found so far, these are only a very small proportion of the graves that existed at the time.

Already in the rabbinical literature there is recognition of the fact that the identification of a field grave can be lost: "A field in which a grave has been lost" (M *Oholoth* 17:5). This was a much-discussed topic because it was feared that such a grave would spread its impurity to the surrounding field and thence to the crops (M *Oholoth* 15–18; T *Oholoth* 15–17). Rabbinical sources mention "mounds," the soil heaps which marked such graves, just as they do at Qumran: "Mounds which are near either the town or the road, whether old or new, are unclean" (M *Oholoth* 16:2; T *Oholoth* 16:1). Burial in the ground was thus not a unique feature of Qumran; rather, it appears to have been the most common type of burial in Second Temple times, in addition to burial in rock-cut caves.

The Qumran cemetery was in use over a period of more than 300 years. If our hypothesis is correct, it was in use for some 130 years in the First Temple period, and then again for about 170 years in the Second Temple period.[125] Even if we assume that only four people died at Qumran every year, over a period of 300 years that comes to a total of 1200, very nearly the number of graves found in the cemetery. This is of course a mere arithmetical game, but it shows that the said capacity of the cemetery is reasonable, even without taking into consideration bodies brought in from outside in caskets and burial in later times.[126]

The graves that have thus far been excavated have yielded remains of men and only a few women. We have no intention of becoming involved in the dispute concerning the women buried here.[127] If we are correct with regards to the site's nature during the Second Temple period—first a military outpost and then a pottery production center—the number of women would have been small in any case, with no need to assume that the inhabitants were members of the Essene sect who lived a celibate life.[128] During the renewed excavations, nine graves were examined on the cemetery's southern end. All nine were covered with a mound of soil and rocks. Four contained no bones, four contained the bones of adults ranging in age from 25 to 60, and one contained a wooden coffin, perhaps indicating that it had been brought from outside the site. In two of the graves without bones, fourteen jars with lids were found (Figs. 46–47). These contained the residue of an organic material, probably date honey.[129] The jars date from the late second or early first century BCE.

Why were these jars buried in field graves in the cemetery of Qumran? A possible explanation is

Fig. 46. Sealed storage jars found intact in one of the graves.

Fig. 47. Sealed storage jars from one of the graves.

that the cemetery or part of it was used for burying people in the area who had been killed in war at the beginning of the Hasmonean period, and that the authorities had prepared for this possibility by digging more graves that would eventually be needed. The superfluous graves would have remained open until used for a different purpose, perhaps for the burial of clay vessels that had become ritually unclean. This may explain the way the graves in this area are situated, and may provide further evidence for the identification of Qumran as a military outpost during the first phase of its existence in the Second Temple period. The buried jars prove that the cemetery was already in existence at the beginning of the Hasmonean period, and perhaps even earlier, in the Iron Age.

The jars buried in the cemetery are quite interesting. The Pentaeuch commands: "This is the law that applies when a person dies in a tent: Anyone who enters the tent and anyone who is in it will be unclean for seven days, and every open container without a lid fastened on it will be unclean" (Num. 19:14–15). The jars found at the site had "fastened lids," but still apparently had become ritually unclean and were buried outside the site. We assume that despite the lids, these jars had become ritually unclean, probably through contact with a corpse, which brought about the most severe grade of ritual impurity.

RESIDENTIAL QUARTERS AND THE NUMBER OF INHABITANTS

The issue of the site's population and where it resided provides another typical example of the way the scientific community deals with the site and interprets the finds there. Some scholars argue that Qumran was home to several hundred members of the Essene sect.[130] Others attempt to calculate the number of inhabitants using the size of the cemetery,[131] the pools,[132] or the rows of people who could sit in the "refectory" (L-77).[133] Most calculations have resulted in numbers between 200 and 250. Surveys conducted in the caves around Qumran led J. Patrich to conclude that sect members resided neither in caves nor in tents, but on the second floor of the main building, numbering between 50 and 70 men.[134] Humbert considers Qumran to be a cult site, a kind of temple that members of the sect visited on pilgrimage and where they sacrificed. He therefore assumes that only a small number of "temple servants," 10 or 15 people, lived permanently at the site. He also agrees that no sect members lived in caves or tents.[135]

H. Eshel and M. Broshi have realized that the site could not house hundreds of residents; following a survey and excavations they conducted north of the site, they reverted to de Vaux's proposal that the sect members lived in the marl caves and in tents.[136] The problem was thus solved: the hundreds of sect members lived on north of the site in caves and in tents, in the first Jewish monastery of its kind; visiting the site on occasion to participate in a meal in the "refectory" (L-77), where they sat in five rows and ate their bread, while candidates ate standing.

And indeed the site of Qumran was too small to accommodate hundreds of residents. Its capacity was about 20, 30 at the most. But had the sect leaders wanted hundreds of people to live at Qumran, they could have done so with very little effort. For example, they could have built a second floor on palm trunks; or they could have walled in the southern part of the plateau (approx. 2.5 dunams) and set up scores of tents and/or huts for a very large number of people. But in the caves of the fault scarp only the occasional passersby stayed, in particular shortly before the site's destruction during the Great Revolt (see below), and not members of the sect. One gets the impression that scholars sent the people of Qumran to live in tents and caves—on slopes exposed to winter floods coming down from the scarp—in order to create a parallel with Byzantine monasteries, in which some of the monks lived in caves and would gather in communal locations once a week for prayer (Figs. 48–49).

It is rather astonishing that when scholars calculate the number of residents, they do so on the basis of the water supply, the number of graves, the capacity of the refectory or the number of residential rooms. No one ever wondered how it was possible to feed hundreds of people simultaneously (since they were supposed to have all eaten together). In order to provide two meals a day for 250 adult men, an enormous amount of foodstuffs, ovens and cooking ware would be needed. For baking and cooking a single meal, some 30 cooking and baking ovens would have been needed. Were we to accept the claim that the sect lived at Qumran for about 170 years, we would expect to find hundreds of cooking and baking ovens at the site, as well as thousands of cooking pots. In fact, no such quantities of pots were found, and only a small number of ovens (Figs. 50–51). So where were the cooking facilities for the hundreds of sect members? This question certainly deserves an answer, and is no less legitimate than speculations about the number of rows of diners in a non-existent "refectory" (L-77), the existence of the so-called laundry, and other arguments of this type. At Mt. Gerizim hundreds of ovens were found merely from the last phase of the site's existence, when John Hyrcanus I laid siege to it.[137] In each building between 5 and 20 ovens were found; these served the city's defenders, who lived in both public buildings and private dwellings during the months-long siege. At Qumran we should have

Fig. 48. Naḥal Qumran and Caves 4–5, 7–10.

Fig. 49. The fault scarp above the site, eastern view.

Fig. 50. Oven from L-59.

Fig. 51. Eastern part of the main building, northern view. Notice the oven in the lower right-hand corner.

discovered hundreds of ovens, if not more, to account for the site's lifespan. We are thus left with several unanswered questions: where did the sect members reside, where did they eat, and how were their meals cooked?

THE POTTERY INDUSTRY

A quantitative comparison of the pottery found at Qumran with that from numerous other Second Temple-period sites, such as agricultural settlements, large villages and even urban settlements such as Mt. Gerizim, immediately brings to light the difference between them. At Qumran the amount of pottery, and especially the number of unbroken vessels, is greater than that found at any other excavated site of comparable size from this period or any other period, for that matter. Some scholars explain this fact by hypothesizing the existence here of a large Essene community, numbering in the hundreds, which possessed a communal lifestyle and took its meals together. That was the explanation given, for example, for the hundreds of bowls and other clay vessels found in the storeroom (L-86, L-89) south of the "refectory".[138]

Qumran featured a large center for the production of pottery (Fig. 52). The kilns, the pools for steeping the clay, the large pools and the large amounts of production waste found mainly in the eastern refuse dump and in the small refuse dump northwest of the site, all testify to the extent of the pottery industry at the site (Fig. 53). It appears that the beginnings of this large-scale industry go back to the first century BCE and continued until the destruction of the site in 68 CE.[139] In addition to the large amounts of industrial waste, the site also exhibits a rather wasteful use of unbroken vessels, mainly for disposing of animal bones but also as supports for brick walls built on the site's eastern side. For example, in the southwestern corner of L-45 a jar was found in the center of the brick wall. Additional vessels were found underneath other walls in this area.

It should be noted that thus far no pottery workshop from the Second Temple period has been found and fully excavated, so that we are unable to compare Qumran to any other contemporaneous site. At Nebi Samwil two pottery centers have been found, one

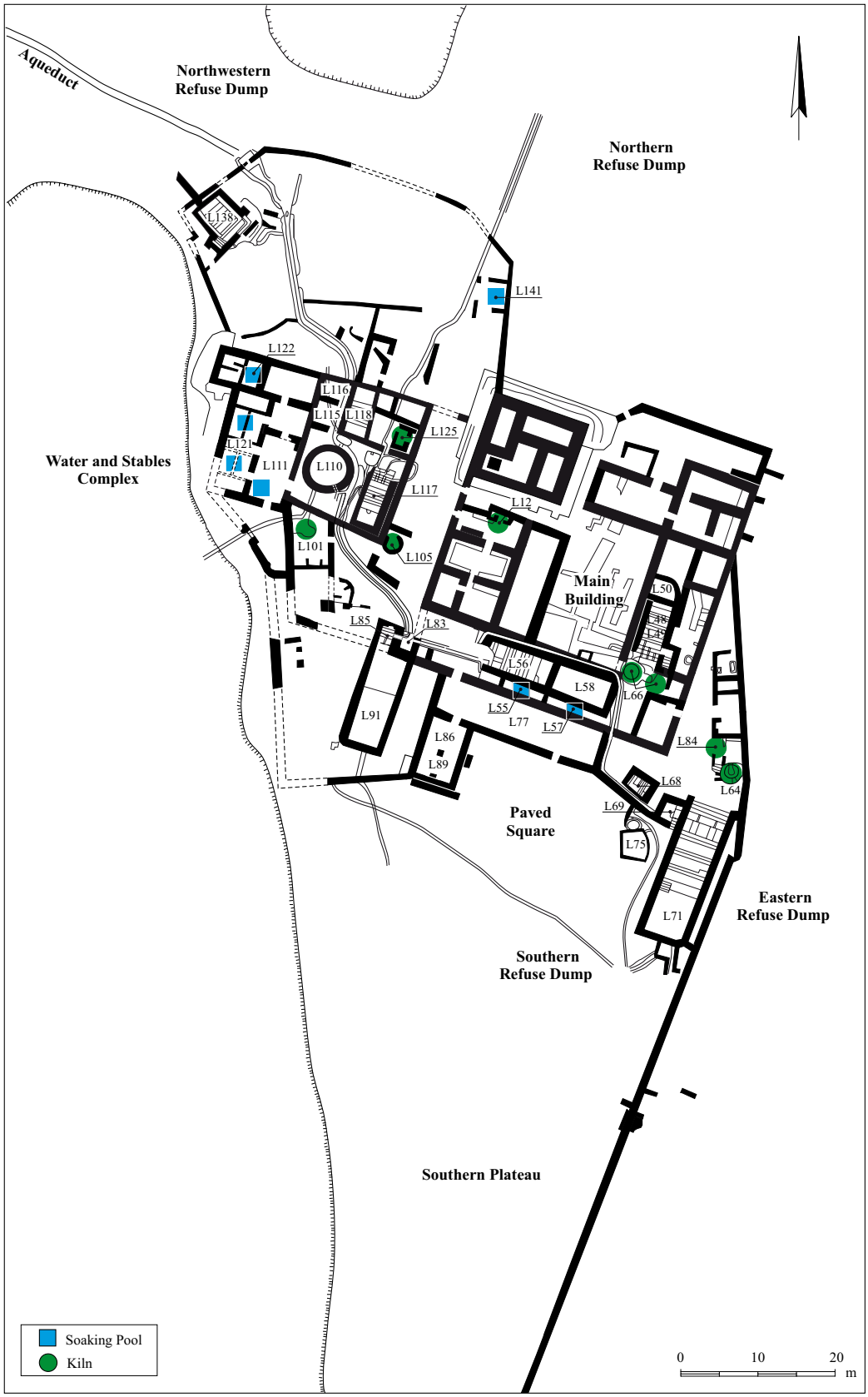

Fig. 52. Qumran, general plan featuring kilns and soaking pools.

Fig. 53. Pottery waste from the eastern refuse dump.

Fig. 54. Pottery vessels reproduced from the clay from Pool L-71.

dating to the Umayyad period after the abandonment of the Byzantine monastery, and the other dating from the Mameluk period after the abandonment of the Crusader fortress.[140] In both cases the pottery center was established on an abandoned site. Pottery centers must have been very unclean and unpleasant places: smoke from the kilns, stores of firewood, potsherds scattered everywhere, surfaces where vessels were put out to dry, ubiquitous damp and embers. That is the impression we got when excavating Qumran. In short, a pottery center is hardly the convenient and clean place one would look for when seeking to establish a secluded community living in ritual purity.[141] It is in our view inconceivable that 250 people could live here, at a pottery plant, in addition to the 15 or 20 workers engaged in actual production.

When was the pottery center at Qumran first built and where did the raw material come from? Scholars in recent years have argued that the Qumran sect produced pottery for its own use, due to its unique rules of ritual purity.[142] The huge amounts of clay vessels and production waste make this claim untenable. We are thus led to conclude that the pottery produced here was marketed elsewhere, and was not produced only for local consumption. All the elements of the site, including the pools and the water supply system, were geared toward this industry.

We believe that the pottery industry here was the result of the realization that the clay that entered with the incoming water and accumulated on the bottom of the pools was in fact potters' clay and could be put to profitable use.[143] The renewed excavations exposed blocks of this clay in the eastern dump, in addition to huge deposits of this material—enough for producing thousands of clay vessels—at the bottom of Pools L-71 and L-58. The clay was used to test the possibility of firing the material (Fig. 54).

