

The Site of the
Dead Sea Scrolls:
Archaeological
Interpretations
and Debates

Edited by

KATHARINA GALOR,

JEAN-BAPTISTE HUMBERT &

JÜRGEN ZANGENBERG



Qumran

The Site of the Dead Sea Scrolls:
Archaeological Interpretations and Debates

Studies on the Texts of the Desert of Judah

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Qumran
The Site of the Dead Sea Scrolls:
Archaeological Interpretations and Debates

Proceedings of a Conference held at Brown University,
November 17–19, 2002

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FOREWORD

John J. Collins

For several years now, a debate has been raging about the archaeological interpretation of the Qumran site. For forty years or so, the interpretation proposed by the excavator, Roland de Vaux, stood virtually unchallenged, and the few vocal dissenters lacked credibility because they were not professional archaeologists. Since the early 1990s, however, the landscape has changed. In some part, the changes may be attributed to the intellectual climate at the turn of the millennium, specifically to the post-modern suspicion of consensus and hegemonic narratives. But in some part they are also due to new data. The rapid publication of the fragmentary texts from Cave 4 over the last decade has complicated our understanding of the sectarian community known from the original finds in Cave 1. At the same time, the renewed publication of the material left behind by de Vaux has provided new data for archaeologists, as have various new surveys and excavations in and around Qumran and at other sites around the Dead Sea. It does not appear that any new consensus has emerged, nor, indeed, that the main lines of de Vaux's interpretation have been disproved. But questions that were once thought settled have been reopened, and we can anticipate that this will be an area of lively debate for years to come.

Katharina Galor, Jean-Baptiste Humbert, and Jürgen Zangenberg have rendered a great service to scholarship by bringing together in a single volume a wide spectrum of views from the current debate. In so doing, they have provided a necessary complement to the recent syntheses by Jodi Magness and Yizhar Hirschfeld. The debate cannot easily be reduced to binary alternatives. While Magness's book provides an exceptionally lucid and compelling statement of the Essene interpretation, there are other variations of the sectarian hypothesis on offer. Among those who question that interpretation, there is much less consensus. While the proposals of the Donceels and of Hirschfeld are most widely known, they do not appear to have commanded wide assent, even among those who reject de Vaux's interpretation, and other proposals continue to emerge. Perhaps the clearest contribution of the "dissidents" to the debate is their insistence on the regional context of Qumran. Relationships between Qumran and Jericho, or Qumran and Hasmonean fortifications, as well as analogies between the cemetery at Qumran and the newly discovered one at Khirbet Qazone, must all be taken into account as surely as the scrolls that were found within a stone's throw of the site. At the same time, it is important to keep in mind that regional contacts do not rule out the possibility of a sectarian settlement. Much of the debate has been skewed by unrealistic assumptions about the degree of isolation that such a settlement would have required. The archaeological debate should prompt textually oriented scholars to go back to the scrolls and examine more carefully the kind(s) of community that are envisioned in the sectarian rule books.

Archaeology, like all historical study, is by its nature unfinished business. The certitudes of today may be overturned by tomorrow's excavation. The current debate about the site of Qumran is to be welcomed. Where there is no debate, assumptions harden into dogmas, and dogma is the enemy of historical understanding. Our thanks are due to the editors for an exceptionally stimulating volume that should encourage students of all persuasions to look again at the evidence with fresh questions.

ABBREVIATIONS

AASOR	Annual of the American Schools of Oriental Research
ABD	<i>Anchor Bible Dictionary</i> , 6 Volumes (Edited by D.N. Freedman; New York: Doubleday, 1992).
ADAJ	<i>Annual of the Department of Antiquities of Jordan</i>
Ag.Ap.	Josephus, <i>Against Apion</i>
Ant.	Josephus Flavius, <i>Jewish Antiquities</i>
ANYAS	Annals of the New York Academy of Sciences
ASOR	American Schools of Oriental Research
BA	<i>Biblical Archaeologist</i>
BAR	<i>Biblical Archaeology Review</i>
BAR.IS	British Archaeological Reports. International Series.
BASOR	<i>Bulletin of the American Schools of Oriental Research</i>
CCSL	Corpus Christianorum, Series Latina
CP	<i>Classical Philology</i>
CSEL	Corpus Scriptorum Ecclesiasticorum Latinorum
DJD	Discoveries in the Judaean Desert
DSD	<i>Dead Sea Discoveries</i>
EB	Études Bibliques
EDSS	<i>Encyclopedia of the Dead Sea Scrolls</i> (Edited by L.H. Schiffman and J.C. VanderKam; New York: Oxford University Press, 2000).
EI	<i>Eretz-Israel</i>
ESI	<i>Excavations and Surveys in Israel</i>
GCS	Die griechischen christlichen Schriftsteller der ersten drei Jahrhunderte
HTR	<i>Harvard Theological Review</i>
IEJ	<i>Israel Exploration Journal</i>
IFAPO	Institut français d'archéologie du Proche-Orient
JBL	<i>Journal of Biblical Literature</i>
JDS	Judaean Desert Studies
JJS	<i>Journal of Jewish Studies</i>
JNES	<i>Journal of Near Eastern Studies</i>
JQR	<i>Jewish Quarterly Review</i>
JRA	<i>Journal of Roman Archaeology</i>
JRA.SS	Journal of Roman Archaeology. Supplementary Series.
JRS	<i>Journal of Roman Studies</i>
JSJ.S	Journal for the Study of Judaism. Supplement.
JSOT/ASOR.MS	Journal for the Study of the Old Testament/American Schools of Oriental Research. Monograph Series.
JSOT.SS	Journal for the Study of the Old Testament. Supplementary Series.
JSP	Judea and Samaria Publications
JSP.SS	Journal for the Study of the Pseudepigrapha. Supplement Series.
J.W.	Josephus Flavius, <i>The Jewish War</i>
LCL	Loeb Classical Library
LSJ	H.G. Liddell, R. Scott, H.S. Jones and R. McKenzie, <i>Greek-English Lexicon. With a Revised Supplement</i> (Oxford: Clarendon, 1996).
NEA	<i>Near Eastern Archaeology</i>

<i>NEAEHL</i>	<i>New Encyclopedia of Archaeological Excavations in the Holy Land.</i> 4 Volumes (Edited by E. Stern; Jerusalem: Carta and Israel Exploration Society, 1993).
NTOA.SA	Novum Testamentum et Orbis Antiquus. Series Archaeologica.
<i>OEANE</i>	<i>The Oxford Encyclopedia of Archaeology in the Near East.</i> 5 Volumes (Edited by Eric M. Meyers; New York and Oxford: Oxford University Press, 1997).
<i>PEFQS</i>	<i>Palestine Exploration [Fund] Quarterly Statement</i>
<i>PEQ</i>	<i>Palestine Exploration Quarterly</i>
PL	Patrologia Latina (J.-P. Migne)
<i>PRE</i>	<i>Pauly's Real-Encyclopädie der classischen Altertumwissenschaft.</i> 24 Volumes (Stuttgart, J.B. Metzler, 1894–1963)
<i>Qad</i>	<i>Qadmoniot</i>
<i>QC</i>	<i>The Qumran Chronicle</i>
<i>RB</i>	<i>Revue Biblique</i>
<i>RevQ</i>	<i>Revue de Qumran</i>
SBF.CMa	Studium Biblicum Franciscanum. Collectio Maior.
SBL.DS	Society of Biblical Literature. Dissertation Series.
<i>SCI</i>	<i>Scripta Classica Israelica</i>
SJLA	Studies in Judaism in Late Antiquity
SNTS.MS	Society for New Testament Studies. Monograph Series.
SPB	Studia Post-Biblica
<i>TA</i>	<i>Tel Aviv</i>
TANZ	Texte und Arbeiten zum neutestamentlichen Zeitalter
TSAJ	Texte und Studien zum antiken Judentum
<i>ZDPV</i>	<i>Zeitschrift des deutschen Palästina-Vereins</i>

QUMRAN ARCHAEOLOGY IN SEARCH OF A CONSENSUS

Katharina Galor and Jürgen Zangenberg

It is with great pride and gratitude that we present the proceedings of the conference entitled “Qumran—The Site of the Dead Sea Scrolls: Archaeological Interpretations and Debates,” held November 17–19, 2002 at Brown University, Providence, Rhode Island. To the best of our knowledge, this conference was the first international and interdisciplinary convention in which the archaeology of Khirbet Qumran and of the surrounding region constituted the primary focus instead of the scrolls or scroll-related topics.¹ With this collection of papers, we hope to balance a certain preponderance of text-related discussions that have outweighed the results of Qumran research. Of course, anyone familiar with this research, may immediately object that one cannot be properly assessed without the other. This is certainly true, and none of the conference participants would want to artificially separate the Qumran texts from their archaeological context or vice versa. Important discoveries at the site in recent years and an ever-increasing interest in the archaeology of the Dead Sea region justify a hard look at the archaeological record.

I

The scholarly consensus continues to be dominated, as it has been for many years, by the classic model put forward by Roland de Vaux in his magisterial *Archaeology and the Dead Sea Scrolls*,² in which he states that texts and archaeology complement each other within an interpretive framework shaped by the reading of the Dead Sea Scrolls and ancient writings by authors such as

Philo, Pliny, and Josephus. Those who adopt this approach assume that the Qumran site was built and inhabited by the same Essenes who were also responsible for collecting and hiding the large library discovered in caves close to the site.

Today, the question seems much more open, and, as a result, the situation is more complex for a number of reasons. First of all, scroll research has paved the way for new readings of key texts. This provides room for a critical assessment of how sectarian many Qumran texts actually were and has enabled scholars to decide if and how a given text may or may not have been formative in the life of the Qumran community. The ideas that de Vaux and his generation still were able to take for granted (e.g., the historicity and character of the Teacher of Righteousness or models about the origins of the sect) have become more difficult to work with. Even if the majority of scholars agree on the classic Qumran-Essene hypothesis in general, individual theories differ in many ways. The mainstreamers present a wide array of sometimes competing and often even partly contradicting options for some of the most contested issues. The “old consensus,” therefore, is not a monolith that one could easily turn against an allegedly confusing and confused flock of dissenters.³ On the contrary, one can justifiably ask to what extent de Vaux’s model was dependent upon the fact that he had far fewer texts available to develop his theory than we have today. This is due to the tremendous progress made in the publication (not the least thanks to international efforts under the directorship of Emanuel Tov) and discussion of the textual corpus.

¹ A report about the conference was published in J. Zangenberg and K. Galor, “Qumran Archaeology in Transition: Remarks on the International Conference ‘Qumran—The Site of the Dead Sea Scrolls: Archaeological Interpretations and Debates,’ Nov. 17–19, 2002 at Brown University, Providence RI.” *QC* 11 (2003): 1–6.

² R. de Vaux, *Archaeology and the Dead Sea Scrolls* (London:

Oxford University Press, for the British Academy, 1973).

³ Thus, e.g., M. Broshi and H. Eshel, “Qumran and the Dead Sea Scrolls: The Contention of Twelve Theories.” In: *Religion and Society in Roman Palestine: Old Questions, New Approaches* (Edited by D.R. Edwards; New York and London: Routledge, 2004), 162–9.

It is ironic that new ideas from textual research were needed to open up a new chapter in Qumran archaeology—the archaeology of the site has always stood in the shadow of textual research. This time, however, the texts have helped to emancipate archaeology. In the late 1980s and early 1990s (a turbulent time in Qumran research), when many scholars pressed for swift publication of still unpublished texts and the first dissenting voices were raised about the Essene character of the site, the archaeological remains of the site gained renewed interest. At that time, the École Biblique et Archéologique Française de Jérusalem restarted the publication process. Scholars began to catalogue, reassess, and publish the archaeological material that de Vaux had left behind before he was able to complete his final report. The decision to delay the publishing of the final report was not due to a lack of interest in the material or, as some have claimed, a desire to keep the results away from the wider scholarly community, but was rather a position taken by the European diplomatic community in 1967.

Given the complicated political matters involved, scholars recommended waiting for a resolution of the sensitive crisis. Could Israel claim the scrolls and the site as part of its own cultural heritage, despite the fact that at the time of their discovery both were found in territory under Jordanian rule? However, as international scholarly pressure to publish the material from the original de Vaux excavation increased, those ethical-political issues were relegated to the background and the director of the École Biblique decided to re-address the task of the final report, appointing Jean-Baptiste Humbert to lead in its undertaking.

Humbert was the first to highlight the secular character of the building complex at Qumran, which he attributed to the first, Hasmonean, phase of the site's settlement.⁴ Although he maintained a traditional interpretation of the complex during a second or later stage, returning once more to

the idea of an Essene occupation, his views were considered groundbreaking. Additional results of the renewed research and publication activity initiated by the École Biblique electrified the scholarly community, especially the suggestions made by the Belgian archaeologists Robert Donceel and Pauline Donceel-Voûte, who in 1989 worked with the French École Biblique research team. Concluding their collaboration in 1990, they continued their research independently. Not only did they discover that excavated materials which had been overlooked or disregarded during the formative years of research were still present, but they also analyzed Qumran not along the traditional lines of textual reference but according to accepted archaeological methods of analogy and context with contemporaneous regional material culture. Instead of confirming the traditional picture of Qumran as the center of a sectarian community, they proposed an agricultural settlement (initially adopting the problematic term of “*villa rustica*”) without any particular sectarian profile, thus challenging the very core of the de Vauxian model.⁵ In light of their research we might justifiably question the extent to which de Vaux's model depended on the select groups of material evidence he chose to publish and those elements he ignored. Although at that time the vast majority of scholars swiftly rejected the approach and results of the Belgian team, Robert Donceel and Pauline Donceel-Voûte have set the agenda for today's discussion by pursuing archaeological methods when interpreting an archaeological site—and Qumran certainly *is* such a site.

So, what constitutes the prime point of reference for the interpretation of Qumran? Should one study the site on the basis of analogies, just like any other settlement? Or should one acknowledge the site's exclusivity and uniqueness due to its intrinsically religious context based on the closeness of the scrolls? It is exactly this question of the relationship between the Dead Sea texts and

⁴ See J.-B. Humbert, “L'espace sacré à Qumrân: Propositions pour l'archéologie.” *RB* 101 (1994): 161–214; Humbert, “Qumrân, esséniens et architecture.” In: *Antikes Judentum und frühes Christentum. Festschrift für H. Stegemann* (Edited by B. Kollmann et al.; Berlin: de Gruyter, 1999), 183–200.

⁵ R. Donceel, “Reprise des travaux de publication des fouilles au Khirbet Qumran.” *RB* 99 (1992): 557–73; R. Donceel and P. Donceel-Voûte, “The Archaeology of Qumran.” In: *Methods of Investigation of the Dead Sea Scrolls and*

the Khirbet Qumran Site: Present Realities and Future Prospects. ANYAS 722 (Edited by M.O. Wise et al.; New York: Academy of Sciences, 1994), 1–38; id., “Poursuite des travaux de publication du matériel archéologique de Khirbet Qumran: Les lampes en terre-cuite.” In: *Mogilany 1995. Papers on the Dead Sea Scrolls Offered in Memory of Aleksy Klawek.* *Qumranica Mogilanensia* 15 (Edited by Z.J. Kapera; Cracow: Enigma, 1998), 87–104.

the archaeology of Khirbet Qumran which has become increasingly significant as more and more archaeological data from Qumran and the surrounding region has become available in recent years.

It is, therefore, no surprise that this issue also dominated many papers presented at the conference and that it frequently resurfaces in the articles of this volume. The issue is certainly still far from settled, and it was one of the objectives of the conference to bring scholars of competing approaches together to help exchange and refine positions and to promote a dialogue. Apart from these methodological questions, Qumran archaeology has benefited from the publication of new data—just as scroll research has intensified as new texts have become available since the early 1990s. After renewed publication efforts by the École, a most significant new set of data came from the Qumran cemetery. The material was analyzed and published by two teams, one led by Olav Röhrer-Ertl and one by Susan G. Sheridan. These investigations immediately triggered a hot debate about the character of the cemetery and the extent to which the new material supported or rejected the traditional model. In the meantime, research on the cemetery has continued and has yielded, among other data, the first accurate map.⁶ Gradually scholars have intensified the trend already present *in nuce* in de Vaux's work to systematically include material from neighboring sites in their assessment of Qumran. The perception of the region, which de Vaux initially regarded as isolated and deserted, has completely changed and now increasingly functions as a transformed contextual framework of reference for the Qumran site.⁷

Many surveys and excavations have been undertaken near Qumran in the last 10–15 years and

at other sites around the Dead Sea,⁸ resulting in a considerable increase in available information. The new data includes palaeobotanical and palaeoenvironmental information, which also contributes to a profoundly revised, much more reliable, and less romantic picture of the world around Qumran. Especially important is the publication of extensive archaeological work carried out between 1973 and 1987 under the directorship of Ehud Netzer at the Hasmonean and Herodian royal estates at Jericho. Intriguing comparisons between Qumran and Jericho in their ceramics and architecture raise further questions about the interpretation of Qumran. Recently, David Stacey stated that if “Qumran had been discovered today, its possible relationship to the estate could not be ignored.”⁹ It was, therefore, a welcome coincidence that only a few weeks prior to the conference volume III of the Jericho excavation reports containing Rachel Bar-Nathan's extensive report on ceramic finds from Jericho, was published.¹⁰ Her study of the Masada pottery, submitted to press in the summer of 2004, will provide a much needed, additional reference for a comparative regional database for the Qumran pottery.

But the picture is still far from complete. As stated by many authors in this volume, any scholar dealing with the archaeology of Qumran and archaeology at large must work with insufficient and incomplete data. This situation impacts all theorists: the mainstreamers, the rebels, and the iconoclasts alike. In this respect, the conference also provided a stage for updating the public about the current state of the official publication project of the École Biblique et Archéologique Française de Jérusalem under the directorship of Jean-Baptiste Humbert.

The publication program's first volume, *Qumran I*, was published in 1994. Its focus was the

⁶ See, e.g., H. Eshel et al., “New Data on the Cemetery East of Qumran.” *DSD* 9 (2002): 135–65. Richard Freund presented a paper on this topic at the Brown conference (see Appendix).

⁷ In late 2004, Yizhar Hirschfeld published a book that uses the regional context of Qumran as an interpretive framework (*Qumran in Context: Reassessing the Archaeological Evidence* [Peabody: Hendrickson, 2004]), offering for the first time a systematic, archaeologically based alternative to the traditional text-based model that was recently eloquently defended by the synthesis of J. Magness, *The Archaeology of Qumran and the Dead Sea Scrolls* (Grand Rapids: Eerdmans, 2002).

⁸ See especially *Surveys and Excavations of Caves in the Northern Judean Desert (C.NJD)—1993*. ‘Atiqot 41/1 and 41/2

(Jerusalem: Israel Antiquities Authority, 2002).

⁹ D. Stacey, “Some Notes on the Archaeological Context of Qumran in the Light of Recent Publications” from June 2004, accessed 08.08.2005 at www.bibleinterp.com/articles/Stacey_Qumran_Light_of_Recent_Publications.htm.

¹⁰ R. Bar-Nathan, *Hasmonean and Herodian Palaces at Jericho: Final Reports of the 1973–1987 Excavations. Vol. 3: The Pottery* (Jerusalem: Israel Exploration Society, 2002). Volumes 1 (2001) and 2 (2004) contain reports on the stratigraphy and architecture of the palaces and discuss the infrastructure and economic basis of the estate. A systematic study of Qumran in the light of the vast material from Jericho has not yet been undertaken and is an urgent desideratum.

excavation diaries of Roland de Vaux in French and a large selection of photographs and plans. This volume has become a classic and an indispensable tool for Qumran research. Soon translated into German by Ferdinand Rohrhirsch and Barbara Hofmair and supplemented with analytical charts, *Qumran Ia* was published in 1996. *Qumran I* was recently revised and translated into English by Stephen Pfann, *Qumran Ib*, 2003. A second volume, *Qumran II*, co-edited by Jean-Baptiste Humbert and Jan Gunneweg and dedicated to natural-scientific reports and socio-anthropological studies, was published in December of 2003. This publication is a successful effort to combine scientific methods from the fields of the natural and social sciences, and, most importantly, marks the joint efforts of an international team of researchers from Europe, Israel, and the United States under the joint supervision of the École Biblique et Archéologique Française and the Hebrew University to publish the archaeological material housed at the École Biblique. A third volume, *Qumran III*, dedicated to the pottery, metal, and other small finds from de Vaux's excavations, as well as a reconstruction of the site's stratigraphy, is in the final stages of preparation. The Qumran series is an encouraging and most welcome sign for a new trend of cooperation. Today, the direction of Qumran research is clearly different in respect to accessing the original excavated material.

To summarize, within the context of Qumran research, archaeology was originally relegated to a secondary position relative to text-oriented studies; however, it has definitely established itself as an independent, related source in its own right *with* the texts for the interpretation of Khirbet Qumran. It is clear that both archaeology and texts must be taken into account.

II

We are grateful to the authors whose ideas appear in the present volume.¹¹ All 15 articles published here are not only evidence of the increasingly

controversial debate about the nature of Qumran, but, more importantly, also demonstrate the potential of new investigations using both traditional and innovative tools and approaches. Given the nature and scope of the contributions, the volume is divided into four sections. A first section presents basic examinations of archaeological material excavated during various stages of Qumran research. In the first article of this section, Jean-Baptiste Humbert follows up his 1994 proposition of Qumran as a site comprising both secular and religious features. Based on his continuous work on the archive housed at the École Biblique, Humbert refines this argument using careful stratigraphical and architectural observations and a critical evaluation of suggestions made by de Vaux, Magness, and Pfann on the building history and the function of several crucial elements of the settlement. In Humbert's view, Qumran should be considered, at least in its last phase, as a "religious center for a Jewish sect living around the Dead Sea." Humbert's insistence on an inductive method when interpreting Qumran, starting with what we see on the ground, instead of deducing the facts from an overall theory, is not new, but definitely constitutes an important perspective for Qumran research.