The aridity and great heat at Qumran are real advantages where the production of pottery is concerned. Such conditions reduce quite significantly the time newly made vessels need to dry before being fired. They also make it possible to produce unfired earthenware vessels, made just with clay and straw or reeds.[144] Such vessels were very useful for storing

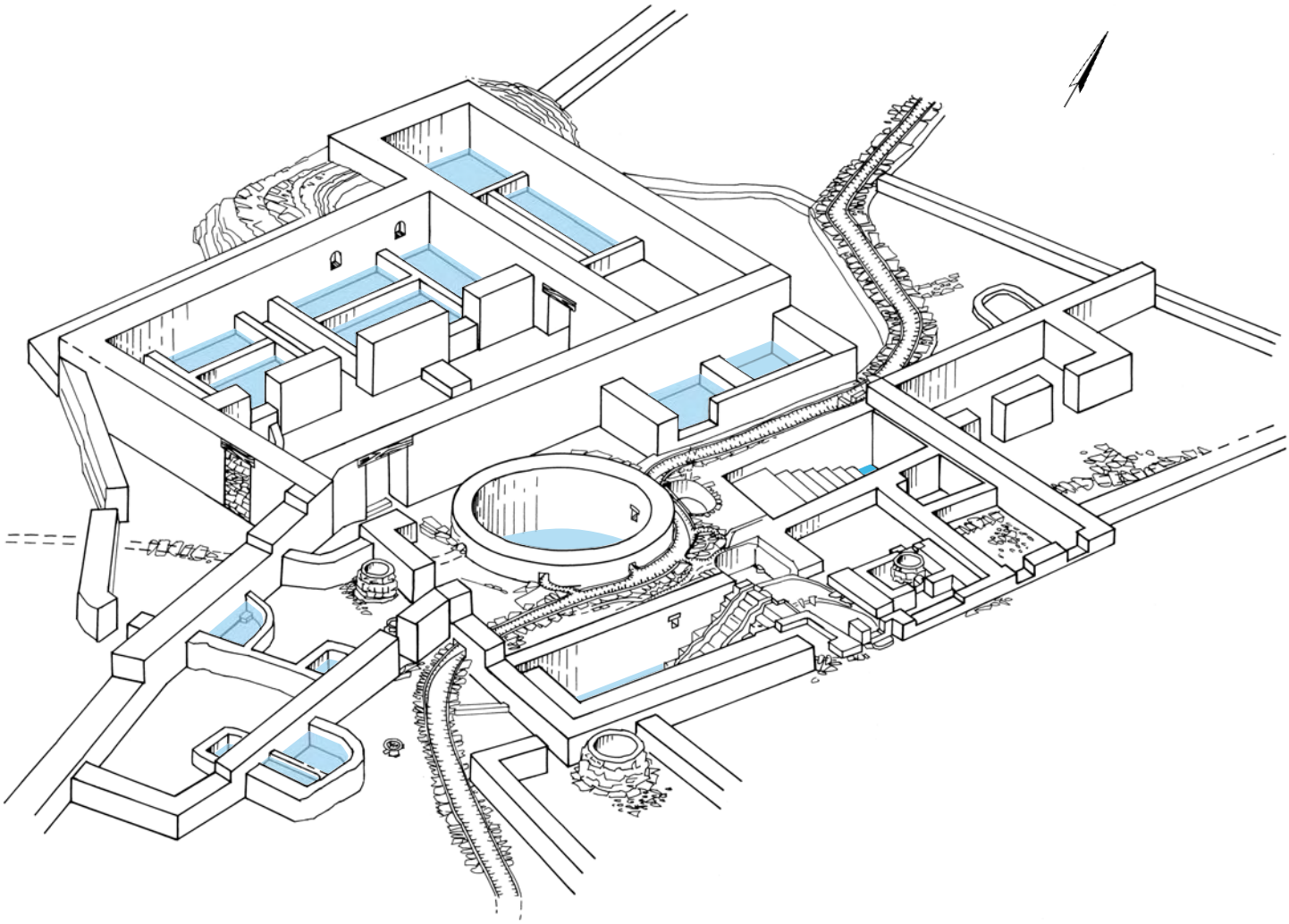

Fig. 55. Reconstruction of the soaking pools.

grain, and for use as birdcages, hencoops, beehives, etc. Such earthenware vessels were still in use in Maimonides' time (MT *Hilkhot Kelim* 1:6), and can be seen in Arab villages to this day.[145]

The transformation of the site into a pottery production center led to the construction of soaking pools for the material and of the kilns. In their second phase, the stables were converted into pools: two of the entrances which led into L-121 were sealed and plastered, and the space was divided by low, plastered walls into six shallow pools (Fig. 55). Remains of similar pools were found in the northern room of the stables (L-120, L-122), as well as in L-101 and L-141, and perhaps also L-115 and L-116.

In addition, many kilns were found at the site, used for firing the vessels. Four kilns were found in the eastern part of the site: one large oven, L-64, and to its north, a small one, L-84 (Figs. 56–57); and two (L-66) south of the cracked pool, of which one was taken apart by de Vaux during excavation. Four additional kilns were found in the western part of the site: one in the northern part of L-101, one in L-105, one in L-125 (Figs. 58–59), and one south of the tower in L-12 (also dismantled by de Vaux).

Fig. 56. Kilns L-64, L-84; northern view.

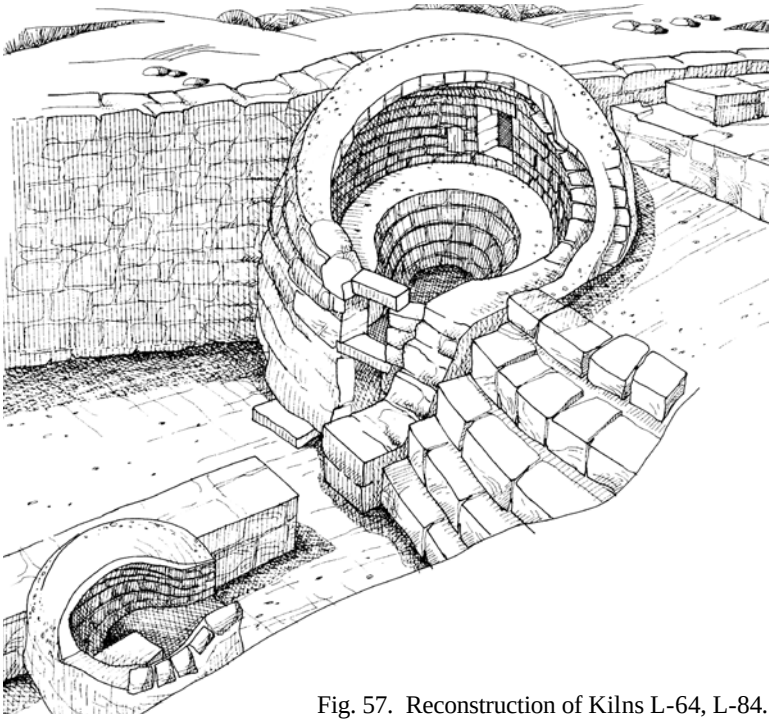

Fig. 57. Reconstruction of Kilns L-64, L-84.

Fig. 58. Kiln in L-125.

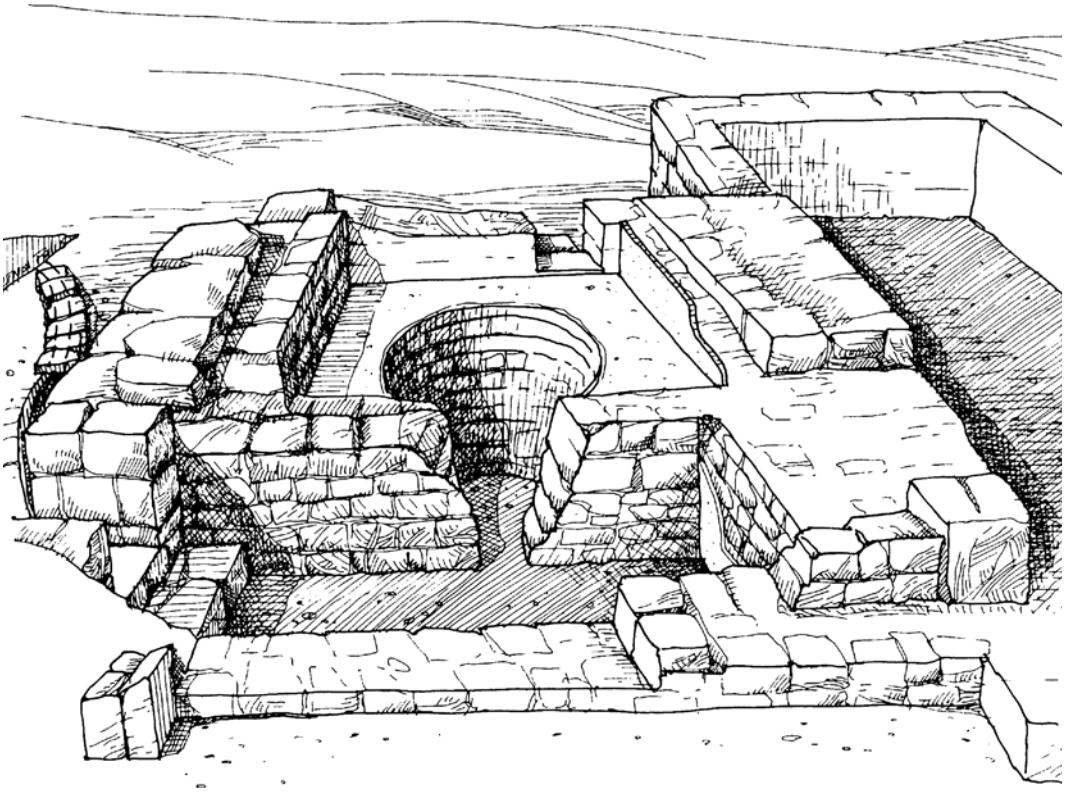

Fig. 59. Reconstruction of kiln in L-125.

ARCHITECTURE AND CONSTRUCTION PHASES

Our final report will contain a detailed description and analysis of the site's architecture. Here we shall only briefly refer to new methods in understanding the site. In what follows, we shall disregard de Vaux's original stratigraphical and chronological classification of the site; today most agree that these were not based on any solid archaeological evidence, but mainly on the coins he found.[146]

PHASE A—THE IRON AGE (eighth to sixth centuries BCE)

The Iron Age settlement at Qumran was established toward the end of the eighth century BCE and existed until the destruction of the First Temple. Few remains of stone construction were found; the bulk of the Iron Age finds consist of a thick conflagration layer of wood and brick. Qumran in the Iron Age was thus a hamlet of mudbrick huts and wooden sheds, with perhaps a single stone structure that has not survived. De Vaux's reconstruction of the Iron Age structure has been shown to be invalid, as we know today that the Iron Age village covered a much larger area than he had supposed (see Fig. 4). We also cannot accept his claim that the round pool (L-110) was built in the Iron Age. We exposed two building phases in the pool, one dating to the Hasmonean period (the early first century BCE) and the second from the construction of the extended water supply system.

PHASE B—THE HASMONEAN PERIOD (early first century BCE)

At this time a well-constructed square building was erected around a central courtyard (Fig. 60). A square

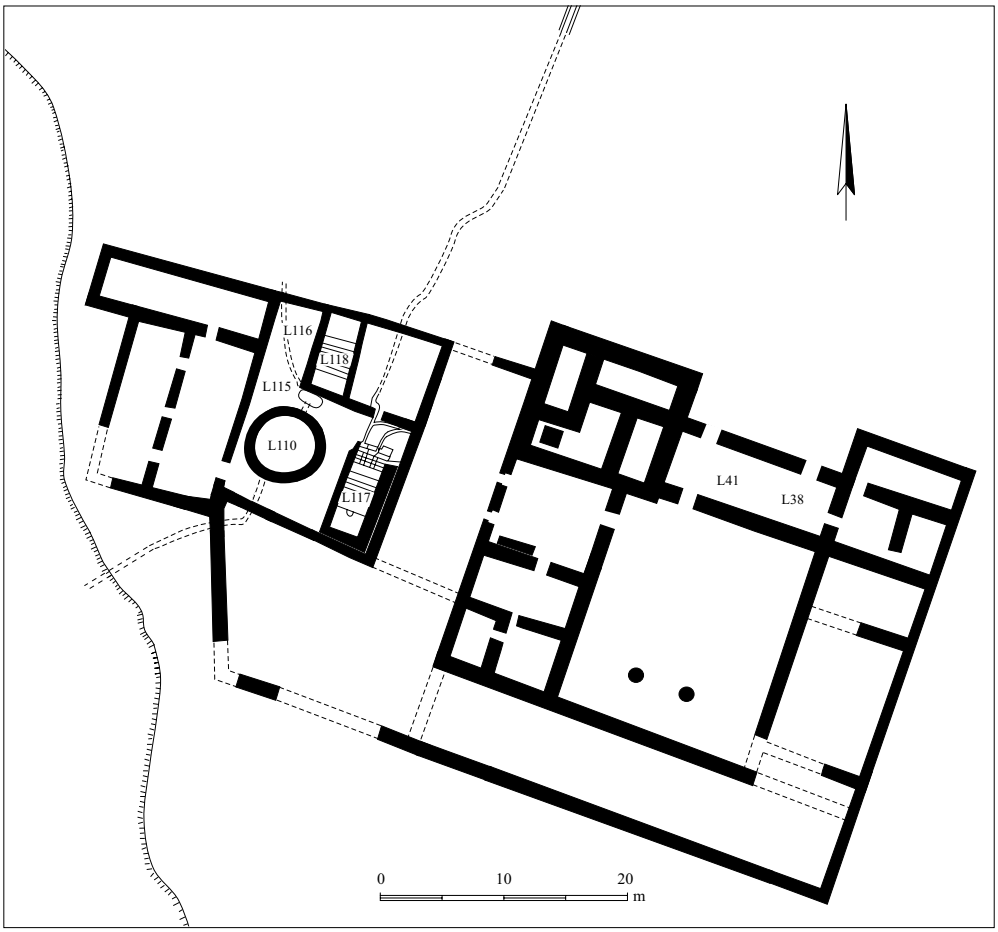

Fig. 60. Phase B, general plan.

tower was built in its northwestern corner, and probably a second, smaller tower in its northeastern corner. The main entrance to the building, located on the northern side, consisted of two openings in the northern wall of the room east of the tower (L-38, L-41). Another opening, in the building's western wall, led to the water and stables complex, which constituted a separate unit. South of the courtyard and opposite the main entrance was a reception room (triclinium) fronted by a portico with two columns. A wooden spiral staircase built around a stone pilaster in the tower's southwestern corner ascended to the second story. The building as a whole is nearly identical to the Twin Palaces in Jericho,[147] and similar to a building type of Greek origin that was common in the Land of Israel in Hellenistic times.[148] More than a century before the construction of this building and of the Twin Palaces, practically identical structures surrounding courtyards were built in the Hellenistic city at Mt. Gerizim. Buildings of this type were in use both as private dwellings and as components of palaces and fortresses.[149]

The building at Qumran was built in Hellenistic style, employing architectural elements such as column drums, hewn doorposts, ashlars, masons' marks, plaster, etc. Similar elements were found at two other sites along the Dead Sea shore—Rujm el-Baḥr and Kh. Mezin—including a basic construction technique that is completely identical to that of Qumran, a fact upon which Bar-Adon has already remarked.[150]

Qumran was neither a rural villa nor a palace; had that been the site's purpose, the Hasmoneans would have built it closer to the shore, where vegetation and sweet water abounded, as at ʿEin Feshkha.[151] As mentioned above, the site was part of the line of fortifications along the Dead Sea created by the Hasmoneans, intended to warn of an impending attack, to supervise traffic in the region, and perhaps also to utilize its natural resources (salt and asphalt), which possessed great economic value. Since it served as a headquarters rather than a fortress, it was built with the comfort of its personnel in mind: pools (perhaps also a recreational pool), comfortable quarters, a reception room, and, of course, a sturdy observation tower. The Hasmoneans erected Qumran along the Dead Sea shore for the purpose of connecting the main headquarters at Hyrcania with Machaerus, ʿEn Gedi and Masada.