In the second paper, James F. Strange presents a detailed report of geophysical examinations, including ground-penetrating radar [GPR] and ground resistivity tests, that he conducted on the plateau south of the main settlement at Qumran to detect and measure possible subterranean cavities in the marl terrace. While Strange succeeded in identifying such cavities, a relatively high degree of uncertainty remains with respect to their size, nature, and exact location. Instead of finding undiscovered scroll caves, he clearly demonstrates that the plateau itself must be considered as archaeological space preserving important traces of human activity. Strange emphasizes the fact that "there is as much to be learned from further archaeological excavations of the Qumran plateau as from the ruin itself." The flow of water through the terrace, the character of habitation on the plateau surface, and the related change in soil resistivity

¹¹ See the list of papers read at the conference in the Appendix. The paper by Jodi Magness, "Why Scroll Jars?" is now published in Edwards 2004, 146–61. We are grate-

ful to Joseph Patrich and Konstantinos D. Politis, who were unable to attend the conference, for contributing the results of their research to this volume.

are among the issues which require further analyses and cooperation between archaeologists and natural scientists. Strange also adds a comment about the terrace contexts where in 1996 two ostraca chance finds were recovered.

New material will inevitably trigger new questions and open up new perspectives. This is definitely the case with Yitzhak Magen's and Yuval Peleg's extensive preliminary report on archaeological excavations in and around Qumran conducted between 1993 and 2004 under the auspices of the Staff Officer for Archaeology in Judea and Samaria. The importance of these excavations can hardly be overstated since they provide us with the first comprehensive set of archaeological data that is independent of de Vaux's often problematic documentation and incomplete publication. Magen and Peleg demonstrate that a considerably wider variety of artifacts and finds were present at Qumran than the ones presented in de Vaux's reports. Based on their own stratigraphic observations, they provide a quite different reconstruction of the function of the building and its construction history. Magen and Peleg break new ground in the truest sense.

As long as the final reports of de Vaux's excavations remain unpublished and his conclusions proposed in *Archaeology and the Dead Sea Scrolls* cannot fully be checked against the original documentation of the actual finds, we will have to turn to Magen and Peleg for the most reliable and complete picture of the Qumran material culture—its imported pottery, glass, and metal artifacts. The early summary reports of the Donceels in the 1990s clearly indicated that de Vaux had recovered considerably more material than he incorporated into his Essene-Qumran hypothesis. Future discussions will have to deal with the question of how our current view of Qumran is the direct result of deliberate choices about which finds were published. The material presented by Magen and Peleg cannot neatly be divided between an "Essene" phase and a "non-Essene" phase, to which all aberrant evidence disturbing the traditional theory often is relegated. Magen and Peleg reject any religious motivation behind the construction of Qumran. Instead of it being a sectarian settlement, they clearly demonstrate that Qumran was an integral part of the regional economy and probably functioned as a pottery production center. Thus, the more archaeological

material becomes available, the less unique and isolated Qumran becomes. As press reports from Israeli newspapers circulating in August 2004 indicate, the discussion of the impact this new material will have on Qumran archaeology has already begun.

The second section of the book presents a wide array of studies devoted to various issues of interpreting Qumran architecture, of activities taking place at different stages of its occupation, and of their historical and ideological context. Joan Branham carefully examines the role of the terrace wall to the east of the settlement. Employing methods of modern social-anthropology she demonstrates how this architectural feature marked a partition between profane and sacred space at Qumran. The terrace wall separated the space of the dead from the space of the living, dividing the impure from the pure; and she also "posits Qumran itself as a liminal threshold for those seeking transition, spiritually or ritually, from an imperfect world to one more halakhically resolute." Branham presents a fascinating example of how "raw" architecture can tell us about the ideology guiding its architects.

In her article on "Period III" Qumran (the so-called "post-Essene" or "Roman" phase), Joan E. Taylor tackles a chapter of the archaeology and history of Qumran that has not yet received the attention it deserves. Working through de Vaux's documentation of the period III remains as well as numismatic and literary sources, Taylor critically assesses the chronology of the destruction and reoccupation of the site and discusses the character of its inhabitants and its economic function within the region.

Chronology is also at the center of Gregory L. Doudna's paper, which challenges the almost universal consensus (even shared by those who doubt that Qumran was genuinely Essene) that the scrolls were deposited in the wake of the Roman conquest of Judea in 68 C.E.—a "chimera" in his words. Doudna's analysis of the published contexts of relevant types of Qumran phase II "scroll jars" generally associated with the deposition of scrolls near Qumran led him to the conclusion that none of these types is datable with confidence to the 1st c. C.E. (Qumran phase II), but rather point to a date close to the end of the 1st c. B.C.E. (Qumran phase Ib). According to Doudna, internal observations on the texts and radiocarbon

dates also suggest that the texts found in caves at Qumran were authored, copied, and hidden in Period Ib, not II—a hypothesis that has already stirred up much controversy and will certainly continue to do so.

Stephen J. Pfann follows quite another path in his analysis of the famous pottery deposits in the “pantries” of loci 89 and 114. After eloquently defending the traditional hypothesis that the Essenes built and inhabited Qumran and that these Essenes engaged in agriculture, Pfann examines the ratio of the different types of tableware found in the pantries, the architecture of these rooms, the division of sacred space around and within the settlement, and the production and consumption of food in Qumran. Furthermore, he provides a useful survey of all foodstuffs known to have been grown or processed at Qumran. Pfann’s comprehensive analysis of historical, literary, and archaeological sources shows how much the inhabitants of Qumran regarded food as a divine gift. By observing ritual in their lives, the Qumran community was guided through the wilderness.

The third section of this volume focuses on an element of Qumran archaeology that has had a long history of controversy—the tombs. Debates began when de Vaux’s preliminary reports were the sole basis for analysis and no material was available for proper examination. Tombs are usually assumed to reflect the way of life of a given community. The biological composition, social stratification, and ideology of the group found in the cemetery naturally attracted considerable attention and was often used to support the traditional theory of an isolated, exclusively male (sometimes even celibate), ascetic community. Most of the human remains excavated at Qumran come from de Vaux’s expedition; however, no comprehensive anthropological report was ever published by the excavator. The material was thought to be lost, but reappeared in the late 1990s in collections in Munich (*Collectio Kurth*), Paris, and Jerusalem. In the first article of this section, Olav Röhrer-Ertl presents the results of his painstaking analysis of the anthropological remains from the *Collectio Kurth* with respect to the layout of the cemetery, the physical and biological constitution of the 21 individuals from 18 graves, and their social and economic context. Röhrer-Ertl sees no reason to exclude the seven females and six chil-

dren identified in the material from the original cemetery as recent Bedouin burials. He maintains that the individuals were probably genetically related and belonged to an upper stratum of a local society. Additional observations relating to the natural environment of Qumran and the economic base of its inhabitants result in a picture that, although quite at odds with the assumptions of the majority of Qumran scholars, should not be dismissed. These analyses add important data to our understanding of the site.

Apart from Röhrer-Ertl, only Susan G. Sheridan had the opportunity to intensively work with the original material excavated by de Vaux. In 2002 she published her analysis of the French and Jerusalem collections. In the conference article, written together with Jaime Ullinger, Sheridan reexamines these data on the basis of recently published notes by Roland de Vaux and Henri Vallois, the anthropologists first entrusted with the analysis. Sheridan and Ullinger caution anyone attempting to use the French collection or any other burial assemblage from Qumran from extrapolating “a larger community profile,” given its random composition and its particularly poor state of preservation.

The article by Konstantinos D. Politis takes us to the eastern shore of the Dead Sea and places the Qumran cemetery in its proper context. The preliminary reports on Politis’ excavations at the vast cemetery of Khirbet Qazone have triggered a lively debate about the uniqueness of the Qumran cemetery and the possible Essene background of the north-south oriented shaft tombs seemingly so characteristic of Qumran. Qazone provides layouts of shaft tombs similar to those at Qumran, thus constituting a fitting reference from the same region and roughly the same time period. The excavations at Qazone are useful in illustrating that many features found at Qumran were only considered unique because no parallels had been found at the time the formative model for the interpretation of Qumran was created. Politis’ article is a good example of how much the process of understanding archaeological features is based on comparison and the observation of analogies and differences. Despite its differences in detail, the cemetery at Khirbet Qazone will continue to exert an impact on Qumran archaeology.

The article by Yizhar Hirschfeld opens the fourth section, which contains studies dealing with

the regional context of Qumran. Hirschfeld, one of the critics of the traditional Qumran-Essene hypothesis, evaluates archaeological material from neighboring sites, the topography of Qumran, and various installations. He concludes that Qumran does not agree with the description of the Essenes in ancient sources like Pliny. Qumran, Hirschfeld posits, was strategically located and functioned within the framework of a specialized regional economy.

Of course, the fact that the Qumranites were engaged in agricultural and economic activity does not *a priori* preclude the possibility that they were Essenes. Stephen Pfann has demonstrated in his article the importance of food and food production for the community. Joseph Patrich also supports the traditional equation of Qumranites with Essenes and surveys the literary and archaeological evidence for the highly developed balsam industry in the Dead Sea region. The importance of balsam for Qumran has been an ongoing debate in recent years.¹² Patrich not only provides necessary background information about balsam production, but also questions whether balsam was produced at Qumran. He remains skeptical that the Qumran installations were connected with the balsam industry and interprets them rather in the context of processing dates. The main problem for any comparative analysis of possible balsam installations at Qumran is that we still do not know enough about what a balsam plant looked like in antiquity! Archaeological analysis requires reference points for comparison, and where they are lacking, interpretations remain uncertain.

Many scholars stress that the scrolls themselves constitute archaeological remains because they were found in proximity to the site. Interpreting the site without the scrolls means—in their view—deliberately ignoring one of its most precious sets of archaeological data. Hanan Eshel and Magen Broshi are among the defenders of this theory. In their article, they survey the evidence of agricultural activity in and around Qumran and conclude that while there is ample evidence for intensive agricultural activity in ‘Ain Feshkha, in Qumran itself no agriculture could have existed. In their view, the purpose of the site, therefore,

cannot have been a result of economic considerations, but should be seen in connection with religious implications of the scrolls. Pfann, Patrich, and Eshel/Broshi, in their own ways, raise issues of regional and local economies. These issues will remain an integral part of the debate about the purpose of the Qumran site and the character of its inhabitants. While agriculture might have been impossible to pursue at Qumran itself (a position which is decisively countered by several other scholars), Eshel’s and Broshi’s observation does not preclude the possibility that Qumran still served a very specific role within a regional agricultural context. As Pfann so aptly states at the end of his article: “There are those who say that farmers lived at Qumran and therefore Essenes did not. Others say that Essenes lived at Qumran and therefore farmers did not.” He is correct in underlining that the religious character of the inhabitants does not contradict agricultural activity *per se*. Is it time to think about other alternatives? It is the *degree* and *character* of agricultural activity that will prove essential for a reassessment of the community’s activities. New material published by Magen and Peleg provides additional arguments for those who maintain that agricultural activity in Qumran was not restricted to fellow sectarians or even Jews in general, but transcended religious and ethnic boundaries. The fact that agricultural activity *was* pursued at Qumran is not surprising, nor should it be a matter of dispute, rather the question is what *kind* and what *range* of agricultural activity can be reconstructed from the available archaeological data. Here one should recall what Humbert stressed in his paper—that the prime sources for an archaeological interpretation are archaeological data and that texts should only come into play after the archaeological evidence has been properly assessed. Future discussion will have to deal with material culture from Qumran that is virtually indistinguishable from neighboring sites. We look forward to a better understanding of how the issue impacts the archaeological evidence and correlations between the Qumran texts and the Qumran-Essene theory. Instead of dismissing the archaeological evidence, we must continue to reassess what is meant when we refer

¹² See now also F.N. Hepper and J.E. Taylor, “Date Palms and Opobalsam in the Madaba Mosaic Map.” *PEQ* 136 (2004): 35–44.

to ‘Essenes.’ It becomes increasingly difficult to realign the archaeological evidence with the view of many texts that the group intentionally separated itself from the outside world.

Central to Mireille Béliis’ article is the agricultural settlement of ‘Ain Feshkha, which has been integral to Qumran.¹³ After having intensively studied the textiles from Qumran—their weaving, fabric, and dyeing—Béliis analyzes the industrial installations at ‘Ain Feshkha and compares them with seventeenth/eighteenth century colonial indigo factories. The striking parallels to relevant literary sources lead her to the conclusion that ‘Ain Feshkha most likely served as an indigo factory, providing an interesting alternative to other interpretations, such as a balsam or date wine production site. If ‘Ain Feshkha, indeed, served as an indigo plant, Béliis states that this would also explain why so many textiles found at Qumran were dyed with such high-quality indigo.

On behalf of the École Biblique, Rachel Bar-Nathan’s submission compares the ceramic assemblage from Qumran with the vast corpus from neighboring Jericho. Her conclusions are ground breaking, and, in many ways, support crucial observations made by Magen and Peleg. Bar-Nathan discovered a striking similarity between Jericho and Qumran, starting at the time of Herod, in all aspects of pottery types and distribution, and stresses that imported wares at both sites confirm that Qumran was an integral part of the regional economic network. Differing greatly from previous ceramic analyses, Bar-Nathan finds no evidence that the inhabitants of Qumran practiced a deliberate and selective policy of isolation, or that they followed any specific purity concerns when manufacturing their ceramics. She, rather, believes that Qumran may even have produced pottery for a regional market.

III

So, what does it mean in the end to treat Qumran as an archaeological site? No consensus was

reached during the conference given the wide gulfs between incompatible methodological approaches. One obvious need is that questions relating to methodology receive more attention. We know that various scholars use evidence in different ways; however, real progress in clarifying *why*, *when*, and *what* evidence is relevant for the argument has yet to be made. Here, Qumran archaeology can only benefit from methodological discourses pursued in archaeology. Many of the issues discussed at the conference and presented in this volume have already been addressed by Norman Golb, Robert Donceel, and Pauline Donceel-Voûte at a time when Qumran research was still comfortably speaking a single language. Times have certainly changed. Can we regain our “common language”? Perhaps it is good that for a certain time there is more controversy than consensus, more confusion than comfort. Even if an exchange of ideas with a scholar holding an opposing view is at times difficult, we should not cease dialogue. The deep differences in our approaches force all of us to reassess our own position. In this respect, too, Qumran archaeology is a hermeneutical enterprise.

Finally, the material record is constantly becoming better understood and analyzed and new data is becoming available thanks to the efforts of many colleagues. Thus, the situation today is fundamentally different from the beginning of the 1990s when, due to the lack of relevant primary data, examining Qumran archaeology inevitably meant either adopting or rejecting de Vaux’s interpretation. It would be anachronistic, maybe even naïve, to expect that a model developed 50 years ago can address and integrate all these new data without considerable revision. The study of the Qumran texts after the tremendous increase of material since the early 1990s has shown the difficulty of integrating all these new data into assumptions and theories devoted to the Essene character of the literary corpus, and the process is far from concluded. Just as in the field of textual studies, the quest for an archaeological understanding of Qumran will have to allow for more

¹³ See the report on recent archaeological investigations by Y. Hirschfeld, “Excavations at ‘Ein Feshkha, 2001: Final Report.” *IEJ* 54 (2004): 37–74, who reiterates his opinion that ‘Ain Feshkha was used for the production of balsam

perfume essence. For a contrary view, see now E. Netzer, “Did Any Perfume Industry Exist at ‘Ein Feshkha?” *IEJ* 55 (2005): 97–100.

complexity, more uncertainty, and more discussion; it will also have to live with elements of aberrant, contradictory evidence. The world of Qumran archaeology is and will remain an exciting field for further research.

The organizers of the Brown Conference and editors of the present volume hope that they have fostered continued dialogue. Although each of us has our own opinions about Qumran, it was never our intention to prioritize or promote one view over another. We hope that many arguments have been heard and exchanged. The titles of the papers presented at the conference reflect this intention. Our hope for the future is that this international conference on the archaeology of Qumran and, in particular, the present volume might provide a useful basis for ongoing discussion. Just as with the publication of the scrolls, the continuing effort to publish and assess the material remains of Qumran can only be achieved through coordinated international cooperation. In this respect the collaboration of scholars of different nationalities and background is a welcome sign.

IV

The conference and the publication of the present proceedings would not have been possible without the help and assistance of the numerous individuals and institutions that we would like to acknowledge. First of all, we thank our authors who not only made the effort to present their research during the conference, but also submitted their articles to this volume. We also extend our gratitude to the faculty members at the Center for Old World Archaeology and Art at Brown University, Martha Sharp Joukowsky, R. Ross Holloway, and Rolf Winkes for their support and encouragement; the administrator of the Center, Beth Googins; as well as its many undergraduate and graduate students who tremendously helped

in creating an ideal setting for the attendees. Most of all, we would like to thank Ramona Romero and Erin Christensen, who shouldered the organizational burden. We are also indebted to faculty of other Brown departments who not only co-sponsored the event—such as the Department of Anthropology, the Department of Classics, the Department of History of Art and Architecture, the Department of Religious Studies, the Program in Ancient Studies, and the Program in Judaic Studies—but also took on the responsibilities of chairing sessions. We are also very grateful to the Brown University Faculty Lectures Fund for their generous financial support. Additional co-sponsors to be mentioned here are the Brown Hillel Foundation; the École Biblique et Archéologique Française de Jérusalem; the Rhode Island Committee for the Humanities, an independently administered program of the National Endowment for the Humanities; Shelby White and Leon Levy; and the Biblical Archaeology Society. The Deutsche Forschungsgemeinschaft provided travel funds for Jürgen Zangenberg.

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Fall 2004

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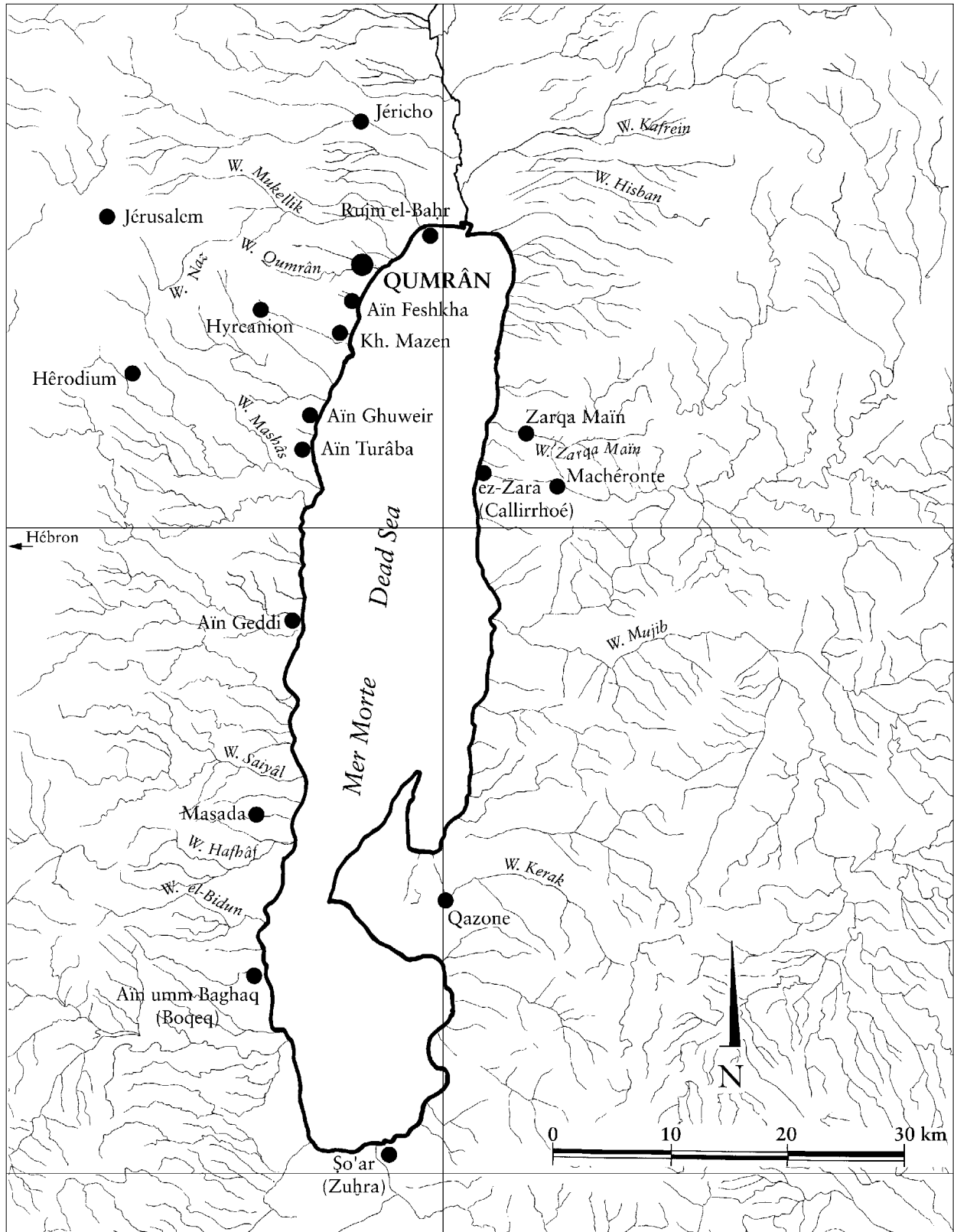


Fig. General 1. Map showing relevant archaeological sites around the Dead Sea. (after Humbert and Chambon 1994: VIII, Plan I)