Two separate structures were built at Qumran: the main building and the water and stables complex to the west. Why were dwellings and water supply not united in a single structure? Why were the pools not built in the courtyard, as was usually the case? There were two reasons for this: the nature of the soil and the source of the water. The marl made it impossible to construct round pools and then erect buildings over them. Nor could the channeled water from the fault scarp flow into the building without the danger of flooding it, leading to the separation of the water supply from the main building. The water and stables complex to the west consisted of a round pool (L-110), 5.4 m in diameter and 6 m in depth, with a capacity of 138 m^3, and two stepped pools (L-117 and L-118) with a capacity of 25 and 26 m^3, respectively. Inside the site, rainwater was channeled into Pool L-117, while the round Pool L-110 and the stepped pool north of it (L-118) were fed by rainwater flowing north and west of the site from the plateau and the fault scarp. At this phase neither of the two aqueducts had yet been constructed, and the pools were filled only with rainwater from the site itself, and also with rainwater from the area to the north and west of the site, which flowed along Passage E (see above) between the northern and western riverbeds. West of the pools three large rooms were constructed, which served, at this phase, as stables.

Were the two stepped pools ritual baths? Could half of the site's available water during this phase have been set aside for ritual bathing by the site's military personnel, who were perhaps not even Jews?[152] They could certainly have been used for washing and recreation, and not necessarily for ritual bathing. Even so, the only possible ritual bath at this phase would have been L-117 as it was filled directly with water from the roof, with no sedimentation basin which, as mentioned above, would have made the water unsuitable for ritual bathing.

PHASE C—THE HASMONEAN PERIOD (mid-first century BCE)

It was during this phase that the central water supply system was built (Fig. 61). To the round pool and the two stepped pools were now added the wide aqueduct from Naḥal Qumran. Situated on the plateau, it drained

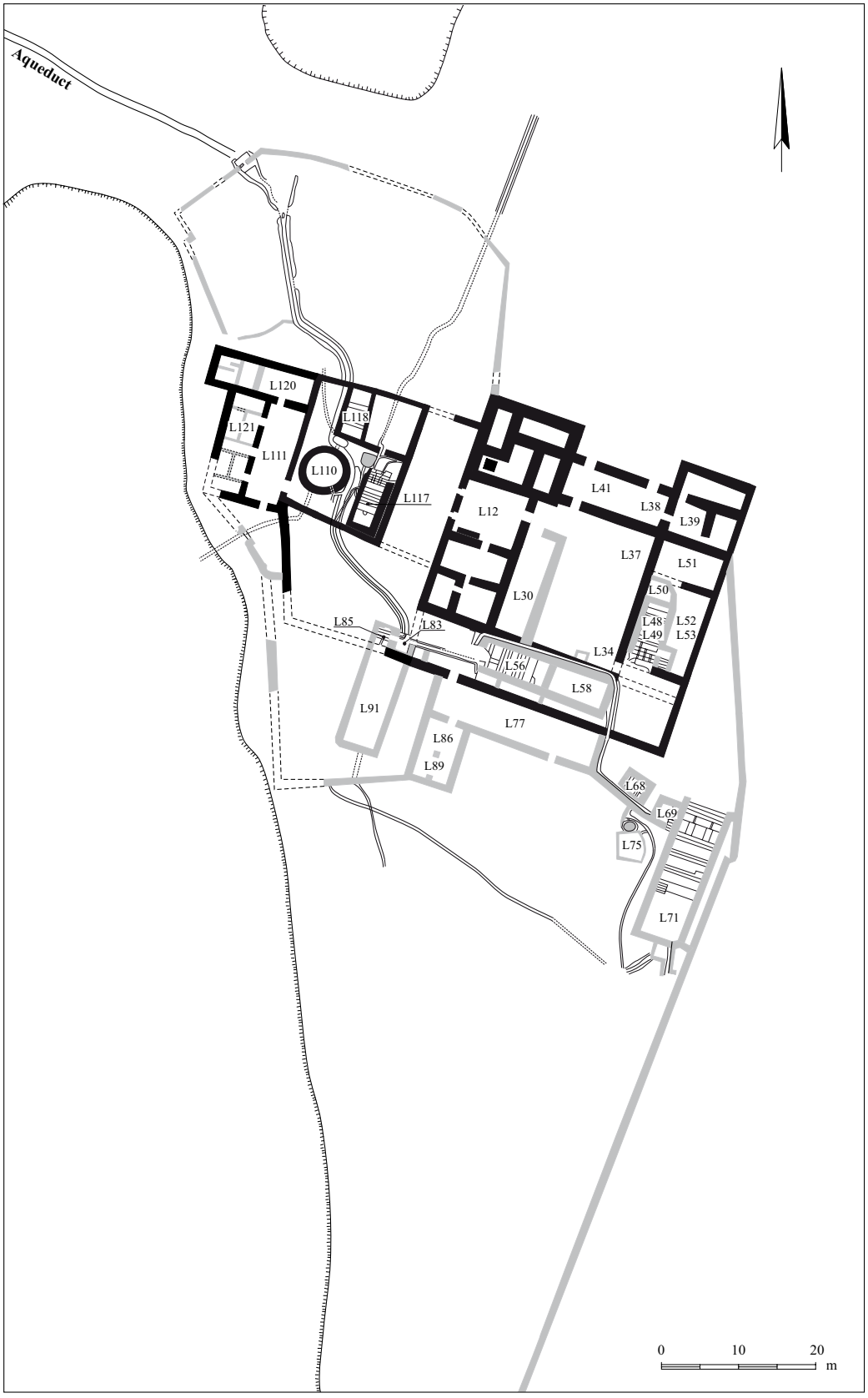

Fig. 61. Phase C, general plan.

the water flowing from the scarp and the channel that passed through the entire site and distributed the water to the various pools. It is surprising that this elaborate water supply system was built when the main building was already in use and that although the amount of water supplied to the site was now tripled, the amount of residential space was not increased at all. We may conclude from this that the expansion of the water supply system was unrelated to the number of people residing at the site.

We were unable to date this phase with precision for the simple reason that the various elements of the water supply system were periodically cleaned, so that any item that can be dated (pottery, coins) necessarily belong to the last phase of use, not of construction. However, it is clear that during the Hasmonean period the water supply system underwent two building phases.

Some of the new pools of the water supply system were located inside the existing building, which resulted in several modifications. The reception room south of the central courtyard was replaced by a pool (L-56, L-58), and a new reception room (L-77) was built to the south, with a storeroom (L-86, L-89) built in its southwestern corner. A square with a smoothed stone and pebble floor was installed south of the building. At this time, Pools L-71 and L-91 were also constructed. Upon reexamination, we believe that the cracked pool (L-48, L-49) may also have been constructed after the pools on the southern side of the site had been completed. To this phase we also ascribe the construction of the site's eastern bounding wall and the transformation of the western wing (L-111, L-120, L-121, L-123) into the pottery production center.

Why was so much invested in increasing the capacity of the water supply system? De Vaux argues that this was done in order to meet the needs of the growing Essene community.[153] This argument is untenable, since two of the pools were built inside the main building (Pool L-56, L-58 and Pool L-49, L-48) and actually reduced the space available for residential purposes. At any rate, the water supply system was expanded during the Hasmonean period, perhaps when it still served as a military outpost before the Roman conquest of 63 BCE. Certainly the first phase of the water system was intended for the soldiers stationed at the site. At some point, the first three pools no longer sufficed, and it was then realized that one could tame the great amounts of flowing rainwater in the area. This second phase was also built with engineering knowledge and probably funded by the state, which perhaps also supplied forced labor.

However, it would appear that the primary motivation for expanding the water supply system was the desire to collect large quantities of potters' clay, as we discovered in our latest excavation in 2004. This explanation would have sounded quite fantastic even only a few years ago, although de Vaux had already found unambiguous evidence (as we did) that the pottery industry at Qumran had its beginnings already in his Stratum Ia (the first half of the first century BCE).[154] It was apparently then that the inhabitants of the site first realized the potential value of the silt that accumulated in the pools of the water system in its first phase. The expanded system was thus motivated by commercial considerations: the collection of clay for the production of pottery vessels, a commodity in great demand at the time.

PHASE D—FROM THE ROMAN CONQUEST TO THE EARTHQUAKE

The site underwent its greatest change following the Roman conquest of the Land of Israel in 63 BCE. Qumran ceased to function as a military station; it may even have been burned down following the conquest, before the earthquake.[155] After the conquest the site probably changed hands, perhaps more than once, and became a center for pottery production, and perhaps also for trade in dates and date honey. As Qumran had been a military station, it did not actually have an owner and was not inherited by members of any one family; therefore, after the end of the Hasmonean state, the site underwent considerable changes in the century or so until its destruction during the Great Revolt (68 CE).

There can be no doubt that the site was severely damaged by the earthquake of 31 BCE. Some of the buildings were destabilized, in particular tall structures like the northwestern tower, which, following the earthquake, had to be supported by a surrounding stone glacis (Fig. 62). This was done at the expense of the room south of the tower (L-12) and part of the room to the east (L-38, L-41), whose area was reduced

Fig. 62. Northwestern tower, northwestern view. Notice the glacis surrounding the tower.

by the addition of a new wall on its western side. The tower was not the only structure at Qumran which had to be strengthened: a retaining wall was added west of the northwestern area (L-121, L-123) of the site, as well as south and east of Storeroom L-86, L-89.[156]

At this point, we wish to discuss two pieces of evidence which de Vaux associates with the earthquake of 31 BCE, and which exemplify the problematic nature of his proposed stratigraphy and chronology of the site. The first is the crack in Pool L-48, L-49. His claim that this crack resulted from the earthquake in question is very difficult to accept,[157] as it supposes that the pool remained in an unrepaired state for over a century, with 200–250 sect members in great need of ritual baths. Even if we were to assume that the crack would reopen from time to time, there is no reason why it should not have been repaired, a task that would have taken a skilled worker no more than a few days. In fact, we have recently found another crack east of the site, dated to a much later stage by the dump that sank into it, apparently after the site was abandoned. We believe that the same is true of the crack in the pool; it was not repaired because when it formed, the site had already been abandoned.

The second argument, no less odd than the first, concerns the piles of clay vessels, mainly plates and bowls, found in the storeroom (L-89, L-86) south of the "refectory" (L-77). To judge by the pottery, the storeroom was indeed destroyed in the earthquake of 31 BCE. But the inhabitants of Qumran continued using the refectory for another century, preparing meals for 200 people every day. Why then did they not clear the vessels from the storeroom, instead of installing a new entrance on the south and raising the floor so as to cover the piles of vessels?[158] Surprisingly enough, de Vaux's arguments gained general acceptance and scholars continue quoting his opinions on the cracked pool and the storeroom. Moreover, it appears that the construction of the majority of the small pools and the ovens should be assigned to this phase, both serving the pottery industry.

PHASE E—FROM THE EARTHQUAKE TO THE DESTRUCTION OF THE SITE

During the Herodian period the site lost much of its importance, and very little was invested in it, publicly

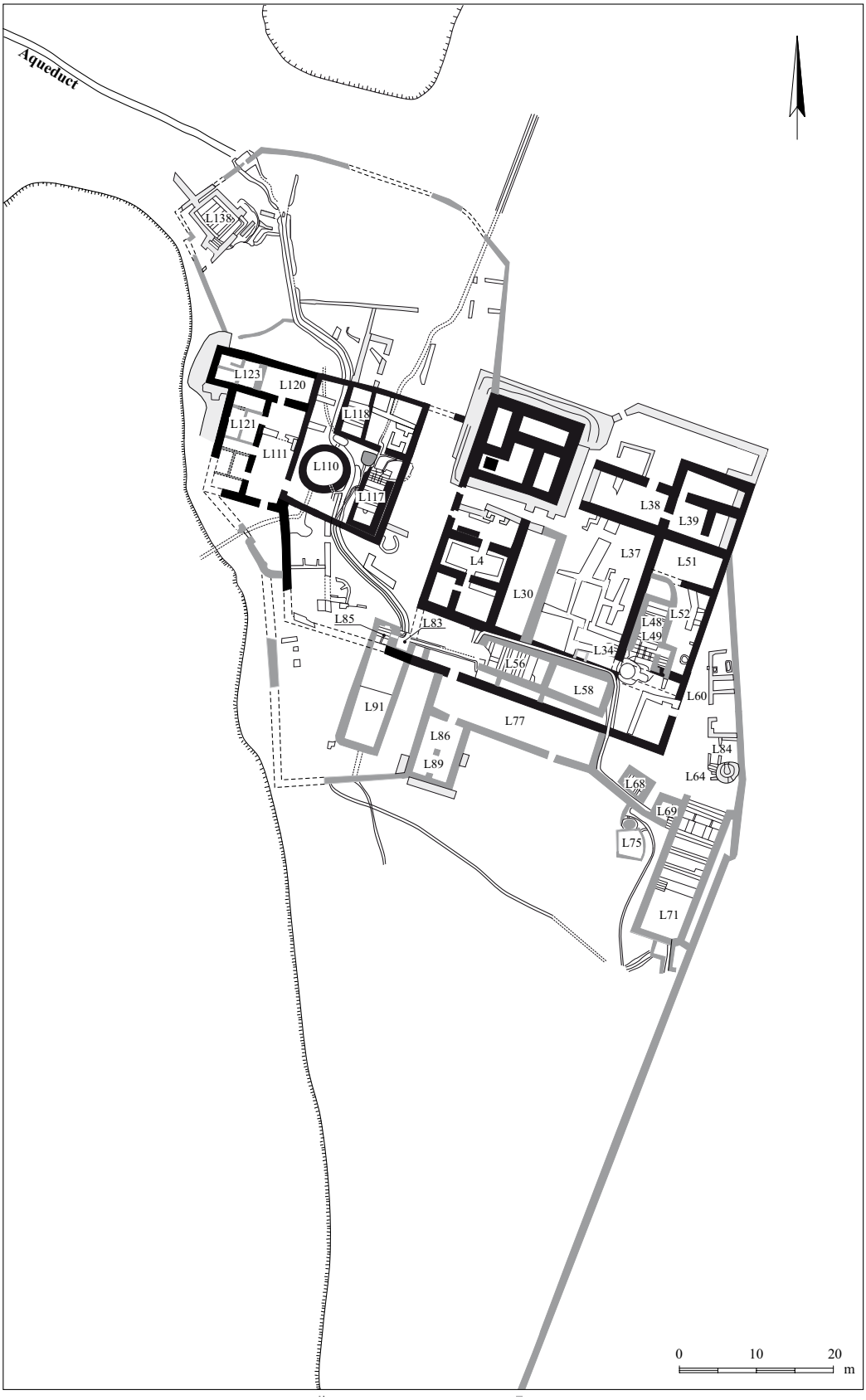

Fig. 63. Phase E, general plan.

Fig. 64. Western part of the main building, northern view. Notice the benches in L-4.

or privately (Fig. 63). No massive structures were erected; in fact there are no buildings at all that reflect the period of either Herod the Great or of Agrippa. The site remained essentially as it had been when it was constructed in the Hasmonean period.[159] We found only minor changes that could be attributed to the Herodian period, among them various structures in the courtyard, perhaps the addition of Ritual Bath L-138 for the use of the potters in the northwestern corner of the site, and Ritual Bath L-68 for the workers producing date honey and dried dates. During this time, more kilns were built and the rate of production of pottery increased. In our opinion, a synagogue was built at the site not long before the destruction. It was fitted with plastered benches and was located south of the tower, in L-4 (Fig. 64). It should be pointed out that in recent years it has become clear that nearly every site that continued in existence until the destruction of the Second Temple contained a synagogue.[160]

After the capture of Jericho, Qumran was taken as well, and probably also burned down.[161] It was destroyed in 68 CE, judging by the coins of the second and third year of the Revolt that were found there.[162]

PHASE F—FROM THE DESTRUCTION OF THE SITE TO THE BAR KOKHBA REVOLT

Based upon the discovery of a *Judaea Capta* coin from the reign of Titus featuring the symbol of the Tenth Legion, de Vaux argues that after its destruction a Roman garrison was station at the site. However, all the coins found at the site dating from after the Great Revolt (from the reigns of Titus, Agrippa II, Trajan, Hadrian, three coins from the Bar Kokhba Revolt itself, and even some coins from before the destruction of the Second Temple) were stashed there during the Bar Kokhba Revolt (132–135 CE).[163] We have no way

of knowing when Jews reoccupied the site during the revolt. At any rate, it is highly unlikely that a Roman garrison would have been stationed at a burned, abandoned site, whose water supply system was no longer operative.

SUMMARY

Much has been written about Qumran, and endless theories have been proposed, some of which have attained the status of fact upon which archaeological research has built over the past fifty years. Here, we wish to clearly distinguish between various hypotheses concerning the site and the archaeological evidence that we have exposed in our excavations.

The first settlement at Qumran was established in the Iron Age. When the site was again inhabited in the Hasmonean period it was built in exactly the same place. This fact itself, together with an analysis of the topography and of the water regime of the area, provide clear evidence that this was the optimal—and perhaps the only—location on the upper plateau of the marl terraces next to the fault scarp in which a settlement would not be swept away by floods and would be able to collect flowing water and potters' clay. The claim that the location was chosen because of its isolation, for the purpose of establishing a first Jewish monastery or a community center for the Judean Desert sect, is groundless.

Two important secondary roads from Jerusalem met at Qumran, one descended along the riverbed of Naḥal Og and continued south along the fault scarp, and the other descended from the Hyrcania Valley. Qumran was thus not isolated at all, although it certainly was not located on a major crossroad.

The reestablishment of Qumran early in the Hasmonean period (the early first century BCE), at the beginning of Alexander Janneus' reign, is a solid archaeological fact supported by both pottery and coins. The building's plan, construction method, numerous pools and the huge effort expended on all, indicate that Qumran was an official state building project, with surprising similarities to two other sites on the Dead Sea shore: the docks of Rujm el-Baḥr and Kh. Mezin. Qumran was part of the Hasmonean military presence along the Jordan Valley and the Dead Sea. The volume and quality of construction is not consistent with a private building project of the Judean Desert sect, nor with a rural villa or agricultural settlement. Qumran was a forward command post for the Dead Sea fortifications and docks, with the task of supervising coastal traffic and of maintaining communication with the main headquarters at Hyrcania.

The archaeological evidence refutes both theories that have been proposed concerning the initial purpose of the main building: a monastery or community center established as early as the Hasmonean period, or a rural villa or agricultural settlement. Except for date palms near the Dead Sea shore, no crops can be grown in Qumran; a rural villa or agricultural settlement would have been built near the sweet water springs and reeds next to the shore, as in ʿEin Feshkha, and not on the marl terrace. There was no connection between Qumran and ʿEin Feshkha, and neither was inhabited by members of the Judean Desert sect.

The plan, the architecture and the building technique of the main building at Qumran are distinctly Hellenistic. After the Roman conquest, the site was no longer used for military purposes and the building deteriorated. There is no evidence that any significant changes were made in the building in the days of Herod or later. The only tangible improvement made after the Roman conquest was the expansion of the water supply system, which brought about a dramatic change in the methods used for collecting water and a great increase in the capacity of the pools. But the new pools were built at the expense of the site's residential area, so that it is highly unlikely that the increase in the water supply was accompanied by an increase in population. During the first century CE, the site suffered from considerable neglect and was turned into a pottery production center, again contrary to the hypothesis that it was then inhabited by a growing number of sect members (eventually to reach 250 residents).

Another theory that gained general acceptance among scholars and contributed in establishing the belief that Qumran was a religious site—a community center or monastery—was that the stepped pools were ritual baths. According to this position, these pools were required by the hundreds of sect members, for whom ritual bathing was an important element of their faith. Upon reexamination, the hypothesis that every one of the pools was a ritual bath has been shown

to be an unfortunate error, bereft of any scientific or halakhic validity. According to Jewish law, most of the pools were unfit for use as ritual baths because the water in them would have been considered "drawn water." The entire site contained perhaps two ritual baths, and even this is not certain. The purpose of the pools was to collect rainwater and potters' clay for the pottery industry.

Still another hypothesis that has been shown to be groundless is that animals were sacrificed at Qumran. In fact, all the animal bones that have been analyzed were cooked and not burned as offerings. The theory that sect members ate communal meals and that this was connected to the burial of animal bones inside the site also lacks any factual basis. Animal bones were buried in order to prevent attracting hungry animals, especially predators, from the surrounding desert.

For some reason, again without scientific basis, the cemetery and its field graves were taken by scholars to represent a unique burial method used only by the Judean Desert sect. Indeed, this burial method was typical of the Second Temple period in general, and at Qumran, was the only practicable one. The area chosen for a cemetery, east of the site, was protected from flooding and optimally suitable for its purpose. The cemetery may already have been in use in the Iron Age, and at the beginning of the Hasmonean period it was probably used for orderly mass burials, perhaps following a battle that had taken place in the vicinity.

One more baseless hypothesis concerns the number of sect members who lived at the site. This number ran, depending on the calculations of each scholar, from 200 to 250. In fact, at Qumran there is room for 20 to 30 people, at most. Certainly no evidence has been found, like ovens and cooking utensils, to indicate that 250 people had been fed twice a day for 170 years. Nor is there any evidence that members of the sect lived in caves on the fault scarp (together with the predators whose lairs the caves were) or in tents near the scarp (which would have been washed away in floods). Why should they have gone to such lengths when the plateau on which the site is located could easily accommodate 250 people?

Of all the theories concerning the site, one is supported by incontrovertible evidence: the flourishing, decades-long pottery industry. Some scholars—but not de Vaux—have explained the evidence by postulating a pottery workshop, perhaps a kind of occupational therapy to mitigate the boredom of life in the first Jewish monastery. Others have claimed that members of the sect produced their own pottery because of their strict observance of the laws of ritual cleanliness.[164] Needless to say, both claims are entirely groundless.

Qumran possessed a large, highly developed and sophisticated pottery production center. Already in the Hasmonean period, the site's inhabitants had discovered the potential value of the potters' clay that entered the site with the channeled flow of rainwater. De Vaux believes that pottery production at Qumran began in Stratum Ia. The great number of intact vessels and their distribution, the extensive use of intact vessels for the disposal of animal bones, and the tremendous amount of production waste on the site all indicate the existence of a pottery production center, whose raw material came in with the rainwater. The three tons of clay found in the pools we excavated, in particular Pool L-71, provide positive evidence for this. We estimate the total amount of clay in the Qumran pools to have been in the region of six to seven tons, sufficient for producing tens of thousands of clay vessels, with enough raw material left over that it could be exported to other areas. It is quite possible that, in addition to this extensive industry, the inhabitants of the site also utilized the dates growing on the Dead Sea shore to produce date honey, or packed dried dates in clay vessels of the kind that has been mistakenly called "scroll jars." In any case, the main activity at the site was the production of pottery, a fact that we find is hardly consistent with the identification of Qumran as a communal center for the Judean Desert sect.

We are fully aware that it may not be easy for readers to accept our conclusions. Certainly it has not been easy for us to express them aloud, let alone put them in writing. But after ten years of excavations, these conclusions are inescapable. From the outset, we have chosen not to become involved with the issue of the scrolls and the Essenes, but only to analyze the archaeological finds from the perspective of the field archaeologist. However, since reaching the conclusion that Qumran was a pottery production center and not a communal center or monastery—as most scholars believe—we feel that it is only fair to ask ourselves how the scrolls came to be in the caves, and whether there was any connection between the scrolls and the site.

Such a connection was assumed before excavations began. Furthermore, the site was in fact excavated for the express purpose of discovering an explanation for the scrolls, which had begun to be found in the caves north of Qumran.[165] But no association between the site and the scrolls was ever proven, even in the wake of de Vaux's lengthy excavations. Surprisingly, however, belief in such a link became so firmly entrenched that it became a supposedly proven fact. The association between Qumran, the caves and the scrolls is thus a hypothesis lacking any factual archaeological basis, although it is very convenient for all parties concerned, historians as well as archaeologists. Whoever severs the link between the site, the Essene community there, and the scrolls found in the caves, of necessity also undermines all previous ideas about the nature and the provenance of the scrolls. Qumran scholarship is not yet ready for such a revolution, even after 50 years. The theory linking site and scrolls has survived for so long only because it is so convenient.

We now turn to a completely different issue, one that has unfortunately been disregarded almost entirely by Second Temple-period scholarship: the flight of people from Judea and the Land of Benjamin during the Great Revolt in an attempt to escape the Roman army. Despite our knowledge of the siege of Masada and of the areas where the Bar Kokhba Revolt broke out, thus far no one has asked how Jews came to be in places where no Jews had resided before.

In any war, individuals or groups may decide to escape with their lives, the lives of their families and their property. Taking with them their most prized portable possessions—money, documents, books, and so on—they flee to a remote place where they hope the enemy will not reach them. The prophet Jeremiah, writing after the destruction of the First Temple, reported that Jews fled to Moab, Ammon, Edom, and also to what would in the Hellenistic period be known as Idumea (namely the Hebron Hills and the northern part of the Negev desert; Jer. 40:11–12).[166]

Following the campaigns of Cestius Gallus[167] and Vespasian,[168] Jewish villages and towns were abandoned. A mass exodus took place, some escaping to Jerusalem, others to southern Judea—Idumea, the Judean Desert, the Shephelah and the southern shores of the Dead Sea. The latter were all uninhabited or only sparsely settled and featured a great number of accessible caves where thousands of refugees could have found shelter. These remaining survivors of the Great Revolt later became the nucleus around which the Bar Kokhba Revolt developed, and the survivors of that second revolt then founded the settlements and synagogues in the southern Hebron Hills, at ʿEn Gedi and in the Shephelah.[169] Had scrolls survived in these areas, their quantity would surely have exceeded tenfold the number of scrolls found in the Qumran caves and at Masada.