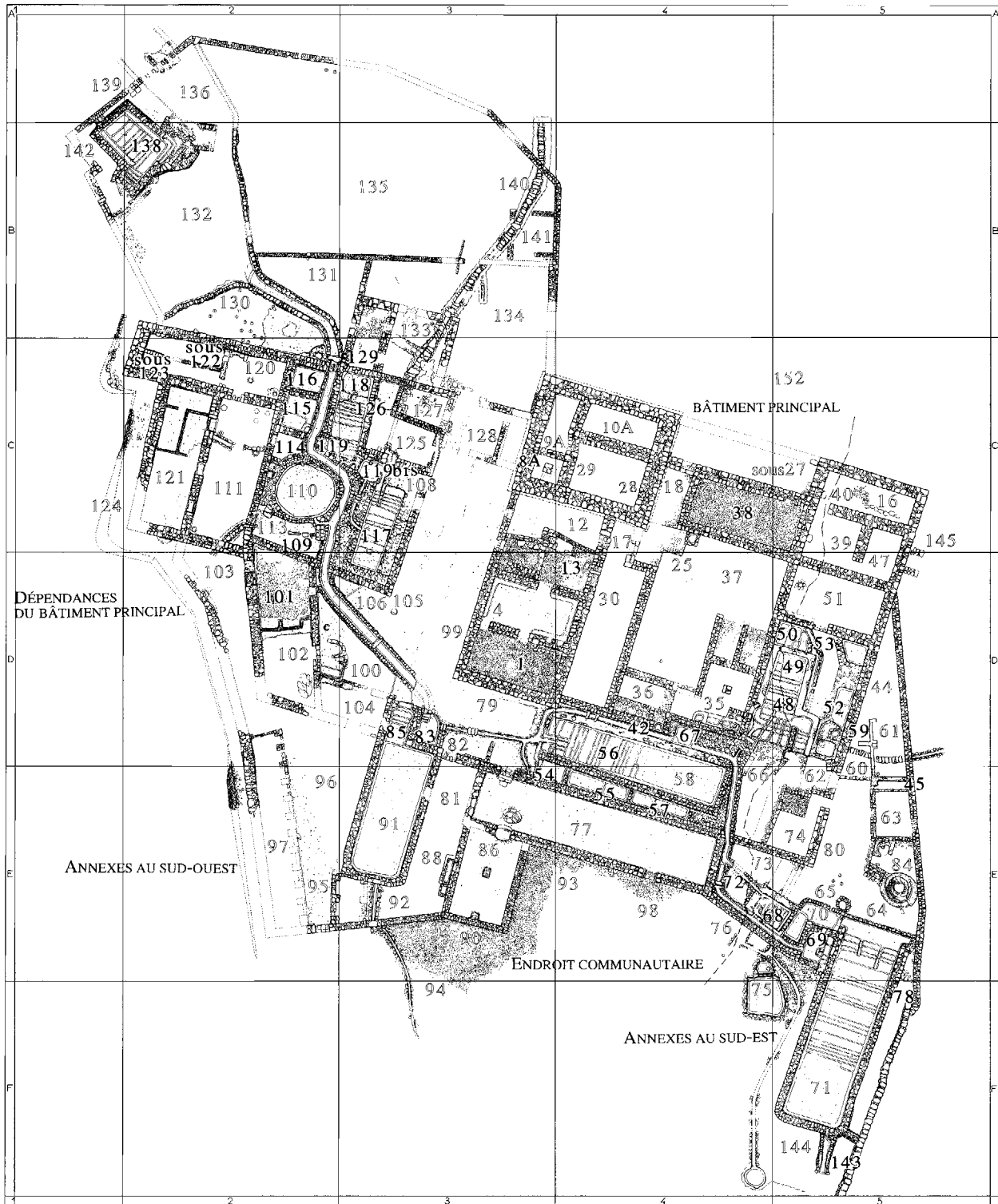


Fig. General 2. Qumran Period Ib, according to R. de Vaux. (Humbert and Chambon 1994: 16, Plan IV)

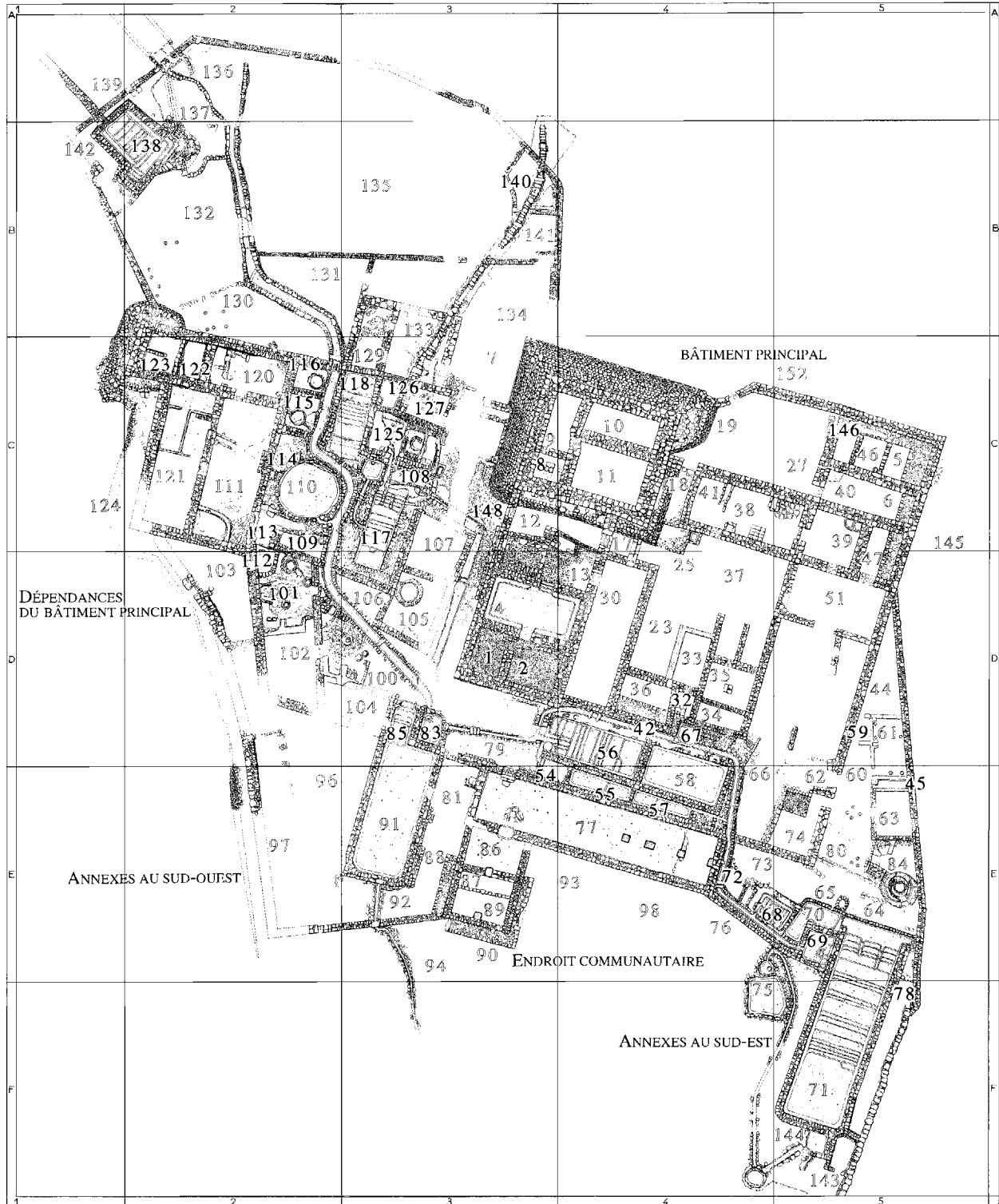


Fig. General 3. Qumran Period II, according to R. de Vaux. (Humbert and Chambon 1994: 17, Plan V)

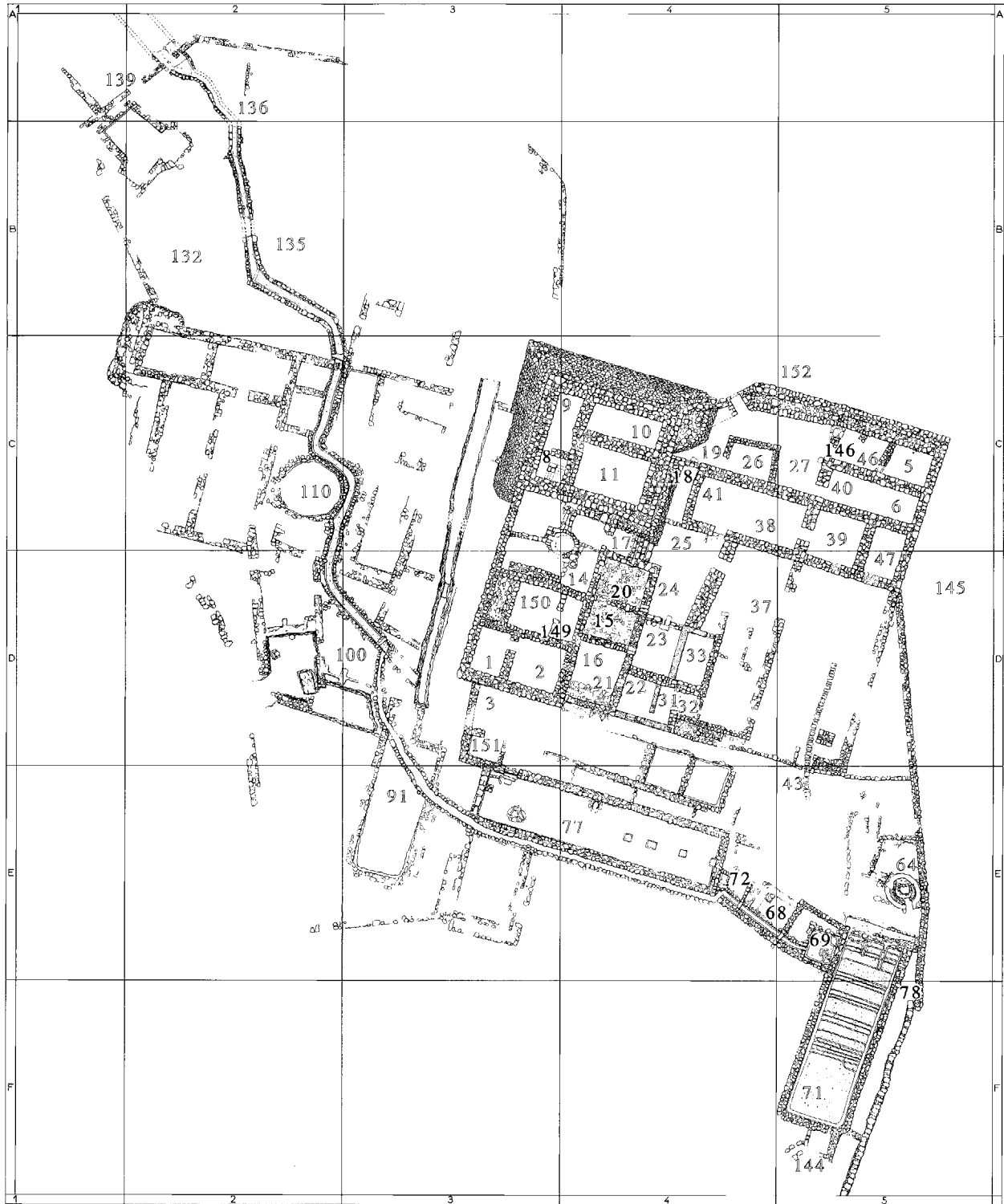


Fig. General 4. Qumran Period III, according to R. de Vaux. (Humbert and Chambon 1994: 18. Plan VI)

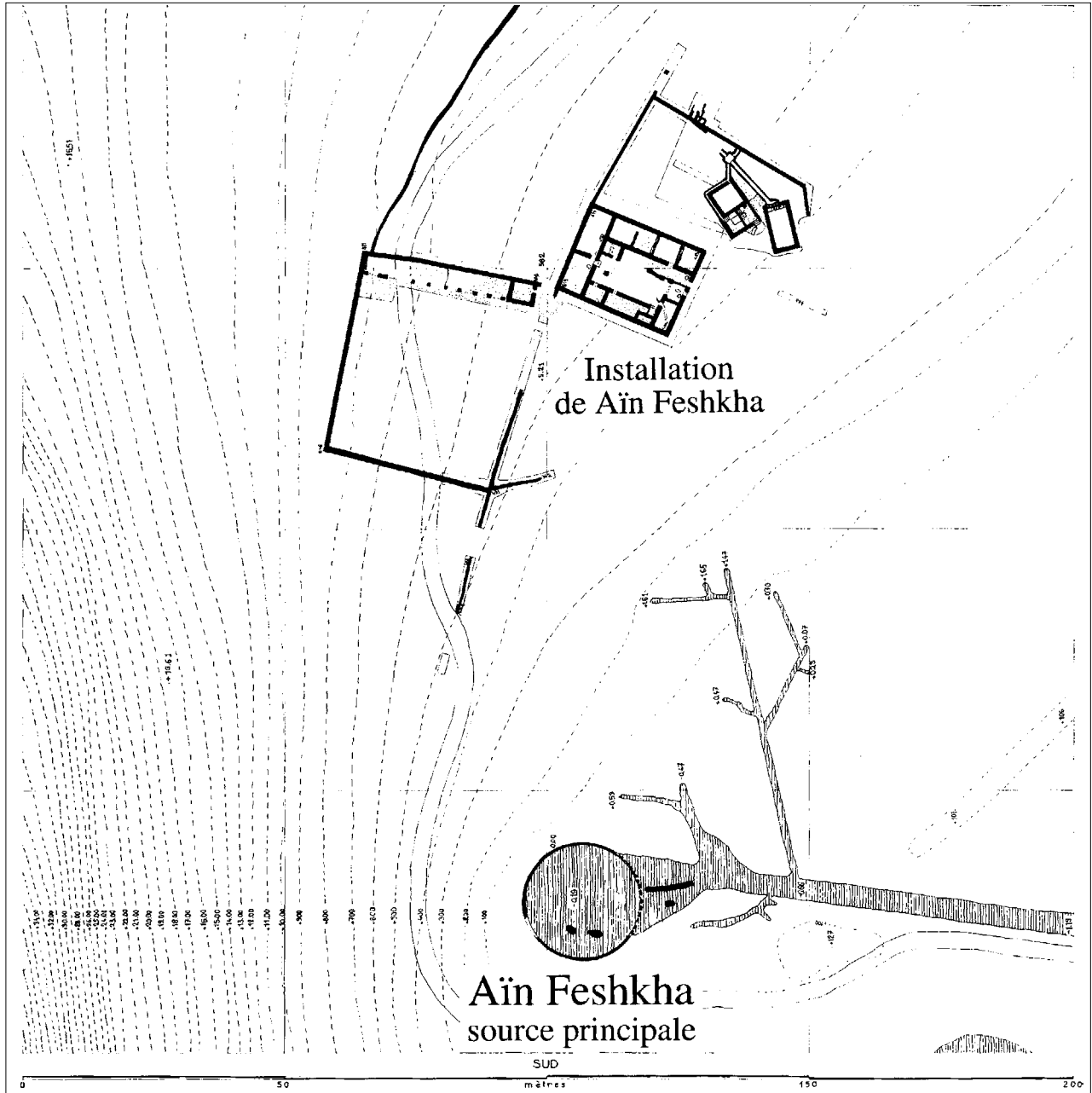


Fig. General 5. General plan of the installations at 'Ain Feshkha. (Humbert and Chambon 1994: 234, Plan XLIII)



Fig. General 6. The surroundings of Qumran and 'Ain Feshkha. (after Map Survey of Palestine 1942, 1:20,000 Series, Sheet 19-12)

PART I

OLD AND RECENT EXCAVATIONS AT QUMRAN

CHAPTER ONE

SOME REMARKS ON THE ARCHAEOLOGY OF QUMRAN

Jean-Baptiste Humbert

In 1994, we suggested reviewing the various interpretations of the Qumran site by addressing the weak points of the accepted theories. Without too much hesitation, we accepted the so-called “sectarian” Essene interpretation of the site under the explicit title *The Sacred Space*.¹ We did not want to become involved in a debate in which each person seems to have remained ensconced in his or her own position. The archaeological interpretation of Qumran in any case remains a controversial subject. We insisted upon moving forward on the issues while remaining open to the questions raised, accepting that no one has the definitive solution but rather only elements of the solution. Today in particular, as opinions are becoming more radical, the proposed theories oblige us to choose between two distinct modes of interpretation—the secular and the religious. The method to be adopted should probably be an anthropological approach that would compensate for the incomplete and hazardous nature of the archaeological evidence. It must be emphasized again that because the site presents both secular and religious features, neither group can be excluded and any solution must be a compromise.

It is the manuscripts found nearby which suggested the presence of a religious society. If the site and the manuscripts are unrelated, then the manuscripts would be deprived of an archaeological context and Qumran would be no more than a common archaeological site. But the link between the site and the manuscript caves cannot easily be denied. The documentation at our disposal points to a connection: the unusual archaeological aspects of the site; the manuscript jars found both in the caves and at the site; the inclusion of artificial “scroll” caves (7Q to 10Q) inside the sphere of influence of the *khirbeh*; the prox-

imity of the “scrolls” *saga* in space and time; the dozens of epigraphic testimonies, even fragmentary ones, which point to a settlement of an educated society; and the insistence of historical sources on locating the Essenes on the Dead Sea shore.

To this we can add the unique character of the site: it cannot easily be compared to other sites. Whereas the Jericho palaces resemble other palaces and ‘En Gedi features domestic baths and dwellings that were a part of any market town surrounding a synagogue, Qumran cannot be compared with other “Qumrans.” Thus, its interpretation is more problematic, as indicated by the hesitations of scholars. Such an unusual site calls for an unusual interpretation. Why not Essene? Although it has not been irrefutably proven, it nevertheless remains the most likely explanation. Would it not demonstrate appropriate methodology to prefer a “religious” interpretation in a region with a historical context that, as we know, was fervently Jewish? If the result of our analysis is conclusive, it will be possible to verify whether the site was Essene or not. Of course, any archaeological interpretation remains a conjecture and is not factual truth which one can simply accept without review, but at least it is a legitimate means to formulating a hypothesis.

Since 1994 we have suggested an alternative reading of the Qumran ruins from that of de Vaux. Why? The editorial process of presenting Qumran I of the archaeological publication required us to select 500 photographs from nearly 2000 documents in the archives of the École Biblique. The sorting, done with great care, provided an opportunity to thoroughly re-examine the entire Qumran area. Our repeated visits to the site contributed to refining our view on how the original archaeological work was conducted

¹ J.-B. Humbert, “L’espace sacré à Qumrân: Propositions pour l’archéologie.” *RB* 101 (1994): 161–214.

and to orienting the site in its layout, spatial distribution, and landscape. We then determined that, through the combination of erosion and numerous restorations, the site had considerably deteriorated. Furthermore, the photographs were helpful in providing us with evidence that no longer exists today. The architectural loci were still “dressed” with traces of various coverings—limestone coating(s), mud and mud brick(s), etc.—that contributed to our growing understanding of the function of the different parts of the buildings.

We began with our initial hypothesis that the “pillars” in locus 86 could not be pillars. This intuition turned into a conviction. Gradually, the idea was confirmed by facts: de Vaux’s archaeological interpretations were sometimes wrong to a certain extent. The legitimate reasons for de Vaux’s interpretational bias have been explained elsewhere and we shall not repeat them here.² The result was that a deeper, more thorough examination of the interpretation offered during the 1950s became imperative. Our 1994 article presented a first draft, with its share of weaknesses and approximations; the title itself indicated that what we were writing was a “proposal.” We tried to cross certain boundaries established around Qumran archaeology, to liberate it from isolation, and to understand the site as a regional center of worship for the entire Dead Sea basin. In other words, we attempted to blend or superimpose the concepts of the “Qumran community” and the “Essene community.” De Vaux’s “Qumran community” concept was weakened owing to the lack of evidence for “communalism.” The architectural layout appears to lack homogeneity. By studying the plans of the different construction phases, we realized that there was a primitive architectural core, which forced us to reassess the chronology and reorganize the periods proposed by de Vaux. We are reluctant, however, to state that de Vaux was plainly wrong: expressing it this way would be inelegant and insensitive. Moreover, to reevaluate de Vaux’s results commits no injustice: de Vaux himself, in his own words, paved the way for such re-considerations. It is now our responsibility to move forward.

² J.-B. Humbert and J. Gunneweg (eds.), *Khirbet Qumrân et ‘Ain Feshkha*. Vol. 2: *Études d’anthropologie, de physique et de chimie*. NTO.A.SA 3 (Fribourg: Éditions Universitaires; Göttingen:

Long Walls

At both Qumran and ‘Ain Feshkha archaeologists have noted the existence of “long walls” exceeding the usual length required for agricultural purposes. Almost identical walls were described at ‘Ain el-Ghuweir and ‘Ain ez-Zara. Archaeologists have commented upon the “long walls” at Qumran, ‘Ain el-Ghuweir, and ‘Ain ez-Zara with little success. Interpreting the walls as provisions to hold back stones rolling down from the mountain or as enclosures for sheep pastures does not seem convincing. Those who believe that these sites were not secular in nature opted for a religious interpretation. We shall follow their example. The Qumran walls were meant as a boundary to delimit an area of purity for the living and to separate this area from the cemetery—the territory of the dead and area of impurity.³ However, it is still possible to maintain the assumption that, in antiquity, the terrace wall could have served several purposes and conveyed multiple meanings, both secular and religious in nature. De Vaux suggested it had a connection with the Iron Age, and Norman Golb viewed it as a defensive wall erected during the First Revolt.

1. *The Esplanade Wall*

Description

De Vaux had no opportunity to publish Ch. Couâsson’s plan of this wall. We are pleased to present it in this volume (fig. 1.1).

Along with the eastern façade of the buildings, a “long wall” extending almost 100 m clearly marks the site’s boundary. Running along the eastern side of the esplanade, the wall extends to the top of the cliff, marking the southern point of the site. It represents a very distinct form of construction also seen in the remains of the oasis of ‘Ain Feshkha and at ‘Ain ez-Zara. Two courses of large headers are placed in a row upon a foundation of wedged stones of various sizes. The wall has collapsed almost everywhere except in the northern part; however, the fallen stone blocks were never pillaged because the area

Vandenhoeck & Ruprecht, 2003), chapter xix.

³ Humbert 1994: 203. See also the article by Joan Branham in this volume.

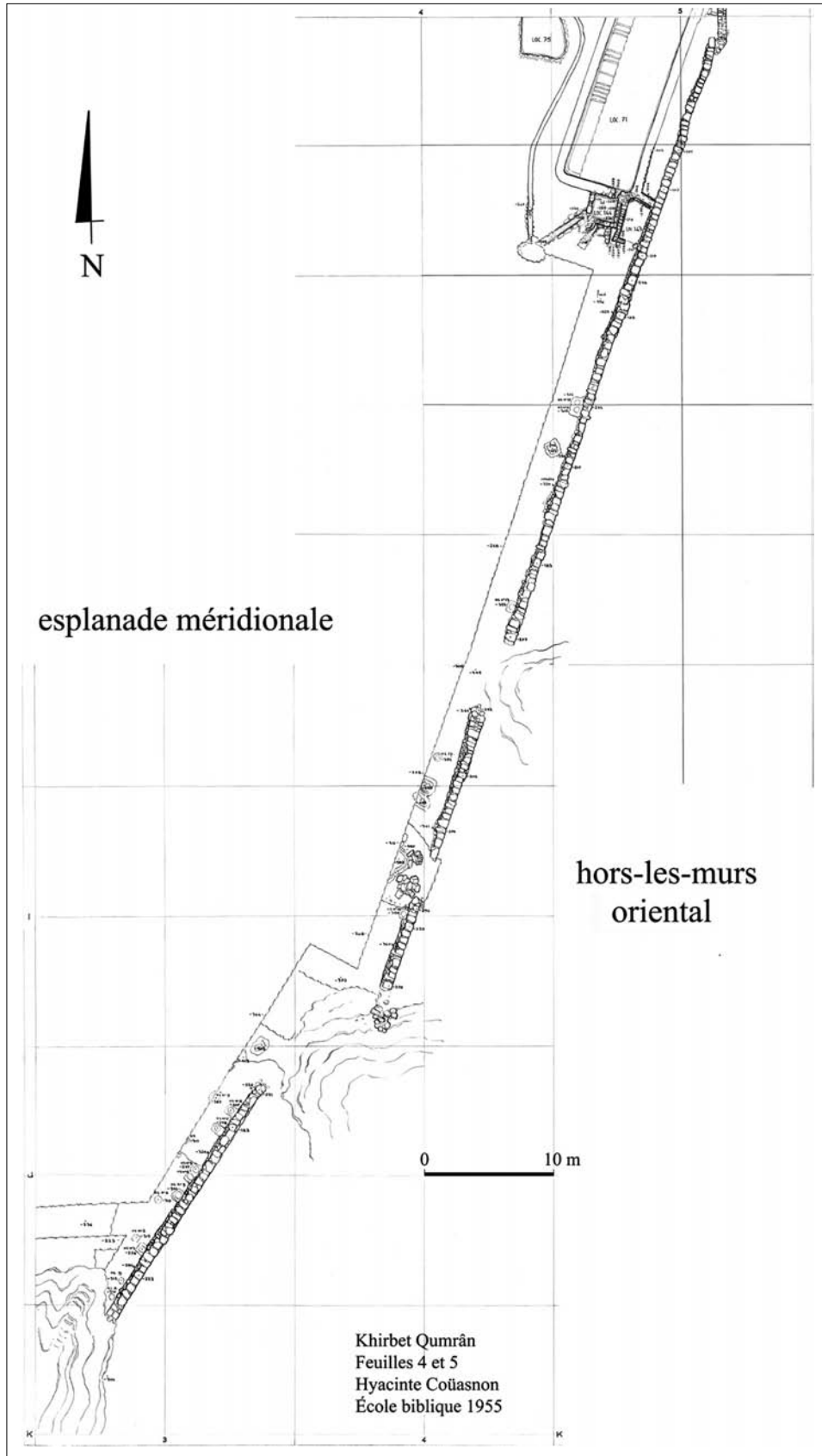


Fig. 1.1. The “long wall” on the esplanade of the *khirbeth*. (by C. Coüasnon o.p., École Biblique, 1954)

remained deserted. If reconstructed, the wall would not exceed 1.4 m in height. It was not meant as a defensive wall as one can easily climb over it. We must accept that it was only meant as a boundary or, more precisely, as a line of demarcation.

What could be the date of its construction? To the east of the Hellenistic square nucleus, the wall extends south, creating a triangle including loci 44, 61, 63, and 84. The southern end of this wall meets the esplanade wall at the edge of pool 71. The joint between the two sections is clearly irregular. The plan drawn by Couâsnon suggests that the eastern wall of the triangle did not join with the first stage esplanade wall. Therefore, the esplanade wall must be considered as an addition. However, what one might consider to be the joint between the triangle and the esplanade wall is, in reality, the remainder of a pre-existing corner where the south extending wall originally turned west, undercutting the esplanade wall. Couâsnon's drawing does not take this into account. We are uncertain about the exact line of the wall that was dismantled in antiquity; it seems to have corresponded with a section of pavement made of loose stones (loci 93, 94, 98), of which an additional edge was uncovered during recent excavations. The corner was preserved when the wall was dismantled for building or enlarging pool 71. The eastern triangle would then be older than pool 71, and the pool older than the esplanade "long wall" with which we are concerned. Thus, the construction of the esplanade wall dates to one of the site's most recent phases. If the construction was part of a larger project, then that project represents the latest phase in the site's history.

What was the purpose of the wall construction? The intent at this stage of the *khirbeh* constructions might have been to transform the settlement by creating a northern barrier that turned the esplanade into an enclosed space. So far, the exact function of the wall and the enclosed space has not been explained with any certainty. Some scholars suggested that such a barrier was meant as a "demarcation line" due to its clear visibility, perhaps playing the role of a physical or moral (spiritual) protector. The "long wall" of the esplanade cannot be confused with a defensive system. Since the ensemble of buildings is concentrated in a restricted area and encircled by a wall, both de Vaux and Golb were tempted to opt for a defen-

sive function. Their suggestions were legitimate and deserve to be considered. In contrast, numerous commentaries regarding the need to separate the living from the cemetery have also been made; even if this latter interpretation does not conclusively answer all the questions that have been raised, it has gained wide acceptance.

The Esplanade Wall and the Topographical Location of the Khirbeh

On the other hand, no valuable comment has been made regarding the choice of the location or the manner in which the settlement was constructed within its specific topographical context. The *khirbeh* could have easily extended towards the east and south; however, the building is confined to the northwestern part of the plateau up to the edge of the ravine. At some point in its history, the site was gradually extended in stages. De Vaux and some other scholars tried to link the site's transformation to a sudden increase in the number of "community" members. Although large south esplanade was available for building community installations because of its topographical advantages, it remained vacant. The majority of the area (3000 m², whereas the *khirbeh* already measured 5000 m²) constituted a defined space. The eastern slope and the steep inclines in the west and south provided excellent natural boundaries. Nothing was built on the esplanade. Since a "demographic increase" was highly improbable, construction on the esplanade was not considered necessary. A project to adapt the buildings for a large group would have facilitated circulation and enlarged the covered areas. Instead, however, Qumran offers the paradox of being a seemingly purposeless concentration of structures resembling an estate complex located in a vast region that was otherwise open and uninhabited. The site spread towards the west owing to an as yet undetermined pressure. The constructions that increased gradually after the original occupation filled up the remaining space as far as the steep ravine. They had their back to the east and were open to the west. Whether Qumran was constructed to face Jerusalem or whether this association was coincidental is still debated; in any case, it would be necessary to demonstrate more convincingly than we were able to do, that such an alignment was indeed intentional. The extension of buildings westward would also be logical considering that

constructions were added in the vicinity and around the principal access point. At the *khirbeh*, the main access was positioned in the northwest.

Local Exchange Networks

The original square nucleus of the site, which we identified as Hasmonean, occupied *grosso modo* the Iron Age fort pointed out by de Vaux. It should be noted that the earlier fort was judiciously placed on the site a reasonable distance from the ravine. The entrance to the Hellenistic edifice opened toward the north, in the direction of the road from Jericho. This road continued south, towards 'Ain Feshkha, by way of the western ravine. Today we reach Qumran from the east by climbing onto the marl terrace; thus, this access seems normal. However, our modern habits may fool us! It is doubtful that the ancient traveler arrived by walking past the tombs. Except in an urban context, cemeteries were generally established in areas that were useless, abandoned, or remote. Also, unlike the modern highway, the road from Jericho did not go through the open country but along the foot of the cliffs. This route was shorter and offered some shade at certain times of day. In fact, the *khirbeh* faces the intersection of the road leading west toward Jerusalem and the road that comes from Jericho and continues to 'Ain Feshkha and the Dead Sea and to the trade routes to Callirrhoe, Machaerus and Nabatea. The road towards the south by way of the western ravine was the most convenient and, once again, the shortest. The *khirbeh* stretches towards the "crossroads." This may better explain why Qumran's eastern façade was "blind."

Is the word "crossroads" an exaggeration? It is true, as Magen Broshi noted, that important roads did not directly pass by the area of Qumran.⁴ We have described Qumran as being "at the end of the world," inaccessible from the south by Ras Feshkha,⁵ and we should realize that most of the people traveling in this area were going to Qumran. The people who lived there certainly traveled throughout the area of the settlement, indicated by the fact that its buildings were at the center

of a network of paths, a common feature of inhabited places. Thus, the word "path" is certainly more appropriate than "road." The *khirbeh* buildings were likely important enough to constitute a destination. But that still does not turn Qumran into a "crossroad of paths." Most people came from and went to Jericho: the idea that Qumran and its extension towards Feshkha was linked economically with Jericho is increasingly accepted. Other travelers came from Jerusalem: the shortest route passed by Hyrcania, and the Qumran gorge presented a sudden and advantageous descent from the cliff top to the west. Navigation on the Dead Sea is an important but often forgotten reality. There can be no doubt that this passage from the west towards the east was gradually developed.⁶ Pedestrians on their way from Jerusalem to Callirrhoe and Nabatea could stop at Qumran; the path that went up Wadi an-Nar (Kidron Valley) was longer and more appropriate for animals laden with packsaddles. Consequently, two almost identical itineraries existed: Jerusalem—Khirbet Mazin by way of Mar Saba and Jerusalem—Qumran by way of Hyrcania. It should be noted, however, that no harbor or similar installation has so far been identified along the 'Ain Feshkha coast.

The Western Ravine

The western ravine was the most likely route for traffic between the settlement, the oasis, and 'Ain Feshkha (fig. 1.2). It presents a gently sloping indentation that separates the *khirbeh* from caves 4Q and 5Q. The ravine slopes down towards Wadi Qumran, whose bed is flat here. Beyond the wadi lay arable land.

Uphill from the *khirbeh*, a small gate opens toward the northwest of the settlement, precisely where the paths meet. This gate is ideally located for people intending to travel to or return from Jericho, Jerusalem, the oasis, or 'Ain Feshkha. An objection may be made that the gate looks like a service entrance and that it opened onto an area crisscrossed by small walls and the aqueduct (loci 137 and 132). However, in favor of the use of

⁴ M. Broshi, "Was Qumran a Crossroads?" *RevQ* 19/74 (1999): 273–6, responding to hypotheses expressed by Golb, Cansdale, and Hirschfeld (cf. Broshi's bibliography).

⁵ Humbert 1994: 163–4.

⁶ J.-B. Humbert and A. Chambon (eds.), *Fouilles de Khirbet*

Qumrân et de Ain Feshka. Vol. 1: *Album de photographies. Répertoire du fonds photographiques. Synthèse des notes de chantier du Père Roland de Vaux*. NTOA.SA 1 (Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht, 1994), 194, photos 397–8.

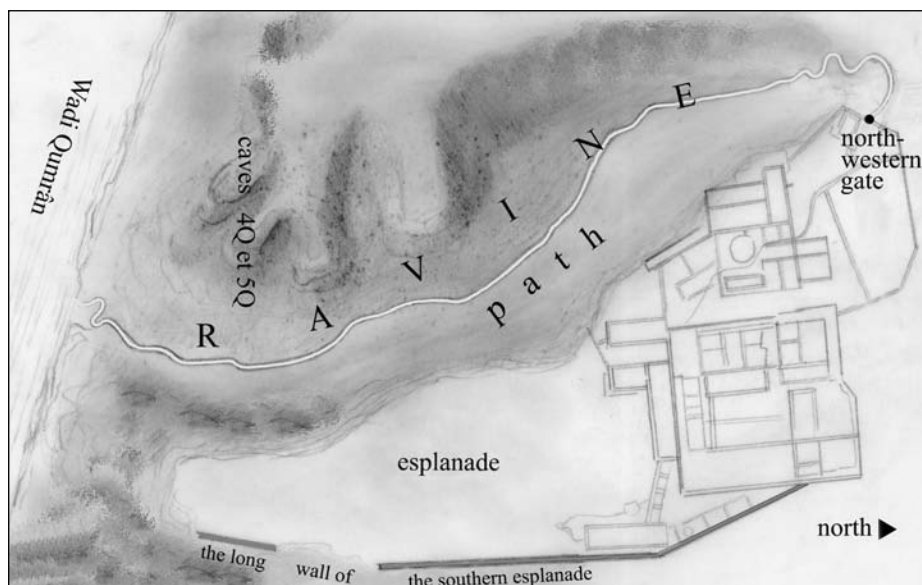


Fig. 1.2. The western ravine provides convenient access to and from ‘Ain Feshkha. (J.-B. Humbert)

this access, let us note the layout, precisely here, of a well-built installation widely accepted as being a ritual bath (locus 138). This interpretation only makes sense if this gate was the most frequently used within the settlement. When the former entrance on the northern side of the residence was blocked (locus 27), locus 137 became the main access to the complex. Consequently, we must envision the northwestern section of the site (the enclosure consisting of loci 132–137) as largely disturbed when the aqueduct was built. Its construction necessarily postdates the construction of the gate and the bath. We have previously noted that the aqueduct zigzags through the northwestern enclosure, which is to say that the builders circumvented something which was no longer in use but which still had to be taken into account during construction. A brief look at the map is sufficient to realize that the layout of the main aqueduct was a response to pre-existing structures, rather than that the constructions were the result of the channel’s route. Consequently, the aqueduct system, at least as we have uncovered it, must postdate the site’s maximum expansion. There is every reason to consider it as a late construction project. Bath 138 would originally have been provided with rain water supplied from the

plateau or by way of a simple channel that is no longer extant. It should be noted that the construction of bath 138 resulted in the closing down of the podium in the axis of locus 135, as we suggested elsewhere.⁷ Locus 135 is earlier than bath 138, which in turn predates the aqueduct. The gate to locus 137 is contemporaneous with bath 138. Our suggestion is to refer to this entrance as the ‘Ain Feshkha Gate. But first, we should describe the “long wall” winding its way through the oasis.

2. The “Long Wall” in the Coastal Plain

Qumran and ‘Ain Feshkha

What exactly was the link between Qumran and ‘Ain Feshkha? How are the two settlements connected? Both sites are located at the extreme north and south of the coastal plain, at a distance of 3 km from one another. The plain was cultivated and intermittently inhabited. The survey of the Qumran area brought to light an “isolated building” and an “Israelite building.” These structures were not completely excavated by de Vaux since they were not part of his original research plan.⁸ However, along with the Iron Age

⁷ Humbert and Gunneweg 2003, 434.

⁸ Humbert and Chambon 1994, 268, 367. See now also

sherds, de Vaux collected some “Qumranite” pottery fragments, which he believed to be there only by chance. He should at least have considered the possibility that the pottery was not there by mere coincidence, but that the alleged Iron Age building could have been reoccupied during the Roman period. De Vaux carried out no systematic exploration of the coastal plain, and, therefore, no additional constructions were ever revealed or described by him. However, an oasis is never deserted for long. Today, most of the archaeological remains have disappeared due to road construction and agricultural development.

What do we know about the oasis? Everyone who reads Pliny’s description creates a mental image of it, with palm trees constituting the obligatory backdrop for the Essenes. Nothing is left of it today apart from a few cultivated orchards replanted by Israeli settlers. Modern farmers were able to cultivate a beautiful palm grove just to the north of Qumran, proving at least that the soil is adequate for agriculture. In March 1956, de Vaux mentioned in his journal “the house in the palm grove.”⁹ He probably meant the stretch of reeds and tamarisks that grow naturally along the shore, since the photographs taken at the time do not reveal any palm trees closer to the site. Even today, this particular area does not give the impression of having ever been cultivated. The coastal plain was certainly not under water, as some scholars have suggested. The ancient constructions mentioned above and the presence of sherds from the Roman period testify to the facts that the area was inhabited and that the level of the Dead Sea only extended up to the buildings at ‘Ain Feshkha. Therefore, it can no longer be doubted that during the late Hellenistic and Early Roman periods the water rose to the level indicated by the shoreline installations at Khirbet Mazin, ‘Ain ez-Zara, and Rujm el-Bahr and that this level corresponds with the shore of ‘Ain Feshkha.

There are additional reasons that allow us to consider the area around Qumran as an oasis.

The coastal plain was probably covered by a palm grove. The Jordanian shore of the Dead Sea still has copses of wild palm trees where frequent natural run-offs irrigate the foot of the cliffs. These trees, however, do not produce anything because they are not properly cultivated. The palm tree is indigenous to the Dead Sea basin. It requires water and can adapt to relatively salty soil. The various excavations carried out successively at Qumran uncovered large quantities of date seeds. A link can be made with the agricultural exploitation of the palm grove, especially during the period when the settlement served as a secular place of residence. However, we should not forget that according to the written sources, the Essenes were involved in agricultural activities. In the context of an oasis, the trunk of the palm tree constitutes the almost exclusive roofing material. The shaft allowed for a superstructure that could span areas up to at least nine meters; over a long period of time, it bends, but it does not break easily. De Vaux noted in his journal that dates, palm fibers, and palm trunks were found in the excavations.¹⁰

The Qumran plain provides plenty of water that is often bitter or brackish, but sometimes sweet so that it can be used as regular drinking water. Groundwater emissions are weak and frequently change locations depending on the sea level. The most abundant source of water is ‘Ain Feshkha. Here the spring is strong and constant; in the summer, its temperature is quite cool, and in the winter it is lukewarm. It is indeed bitter, but drinkable (I drank some myself); the flocks of sheep that used to gather to drink there prove that the water is safe. In the middle of the ‘Ain Feshkha oasis, the spring of ‘Ain et-Tannur is potable and fresh. In addition to the pleasure of water, the springs at ‘Ain Feshkha offer cures throughout the year as well as unlimited ablution facilities. As for Qumran, in the event of a water shortage, ‘Ain Feshkha would have provided the most adequate recourse. It took hardly more than thirty minutes to walk to ‘Ain Feshkha. Qumran

Y. Hirschfeld, “Excavations at ‘Ain Feshkha, 2001: Final Report.” *IEJ* 54 (2004): 37–74, esp. 65–70.

⁹ Humbert and Chambon 1994, 367 (“The Israelite Building”).

¹⁰ Humbert and Chambon 1994, locus 4, 6–9/12/51; locus 13, 22/3/53; locus 44, 24/2/54; locus 124, 15/3/55; locus

86n 12/3 54; GQ 12, 11; Gr 8–1; Gr 9–1. See also J. Zangenberg, “Opening Up Our View. Khirbet Qumran in a Regional Perspective.” In: *Religion and Society in Roman Palestine: Old Questions, New Approaches* (Edited by D.R. Edwards; New York and London: Routledge, 2004), 170–87, esp. 172–4.

had large cisterns, whereas the buildings at 'Ain Feshkha did not require any and so had none. The volume of Qumran's basins would have adequately supplied a large community; however, the maximal expansion of Qumran's water system can only be connected to the latest phase of occupation. During the earliest phase, only cistern 110 collected and contained water. This suggests that the early inhabitants of Qumran visited the oasis springs daily for their fresh water needs. Until recently, transporting fresh water has represented a universal problem, especially in the Middle East.

In antiquity, like today, cycles of drought occurred. Again and again there were years where natural rainfall would not sufficiently fill the storage basins. Water that is not kept in closed cisterns—as at Qumran—is poorly protected and spoils within several months. The sheer size of many of the storage pools was intended to compensate for the irregularity of the rainfall supply. In case of water shortages, 'Ain Feshkha and 'Ain Tannur would have been available as alternative water supplies, making the oasis springs indispensable for domestic needs and ritual baths during such periods. Thus, Qumran and 'Ain Feshkha were also connected due to water management.

As we have shown in other publications, Qumran and 'Ain Feshkha originally were two sites that belonged to the upper echelons of Hasmonean society, if not to the aristocracy itself. The rectangular structure at 'Ain Feshkha consists of an equal number of rooms surrounding an inner courtyard and measures half the size of the square residence in Qumran. Both structures were built using the same proportion ratio. There is every chance that they were contemporary and that they were part of the same construction project. The residence of Qumran, on its spur dominating the entire oasis, represented the main house, while the building at 'Ain Feshkha, benefiting from the large spring nearby, served as the pavilion in the gardens. Before its industrial transformation into an indigo factory, as suggested in this volume by Mireille Bélis, the 'Ain Feshkha "vacation house" must have been a very pleasant resort.

The "Long Wall" Connection

De Vaux saw a 500 m "long wall" stretching along the coastal plain. While he quickly assumed that the wall joined up with the one discovered at 'Ain Feshkha, he did not associate it with the Qumran site. Now, we would like to propose such a connection.