As already mentioned, Qumran was located at the terminus of two roads. One road descended to Qumran from the fault scarp north of Naḥal Qumran along an accessible route that had probably been constructed in the First Temple period and then renovated during the Hasmonean period. It connected with many roads and paths from Jerusalem and from the numerous Jewish settlements that surrounded it on the north, east and south. From the Kidron Valley one would walk toward the Hyrcania Valley and from there descend to Qumran. The second road was the "Salt and Sugar" road, descending to Qumran from the north along the bottom of the fault scarp.[170] The many caves along the way enabled the fleeing populace to hide during the day and continue walking at night. In order to continue southward from Qumran, one had to descend to the Dead Sea shore, continue south for a while on foot and then board a boat to ʿEn Gedi, Masada, the eastern coast of the Dead Sea, or to the southern Hebron Hills. It was therefore no coincidence that the scrolls were hidden in the Qumran caves, since these were located on the route of the fleeing refugees. Qumran was the last spot where they could hide their scrolls before descending to the shore. Confusion reigns when refugees flee in time of war, and certainly there may have been refugees who took their scrolls with them to ʿEn Gedi, and from there to Masada, but most would have hidden them in the Qumran caves before descending to the Dead Sea shore.[171]

In fact, evidence for such refugees has been found in the caves of Qumran and at ʿEn Gedi, but was misinterpreted by the excavators. Broshi and Eshel excavated a number of natural caves formed by floodwater in the riverbeds around Qumran, which they thought, mistakenly, had sheltered members of the Essene sect for whom there was no room at the site.[172] Most of the finds discovered in the caves belonged to refugees who stayed at Qumran before

continuing on their way. No one could have resided in these caves nor in those in the fault scarp for an extended period of time. Those who stayed there did so because they had no choice; they would hide from the Romans during the day and continue on their way after nightfall.

Another find, from ʿEn Gedi, was discovered by Hirschfeld and, in our opinion, also misinterpreted.[173] During excavations, some temporary dwellings were found and dated from the second half of the first century until the early second century CE. Hirschfeld argues that a group of Essenes lived in them. We, however, believe that they were built by refugees who had fled from the Romans.[174] Many more finds, which are to be ascribed to these refugees, have been found in the many surveys carried out along the riverbeds of the Judean Desert.[175]

We have no way of knowing how long refugees continued to pass through Qumran. Nor do we know whether the site was already abandoned at the time or whether it was burned later. At any rate, the refugees found here a site full of clay vessels, including cylindrical jars of the type that were mistakenly called "scroll jars," which we believe were originally used for storing fresh and dried dates as well as date honey. We believe that refugees took some of these jars and hid scrolls inside them. The complete lack of order in the way the scrolls were hidden in the various caves, some located more than a kilometer from the site, indicates that concealing the scrolls was not an orderly project undertaken by members of the sect, but rather a random, hasty act, probably performed at night. Only someone desperate, a refugee on the run, would hide scrolls in the lairs of predators. If the scrolls had been hidden by the 200 to 250 sect members at Qumran, they would surely have gone about it in a more orderly fashion, and would probably have found a better hiding place inside the site.

In short, the scrolls found in the caves of Qumran were not placed there by an organized community of several hundred men, but rather by refugees, probably at night, without any planning, except for the intention to one day return and retrieve the scrolls.

Among the scrolls found at Qumran and Masada were both sectarian and non-sectarian texts.[176] Clearly these texts did not originate in the official libraries in Jerusalem and in the Temple, which were under priestly control. Rather, they originated in sectarian libraries, as well as in libraries in Jewish towns outside Jerusalem.

Further evidence for the claim that the Qumran scrolls originated in various locales lies in the high number of biblical scrolls found among those in the area of Qumran, approximately half. Additional support lies in the large number of copies of these biblical texts: about 20 copies of Genesis, 16 copies of Exodus, 27 copies of Deuteronomy, 36 copies of Psalms, 21 copies of Isaiah, etc. Why would Qumran's sectarian library require so many copies of biblical texts—or were the scrolls, as said, brought in from other areas?

Moreover, C-14 testing dates the scrolls from the third century BCE to ca. 70 CE. The Qumran scrolls are textually multifaceted: they differ in writing, spelling, language and content. Some are similar to the Samaritan version of the Torah, others to the Septuagint translation, and still others—especially the later texts—to the Massorah version.

The biblical scrolls from Qumran are non-sectarian; they reflect the state and tradition of the biblical text in all of the Land of Israel.[177] Can we state the same of sectarian scrolls found at Qumran? These were sectarian texts, but not all were necessarily composed by the Essenes—and certainly not by Essenes inhabiting Qumran, but, as noted by Josephus, in every city and village in Judea (*War* II, 124). We will go one step further and ask whether the Qumran sectarian texts may in fact represent not only the Essenes, but all sects and streams of opinion present in Judaism at the end of the Second Temple period.

It is our contention that every community decided what to do with its sacred books. Josephus states that the Essenes were represented in every city and town. In this context we should mention another significant fact emerging from recent excavations that scholars have generally ignored: every village and town that survived until the end of the Second Temple period contained a synagogue.[178] These synagogues served mainly for the reading of the Torah and for studying the commandments.[179] It is possible that some of the non-sectarian texts originated in the many synagogues that existed in the vicinity of Jerusalem before the destruction of the Temple and were then smuggled out as described above, ending up in the Qumran caves.

The scholarly literature on Qumran contains few scientific facts supported by the archaeological

finds—but a great many conjectures. Archaeological evidence can usually be interpreted in more than one way; here we have attempted to interpret them in a way that we believe to be more consistent with what we know of life in the Second Temple period. In the process we have brought the site down from the unwarranted heights to which it had been raised by various scholars to serve their scientific interests, and placed it firmly on the somewhat mundane ground of the Second Temple period and the destruction of Jerusalem.

REFERENCES

[1] On the findings from this excavation, conducted jointly with the Israel Antiquities Authority, see *ʿAtiqot* 41 (2) (2002).

[2] Loci numbers are those used by de Vaux, except where indicated otherwise.

[3] We wish to thank the following people who participated in the excavations and in processing the finds, or who participated in the preparation of the present article: Michal Haber, Michael Guggenheimer, Irina Eizenstadt, Uzi Greenfeld, Evgeny Aharonovich, Evgeny D. Kagan, Yossi Nagar, Donald T. Ariel, Baruch Yuzefovsky, Moshe Sadeh, Mendel Kahn, Felix Portnov, Pavel Gertopsky, Shlomi Ammami, Avraham Hai, Rachel Abraham, Yoav Tzionit and Janne Bar-Rashi.

[4] The number of books and articles on the archaeology of Qumran that have been published in the past is very large, and we cannot possibly do justice in the present paper to all the opinions expressed therein. This will have to wait for the final publication. Here we wish to mention de Vaux's excavation reports and his book; see: R. de Vaux, "Fouille au Khirbet Qumrân. Rapport préliminaire," *RB* 60 (1953): 83–106; R. de Vaux, "Fouilles au Khirbet Qumrân. Rapport préliminaire sur la deuxième campagne," *RB* 61 (1954): 206–236; R. de Vaux, "Fouilles au Khirbet Qumrân. Repport préliminaire sur les 3^{e}, 4^{e} et 5^{e} campagnes," *RB* 63 (1956): 533–577; R. de Vaux, *Archaeology and the Dead Sea Scrolls*, London 1973. Also worth noting here are the excavation diaries and photographs published by J.-B. Humbert and A. Chambon (eds.), *Fouilles de Khirbet Qumrân et de ʿAïn Feshkha* I, Göttingen 1994; *Khirbet Qumrân et ʿAïn Feshkha* II. While it is highly likely that some of the ideas propounded in the present paper have been proposed in previous publications, we would like to stress that all our hypotheses concerning the site are based on the findings there and on an analysis that takes the results of the renewed excavations into account.

[5] This brief survey demonstrates the inaccuracy of H. Eshel's claim that the renewed excavations at Qumran only examined "concentrations of refuse east of the site," as many other remains and finds were discovered as well; see H. Eshel, "Qumran and the Scrolls—Response to the Article by Yizhar Hirschfeld," *Cathedra* 109 (2003): 53 (Hebrew).

[6] See also J. Patrich, "Agricultural Development in Antiquity: Improvements in Cultivation and Production of Balsam," in *Qumran. The Site of the Dead Sea Scrolls:* 241–248.

[7] On L-75, see Humbert and Chambon 1994: 182. Presses were also found in the Hasmonean palace in Jericho, but there is some controversy regarding whether date honey, date wine or grape wine was produced there. See: Y. Porath, "Aspects of the Development of Ancient Irrigation Agriculture in Jericho and Ein-Gedi," in A. Kasher, U. Rappaport and A. Oppenheimer (eds.), *Man and Land in Eretz-Israel in Antiquity*, Jerusalem 1986, pp. 127–141 (Hebrew; English summary, pp. xv–xvi); E. Netzer, "Date 'Winepresses' in the Royal Estate of Jericho," in Y. Eshel (ed.), *Judea and Samaria Research Studies. Proceedings of the 11th Annual Meeting—2001*, Kedumim-Ariel 2002a, pp. 69–79 (Hebrew; English summary, pp. xii–xiii). Other proposals regarding the installation's function were made by de Vaux, who believes that clay was prepared there for the pottery industry, and by S. Pfann, who argues that it was a winepress; see: de Vaux 1973: 16, Pl. XIII:a; S. Pfann, 'The Winepresses (and *Miqveh*) at Kh. Qumran (loc. 75 and 69)," *RB* 101 (1994): 212–214.

[8] The dump was partially excavated by de Vaux, who termed it Section A. He argued that the finds there originated with the renovation of the site after the earthquake of 31 BCE; see de Vaux 1973: 25, 35–36.

[9] On the palace of Hisham at Kh. el-Mafjar, see R.W. Hamilton, "Mafjar, Khirbet el-," in *NEAEHL* 3 (1993): 922–929.

[10] The latter was found by de Vaux; see de Vaux 1973: 17, Pl. XIV:b.

[11] We reject this identification; see de Vaux 1973: 27–28.

[12] We are not the first to make this proposal; see R. Donceel and P. Donceel-Voûte, "The Archaeology of Khirbet Qumran," in M.O. Wise, N. Golb, J.J. Collins, D.G. Pardee (eds.), *Methods of Investigation of the Dead Sea Scrolls and the Khirbet Qumran Site. Present Realities and Future Prospects* (Annals of the New York Academy of Sciences 722), New York 1994, pp. 22–28. See also Y. Hirschfeld, "Qumran in the Second Temple Period: A Reassessment," in *Qumran. The Site of the Dead Sea Scrolls:* 223–240.

[13] K. Galor, "Plastered Pools, A New Perspective," in *Khirbet*

Qumrân et ʿAïn Feshkha II: 291–320, especially p. 303.

[14] This is the precise capacity of the pool, as determined following its complete excavation. B.G. Wood, who attempts to estimate the number of inhabitants at the site based on the amount of water held in the pool, claims that its capacity was 330 m^3; see B.G. Wood, "To Dip or Sprinkle? The Qumran Cisterns in Perspective," *BASOR* 256 (1984): 57.

[15] This channel had already been found and documented by de Vaux, who attributed it to Stratum Ia; see de Vaux 1973: 4, Pl. IV (plan). For a photograph of the entrance to the channel, see Humbert and Chambon 1994: 130, Fig. 269. Over time, the entrance was covered up and was exposed again during our renewed excavations.

[16] K. Galor, "Qumran's Plastered Installations: Cisterns or Immersion Pools?" in C. Ohlig, Y. Peleg and T. Tsuk (eds.), *Cura Aquarum in Israel. Proceedings of the 11th International Conference on the History of Water Management and Hydraulic Engineering in the Mediterranean Region, Israel 7–12 May 2001*, Sieburg 2002, pp. 33–45; Galor 2003: 291–320.

[17] On pottery, see R. Bar-Nathan, "Qumran and the Hasmonaean and Herodian Winter Palaces of Jericho: The Implication of the Pottery Finds for the Interpretation of the Settlement at Qumran," in *Qumran. The Site of the Dead Sea Scrolls:* 263–280. For the results of the provenience analysis, see J. Gunneweg and M. Balla, "Neutron Activation Analysis. Scroll Jars and Common Ware," in *Khirbet Qumrân et ʿAïn Feshkha* II: 4–46 and subsequent articles by J. Michniewicz, M. Krzysko, and K.L. Rasmussen. J. Magness's claim that the pottery found at Qumran reflects the sectarian identity of its inhabitants is based upon outdated and insufficient data; see J. Magness, *The Archaeology of Qumran and the Dead Sea Scrolls*, Grand Rapids, Mich. 2002, pp. 73–89.

[18] "Mire, potters' clay and Greek gypsum. What is mire? It is muddy sediment, as it is written 'He lifted me out of the slimy pit, out of the mud and mire'. And what is potters' clay? It is just what the expression says" (M *Miḳwaʾoth* 9:2).

[19] De Vaux attributed the beginning of pottery production to Stratum Ia, when two kilns were already in operation in the site's southeastern side (L-66 and another kiln that was completely destroyed). Both kilns went out of use in Stratum Ib, when Pool L-48 and a new kiln (L-64) were constructed. De Vaux also claimed that the marl at Qumran was not suitable for making pottery; see de Vaux 1973: 4, 16–17.

[20] It should be noted that most of the pottery found by de Vaux has never been published; see de Vaux 1953: 94, 96–101, Pls. VIa–b, VIIa; de Vaux 1954: 214–228, Pls. Xb, XIa–b; de Vaux 1956: 551–563, Pl. Xa–b. To date, all the studies of the site's pottery have been based on these partial publications; see: J. Magness 2002: 73–104; J. Zangenberg, "Opening up our view: Khirbet Qumran in a regional perspective," in D.R. Edwards (ed.), *Religion and Society in Roman Palestine. Old Questions, New Approaches*, New York–London 2004, pp. 175–179. See also Bar-Nathan 2006: 263–280.

[21] On "scroll jars" from Jericho, see: R. Bar-Nathan, *Hasmonean and Herodian Palaces at Jericho* III: *The Pottery*, Jerusalem 2002, pp. 23–27, Bar-Nathan 2006: 263–280. On Amman, see F.S. Maʿayeh, "Recent Archaeological Discoveries in Jordan," *ADAJ* 4–5 (1960): 116. On Qalandiya, see: Y. Magen, "Kalandia—A Vineyard Farm and Winery of Second Temple Times," *Qadmoniot* 17 (66–67) (1984): 61–71, (Hebrew); and Y. Magen, "Qalandiya—A Second Temple Period Viticulture and Wine Manufacturing Agricultural Settlement," in *The Land of Benjamin*: 29–144.