De Vaux described the wall with great care:¹¹ it was one meter wide made of large stones laid on edge, and placed simply on natural gravel with a foundation of large pebbles. De Vaux estimated that it could have been hardly more than one meter high. He thus interpreted the wall as a simple enclosure surrounding the orchards and gardens. He localized it only in the northern part of the plain. De Vaux hesitantly attributed it to the Iron Age, an interpretation that is no longer acceptable. He compared the construction of large uncut blocks to the enclosure walls in nearby Buqe'a, which are attributed to the Iron Age, and then repeatedly with the "long wall" of the Qumran esplanade. However, the construction of the walls found at the Buqe'a site does not have much in common with the one at 'Ain Feshkha, except the use of large, uncut stones. At Qumran, the esplanade wall leans on a corner of the *khirbeh* that most likely formed part of the latest construction phase (see *supra*). We therefore have to abandon the attribution of it to the Iron Age. An earlier date for certain sections would change nothing with respect to our concerns. We recognize that the "long wall" on the plain was not homogeneous along its route. Moreover, according to de Vaux, it was extended as far as 'Ain Feshkha only when the Essenes occupied the site, and no evidence for an Iron Age date was identified there. He ended his observations by saying: "Thus, one can really consider it to be the work of Qumran."

De Vaux was correct in noting that the "channel" indicated on a map was actually the beginning of the wall leading downstream from Wadi Qumran.¹² Today, not much is left of these remains because they were not protected. At the foot of the plateau on which the *khirbeh* is situated, contemporary Israeli cultivation has destroyed the

¹¹ R. de Vaux, *Archeology and the Dead Sea Scrolls* (London: Oxford University Press, for the British Academy, 1973), 59–60; Humbert and Chambon 1994, 367; 269, photo 531.

¹² *Survey of Palestine* (1/20,000), Sheet 19–12 (1942). See also figure 6 in the General Illustrations section of this volume.

archaeological remains. At 'Ain Feshkha, the recently built paved road destroyed or buried the junction of the "long wall" with the house. We tried to locate remains of these junction but walking in the plain, we found only a few sections here and there which had never been drawn or photographed. Israeli soldiers would not let us enter the military zone and unfortunately, cut our two visits short.

According to our observations, we concluded that the construction did not follow a straight line but progressed in zigzags, *grosso modo*, from north to south, parallel to the shore. This impression was confirmed when we checked heterogeneous elements, independent of one another, but which originally were connected. The stones were not always identical nor was building technique. Some stretches resembled garden walls while in another place we encountered what appeared to be the wall of a pool. We might have seen the square "isolated building" without recognizing it. We saw at least one wall made up of large headers, like those we can see on the Qumran terrace and at 'Ain Feshkha. We would like to suggest that during the Qumran period, the agricultural lands and gardens extended into the coastal plain, and that the "long wall" was established to link plots of land to create a continuous chain. The "long wall" would have constituted the boundary of the oasis, isolating the cultivated land on the side of the sea.

A long segment of the wall attached to the 'Ain Feshkha "farm" forms part of the same construction phase and employs a similar technique. What we know of this wall is derived mainly from Coüason's map, on which the wall is shown elevated for 48 m and extends in a straight line toward the north. On de Vaux's published map, the drawing is precise enough to note that in scattered sections the wall is made of large header stones. It is possible that over the course of the centuries, it was restored with stretcher stones.¹³ One can notice that the walls in "the western enclosure" 'Ain Feshkha, including those of locus 1 outside the house, have quite similar stonework.¹⁴ No one would think of attributing them to the Iron Age;

on the contrary, we can firmly date them to the same building phase. Qumran and 'Ain Feshkha are clearly and intentionally connected by the "long wall." We must, thus, accept that at some point in their history, it was necessary to enclose both sites and to present them as a single topographical unit.

Construction by means of large headers placed in a straight line is not unique to the region but occurs elsewhere within similar archaeological and historical contexts. The best example of this is at 'Ain ez-Zara, the former Callirrhoe of Herod, on the eastern shore of the Dead Sea.¹⁵ A semi-circular wall of 1.5 km follows the contours of the oasis, encircling the fertile area and the gardens, setting the site off from the mountains to the east and connecting it with the sea.¹⁶ This wall is interrupted wherever ravines have been cut by torrents, and, therefore, seems to have had neither a pastoral nor a defensive purpose. The wall is indented at both ends, and humans or animals can climb over it without any difficulty. Judging from the number of stones lying along its track where it has been destroyed, the wall was low—hardly more than a meter high. Once again, the structure must have served as a boundary or delimitation. One may also refer to the wall at 'Ain el-Ghuweir, discovered by Ian Blake. 'Ain el-Ghuweir is the closest site to the south of Qumran and possesses dwellings lined up for some 350 meters. Its installations stretch between the wall and the sea. Here again, the entire site had been carefully enclosed.

3. *Symbolic Boundaries: an Eruv*

Despite the risk of offending lay sensitivities, we interpret the "long walls" as enclosures for a religious purpose (fig. 1.3). Such enclosures were clearly not for defensive purposes. The area was not used for sheep pasture; nor was the wall intended to protect the main building from stones rolling down from the limestone cliffs, since falling rocks in these areas do not occur any more frequently than anywhere else.

¹³ Humbert and Chambon 1994, 232, fig. xlii; 234, fig. xliii; see also 269, photo 531.

¹⁴ Humbert and Chambon 1994, 262–3, photos 521 and 523.

¹⁵ *Survey of Palestine* (1/20,000), Sheet 19–12 (1942).

¹⁶ C. Clamer, *Fouilles archéologiques de 'Ain ez-Zara/Callirrhoe: villégiature hérodiennne* (Beirut: IFAPO, 1997), 9.

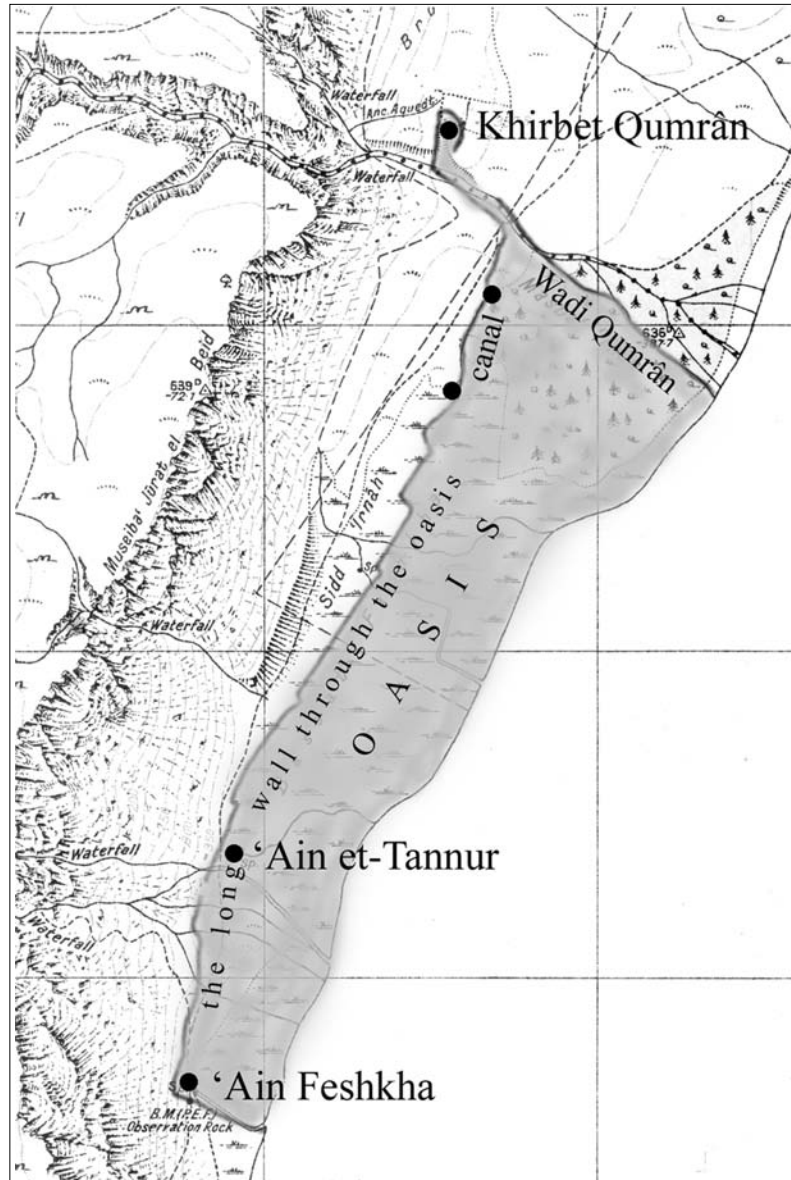


Fig. 1.3. The *eruv* of Qumran, bordering the area between ‘Ain Feshkha and the *khirbeh* in a symbolic way. (Map, Survey of Palestine, 1942)

Instead, a clear intention to demarcate a specific territory can be discerned in these “long walls.” Contemporary Jewish Jerusalem provides a parallel in the form of its *eruv*. Originally the *eruv* was a string suspended from one post to the other (made more visible by means of small flags) which thereby represented the enclosure of a fictitiously walled town. During the Sabbath and feasts, Jewish law permits free circulation within the ramparts of a town, which is limited to a thousand steps beyond the walls. Pious Jews consider the rampart as the boundary of a marked area and not

as a defense. Thus, the territory in question was delimited and declared an urban area by providing it with visible, symbolic boundaries. This was done in the midst of the twentieth century for Jerusalem. In the case of Qumran, the motivation for the extended wall was to include ‘Ain Feshkha and the *khirbeh* within the same enclosure, because otherwise access to the springs from the main settlement would have been prohibited on Shabbat.

We now attempt to define what would have been the Qumran territory. The “long wall”

marked the symbolic boundary of the “town.” The few installations and gardens that were found here are located between the wall and the sea. The Dead Sea clearly served as the eastern boundary. The borders could have been the bed of Wadi Qumran in the north and the stream that flowed from the ‘Ain Feshkha spring in the south. This enclosure included the entire oasis, at least south of the Wadi Qumran, exactly as at ‘Ain ez-Zara. The bed of Wadi Qumran would have been considered to be within the enclosure, for if a pedestrian went down into the valley for 300 m, he would have reached the beginning of the “canal”—*i.e.*, the “long wall”—and avoided being outside the territory by crossing the wadi on his left (north). It was difficult to locate Qumran within the territory because the settlement was outside the oasis proper and because of the sudden break of the cliff between the plain and the marl terrace.

The ravine running alongside the *khirbeh*, which we have described above, was the umbilical cord between Qumran and the oasis and marked the territory’s boundary in the west: as for Wadi Qumran, a path in the valley marked a boundary which could be pinpointed without hesitation. The western slope of the ravine, in which caves 4 and 5 are located, formed a natural boundary that could not be readily climbed. Earlier we emphasized the gate of locus 137, which opened directly onto the ravine and, thus, allowed access to it without having to leave the enclosure. Finally, the “long wall” on the esplanade completed the enclosure in the southeast of the site, including the settlement, and separated it from the cemetery, which had to be outside the walls according to legal requirements. It is possible to apply this topographic model with equal success to the sites of ‘Ain ez-Zara and ‘Ain el-Ghuweir.

Interpretation by Induction

Our 1994 article did not trigger any objections. Does this mean that critiquing it is unnecessary or useless? In response to a comment by benevolent colleagues, “that my suggestions raised more problems than they could solve,” it must be stressed

that the problems the article addressed nevertheless exist and that they cannot be solved by simply dropping or ignoring them. The interpretation of archaeological evidence is often overshadowed by the weight of historical sources. Archaeology in itself can only provide a set of approximations.

We thank Jodi Magness for considering our suggestions,¹⁷ even though she does not accept them. Her objections were always expressed clearly, but, as detailed as her examination of the site was, it adopted more of an intellectual than an archaeological approach. Ultimately, she repeated the same error that de Vaux committed when he interpreted the remains with the a priori of an allegedly familiar Essene history and, consequently, adopted the sectarian theory. In Magness’ defense, de Vaux’s interpretation follows history so precisely that one hesitates to move away from it. The trap is in the a priori that Qumran was an Essene site. Our knowledge of the life of the Essenes cannot be the criterion for the interpretation of Qumran as an issue of methodology. We should proceed by induction and not deduction, moving from the archaeological data toward the (anthropological more than archaeological) interpretation, and not to interpret by deduction based on premises that are external to the archaeological process. Archaeology cannot be history’s simple corridor. Only after each set of data has been evaluated is it beneficial to confront the archaeological results with what we might know about the Essenes.

Since we believe that our 1994 suggestions have not been invalidated, we permit ourselves to return to them. Because of the prevailing weakness of the material argumentation, we have not ceased to revisit and reassess the site. Archaeology first distinguishes what was built and then considers *how* it was built, and finally, *why* it was built. Here, the *why* is what should guide us. The disposition of space at Qumran reflects the predictable response to the terrain in its allocation requirements, as in other sites where rooms and courtyards follow an orthogonal layout. It obeys the principle of economy of space and corresponds to construction methods of the region. Its topography required the axis to be modified in certain

¹⁷ J. Magness, *The Archaeology of Qumran and the Dead Sea Scrolls* (Grand Rapids: Eerdmans, 2002) 90–100.

cases, as, for example, by the proximity of the western ravine that determined the construction in the southwestern corner of the complex. There are architectural elements that defy the orthogonal layout. On the plans, these appear as obvious aberrations. Sometimes, the *reasons* for an aberration are deliberately overlooked by archaeologists because the *causes* are judged to be intangible if they are not obvious. However, proper methodology requires that one take aberrations into account even if, because their significance is not immediately evident, they appear as mistakes. Often there is no “mistake,” only our ignorance of the reasons underlying the builders’ choices in the construction process. Simple explanations can impart new meaning to so-called aberrations.

We adopted the following approach in understanding the “aberrant” direction of the wall that separates loci 131 and 134 in the northwestern enclosure 135. The direction of this wall is, as a whole, unique in the fabric of the site constructions. We have tried to associate the alignment of this aberrant wall with the direction of Jerusalem in order to correct the layout of the northern enclosure.¹⁸ This approach explained the “long wall” along the esplanade south of the *khirbeh* whose purpose is not clear. However, we have since connected this “long wall” with the “long wall” linking Qumran with ‘Ain Feshkha (*supra*).

4. Inductive Interpretation of Locus 86

Reexamining the Evidence

Above we emphasized that the “pillars” in locus 86 are not pillars, and that, at first glance, the partition wall that divides the locus does not make sense. We now return to this statement.

In the photographic documentation of the fieldwork publications (Humbert and Chambon 1994) we presented the site in designated areas and respected de Vaux’s functional interpretation as we were only commenting on the photographs taken during his work according to his daily excavation notes. Our main concern was coherence, since we were publishing his work. We called his refectories (loci 86 and 77) a “community place,”

in spite of our disagreement with respect to their exact function.¹⁹

We have, however, rejected de Vaux’s stratigraphic interpretation, according to which the construction of the entire building complex was constructed during Period Ib. On the contrary, other buildings were added gradually to the original square nucleus, and it seems that this was done to suit the specific needs of a community that invested the site with its own history. Loci 86–89 and 77 formed a wing consisting of two communicating rooms. This wing was set along the southern side of the original square and, contrary to what the excavator thought, could not have belonged to the initial construction project. In spite of the difference in their sizes, the two loci must be considered as two identical chambers, fulfilling a particular function, which is only deducible by their peripheral location and the peculiar installations that have no parallel in the entire country. One notes that this set of individualized buildings was linked to the complex as a whole by means of one door that connected loci 77 to 79. It is equally remarkable that the chambers had access to the vast stone-paved esplanade to the south, toward locus 98.

Few repairs were carried out in locus 77. The same cannot be said of locus 86; there, dividing walls were set up at the beginning of de Vaux’s Period II. He called the resulting spaces loci 87 and 89. He was particularly interested in this part of the edifice.²⁰ We have published the notes from his excavation journal and present here a draft of its stratigraphic reconstruction (fig. 1.4).²¹ Locus 86 represents the room in its original layout, before the division by partition walls. De Vaux then mentioned loci 87 and 89. Locus 89 is the western part of the room behind the partition, known for its exceptional accumulation of one thousand well-stacked bowls, cups, and dishes. Locus 87 is the result of a thin dry-laid construction that isolates the accumulation of pottery. It is easy to recognize that this construction is nothing more than a partition wall, more like a screen than a wall, with a passage in the middle mentioned by de Vaux,²² but which cannot be found on Coüasnon’s surveys and photographs.

¹⁸ See Humbert and Gunneweg 2003, chapter xix.

¹⁹ Humbert and Chambon 1994, 155–66.

²⁰ De Vaux 1973, 11–2.

²¹ Humbert and Chambon 1994, 316–7 (locus 77) and

318–20 (loci 86, 87, 89).

²² See Humbert and Chambon 1994, 319 (locus 87 on 18/03/1954).

The architectural development of locus 86 was associated in time with the construction of the pillars,²³ initiating the so-called Period II. The text in de Vaux' field notes reveals some hesitation: the "pillars" lying on top of the plastered floor of Period I were attributed to Period II.²⁴ Two plastered floors lying on top of each other do not necessarily signify two different periods. Therefore, the argument of the earthquake for the year 31 B.C. can no longer be accepted among scholars as a break in the chronology.²⁵ We must now recognize that loci 77–86 were initially constructed in the same period, but were subjected to modifications during successive restorations.

Józef Tadeusz Milik discussed the architectural interpretation of locus 86 and its effects on the chronology.²⁶ Milik noted that the pottery from the pantry in locus 86 contained a bowl with graffiti that could not to be dated before the first century A.D.; consequently, the burial of the pottery could not be dated to the earthquake in 31 B.C. This simple remark endangered one of the strongest points of de Vaux' chronology and his periodization. According to our proposal regarding the reassessment of the chronology, Milik was correct because the epigraphic argument was valid.²⁷ De Vaux maintained his position, refuting Milik;²⁸ Milik upheld his point of view as well.²⁹

Interpretation

Today, de Vaux's initial proposal is still accepted: this aisle (loci 77–86) of the Qumran complex represents a refectory with a pantry later destroyed by fire. As long as the theory of a community is accepted, the presence of a refectory will consequently be considered a necessity. As a result, the exceptional accumulation of pottery could only point to a pantry. Magness strengthens and modifies this assumption by suggesting a refectory installation on a second floor, resulting from a complete reconstruction after the earthquake.³⁰ Her argument directly opposes ours. The view

put forth by Stephen Pfann further magnifies this concept by anachronistically reconstructing the room's furniture (in this volume). Pfann sees the "pillars" as the legs of a table and contends that the wooden trays were not preserved. A brief look at tables in antiquity, however, compromises his research. Artistic representations of tables are not rare in Graeco-Roman iconography (especially in funeral contexts, which, of course, does not apply here). As one can see from contemporaneous artwork, tables are connected mainly to sideboards for setting up food. We note that according to available iconography, people took meals not while sitting at a table, but by reclining with their backs to the wall of the room. Furthermore, a table requires chairs or benches, of which we have no trace. Pfann simply transposed a modern concept to Qumran with no known parallel in antiquity. The refectory interpretation is so weak it should be dismissed.

In 1994 we had already abandoned the refectory interpretation.³¹ Loci 77 and 86 have unusual cubic masonry described as pillars for a roof or second floor stays. The pillars were positioned along the axis of the chambers. De Vaux assumed that they were the best evidence for a post-earthquake restoration. He did not doubt the presence of a second floor, despite a complete lack of any remains. In his mind, the pillars simply postulated a second storey. We are convinced that the pillars were not used for this purpose. The width of loci 77 and 86 did not require pillars as it does not exceed that of other rooms at the site. Palm trunks from the oasis would have supplied adequate timbers with greater load bearing capacity than that required by the 4.50 m width of the standard Qumran room; elsewhere, similar rooms did not require pillars. Where remains of palm trunks were clearly identified during excavations—at least in loci 4, 13, 44, and 124—they were remains of roof beams.

Interestingly enough, the asymmetrical position of the pillars in the rooms has not raised serious

²³ De Vaux 1973, 26.

²⁴ Humbert and Chambon 1994, 316–7 (locus 77 on 28/03/1954).

²⁵ Humbert and Gunneweg 2003, 436–7.

²⁶ J.T. Milik, *Dix ans de découvertes dans le désert de Juda*. (Paris: Éditions du Cerf, 1957), 46.

²⁷ Humbert and Gunneweg 2003, 435.

²⁸ De Vaux 1973, 11–2, n. 1.

²⁹ J.T. Milik, *Ten Years of Discovery in the Wilderness of Judaea* (Translated by J. Strugnell; London: SCM, 1959), 55.

³⁰ Magness 2002, 122.

³¹ Humbert 1994: 198.

questions among scholars. In loci 77 and 86 two engaged pillars are placed against the back wall of the rooms. Usually the roof timbers rest on top of the long walls and not on an engaged pillar. For appropriate distribution of loads, the engaged pillar is an illogical choice as a roof support. Stays would have had to be placed at regular intervals in order to carry the load, especially in locus 77, but are not present here. In locus 86, no symmetrical pillar exists and the one we have corresponds only partially with the opening to locus 77. In locus 77 the series of pillars is interrupted midway in the room. The irregular position of full pillars and engaged pillars disturbed de Vaux as well; however, his explanation is not convincing. In *Archaeology of the Dead Sea*, de Vaux wrote about locus 77: “. . . the western end remained uncovered, and the reason for not continuing the series of pillars throughout the whole length of the room appears to have been in order that the majority of those assembled might be able to see the president when he took his stand on this platform.”³² According to de Vaux, only part of refectory 77 would have been covered, a design which makes absolutely no sense. De Vaux’s plan based on a need “to see the president” is totally unfounded in the construction. The “pillars” are simply not pillars.