[22] De Vaux 1973: 29–30.

[23] On the stone vessels found by de Vaux, see: de Vaux 1953: 95, Pl. 3:12, Photo VIb: 99; Donceel and Donceel-Voûte 1994: 10–13.

[24] Y. Magen, *The Stone Vessel Industry in the Second Temple Period* (JSP 1), Jerusalem 2002, pp. 138–147.

[25] Several arrowheads were also found by de Vaux, who attributed them to the site's destruction during the Great Revolt; see de Vaux 1973: 36. For a discussion of other metal objects found at the site, including fibulae, nails and a hoard of metal vessels in L-52, see: de Vaux 1953: 95, Pl. VIIb; de Vaux 1954: 229, Pl. XIIb; and de Vaux 1956: 564.

[26] For a discussion of the entire corpus of ostraca from de Vaux's excavation, see A. Lemaire, "Inscriptions du khirbeh, des grottes et de ʿAïn Feshkha," in *Khirbet Qumrân et ʿAïn Feshkha* II: 341–388.

[27] The glass vessels found by de Vaux were published by H. Wouters et al., "Antique Glass from Khirbet Qumrân—Archaeological Context and Chemical Determination," in *Bulletin of the Institut Royal du Patrimoine Artistique* 28 (2002): 9–40. See also Donceel and Donceel-Voûte 1994: 7–9.

[28] Of particular interest is a hoard of 561 silver coins found inside three vessels in L-120, in the northeast of the site; see: de Vaux 1953: 93–94; de Vaux 1954: 229–231; de Vaux 1956: 565–569; and de Vaux 1973: 34. An annotated list of the coins appears in the German translation of de Vaux 1973; see R. de Vaux, *Die Ausgrabungen von Qumran und En Feschcha* Ia, Göttingen 1996, pp. 119–129.

[29] According to M. Broshi, the Jewish "monks of Qumran" wished to live in seclusion and therefore looked for a site remote from human habitation; see: M. Broshi, "Was Qumran a Crossroads?" *RevQ* 19 (1999): 273–276; M. Broshi, "Qumran and Its Scrolls: Stocktaking," *Cathedra* 100 (2001): 170–171 (Hebrew); M. Broshi, "A Monastery or a Manor House? A Reply to Yizhar Hirschfeld," *Cathedra* 109 (2003): 68 (Hebrew). We also reject Hirschfeld's proposal that Qumran was a major crossroads teeming with life; see Y. Hirschfeld, "Qumran during the Second Temple Period: Re-evaluating the Archaeological Evidence," *Cathedra* 109 (2003): 5–50 (Hebrew).

[30] M. Kochavi (ed.), *Judea, Samaria and the Golan. Archaeological Survey 1967–1968*, Jerusalem 1972, pp. 92–149 (Hebrew); Y. Magen and I. Finkelstein (eds.), *Archaeological Survey of the Hill Country of Benjamin*, Jerusalem 1993, pp. 448–449, 450–451 (Hebrew). Most of the Iron Age settlements in Judea, Benjamin and the Jordan Valley were founded toward the end of the eighth century BCE; see Magen and Finkelstein 1993: 448–449, 450–451.

[31] In this context, it is interesting to compare the Iron Age II map of the Benjamin Survey with the Hasmonean map; see Magen and Finkelstein 1993: 450–451, 456–457. See also Y. Magen, "The Land of Benjamin in the Second Temple Period," in *The Land of Benjamin*: 1–28.

[32] The character of the settlements surveyed in the Jordan Valley clearly indicates that they were not state projects dated to King Jehoshaphat, who "built forts and store cities in Judah" (II Chron. 17:12), or to King Uzziah, who "built towers in the desert and dug many cisterns" (II Chron. 26:10); see: Kochavi 1972: 93–94; N. Naʿaman, "The Town-Lists of Judah and Benjamin and the Kingdom of Judah in the Days of Josiah," *Zion* 54 (1989): 35–45 (Hebrew).

[33] Kochavi 1972: 109, no. 26.

[34] K. Kenyon, "Jericho," in *NEAEHL* 2 (1993): 674–681.

[35] Although Iron Age finds have yet to be discovered at Naʿaran, the site appears in Josh. 16:7 as "Naʿara" and in II Chron. 7:28 as "Naʿaran."

[36] P. Bar-Adon, "ʿEin el-Ghuweir," *ʿAtiqot* 9 (1989a): 33–40 (Hebrew Series); P. Bar-Adon, "Another Settlement of the Judean Desert Sect at ʿAin el-Ghuweir on the Dead Sea," *Eretz Israel* 10 (1971): 72–89 (Hebrew).

[37] P. Bar-Adon, "ʿEin et-Turaba," *ʿAtiqot* 9 (1989b): 41–49 (Hebrew).

[38] B. Mazar, T. Dothan and E. Dunayewski, *En-Gedi Archaeological Excavations 1961–1962* (ʿAtiqot 5; English Series), Jerusalem 1966. See in particular the discussion on Stratum V in pp. 17–38.

[39] Kochavi 1972: 113–114, no. 59.

[40] Kochavi 1972: 114, no. 61.

[41] Y. Magen, "The History of Jericho and Its Sites in Light of the Latest Excavations," *Qardom* 28–30 (1983): 58 (Hebrew).

[42] The site was excavated by A. Eitan; see A. Eitan, "Vered Yeriḥo," *Ḥadashot Arkheologiyot* 82 (1983): 43–44 (Hebrew).

[43] P. Bar-Adon, "Rujm el-Baḥr," *ʿAtiqot* 9 (1989c): 3–14 (Hebrew).

[44] Kochavi 1972: 126, no. 114.

[45] F.M. Cross and J.T. Milik, "Explorations in the Judean Buqêʿah," *BASOR* 142 (1956): 5–17.

[46] A careful examination of Iron Age II finds of the Jordan Valley Survey clearly indicates that the sites in question were not constructed by the state. No fortresses or fortified towns were found, only small settlements, rock shelters and caves, used by shepherds and other nomads.

[47] De Vaux 1956: 535–537; de Vaux 1973: 1–3.

[48] Although remains of Iron Age walls were found by de Vaux east of the northeastern corner of the main building (i.e., east of L-6), he did not include them in his plan of the site, which refers to the period in question; see de Vaux 1973: 2, Pl. 3. As these walls are located outside the Hasmonean structure, it is clear that the Iron Age site was larger than the area delimited by de Vaux.

[49] Another *lamelekh* impression was found by de Vaux underneath L-68; see de Vaux 1973: 2.

[50] De Vaux 1973: 2–3.

[51] The northern end of this wall reached the eastern wall of the Hasmonean building and was ascribed by de Vaux to the Iron Age; see de Vaux 1973: 3.

[52] For a summary of the scholarly literature on the identification of sites along the northwestern coast of the Dead Sea, see A. Ofer, "The Desert Towns of Judah," *Cathedra* 90 (1998): 7–32 (Hebrew).

[53] A settlement named "Secacah" is mentioned in the Copper Scroll; see Ofer 1998: 12–13.

[54] On the various names and their interpretations, see: F.M. Cross, *The Ancient Library of Qumran and Modern Biblical Studies*, New York 1961, p. 38, n. 3; L. Cansdale, "The Name of Qumran in Post-biblical and Modern Times," *QC* 4 (1994): 157–168; L. Cansdale, "The Metamorphosis of the Name 'Qumran'," in L.H. Schiffman, E. Tov and J.C. VanderKam (eds.), *The Dead Sea Scrolls. Fifty Years after Their Discovery. Proceedings of the Jerusalem Congress, July 20–25, 1997*, Jerusalem 2000, pp. 631–636; and J.E. Taylor, "Khirbet Qumran in the Nineteenth Century and the Name of the Site," *PEQ* 134 (2002): 144–164.

[55] This proposal was first made by Milik; see J.T. Milik, "Une inscription et une lettre en araméen christo-palestinien," *RB* 60 (1953): 538, n. 8.

[56] There were only a few inhabited settlements in the Jordan Valley during the Persian period. Finds from this period were unearthed in ʿEn Gedi, Tell Jericho, and Naʿaran (see n. 35); see: Mazar, Dothan and Dunayewski 1966: 38–39; Kenyon 1993: 674–681. Besides these, Kochavi has revealed in his survey only two other sites that contained finds from this period; see Kochavi 1972: 102, no. 3; 111, no. 40.

[57] The conquests of John Hyrcanus I have long been the subject of scholarly debate; see: M. Stern, "The Relations between Judaea and Rome during the Rule of John Hyrcanus," *Zion* 26 (1961): 8–9 (Hebrew); E. Schürer, *The History of the Jewish People in the Age of Jesus Christ (175 B.C.–A.D. 135)* I, Edinburgh 1973, pp. 106–110; B. Bar-Kochva, *The Battles of the Hasmonaeans. The Times of Judas Maccabaeus*, Jerusalem 1980, p. 145, n. 5a (Hebrew); A. Kasher, *Jews, Idumaeans, and Ancient Arabs. Relations of the Jews in Eretz-Israel with the Nations of the Frontier and the Desert during the Hellenistic and Roman Era (332 BCE–70 CE)*, Jerusalem 1988a, pp. 44–45, 76–77.

[58] The results of the excavations at the sites in question indicate that the conquests took place later than

128 BCE, probably between 112–110 BCE, to judge by the numismatic finds. For example, at Mt. Gerizim, coins were found dating from 111–110 BCE; see: Y. Magen, "Mount Gerizim and the Samaritans," in *Early Christianity*: 91–145, here 142–143; Y. Magen, "Mt. Gerizim—A Temple City," *Qadmoniot* 33 (120) (2000): 118 (Hebrew). At Maresha, coins were found dating from 115–112 BCE; see A. Kloner, "Maresha," *Qadmoniot* 24 (95–96) (1991): 82–83 (Hebrew). The same is true for Shechem; see L.E. Toombs and G.E. Wright, "The Third Campaign at Tell Balâṭah (Shechem)," *BASOR* 161 (1961): 46–47. On this subject, see also M. Stern, "Judea and her Neighbors in the Days of Alexander Jannaeus," in M. Amit, I. Gafni and M.D. Herr (eds.), *Studies in Jewish History. The Second Temple Period*, Jerusalem 1991, pp. 128–150 (Hebrew).

[59] The fortress of Dok above Jericho was probably already in existence before the conquests of John Hyrcanus I. For reports on the site in the days of Bacchides, see: I *Maccabees* 9:50; *Ant*. XIII, 16. See also the report on the construction of Masada in the days of "John the High Priest" (*War* VII, 285), although in this case it is not clear to whom this title refers; see Kasher 1988a: 87, n. 130.

[60] According to Kasher, Alexander Janneus began constructing his chain of fortifications in 100 BCE; see: Kasher 1988a: 87–88, n. 130; A. Kasher, "The Wars of Alexander Jannaeus Against the Nabateans," in U. Rappaport and I. Ronen (eds.), *The Hasmonean State. The History of the Hasmoneans during the Hellenistic Period*, Jerusalem 1993, p. 382, n. 13 (Hebrew). De Vaux believed that construction at the site began during the reign of John Hyrcanus I (Stratum 1a); see de Vaux 1973: 5. This view is shared also by Humbert and by Bar-Adon, who sees the same to be true of the Dead Sea sites that he excavated; see: P. Bar-Adon, "The Hasmonean Fortresses and the Status of Khirbet Qumran," *Eretz Israel* 15 (1981): 349 (Hebrew); J.-B. Humbert, "L'Espace sacré à Qumrân. Propositions pour l'archéologie," *RB* 101 (1994): 209. Magness wishes to push forward the date of the establishment of Qumran to ca. 50 BCE, contrary to the pottery and numismatic finds there that date to the end of the second or beginning of the first century BCE. The later date enables her to dissociate Qumran from the Hasmoneans and their colonization activity in the area, and to claim that the site was originally founded by the Essenes as a headquarters for their sect; see J. Magness, "The Archaeology of Qumran," *Qadmoniot* 32 (114) (1997): 124 (Hebrew).

[61] An interesting example of such a Hasmonean garrison in a conquered land is seen in Mt. Gerizim, after its destruction by John Hyrcanus I. Excavations revealed a large number of coins of Hyrcanus and of Alexander Janneus, indicating that a garrison had been stationed there, as well as along the road leading up the mountain from Shechem, in order to ensure that the Samaritans would not return and resettle the ruined city; see Magen 2000: 118. Further evidence is provided by remains of a fortress, north of the Roman temple, which guarded the ascent to Mt. Gerizim. The fortress remained in use in later times as well; see Magen 1993: 127–128.

[62] For a discussion of these fortresses, see Y. Tsafrir, "The Desert Forts of Judea in Second Temple Times," *Qadmoniot* 8 (30–31) (1975): 41–53 (Hebrew).

[63] On Rujm al-Baḥr, see Bar-Adon 1989c: 3–14. On the dock at Kh. Mezin, see P. Bar-Adon, "Qaṣr el-Yahud," *ʿAtiqot* 9 (1989d): 18–29 (Hebrew). See also: E. Netzer, *The Palaces of the Hasmoneans and Herod the Great*, Jerusalem 1999, pp. 67–70 (Hebrew); Y. Hirschfeld and D. Ariel, "A Coin Assemblage from the Reign of Alexander Jannaeus Found on the Shore of the Dead Sea," *IEJ* 55 (2005): 66–98, esp. 73–78.

[64] Bar-Adon 1989b: 41–49.

[65] M. Har-El has revealed that during the Hasmonean period, a fortification was constructed opposite every pass leading westward from the Dead Sea; see M. Har-El, *Journeys and Campaigns in Ancient Times*, Jerusalem 1982, pp. 138–147 (Hebrew). Broshi's opinion that Qumran was located "in an isolated spot of no strategic value whatsoever" is thus untenable; see M. Broshi, "Was Qumran, Indeed, a Monastery?" in G. Brin and B. Nitzan (eds.), *Fifty Years of Dead Sea Scrolls Research. Studies in Memory of Jacob Licht*, Jerusalem 2001, pp. 95–109.