The field notes mentioned that the “pillars” were made of plaster-coated brick masonry.³³ We examined the site and observed that mud brick was employed for partition walls (loci 23, 61, 63, 121, etc.) and possibly for the upper part of some of the main walls. The recent excavations by Magen and Peleg show, in stratigraphic sections, important accumulations of mud brick thrown over the eastern wall of the *khirbeh* (see Chapter 3, below). The Qumran mud-brick material contains dense sand temper with a fine consecutive resistance. Meanwhile, stone abounds in the area of Qumran and a stone pillar would be much more effective as a support for a second floor. Let us forget for a moment the word “pillar,” and replace it with “plaster coated cubes” or simply “cubes” for lack of a better definition (fig. 1.5).

At the time of their discovery in locus 86, the two plastered cubes were completely preserved to their original height. In locus 77, on the contrary, they were eroded down to the base. Because the cubes in locus 86 were in an excellent state of preservation, they were, alas, restored with a new coat of plaster. Unfortunately, we have no close photographic documentation of their original state after excavation; luckily, some photographs provide precious information as to their morphology. Both cubes are of identical height with a smooth flattened top and their upper parts have not suffered erosion. Two photographs show their disposal, form, and aspect when discovered:³⁴ their horizontal upper part was originally flat and plastered. The eastern and western sections of the wall that share loci 86 and 89 squeeze the central cube. Photographs 330 and 332 (fig. 1.5) provide proof that some partition wall stones covering the upper part of the cube were removed by workers to examine the top of the cube. The cube top was flat when the wall was built. The cubes appear more as discreet “tables” or stands that organize the space in the rooms into an identical layout as loci 77 and 86. The engaged cubes on the back wall are opposite to the entrance and walking from the door to the cubes gives a specific direction to the room’s disposition. The cubes, positioned to catch the attention of people entering the rooms, were the visual focus of loci 77 and 86. In both cases, a thin dry-laid wall seems to demarcate the space at the back of each room. Between loci 86 and 87, there is a dry-laid wall of 0.70 m in height that functioned as a screen rather than as a partition wall as it runs in front of the engaged cube on the back wall. Although the dry-laid wall was interpreted in conjunction with the pottery accumulation, it would make more sense to consider that the users stacked the pottery *behind* the screen in a reserved space. In locus 77, remains of another dry-laid wall are connected with the first free-standing cube to the east, also reserving the back of the room. This wall corresponds to a step descending to the east and can not simply be explained as

³² De Vaux 1973, 27.

³³ Humbert and Chambon 1994, 316 (locus 77 on 10/03/1954) and 318 (locus 86 on 16/03/1954).

³⁴ Humbert and Chambon 1994, 161, photo 330; 162, photo 332.

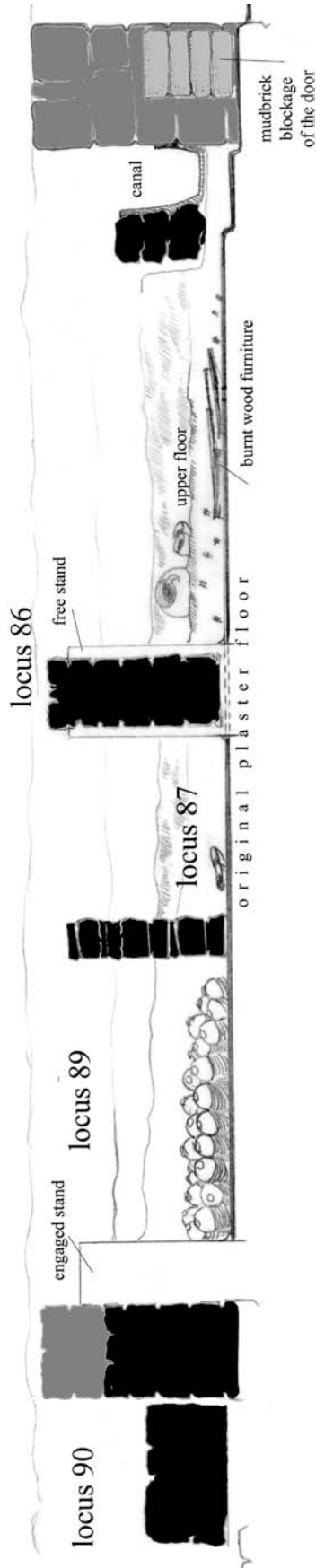


Fig. 1.4. Schematic rendering of the strata in loci 86, 87, and 89. (J.-B. Humbert)

a feature resulting from the natural slope of the site.

Some Stratigraphic Considerations (fig. 1.4)

The sealing of locus 89 left the eastern part of locus 86, which is connected with locus 77 open: it seems that de Vaux started the excavation at this side. He mentions “a lot of ashes” which could indicate the destruction of the site during the First Revolt. An “upper layer” is absent from the 22/03/1954 photograph and de Vaux dwells on the fact that the only floor is the deepest plaster level. His “upper layer” was the collapsed second storey. If this is true for locus 89, it does not hold for locus 86, where excavators saved part of a floor without really noticing.³⁵ It escaped attention because it is not a floor beaten or stamped by heavy foot traffic. We consider that the four complete pots mark a stratigraphic demarcation. An upper storey collapse does not leave unbroken pottery arranged horizontally. The 20 cm thick fill below the pots was accumulated against the partition wall in loci 86–89. The fill, quite homogeneous in photograph 332 (fig. 1.5), does not have a consistency appropriate to a destruction layer, and we should not be deceived by assigning it to an earthquake (see *supra*). The debris could be interpreted as the remains of fallen material from the earthen roof cover. However,

photograph 332 shows thin layers of accumulation which are not indicative of inverted material left by a collapse. Moreover, the door between rooms 77 and 86 was blocked. The floor in locus 89, covered by hundreds of pots, marks an occupation between its end and the blockage of the door between loci 77 and 86; locus 86, at the moment of the destruction, therefore was nothing more than a simple junk or storage room (fig. 1.6).

In the eastern part of locus 86, the upper floor covered a deep plaster surface where de Vaux had noted some quite remarkable pieces of wood, which he interpreted as burnt beams from the ceiling. However, the pattern of deposition of the fragments negates the suggestion of a collapsed timber roof, since no traces of wood, charcoal, or ashes were found elsewhere. The wood cannot be a sluice-gate as it is too far away from the door; it might be a piece of furniture whose preserved character could have resulted not from burning but from a process of gradual carbonization over time. The photograph (fig. 1.7) shows two thick pieces of wood surrounded by something that looks like small slats of wood. One’s attention is drawn to a small half-square cavity in the plaster floor, marked “b” (fig. 1.8, photograph on top) that may have been associated with the square piece of wood to the right. On the left side of the photograph, the second piece of wood is



Fig. 1.5. The partition wall between loci 86 and 89, the so-called central pillar during clearing procedure. (Humbert and Chambon 1994: 162, fig. 332).

³⁵ Humbert and Chambon 1994, 162, photo 332 (fig. 1.5).

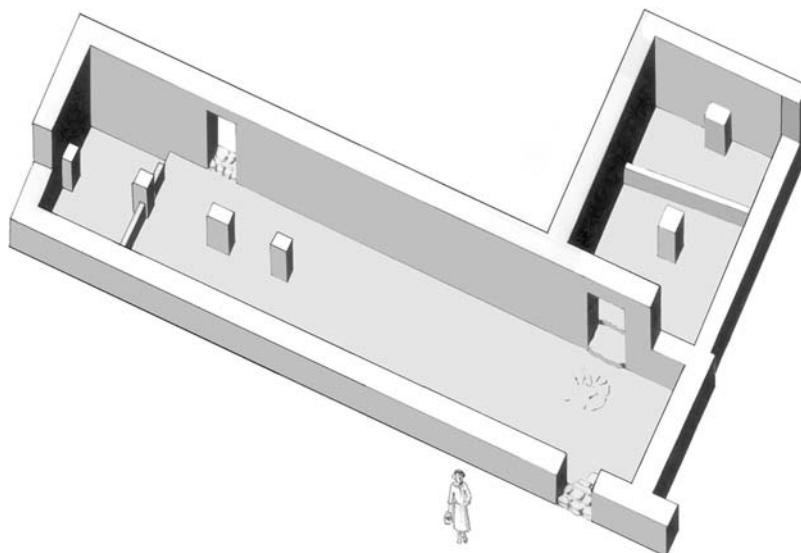


Fig. 1.6. Architectural reconstruction of loci 77 and 89. (J.-B. Humbert)



Fig. 1.7. Wooden remains *in situ* in locus 86. (Photo by R. de Vaux, Cat. École Biblique 12186)

associated with another fragment, probably in a vertical position, and it may be *in situ*: on the photograph, the base seems to be inserted in a layer of plaster (marked “a” on fig. 1.8). If we try to understand the arrangement of the fragments as the remnants of a wooden screen, we return to the idea of a separation between people accessing the front of the room at its entrance and the place of the pottery accumulation. Obviously, the wooden screen would have preceded the permanent sealing of locus 89.

A Possible Worship Interpretation

That locus 77 is oriented toward the east and locus 86 is located at a right angle toward the south is obvious, but the reason for these two orthogonal directions is not quite clear. The eastern direction follows the sunrise and the southern is aimed at the zenith. We would like to note here that, incidentally, Essene practice had some association with the sun; however, any attempt to construct a relationship between a particular Essene practice and the archaeological data presented here is futile for the moment. Every particular installation forms a functional unit. The concept of the unit raises the idea of a practice that could possibly follow a specific observance. If any practice could be identified, it would be logical to connect it first with the unusual accumulation of pottery. We suggest the ceremony of first fruits.³⁶

We refuse to limit the “community of Qumran” to a single, “unique” site and instead emphasize that the sectarians preferred living in the surroundings of the Dead Sea—which brings us once more back to the problem of identifying religious practices at the site.³⁷ The Qumran site is a sectarian complex among others but one with a specific archaeological character. The theory of the Essene settlement is more than probable, but in the absence of decisive evidence, everything we attribute to the Essenes could, in fact, be attributed to any Jewish sect. Its cemetery must have been used by the Jewish population living in the vicinity of the Dead Sea. Pious Jews may

have asked to be buried there—in Eretz Israel—as attested elsewhere in Palestine (the best example is Beth Shearim).³⁸ According to this process, it is possible that such a particular place also attracted other religious practices like sacrifices and offerings. We know from historical sources that the Essenes from the vicinity of Jerusalem made offerings to the Temple but no sacrifices; they made sacrifices, however, within their communities. Qumran manuscripts testify that the sect codified both offerings and sacrifices,³⁹ and followed the usual biblical prescriptions regarding the first fruits and other offerings (*rê’shît bikkûrîm*), even if they were reformulated in a more restrictive way. One must determine in which locations those offerings were made. According to Deut 12:17, they were not to be made in cities but at sites chosen by Yahweh, thus suggesting that these sites were considered holy places. The prescriptions could not be satisfied everywhere all the time. Only the diaspora on the Transjordanian borders of Eretz Israel, *i.e.*, on the western side of the Dead Sea, could have been required to conform in an appropriate manner to the obligatory worship in the Holy Land. This diaspora must have upheld the Levitical prescription to make offerings after entering into the Promised Land: “When you enter the country which I am giving you . . .” (Lev 23:10). Etienne Nodet focused on Exod 12:25 to link the first fruits to the concept of the Promised Land and to the origin of the pilgrimage.⁴⁰ Offerings were also made on the occasion of Passover. We suggest that the nearby diaspora, and, especially, those living on the east side of the Dead Sea, would come to Qumran for the Passover celebration.⁴¹ During the Passover ceremonial only the lamb and goat kid were sacrificed. Other ceremonies sacrificed a bull, a sheep, or a goat as burnt offerings (Lev 22:18–19). Therefore, we were not surprised to identify burnt cow and goat bones among the deposits of loci 130, 132, and 135.

We also suggest that grain and fruit were used as offerings (Lev 19:24). Other regular offerings

³⁶ Humbert 1994, 199.

³⁷ Humbert and Gunneweg 2003, 427.

³⁸ Humbert and Gunneweg 2003, 429–31.

³⁹ R.A. Kugler, “Rewriting Rubrics: Sacrifice and the Religion of Qumran.” In: *Religion in the Dead Sea Scrolls* (Edited

by J.J. Collins and R.A. Kugler; Grand Rapids: Eerdmans, 2000), 90–112.

⁴⁰ E. Nodet, “Passover at Gilgal: From Joshua to Qumrân and Jesus,” Orion Conference, January 2004 (Jerusalem, in press).

⁴¹ Humbert and Gunneweg 2003, 434.

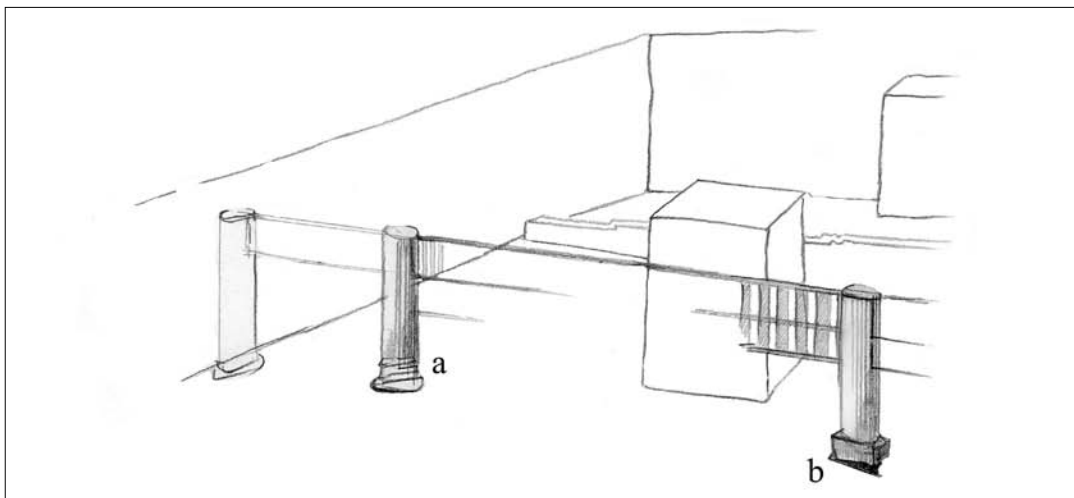
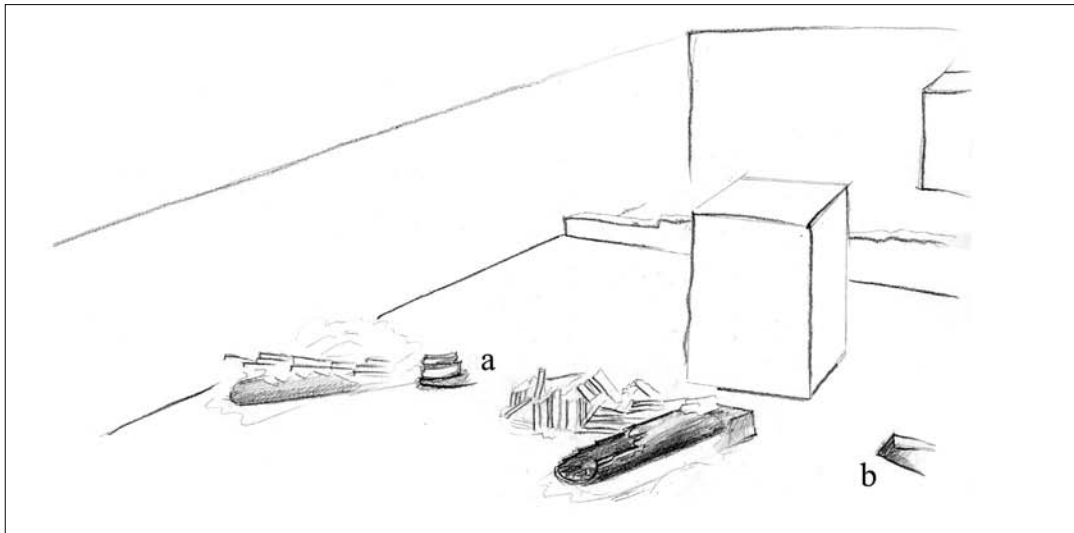
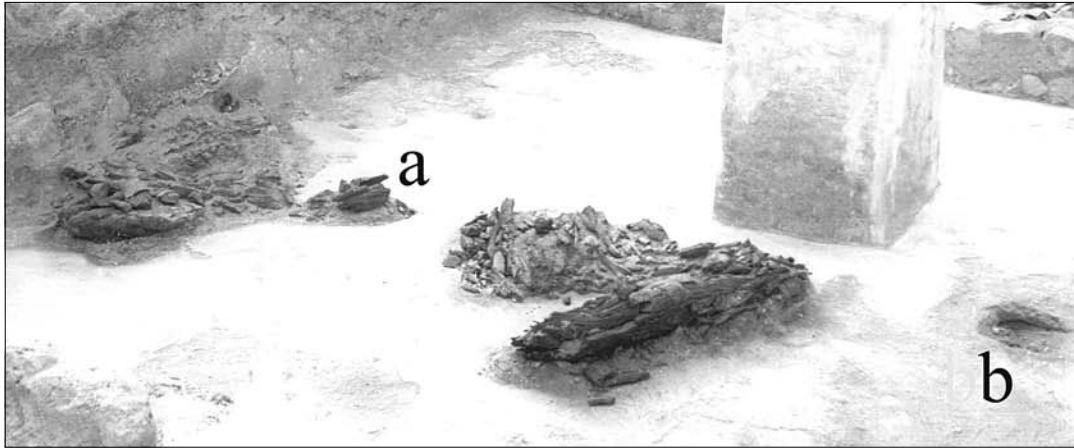


Fig. 1.8. Top: Locus 86 – Photo (details) EBAF-12 186: the burnt wood furniture *in situ*.
 Middle: Drawing of the wood fragments based on the above photo.
 Bottom: Reconstruction of a wooden screen in locus 86. (J.-B. Humbert)

included wine, bread, and fermented flour as first fruits, and even cakes (Num 15:20), etc. Afterwards, the offerings were given to Levites: “Be careful not to neglect the Levite” (Deut 12:19; cf. Deut 18:4) and: “Everything dedicated by vow in Israel shall be for the priests . . . everything you offer, must go to the priests” (Ezek 44:30–31).

If our interpretation is acceptable, Qumran served as a religious center for a Jewish sect living around the Dead Sea. The odd quantity of pottery in locus 86 could be viewed as indicative of some religious observance. The accumulation of dishes, bowls, and cups with a very specific typology does not fit precisely the character of a service reserved for meals. The dishes are too small to contain a normal portion (average 12 cm in diameter). The cups look like normal modern glasses, but it is unknown whether in the ancient Near East one would drink water during the meal; in hot countries today, people prefer to drink between meals. The bowls measure 14 cm in diameter and 9 cm in height. Their size does not correspond exactly to a normal food intake even in an ascetic environment. The number of containers and pourers appears in low proportion to the excessive quantity of open vessels. The thirteen large bowls and twenty jars could not have filled the cups of hundreds of guests. Instead, they may simply have contained liquids, grains, and fruits; a funnel found in the room is an indication of collection processes. Although de Vaux’s daily notes indicate the funnel was found in the remains he believed were from the collapsed second storey, we now understand that a second floor is improbable (see *supra*). We do not want to impose our interpretation as proven fact; instead, our proposal should be accepted as a tentative conclusion.

Different Sealing Activities

Returning to the domain of traditional archaeology, we must focus on the partition wall dividing loci 86 and 89. Since the partition wall allows no passage between the two loci, it appears as an architectural aberration. The continuous wall seals

off and so eliminates the space represented by locus 89. De Vaux’s explanations for this are neither clear nor convincing.⁴² To palliate the lack of a door between loci 86 and 89 that would have preserved the possibility of entering the room, de Vaux postulated without evidence an opening in the southeastern corner of locus 89. He also suggested that the inconvenient and poorly constructed opening was simply a matter of circumstance.⁴³ The hole in the corner is nothing more than a breach without a jamb post, rabbet, and threshold. We would even hesitate to consider it a poorly constructed window. Outside of room 89 to the south, no trace remains of steps that would have helped to master the 75 cm drop below the opening. De Vaux mentioned traces of a floor inside the room at the same height as the breach. There was no indication of a floor elsewhere in the room.

What he designated a “floor” could have been the top of collapsed mud-brick walls. In fact, the extraordinary evenness on the top of the well-preserved stonewalls in this sector (loci 77 and 86) indicates a probable mud-brick superstructure. We have no evidence of stone robbing at Qumran. Therefore, we have to consider the strong probability that locus 89 never had a door and was intentionally sealed. Later, the other doors were carefully blocked: an opening between loci 77 and 86 was closed with bricks and another between 77 and the esplanade was closed by stones.⁴⁴ Photograph 322 shows that the wall plaster was reapplied in order to hide the door connecting locus 86 with locus 77. The blockage of this door has nothing to do with the installation of the water channel during Period III: the base of the channel does not reach the plaster threshold. Loci 89 and 86 were sealed with great care. When locus 86 was sealed, locus 77 was still in use but there was no activity in relation to the plastered stands as they were totally crushed.⁴⁵

Possible reasons for the sealing are hard to come up with, and we can only make some suggestions. The sealing of a space containing a stock of intact pottery could result from the need to terminate some specific form of worship or religious

⁴² Humbert and Chambon 1994, 319 (locus 87 on 16–18/03/1954) and 320 (locus 89 on 22/03/1954).

⁴³ Humbert and Chambon 1994, 319 (locus 87 on 17/03/1954).

⁴⁴ Humbert and Chambon 1994, 157, photo 320; 158–9, photos 322, 323, 325.

⁴⁵ Humbert and Chambon 1994, 160, photo 329.

activity. Another room, locus 123, at the western end of the site, had an entrance that was also sealed off, but that is another story. This occurrence could be connected with the evolution of the sect's observances, but for the moment we think it is more appropriate to consider this act as a protective measure implemented during a time of threat or insecurity to avoid destruction or desecration.

Is it possible to determine a more-or-less precise date for the sealing activity? The chronological range suggested for the pottery of locus 89 is still too broad to be helpful. We can certainly assume that this pottery belongs to the final phase of Qumran occupation, *i.e.* to the middle of the first century A.D. We need to return once more to the epigraphic argument made by Milik in which he refused to date the graffiti on the bowl from locus 89—and consequently the end of the installation—to a period before the first century A.D. The last argument is based on numismatic

evidence. The collected coins in loci 86 and 87 were, according to A. Spijkerman, four coins of Agrippa I, who died in 44 A.D.⁴⁶ If so, locus 86 was still active in the middle of the first century, which would support our suggestion that certain activities were halted. In his *Field Notes*, de Vaux wrote: "We collected many coins in locus 86. Those which are legible are of Agrippa I and from the First Revolt."⁴⁷ We, however, were disappointed not to find any First Revolt period coins in the list of the legible coins. The writing of the field notes by de Vaux could have preceded the analysis by Spijkerman, which would explain de Vaux's inaccurate dating. The synthesis of the field notes appeared only after the Spijkerman's study and de Vaux never revised his text. If de Vaux is right, the sealing of the room happened sometime during the years of the Revolt. This occurrence lends credence to the argument that it was sealed for protection in case of threat. This interpretation would be far more credible.

⁴⁶ Humbert and Chambon 1994, 319 (coins from loci 86, 87).

⁴⁷ Humbert and Chambon 1994, 319 (locus 86 on 16/03/1954).

CHAPTER TWO

THE 1996 EXCAVATIONS AT QUMRAN AND THE CONTEXT OF THE NEW HEBREW OSTRACON

James F. Strange

In the course of 1994, Jerusalem Mitzveh International (JMI)—an educational and religious group based in the state of Washington—shared with me a report of some geophysical explorations on the plateau of Qumran. The Israel Institute of Geophysics (IIG), at the behest of the JMI, had conducted subsurface scans with ground penetrating radar (GPR) in search of underground archaeological features. These studies were supplemented with seismic reflection and refraction studies. The combined effect, in the opinion of the Institute, enabled the researcher to map significant anomalies with a greater degree of confidence than with either methodology alone.

Background of the Technique

The IIG indicated that the subsurface of Qumran was an ideal place for such studies, since the sedimentary layers lay flat. In other words, the reflections from the interface of different soils would all lie on or about the same depth for each anomaly, resulting in a greatly simplified profile. It may be possible to detect subsurface structures of any kind, both natural and man-made, using ordinary geophysical means.

The geophysicists pointed out that the GPR that was used (Sensors & Software plus EKKO IV equipment) produces best results in dry soils—which is the case one encounters at Qumran, since it is a dry, desert region. The depth that returned the best reflections was predicted to range from 0.5 m to 5 m.

The seismic reflection and refractions used a 24-channel digital recording system that enabled high-resolution seismic surveys to penetrate to a depth of 4–20 m. This modality seemed to complement the GPR penetration, at least in theory.

The use of GPR in archaeology has been well documented since 1985.¹ In principle, the equipment simply transmits high frequency electromagnetic pulses straight down. The reflections that result differ from what was transmitted depending on the properties of the layers in question. The geophysicists pointed out that “the depth of penetration, amplitude of reflections, and resolutions are functions mainly of the frequency, intensity of transmission, and the type of subsurface material.”² Since the operator knows the frequency and intensity, in principle it is a simple step to deduce the type of layers one is investigating.

The GPR equipment broadcasts either on 100 MHz or 200 MHz. The equipment was designed to minimize signal loss both at the transmitting end and receiving end. Computer recording, processing, and display of the sections and plots were conducted in the field. In addition, further processing and analysis took place at Tel Aviv University at the Department of Geophysics with special computer programs developed in the department.

The IIG had experience in the field at Tel Michal, the Temple Mount in Jerusalem, Old Jaffa, Abu-Kabir, and elsewhere. The equipment had successfully detected graves, caves, and ancient structures, as well as geological features such as soil, bedrock, and rock types.

¹ A. Clark, *Seeing beneath the Soil* (New York: Routledge, 1997); G. Rapp, Jr. and C.L. Hill, *Geoarchaeology: The Earth-Science Approach to Archaeological Interpretation* (New Haven: Yale University Press, 1998); E.G. Garrison, *Techniques in Archaeological Geology* (Berlin: Springer, 2003). For recent investigations in Israel using a combination of GPR and soil resistivity, see

M. Weinstein-Evron, A. Beck and M. Ezersky, “Geophysical Investigations in the Service of Mount Carmel (Israel) Prehistoric Research.” *Journal of Archaeological Science* 30 (2003): 1331–41.

² Israel Institute of Geophysics, *Report on the Survey at Qumran*, n.d., unpublished report, 1–2.

The seismic reflection technique used at Qumran penetrates more deeply than GPR, as mentioned. Since the ratio between the velocities of sound signals and radar signals is very low, the resolution of the seismic scans is less than that of GPR, but this limitation may be offset by its greater penetration power. The IIG had success with the seismic equipment in acquiring profiles from the coastal plain and from the area of Retamim.

The Qumran Survey

The specific objective of the survey at Qumran as set out by JMI was to detect voids or caves at depths greater than 7 m. IIG initiated the first phase of study in March 1992 by laying out a grid based on the existing fence posts and the margins of the plateau. The Qumran plateau and grid is illustrated in figure 2.1.

Since it was predicted that there was relatively high moisture content in the soil of Qumran in March, IIG decided to conduct the seismic reflection survey first. Technicians conducted two days of seismic reflection studies on 5–6 March, 1992, in search of large anomalies at depths that would range from 4–15 m. In addition, one day of GPR survey, was conducted on March 3, mainly to establish a baseline at a period of relative high moisture content for later surveys at low moisture content. The second phase of GPR survey was conducted more than a month later, on 7–9 April, 1992; during these three days, seismic survey was conducted on two days and GPR data collection was conducted every day.

The results of these surveys are shown graphically in figures 2.2 and 2.3. In figure 2.2, there appear twenty seismic lines, mostly east-west across the plateau. The most interesting anomalies according to the IIG technicians were designated as 1, 2, 3, and 5.

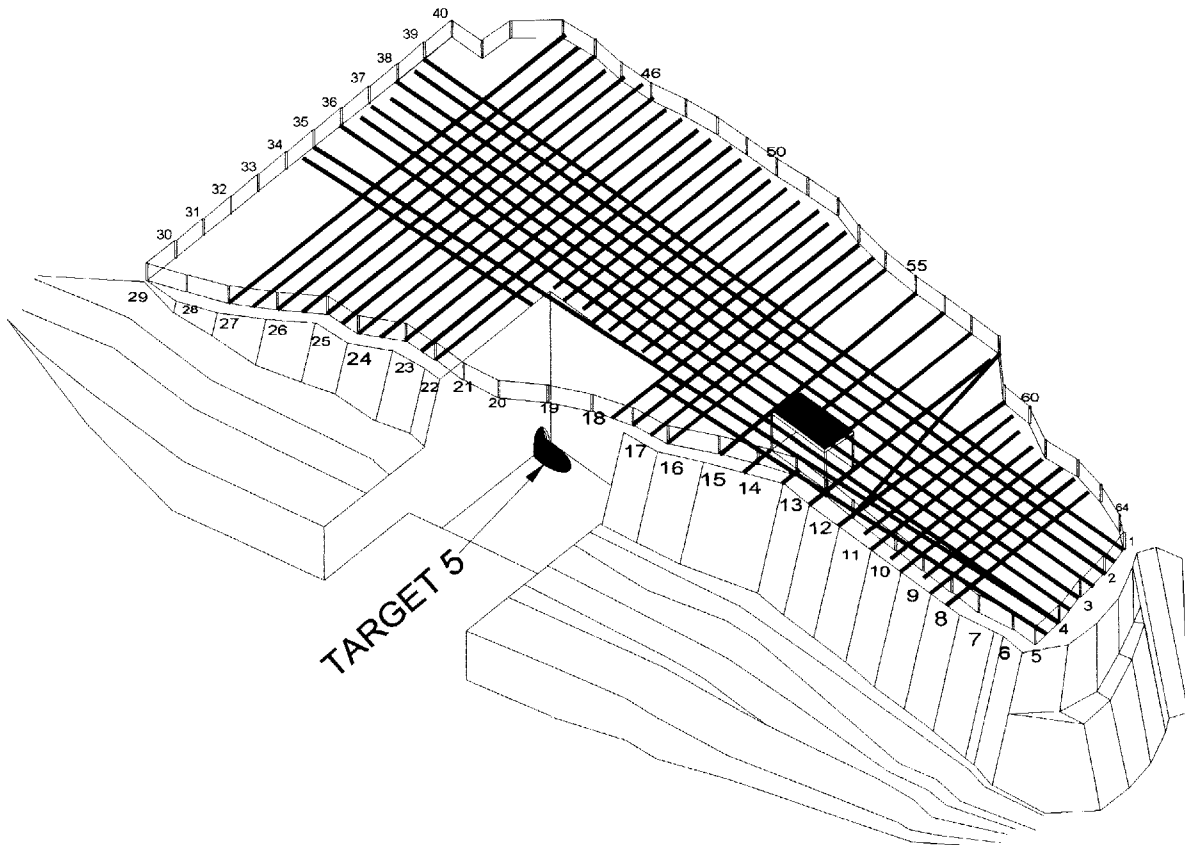


Fig. 2.1. Orthogonal view of the Qumran plateau with grid.

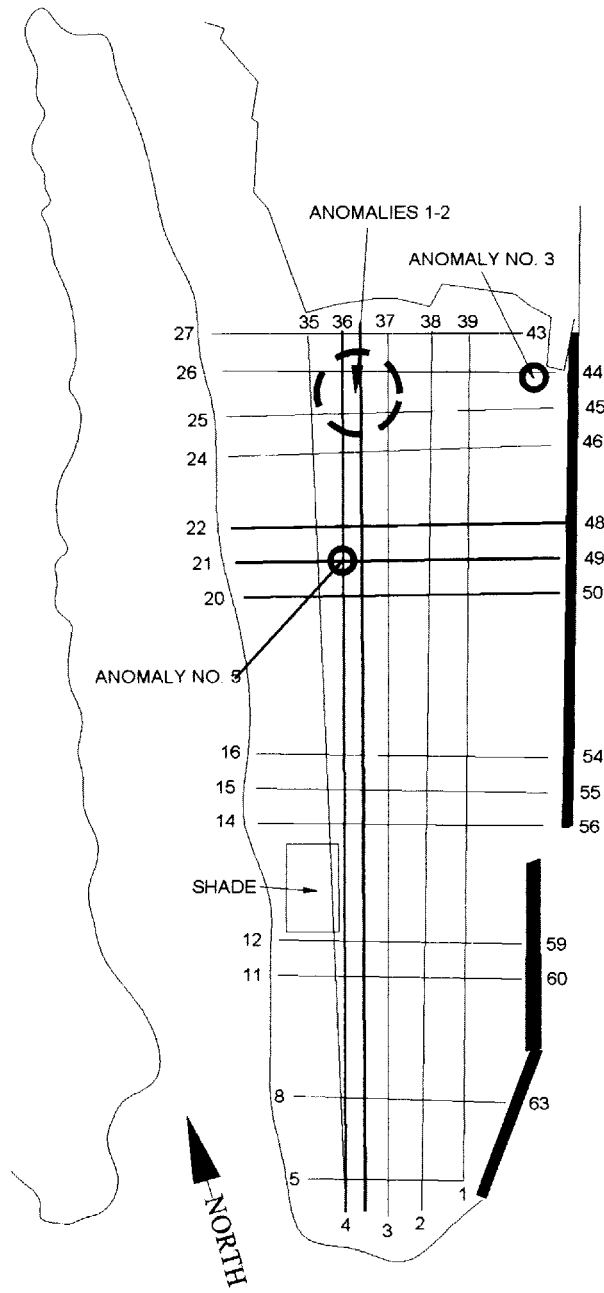


Fig. 2.2. The Qumran plateau with seismic lines.

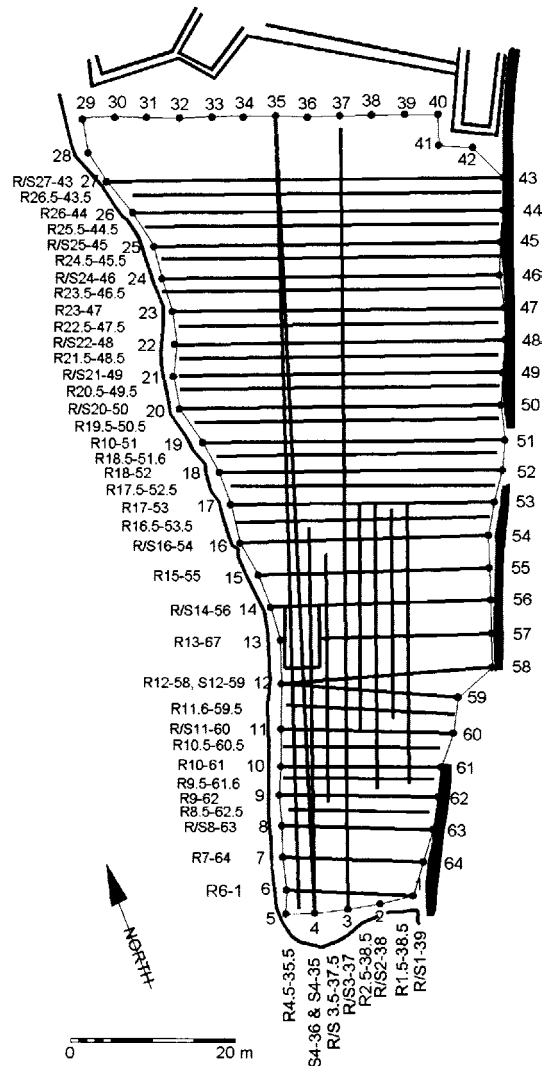


Fig. 2.3. Qumran geophysical location map.

Figure 2.3 shows the complete repertory of radar and seismic lines on the Qumran plateau. Note that the technicians labeled the lines by the numbers of the beginning and ending fence post used for that line. In those instances where they traced a line between two fence posts, the line is labeled accordingly. For instance, R19.5–50.5 refers to a line beginning between fence posts 19 and 20 and ending half way between fence posts 50 and 51.

Results of GPR and Seismic Investigations

Many shallow targets appeared over the entire plateau and were thought to represent an extension of the ancient “village” southward. They

range from 1–4 m deep. The IIG did not consider these to be of great interest (fig. 2.4).

On the other hand, thirteen targets were detected at depths ranging from 4–15 m. A few of the targets detected seismically at 4 m coincide with new targets detected with GPR at about 4.5 m deep. These were of more interest to the IIG technicians.

Table 1 summarizes the location and depth in m. of thirteen targets. The targets are not arranged by depth. The location—or profile line—refers to which line the target occupies. The grid is formed of lines drawn mostly from east to west across the plateau. The existing fence posts around the perimeter were numbered clockwise 1–64, beginning at the extreme southeast end of the long wall separating the plateau from the cemetery.

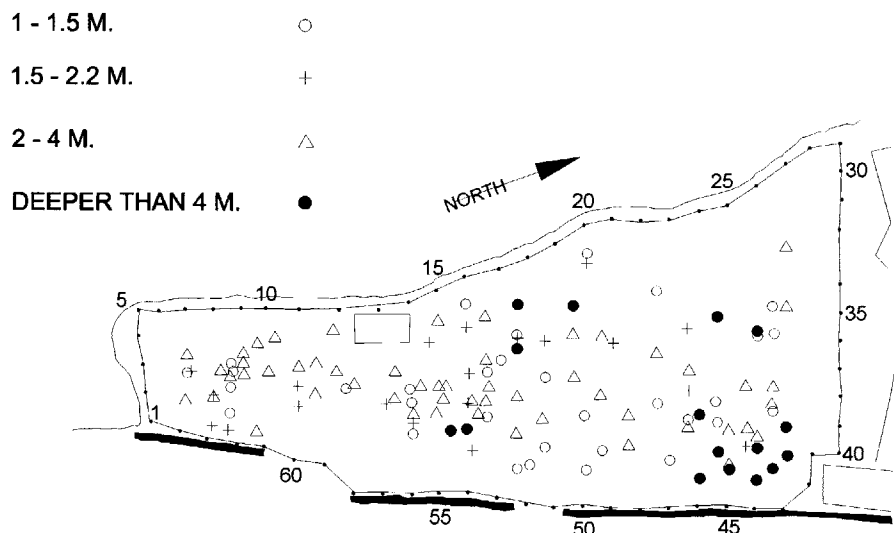


Fig. 2.4. Qumran plateau: location of targets.

Each line of the grid is identified with an “S” or “R” corresponding to “seismic” or “radar.” Again, some lines are between fence posts, which explains the line numbered “R26.5–43.5,” which can be located as a radar line near the north end of the plateau. Therefore, in a second example, line S3–37 is a north-south seismic line running roughly up the middle of the plateau and containing three targets. A line designated R/S represents both a radar and a seismic trace.

An expedition came to the field in 1996 with ground resistivity measuring equipment in order to test and perhaps extend the findings of the IIG with resistivity. That is, we hypothesized that (A) ground resistivity survey at Qumran would detect the same anomalies as did the seismic and radar surveys and (B) ground resistivity survey at Qumran would detect anomalies that remained undetected by seismic survey and radar survey.³

In brief, ground resistivity refers to the resistance of the soil, measured in ohms, to the flow of an applied electric current across two probes of known conductivity placed in the soil. In this case, Table 2 shows the ranges of resistivity for various metal and minerals compared to soil.

We hypothesized that the relatively dry soils of the Qumran plateau would yield measurements

in the 150–600 ohm range in January and February.⁴ We also anticipated that, if a void were detected under the earth, its very nature would push the needle to readings of near infinity, since voids by definition are filled with air, a poor conductor of electricity at low voltages. We were, therefore, ready to check the findings of the IIG against our resistivity surveys on the plateau of Qumran.

We pursued our surveys by laying out a grid based on the experience of our technician. He requested, and we supplied, a grid based on feet rather than meters. Therefore, the resistivity grid was based on small cells of three feet on each side, or approximately 90 cm. The measurements are performed by inserting four sensors or wands into the ground in a straight line on the grid line, in this case three feet apart. One reads the resistivity across all the sensors, moving the last sensor to the front of the line of four and taking new readings. In this way, we were able to cover relatively large areas rather rapidly.

We were surprised by the soil resistivity readings. The readings of the soil on the plateau ranged from about 30 ohms to about 90 ohms, which contrasts with readings in excess of 100 ohms in the area west and north of the ruin. In other words, the soils on the plateau had somehow

³ See Weinstein-Evron, Beck and Ezersky 2003. They report similar success with resistivity and radar surveys.

⁴ This was based on the experience of the Israel Institute

of Geophysics. Soil resistivity handbooks suggest resistivity figures on the North American continent ranging from 150–25,000 ohms. The latter figure is for “dry and arid” soils.

NUMBER	LOCATION (PROFILE LINE)	DEPTH
1	S3-37	8 meters
2	R26.5-43.5; R25.5-44.5	4.5 meters
3	R27-43; R26-44; R25-45	8 meters
4	R23.5-46.5	4 meters
5	S4-35	15 meters
6	S3-37	8 meters
7	S3-37	8 meters
8	R18.5-51.5	4 meters
9	R17.5-52.5	4 meters
10	R1.5-38.5	2-2.5 meters
11	R13-57	2.2 meters
12	R11-60	2 meters
13	R8.5-62.5	2.5 meters

Table 2.1: "Deep targets in the plateau"

MEDIUM	RESISTIVITY (OHMS)
Gold	25-32.5
Copper	32.6-36.5
Beryllium	36.6-45
Iron	45-60
Magnesium	60-95
Water	95-150
Soil	150-600

Table 2.2: Ranges of resistivity for minerals and soils

been altered by human activity, perhaps by the industries of Qumran or other human behaviors. Furthermore, a decrease in resistivity correlates with an increase in the corrosion activity of the soil, and, therefore, results in finding fewer intact metal objects. The increased corrosion activity of soils may be introduced from chemicals left behind in industrial processes. Conversely, an increase in resistivity relates to a decrease to the corrosion activity of the soil. The highest resistivity measures are associated with more or less inert, desert soils. That is why the low resistivity of the soil of the Qumran plateau surprised us (fig. 2.5).

The survey on the west side of the Qumran plateau between the fence and an excavated plot gave us some significant readings.⁵ As one can see in figure 5, the soil resistivity survey agreed with the IIG survey in the approximate locations of four anomalies: (1) an anomaly about 1-1.5 m deep (marked with a "O") lies about 3-4.5 m

east of fence post 15 (2) an anomaly 2-4 m deep (marked with a "△") about 6-7.5 m east of the fence between posts 16 and 17; (3) one sees agreement with a third anomaly detected at a depth of about 2-4 m (marked with a "O") lying about 5-6.5 m east of a point mid-way between fence posts 16 and 17; (4) finally, one sees an anomaly 2-4 m deep (also marked with a "△") about 3-4.5 m east of fence post 15. A surprise was the apparent detection by the resistivity equipment of a previously undetected void between 5 and 5.5 m east of fence post 15.

Thus, the initial survey's results tended to confirm both hypothesis A and hypothesis B.

We then redirected our attention to the area south of the shade and of another plot fenced after excavation. This second resistivity survey lay between the west fence and the eastern wall.

Figure 2.6, shows the results of the resistivity survey at the south of the plateau. In this case,

⁵ We were unprepared to find two excavated plots on the plateau. The investigations took place in January 1996 between

the surveys of the Israel Institute of Geophysics (1992) and the present expedition.