[66] We cannot accept Hirschfeld's theory that a land route connected the northwestern shore of the Dead Sea with ʿEn Gedi in the Second Temple period. Traffic from the northern part of the Dead Sea southward was either by boat or over the Hebron Hills; see Hirschfeld 2003: 8. On this subject, see also Broshi 2003: 67–68 and Eshel 2003: 52, who argues that there was no land route going south along the coast.

[67] The question of ʿEn Gedi and whether it was a Jewish or Idumean village in the Hellenistic period will be discussed at length by Y. Magen in the article "The Idumeans and the Jewish Settlements in the Hebron Hills in the Roman-Byzantine Periods" in the forthcoming volume *Judea and Samaria Researches and Discoveries* (JSP 6).

[68] J. Patrich, "Hyrcania," in *NEAEHL* 2: 639–641.

[69] Bar-Adon 1981: 349–351. We wish to note that all three sites (Qumran, Kh. Mezin and Rujm al-Baḥr) share identical features such as stone tooling techniques, masons' marks, plaster, building components, wall construction and, of course, archaeological finds and dating. There can be no doubt that all three were constructed at the same time and by the same architects and masons.

[70] M. Broshi, "The Archaeology of Qumran—A Reconsideration," in M. Broshi, A. Talmon, S. Japhet, D. Schwartz (eds.), *The Scrolls of the Judean Desert. Forty Years of Research*, Jerusalem 1992, p. 60 (Hebrew). We should point out, however, that not everyone subscribes to this opinion. For example, Humbert argues that Qumran was built in the Hasmonean period not as an Essene site, but rather as a Hasmonean villa or palace; see Humbert 1994: 175–175.

[71] For more on this route, see: M. Har-El, "The Route of Salt, Sugar and Balsam Caravans in the Judean Desert," *GeoJournal* 2 (6) (1976): 549–556; Har-El 1982: 138–147; O. Sion, "Ancient Road in the Northern Judean Desert," *ESI* 10 (1991): 125.

[72] This pass, connecting the settlements in the Buqêʿah with the Dead Sea, was apparently already in use in the Iron Age and only renovated by the Hasmoneans. Even today, one can ascend it with relative ease from Qumran and reach the desert plateau west of the scarp. The pass can be traversed in either direction not only by foot but also with mounts and pack animals.

[73] Bar-Adon 1981: 349.

[74] Kasher 1988a: 86–105; Stern 1991: 137–138, 145–146, 148–149.

[75] Magen 1993: 142–143; Magen 2000: 118.

[76] On the abandonment of Nebi Samwil during the Hasmonean period, see Y. Magen and M. Dadon, "Nebi Samwil (Shmuel Hanavi–Har Hasimha)," *Qadmoniot* 32 (118) (1999): 67 (Hebrew); Y. Magen and M. Dadon, "Nebi Samwil (Montjoie)," in *One Land—Many Cultures*: 127.

[77] B.Z. Lurie, *Jannaeus the King*, Jerusalem 1961, pp. 89–99 (Hebrew); D. Schwartz, "On the Question of the Pharisees' Resistance to the Hasmonean Monarchy," in M. Stern (ed.), *Nation and History, Studies in the History of the Jewish People* I, Jerusalem 1983, pp. 39–50 (Hebrew). Of possible relevance is the revolt against Janneus, which broke out in Judea following his defeat by the Nabatean king Obodas I (Josephus, *Ant*. XII, 375–376).

[78] Hirschfeld 2003: 48–49; Y. Hirschfeld, "Early Roman Manor Houses in Judaea and the Site of Khirbet Qumran," *JNES* 57 (1998): 185–187. This is also the opinion of Humbert and the Donceels; see: Humbert 1994; Donceel and Donceel-Voûte 1994: 1–38. Magness argues against the view that Qumran was a villa; see: J. Magness, "A Villa at Khirbet Qumran?" *RevQ* 16 (1994): 397–420; J. Magness, "Qumran, Not a Country Villa," *BAR* 22 (1996): 38–47, 72–73.

[79] A.D. Crown and L. Cansdale, "Qumran, Was It an Essene Settlement?" *BAR* 20 (1994): 26, 73.

[80] A. Kasher, *Canaan, Philistia, Greece and Israel. Relations of the Jews in Eretz-Israel with the Hellenistic Cities (332 BCE–70 CE)*, Jerusalem 1988b, pp. 133–134 (Hebrew); I. Shatzman, *The Armies of the Hasmonaeans and Herod. From Hellenistic to Roman Frameworks*, Tübingen 1991, pp. 30–35; Stern 1991: 137–138. On the number of soldiers in the wars of the Maccabees, see Bar-Kochva 1980: 60–65.

[81] Kasher 1988b: 159–161. There is no evidence that the Hasmoneans took slaves in their conquests, but we may assume that they did force craftsmen to work on their building projects, with or without pay. Note that Josephus reports that the inhabitants of Samaria were sold into slavery after the city's capture (*War* I, 64–65).

[82] Kasher 1988a: 105–106.

[83] Y. Ben-Shalom, *The School of Shammai and the Zealots' Struggle against Rome*, Jerusalem 1993, pp. 1–6 (Hebrew); Kasher 1988b: 164–173.

[84] Kasher 1988b: 173.

[85] One of the latter was asphalt, used for insulating ships, as a raw material in the production of ointments and creams, and for embalming. See: P.C. Hammond, "The Nabatean Bitumen Industry at the Dead Sea." *Biblical Archaeologist* 22 (1959): 40–48; Kasher 1988a: 98, n. 162.

[86] On the aqueduct of Qumran, see: E.W.G. Masterman, "Notes on Some Ruins and a Rock-cut Aqueduct in the Wâdy Ḳumrân," *PEFQS* 28 (1903): 264–267; Humbert and Chambon 1994: 342; Z. Ilan and D. Amit, "The aqueduct of Qumran," in: D. Amit, J. Patrich and Y. Hirschfeld (eds.), *The Aqueducts of Israel* (JRA Supplementary Series 46), Portsmouth 2002, pp. 380–386.

[87] E. Netzer and G. Gorbrecht, "Water channels and a royal estate of the late Hellenistic period in Jericho's western plains," in D. Amit, J. Patrich and Y. Hirschfeld (eds.), *The Aqueducts of Israel* (JRA Supplementary Series 46), Portsmouth 2002, pp. 366–379.

[88] E. Raz, *The Dead Sea Book*, Jerusalem 1993, pp. 156–159 (Hebrew).

[89] Both the Mishnah and the Tosefta have a tractate *Miḳwaʾoth*. See also: Y. Shenberger, *Miqwaʾot*, Jerusalem 1974, pp. 57–75 (Hebrew); R. Reich, *Miqwaʾot (Jewish Ritual Immersion Baths) in Eretz-Israel in the Second Temple and the Mishnah and Talmud Periods*, Ph.D. diss., The Hebrew University, Jerusalem 1990 (Hebrew).

[90] For this reason, large stepped pools have generally not been identified as ritual baths. On Masada, see Reich 1990: 299–300; on "The Road of the Patriarchs" in Gush Etzion, see D. Amit, "A *Miqveh* Complex near Alon Shevut," *ʿAtiqot* 38 (1999): 75–84; on the Tombs of the Kings in Jerusalem, see M. Kon, *The Tombs of the Kings*, Tel Aviv 1947, pp. 34–38 (Hebrew); and on a site called Bir Ijdeh or Hammam Sarah in the Hebron Hills, see D. Amit, "Ritual Baths (*Mikvaʾot*) from the Second Temple Period in the Hebron Mountains," in Y. Eshel (ed.), *Judea and Samaria Research Studies. Proceedings of the 3rd Annual Meeting—1993*, Kedumim-Ariel 1994, pp. 180–185 (Hebrew; English summary, pp. xviii–xix).

[91] R. Reich enumerates some ten ritual baths at Qumran, including the sedimentation basins in front of the large pools (L-83, L-69); see: Reich 1990: 306–318; R. Reich, "*Miqwaʾot* (Ritual Baths) at Qumran," *Qadmoniot* 30 (114) (1997): 125–128 (Hebrew). For more, see: A. Strobel, "Die Wasseranlagen der Ḫirbet Qumrān," *ZDPV* 88 (1972): 55–86; Wood 1984: 57; E. Netzer, "A Proposal Concerning the Utilization of the Ritual Baths at Qumran," *Qadmoniot* 35 (124) (2002b):116–117 (Hebrew).

[92] See, for example, Reich 1997: 128.

[93] De Vaux described how water was divided among the

various pools, and went on to discuss their use; see de Vaux 1973: 8–10, 131–132. He believed that most of the pools were cisterns, and that only Pools L-68 and L-138 were ritual baths.

[94] These are: L-138 on the northwest of the site, L-117 and L-118 next to the round Pool L-110, L-91 on the southwest of the site, L-56 north of the "refectory", L-48, L-49, L-68, and L-71 at the southeastern end of the built-up area.

[95] These are Sedimentation Basins L-83 and L-69; see Reich 1990: 314–314. Reich believes that the latter served for "ritually immersing large objects, such as beds or parts of tents, that had inadvertently become ritually unclean and therefore had to be purified in a *miqweh*" (Reich 1997: 127).

[96] Shenberger 1974: 63; Reich 1990: 30–33.

[97] For example, Herod's builders in Jerusalem did not fill the space between the supporting wall of the Temple compound and the adjacent hill with earth, but rather created built cells in order to relieve the pressure on the external walls.

[98] Galor 2003: 298.

[99] Our examination of this pool has shown beyond doubt that L-91 and L-85 were in fact one large pool, contra Strobel 1972: 60–61. Furthermore, following an excavation that we carried out in the northeastern corner of L-91, we discovered that the staircase did not continue along the entire length of the pool. In fact, we found the last step at a distance of 1.6 m from the northern wall. This step created a large pool, 4.7×10.7 m and 5.4 m deep, with a total capacity of 292 m^3. Here, again, Wood is mistaken, claiming that its capacity was only 263 m^3; see Wood 1984: 57.

[100] Galor 2003: 299.

[101] Here, again, we cannot agree with Hirschfeld, who posits the existence of a second floor above this pair of pools; see Hirschfeld 2003: 22–23. Rather, the fact that the pools are long and narrow is due to their location inside an existing structural complex and a desire to avoid causing other parts of the building to collapse.

[102] Shenberger 1974: 62–63.

[103] See n. 90. This reasoning, which we cannot accept, would lead to the conclusion that Pool L-119 could also have been a ritual bath, as it featured a small staircase on its northern side that facilitated access to the bottom.

[104] Shenberger 1974: 63; Reich 1990: 30–33.

[105] The large amounts and the extensive distribution of the pottery found both by de Vaux and in the renewed excavations, as well as its use for burying bones, supporting walls, etc., testify to the existence at the site of a large and sophisticated pottery production center, unlike any other Second Temple period site.

[106] See also T *Parah* 5:1.

[107] Ritual baths have been found in the industrial area of the Hasmonean palaces at Jericho and in the agricultural settlement at Qalandiya; see: Magen 1984: 61–71; Magen 2004: 29–144; Netzer 2002a: 69–79. Such observance of ritual purity seems to have been found also among the Samaritans; see Y. Magen, "The *Miqvaot* in Kedumim and the Purification Standards of the Samaritans," *Cathedra* 34 (1985): 15–26 (Hebrew); Y. Magen, "The Ritual Baths (*Miqvaʾot*) at Qedumim and the Observance of Ritual Purity among the Samaritans," in *Early Christianity*: 181–192.

[108] De Vaux 1973: 12–14.

[109] De Vaux 1973: 13.

[110] F.E. Zeuner, "Notes on Qumrân," *PEF* 92 (1960): 28–30.

[111] De Vaux noted that the bones showed signs of having been cooked or broiled, and that the fact that the flesh was separated from the bones after cooking indicates a religious act. He further claimed that the bones may have been the remains of sacrifices, although he admited he has no proof of this; see de Vaux 1973: 12–14. Zeuner agreed with de Vaux that burying animal bones was a ritual act that replaced actual sacrifice; see Zeuner 1960. Magness, too, ascribes a religious significance to the burial of bones; see: J. Magness, "Communal Meals and Sacred Space at Qumran," in S. McNally (ed.), *Shaping Community. The Art and Archaeology of Monasticism* (BAR International Series 141), Oxford 2001, p. 20; Magness 2002: 117–122.

[112] E.-M. Laperrousaz, *Qoumrân, L'établissement Essénien des bords de la Mer Morte*, Paris 1976, pp. 218–219.

[113] Hirschfeld 2003: 11–12. We concur with Eshel's comment that the fact that most bones were found inside clay vessels makes it highly unlikely that they were buried with soil improvement in mind; see Eshel 2003: 52.

[114] Humbert 1994: 187–189.

[115] Humbert 1994: 188.

[116] Humbert 1994: 188.

[117] Humbert 1994: 199–203.

[118] Magen 1993a: 142–143; Magen 2000.

[119] This position has also been taken by Cansdale; see L. Cansdale, *Qumran and the Essenes. A Re-Evaluation of the Evidence*, Tübingen 1997, p. 160.

[120] M *Oholoth* 16:3.

[121] On the cemetery at Qumran and its ascription to the Essenes, see: de Vaux 1973: 45–48; R. Hachlili, "Burial Practices at Qumran," *RevQ* 62 (16) (1993): 247–265; É. Puech, "The Necropolises of Khirbet Qumrân and ʿAin el-Ghuweir and the Essene Belief in Afterlife," *BASOR* 312 (1998): 21–36; Z.J. Kapera and J. Konik, "How Many Tombs in Qumran?" *QC* 9 (2000): 35–49. For an updated account of the number of tombs at the site, see H. Eshel et al., "New Data on the Cemetery of Khirbet Qumran," *DSD* 9 (2002): 135–165. See also: J. Zangenberg, "Bones of Contention. 'New' Bones from Qumran Help Settle Old Questions," in *QC* 9 (2000): 51–76; J. Norton, "Reassessment of Controversial Studies on the Qumran Cemetery," in *Khirbet Qumrân et ʿAïn Feshkha* II: 107–128; O. Röhrer-Ertl, "Facts and Results Based on Skeletal Remains from Qumran Found in the Collectio Kurth—A Study in Methodology," in *Qumran. The Site of the Dead Sea Scrolls:* 181–194; S.G. Sheridan and

J. Ullinger, "A Reconsideration of the Human Remains in the French Collection from Qumran," in *Qumran. The Site of the Dead Sea Scrolls*: 195–212.

[122] This is only a conjecture, as no Iron Age tombs have yet been found at the site itself or in its vicinity. We should mention that the rabbinical sources discuss the need to distance graves from settlements: "Carrion, graves and tanyards must be kept fifty cubits from a town" (BT *Baba Bathra* 25a).

[123] On other Second Temple-period tombs and cemeteries that bear a resemblance to those at Qumran, see; from ʿAin Ghuweir, Bar-Adon 1989a: 33–40; from Ḥiam el-Sagha, H. Eshel and Z. Greenhut, "Ḥiam El-Sagha, A Cemetery of the Qumran Type, Judean Desert," *RB* 100 (1993): 252–259; from Beit Safafa, B. Zissu, "Field Graves at Beit Zafafa: Archaeological Evidence of the Essene Community?" in A. Faust (ed.), *New Studies on Jerusalem. Proceedings of the Second Conference*, Bar-Ilan, 1996, pp. 32–40; from Ḥorvat Egoz, see B. Zissu, "Ḥorbat Egoz," *ESI* 19 (1997): 85*; from Kh. Qazon in Transjordan, with its some 3500 graves of this type, see K. Politis, "Rescuing Khirbet Qazone," *Minerva* 13 (2002): 27–29. See also J. Zangenberg, "The 'Final Farewell': A Necessary Paradigm Shift in the Interpretation of the Qumran Cemetery," *QC* 8 (1998): 213–218.

[124] A. Kloner, *The Necropolis of Jerusalem in the Second Temple Period*, Ph.D. diss., The Hebrew University, Jerusalem 1980, pp. 244–246 (Hebrew); J. Patrich, "Graves and Burial Practices in Talmudic Sources," in I. Singer (ed.), *Graves and Burial Practices in Israel in the Ancient Period*, Jerusalem 1994, pp. 191–192 (Hebrew).

[125] For a discussion on the cemetery, see J. Zias, "The Cemeteries of Qumran and Celibacy: Confusion Laid to Rest?" *DSD* 7 (2000): 220–253. It may well be that Zias, who believes some of the graves to be Bedouin, is correct, and the cemetery was in use during other periods as well.

[126] De Vaux found wooden coffins in a number of graves; see de Vaux 1973: 46–47. We also found one such coffin.

[127] L.B. Elder, "The Woman Question and Female Ascetics among the Essenes," *Biblical Archaeologist* 57 (1994): 220–234; J. Taylor, "The Cemeteries of Khirbet Qumran and Women's Presence at the Site," *DSD* 6 (1999): 285–323; Zias 2000: 220–253. See also: Röhrer-Ertl 2006: 181–194; Sheridan and Ullinger 2006: 195–212.

[128] Scholars have ignored the fact that Josephus discusses two different groups of Essenes: one whose members did not marry (*War* II, 119–121; *Ant*. XVIII, 21) and another whose members did (*War* II, 160–161).

[129] The contents of the jars were examined by S. Wiener and D. Namdar of the Weizmann Institute, Rehovot, Israel.

[130] De Vaux claimed that at their height, the site and the surrounding caves were home to more than 200 sect members; see de Vaux 1973: 56–57, 86. See also Laperrousaz 1976: 99–107.

[131] J.T. Milik, *Ten Years of Discovery in the Wilderness of Judaea*, London 1959, p. 59.

[132] Wood argues that at its height, more than 312 people lived at the site; see Wood 1984: 58, Tab. 3.

[133] Broshi, rejecting most calculations, estimates that as in the assembly hall, sect members sat in four or five rows of thirty men each, it held between 120 and 150 people. To this number, he adds a few dozen candidates, so that the total comes to about 170 people; see Broshi 1992: 61–62.

[134] J. Patrich, "Khirbet Qumran in Light of New Archaeological Explorations in the Qumran Caves," in M.O. Wise et al. (eds.), *Methods of Investigation of the Dead Sea Scrolls and the Khirbet Qumran Site*, New York 1994, pp. 93–94.

[135] Humbert 1994: 175–176.

[136] De Vaux 1973: 56–57; H. Eshel and M. Broshi, "The Archaeological Remains on the Marl Terrace around Qumran,"' *Qadmoniot* 30 (114) (1997): 129–133 (Hebrew); M. Broshi and H. Eshel, "Residential Caves at Qumran," *DSD* 6 (1999): 328–348.

[137] Magen 2000: 118.

[138] On this storeroom and the vessels found in it, dated to the mid-first century BCE, see de Vaux 1973: 12.

[139] De Vaux noted that he found no evidence that the kilns had been in use in the Iron Age; see de Vaux 1973: 4–5. Magness, on the other hand, disagrees with de Vaux (and with us) and claims that the kilns had already been in use during the late Iron Age; see: Magness 1997: 124.

[140] On the pottery industry at Nebi Samwil, see: Magen and Dadon 1999: 68, 76–77; Magen and Dadon 2003: 128–130.

[141] We must mention what has been written in the rabbinical sources: "That no kilns be kept there (in Jerusalem)—on account of the smoke" (BT *Baba Ḳamma* 82b); "Rabbi Nathan says kilns must be kept fifty cubits from a town" (T *Baba Bathra* 1:10).

[142] Magness 2002: 75, 116.

[143] Zangenberg 2003: 281–288; Zangenberg 2004: 170–187.

[144] Magen 2002: 138–141.

[145] Y. Hirschfeld, *The Palestinian Dwelling in the Roman-Byzantine Period*, Jerusalem 1995, pp. 135–137; O. Bar-Yosef and E. Ayalon, "Chalcolithic Ossuaries—What do they Imitate and Why?" *Qadmoniot* 34 (121) (2001): 38–40 (Hebrew).

[146] On de Vaux's stratigraphy, see de Vaux 1973: 1–45.

[147] E. Netzer, *Hasmonean and Herodian Palaces at Jericho* I: *Stratigraphy and Architecture*, Jerusalem 2001, pp. 308–311.

[148] B.C. Rider, *The Greek House. Its History and Development from the Neolithic period to the Hellenistic Age*, Chicago 1916, pp. 46, 48; J.W. Groham, *Origins and Interrelations of the Greek House and the Roman House*, Phoenix 1966, pp. 3–23.

[149] The public buildings at Mt. Gerizim (citadels and fortresses) were constructed, as were private dwellings, in the form of rooms arranged around a central courtyard. Most also featured a large reception hall. The fortress in the southern quarter, the two buildings on either side of the

southern gate (Area B), the eastern fortress, Building E-1 and the southeastern fortress inside the sacred precinct, were all constructed around a central courtyard and all contained a main reception room. Architectural elements found in the southeastern fortress of the sacred precinct appear to indicate the existence of a portico with columns, located opposite the reception room; see Magen 2000: 77–95.

[150] Bar-Adon 1981: 349. The similarities between the three sites are so striking that there can be no doubt that they were built by the same architects and masons. But since it is highly unlikely that the Essenes built the two docks, just as it is unlikely that the Hasmonean authorities built Qumran for the Essenes, we are led to the inescapable conclusion that all three were built by the Hasmoneans as part of a state project.

[151] On ʿEin Feshkha, see de Vaux 1973: 60–90. We do not believe that there was any connection between the structure at ʿEin Feshkha and the building at Qumran during the first Hasmonean phase (Phase B). The building at ʿEin Feshkha was constructed later than the main building at Qumran and served probably as a farmhouse for dates or other plantations watered by the springs near the Dead Sea shore.

[152] It is quite conceivable that mercenaries manned some Hasmonean fortresses, beginning in the reign of John Hyrcanus I. A possible hint that such was the case may be found in the warning that Judah Aristobulus sent his mother concerning military officers who may have intended joining the Nabateans; we cannot know if these officers were Jewish or foreign mercenaries, see Josephus, *Ant*. XIII, 409–415.

[153] De Vaux 1973: 8.

[154] See n. 19.

[155] De Vaux blamed the earthquake of 31 BCE also for the fire that devastated the site; see de Vaux 1973: 21–23, 69. The site may well have been destroyed first in a fire following the Roman conquest of 63 BCE or in the days of Gabinius; the earthquake should thus be treated as a separate event, distinct from the fire that occurred in the Hasmonean period.

[156] We disagree with Hirschfeld, who believes that the glacis was built at the same time as the tower; see Hirschfeld 2003: 20. Rather, we believe de Vaux was right when he argued that the two were constructed at different times. The addition of the glacis was the result of the earthquake of 31 BCE; see de Vaux 1973: 25. Furthermore, Magness argues, contra de Vaux, that the earthquake did not cause the site to be abandoned for very long; see J. Magness, "The Chronology of the Settlement at Qumran in the Herodian Period," *DSD* 2 (1995): 58–65.

[157] De Vaux 1973: 27.

[158] De Vaux 1973: 25.

[159] Here, we disagree with Hirschfeld, who argues that the site flourished during the Herodian period; see Hirschfeld 2003: 24–28.

[160] On a Second Temple-period synagogue found in Kiryat Sefer, see Y. Magen, Y. Zionit and O. Sirkis, "Kiryat Sefer—A Jewish Village and Synagogue of the Second Temple Period," in *The Land of Benjamin*: 179–242; on the synagogue at Hurvat Umm el-ʾUmdan near Modiʿin, see S. Weksler-Bdolach, A. Onn and Y. Rapuano, "Identifying the Hasmonean Village of Modiʿin," *Cathedra* 109 (2003): 69–89 (Hebrew).

[161] Josephus notes the capture of Jericho (*War* IV, 447), as well the conquest of the Dead Sea area (*War* IV, 449).

[162] B. Kanael, "Some Observations on the Chronology of Khirbet Qumran," *Eretz Israel* 5 (1958): 164–170 (Hebrew).

[163] Certainly, these scant remains cannot serve as evidence that a garrison was stationed there from the time of the site's capture until the end of the first century CE.

[164] Z. Safrai, "Qumran or Ein Gedi: Where Did the Dead Sea Sect Live? A reply to Y. Hirschfeld," *Cathedra* 96 (2000): 42, n. 2 (Hebrew).

[165] Before any excavations were conducted at the site, E.L. Sukenik was the first to propose a link between the first scrolls that were found north of Qumran and a settlement on the western shore of the Dead Sea: "I tend to believe that the archive belongs to the Essenes, who according to a number of literary sources of antiquity had their place of residence on the western side of the Dead Sea, around ʿEn Gedi"; see E.L. Sukenik, *Megilot Genuzot*, Jerusalem 1948, p. 16 (Hebrew).

[166] The prophet Obadiah relates that Edomites who had entered southern Judea turned in Jewish refugees to the ruling Babylonians (Ob. 1:14).

[167] On the campaign of Cestius Gallus, see M. Gichon, "Cestius Gallus' March on Jerusalem," in A. Oppenheimer, U. Rappaport and M. Stern (eds.), *Jerusalem in the Second Temple Period*, Jerusalem 1980, pp. 283–319 (Hebrew).

[168] On the campaign of Vespasian and its association with Qumran, see: C. Roth, "Did Vespasianus Capture Qumrân?" *PEQ* 91 (1959): 122–129; Z. Safrai, "Vespasian's Campaigns of Conquest in Judea," in A. Oppenheimer, U. Rappaport and M. Stern (eds.), *Jerusalem in the Second Temple Period*, Jerusalem 1980, pp. 320–339 (Hebrew).

[169] This topic will be discussed at length by Y. Magen in the forthcoming volume *Judea and Samaria Researches and Discoveries* (JSP 6).

[170] See n. 71.

[171] Indeed, sectarian scrolls were found at Masada, see: Y. Yadin, "Qumran and Masada," *Yediot* 30 (1966): 117–127 (Hebrew); S. Talmon, "Hebrew Fragments from Masada," *Masada* IV: *The Yigael Yadin Excavations 1963–1965*, *Final Reports*, Jerusalem 1999, pp. 117–137.

[172] Eshel and Broshi 1997: 129–133; Broshi and Eshel 1999: 328–348.

[173] Y. Hirschfeld, "A Community of Hermits above Ein Gedi," *Cathedra* 96 (2000a): 8–40; Y. Hirschfeld, "A Settlement of Hermits above ʿEn Gedi," *Tel Aviv* 27 (2000b): 103–155.

[174] For justified criticism, see D. Amit and J. Magness,

"The Essenes Did Not Live above Ein Gedi. A reply to Y. Hirschfeld," *Cathedra* 96 (2000): 57–68 (Hebrew).

[175] Kochavi 1972: nos. 113–114, 128, 164; P. Bar-Adon, "Meʿarat Hateʾomot," *ʿAtiqot* 9 (1989e): 15–17 (Hebrew); P. Bar-Adon, "Meʿarat HaMatbeʿa," *ʿAtiqot* 9 (1989f): 30–31 (Hebrew); N. Avigad, "Expedition A—Naḥal David," *Yediot* 26 (1962): 143–158 (Hebrew).

[176] See n. 171.

[177] E. Tov, "The Biblical Scrolls from the Judean Desert," *Qadmoniot* 30 (114) (1997): 73–81 (Hebrew).

[178] See, for example, Josephus, *War* II, 285. In the New Testament, Galilean synagogues are mentioned (for example, Matt. 4:23; 9:35). For details, see L.I. Levine, *The Ancient Synagogue*, New Haven 2000, pp. 42–73.

[179] In this context, we mention the Theodosius inscription found in Jerusalem; see: M. Schwabe, "Greek Inscriptions," in M. Avi-Yonah (ed.), *Sepher Yerushalayim (The Book of Jerusalem)*, Jerusalem 1956, pp. 362–365 (Hebrew); L. Roth-Gerson, *The Greek Inscriptions from the Synagogues in Eretz-Israel*, Jerusalem 1987, pp. 76–86 (Hebrew); J.S. Kloppenborg-Verbin, "Dating Theodotus (CIJ II 1404)," in *JJS* 51 (2000): 243–280.