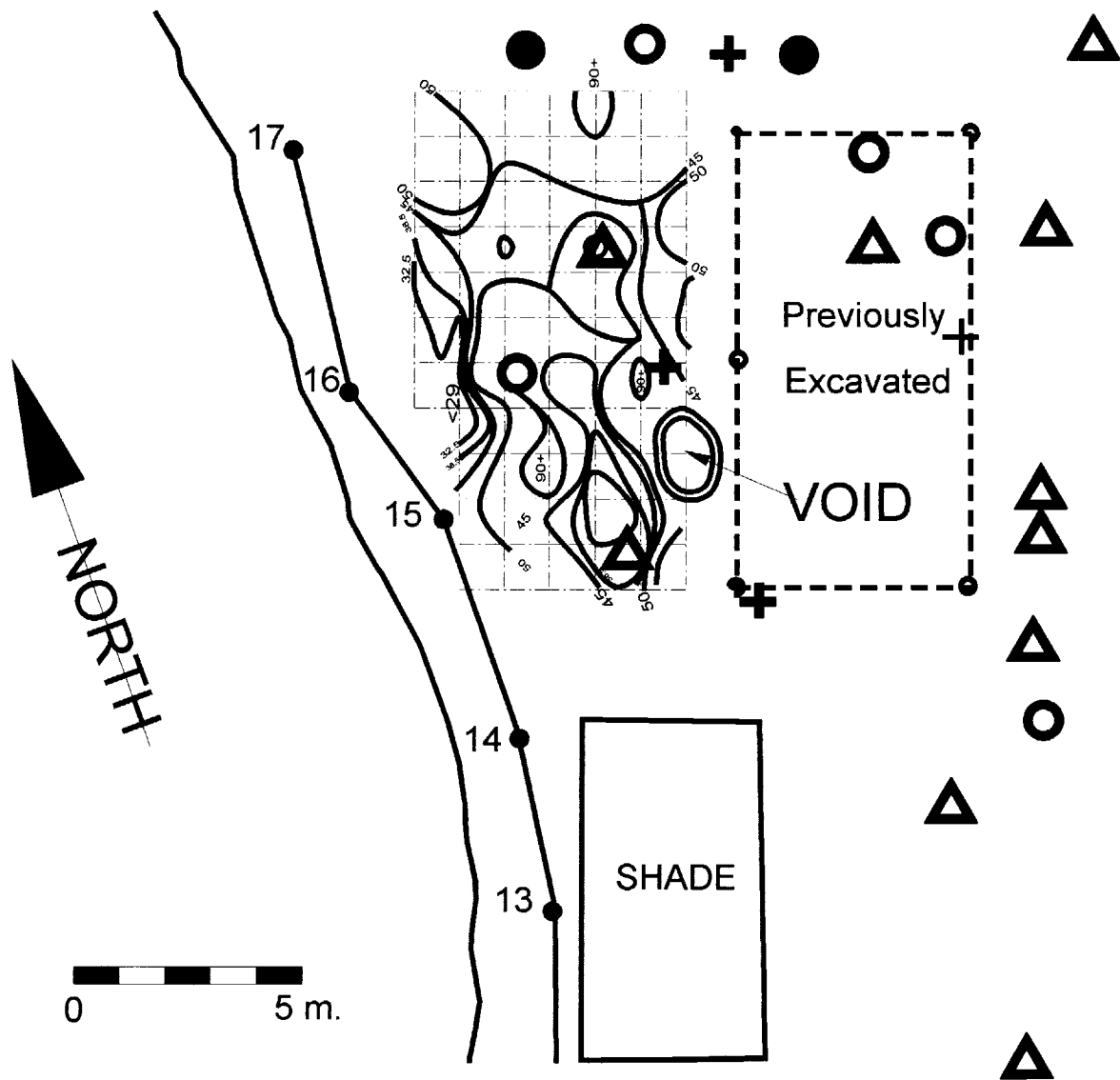


Fig. 2.5. Resistivity survey north of shade.

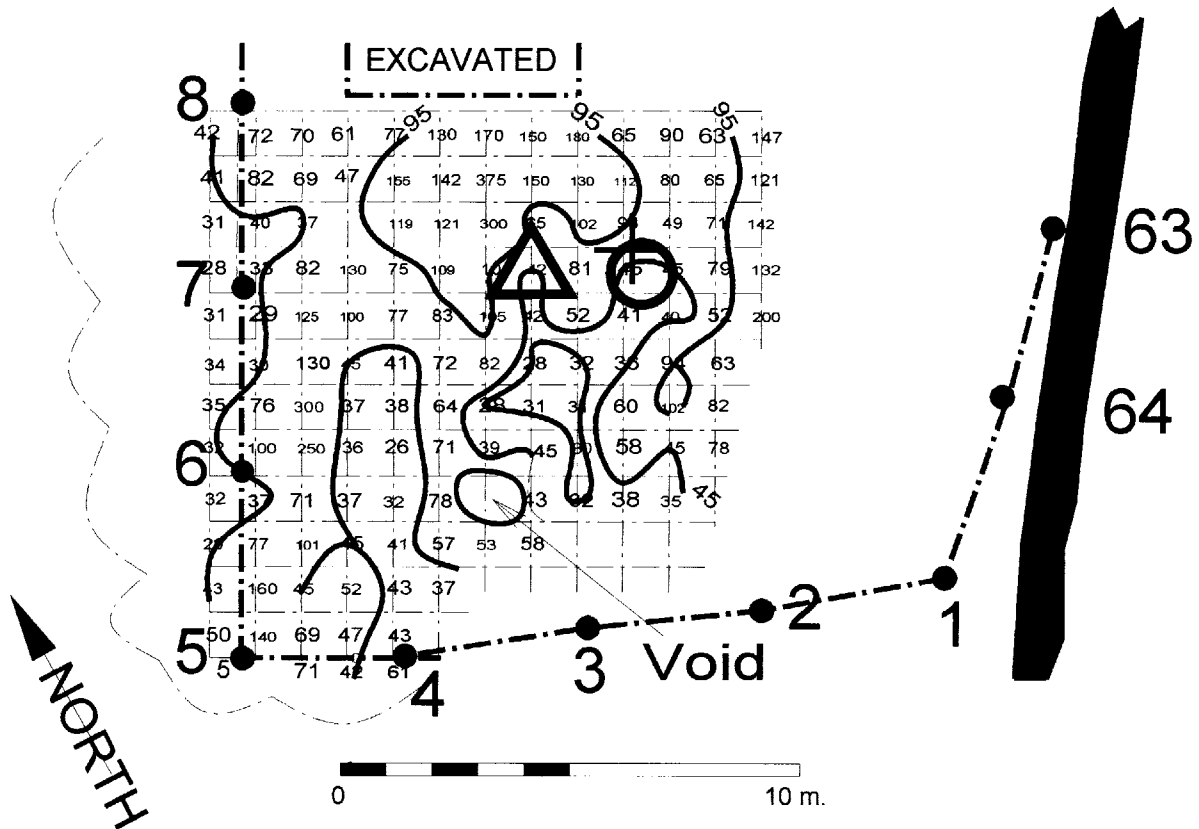


Fig. 2.6. Resistivity survey south of shade.

the terrain drops off in elevation to the east towards the wall, so the survey was not continued on the slope. One notices a moderate agreement with the two anomalies that occur together. They were reported by the IIG. Between 7 and 8 m to the east of fence post 17 one sees the superimposition of a “+” and a “-”, showing the detection of an anomaly at 1–1.5 m depth and a second at 1.5–2.2 m depth. These could be one large anomaly, of course. A second anomaly lies at a depth of 2–4 m and 5.5–7 m east of fence post 17. It is marked with a triangle. Yet a third anomaly is visible about 4.5–6 m east of fence post 6. Since the resistivity at this point is effectively infinite, this was logged as a void.

One of the main results was the detection of a void about 7.5 m east of the west fence and between the fence and an area under excavation north of the shade. This void seemed to have been detected by the IIG in their GPR survey.⁶

Thus, the second survey’s results tended to confirm both hypothesis A and hypothesis B. However, it must be noted from figure 2.6 that the anomalies detected again by soil resistivity in the south of the plateau did not yield very robust results. It was still troubling to the technician and to the archaeologist that the readings for soil resistivity were in general too low for a desert soil.

We decided that our equipment might be defective, so we began unsystematic resistivity measurements in the great open area north and west of the ruin. Now the readings were just as one might expect, very high, but exactly in the range of inert soil. It did not seem to be that our equipment was malfunctioning.

We decided on another tactic, namely, to test the soil in several spaces of the ruin to the north. As one can see in figure 2.7, the readings from the rooms or loci of the tower were sometimes

⁶ Cave detection in a limestone environment was reported in A.T. Chamberlain, W. Sellers, C. Proctor and R. Coard,

“Cave Detection in Limestone Using Ground Penetrating Radar.” *Journal of Archaeological Science* 27/10 (2000): 957–64.

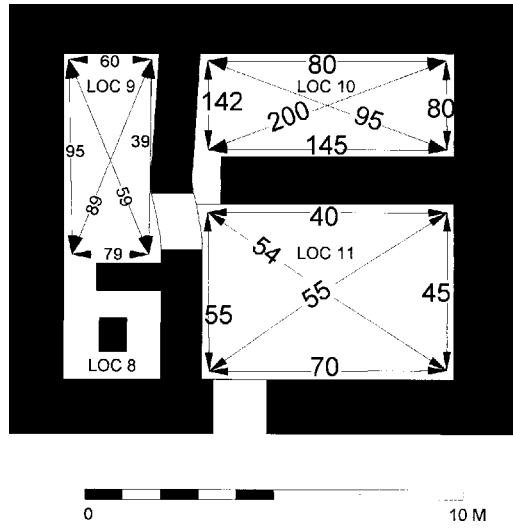


Fig. 2.7. Resistivity survey in tower of Qumran.

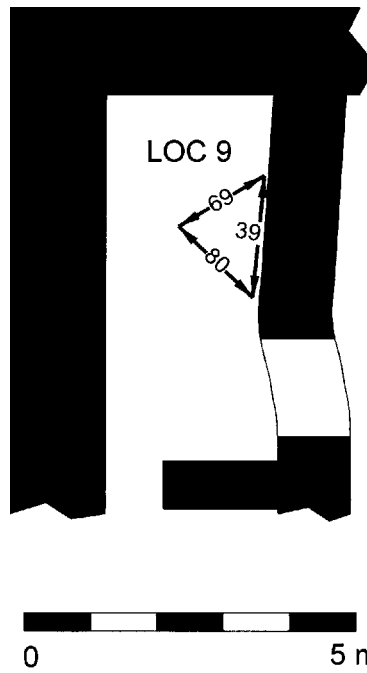


Fig. 2.8. Resistivity readings in locus 9.

low, sometimes high. One can see that the readings of locus 11 in the southeast are surprisingly low, particularly in a line against the north wall. On the other hand, the readings of locus 10, just to the north, were mostly appropriate for inert soil. Likewise, the readings in locus 9 were more or less as predicted in the southwest part of the room, but lower than predicted in the northeast. In fact, the reading of 39 ohms along the west face of the east wall looked so suspicious that we decided to check it by laying out a small triangle against the wall and taking readings; the readings along the west face of the east wall were identical the second time to those taken at first (fig. 2.8).

Because we were not licensed to excavate within the ruin of Qumran except on the plateau, the expedition did not follow up on these anomalous readings. We leave this to others, perhaps under the aegis of JMI, since these geophysical data are owned by JMI.

The Excavation of Target 5

During these investigations the focus of our interest had been Target 5, shown in figure 2.1. The IIG had recommended that this void be investigated as a priority, along with several others. It did

not escape notice that the void was apparently as deep as the caves on the south end of the plateau, though they have now all eroded away.

The method in detecting Target 5 with resistivity was simply to survey a grid in the area where Target 5 should lie. It seemed simple enough to find an area of very high resistivity. We used the fence posts of the western fence as a reference to locate the target more exactly and drove nails into the soil at the center of highest resistivity.

Just for the record, we include here an exact drawing of the hard copy of the seismic line between posts 4 and 35. One can see a void represented graphically at a depth ranging from 14.6 to about 22 m. There was a strong echo without ambiguities (fig. 2.9).

We excavated the soil over the target, at first by hand, and eventually by mechanical means. We were surprised that there was no artifactual material at the surface except for a few pieces of cigarette boxes and candy wrappers. At first the soil was clean, sterile of artifacts, and quite uniform in color (gray), compaction (soft), and contents (sterile, as mentioned). At about five m, the soil changed to a one-meter thick layer of rounded, very hard stones ranging from about 20 to 35 cm in diameter. Again, there was not one sherd, not one coin, and not one other kind of artifact or

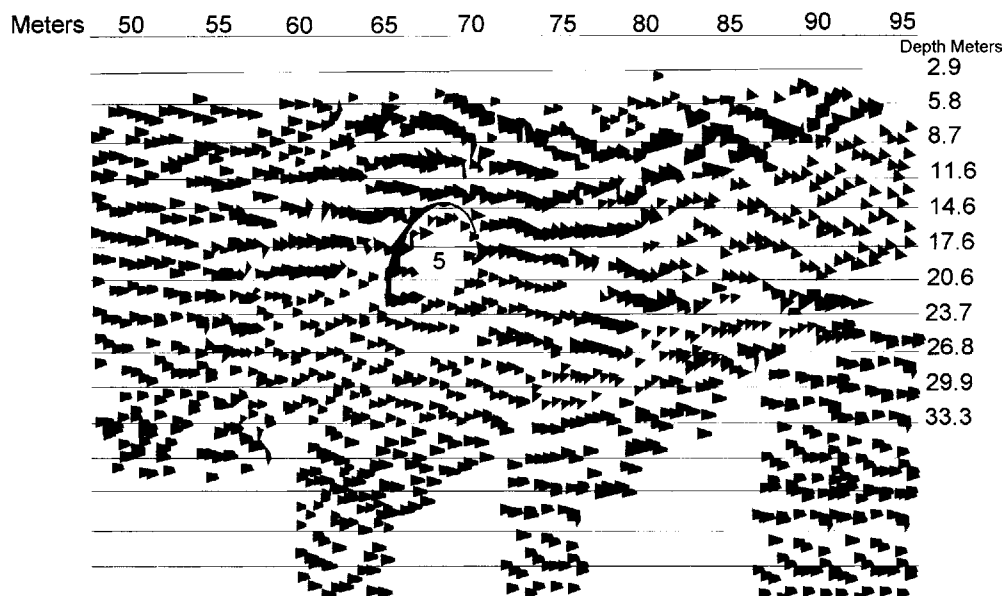


Fig. 2.9. Radar trace 4-35 showing Target 5.

piece of an artifact. The soil was remarkably wet all the way to the bottom of this probe.

The alternating layers of marl soil and stones continued to a depth of about 16–16.5 m. We did not find a single artifact.

During this entire operation of digging to the void, we dumped the exvated material beside the south wall and away from other features in the vicinity. Because the dump filled very quickly with many cubic meters of soil, it eventually reached to the extant top of the wall and spilled over onto the south side.

At this stage, the senior Archaeological Officer for Judaea and Samaria, Yizhak Magen, appeared on the site. The director told him that the excavation had detected no void nor any artifacts or human-made materials to show for the effort. His instructions were to refill the excavation and clean it up, which took place immediately.

The excavation team returned the dump to the excavation and compacted it. In the process it became clear that it was necessary to clean the south wall which separates the plateau from the cemetery. Volunteers brushed the wall carefully and removed all the soil that had spilled over to

the east side of the wall. In the last few minutes of the day all those involved were on their hands and knees sweeping up the last few centimeters of dump. A volunteer working 6.9 m north of the gap discovered a sherd that appeared to have writing on it.⁷ It then became necessary to collect, label, and bag all sherds found at the compacted surface next to the wall. This soil was no doubt compacted by human foot traffic after Roland de Vaux trenched along the wall (fig. 2.10).

In figures 2.11–2.14 one sees the pottery sherds found along the east face of the wall 6.91–18.76 m north of the gap. Only sixteen sherds had rims and could, therefore, be identified, almost all as Iron IIB–C pottery, though more study is in order. Figure 2.11 shows mainly open forms and jars from three loci. Figure 2.12 shows one red juglet more than 13 cm tall with a flat base. Figure 2.13 shows a large storage jar of a type associated with the end of the Iron Age. The exterior was finished with a white slip, whereas the interior was pink and not slipped. At a point 1.7 m north of the gap, one sherd turned out to be a storage jar handle with a cross mark incised into the wet

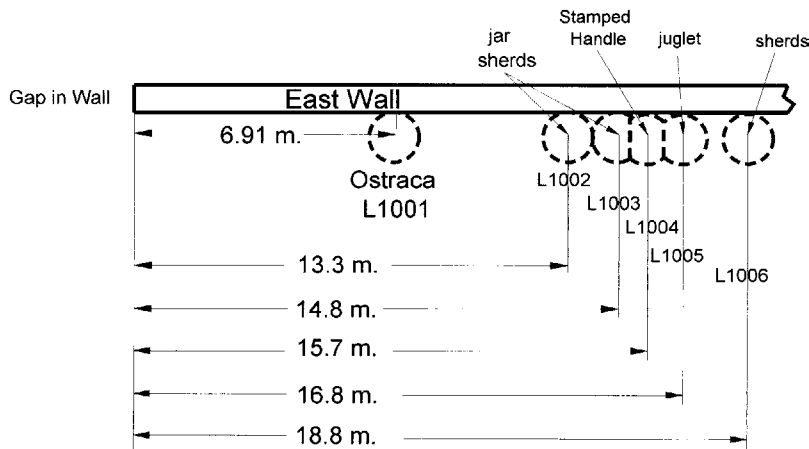


Fig. 2.10. Location map of ostraca and pottery.

⁷ F.M. Cross and E. Eshel, "Ostraca from Khirbet Qumran." *IEJ* 47 (1997): 17–28; A. Yardeni, "A Draft of a

Deed on an Ostracon from Khirbet Qumrân." *IEJ* 47 (1997): 233–7.

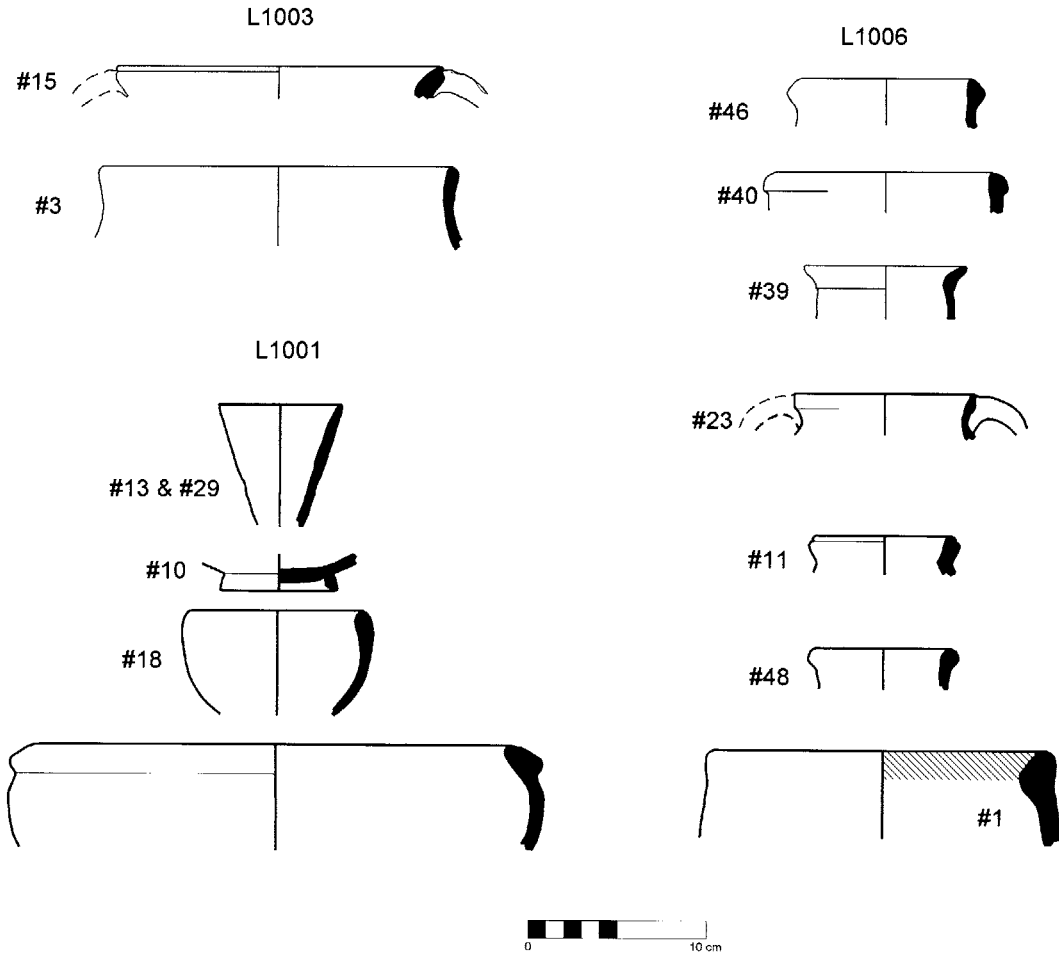


Fig. 2.11. Pottery from loci 1001, 1003, and 1006.

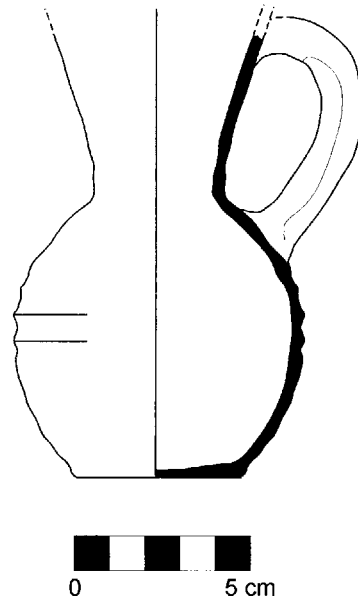


Fig. 2.12. Juglet from locus 1005.

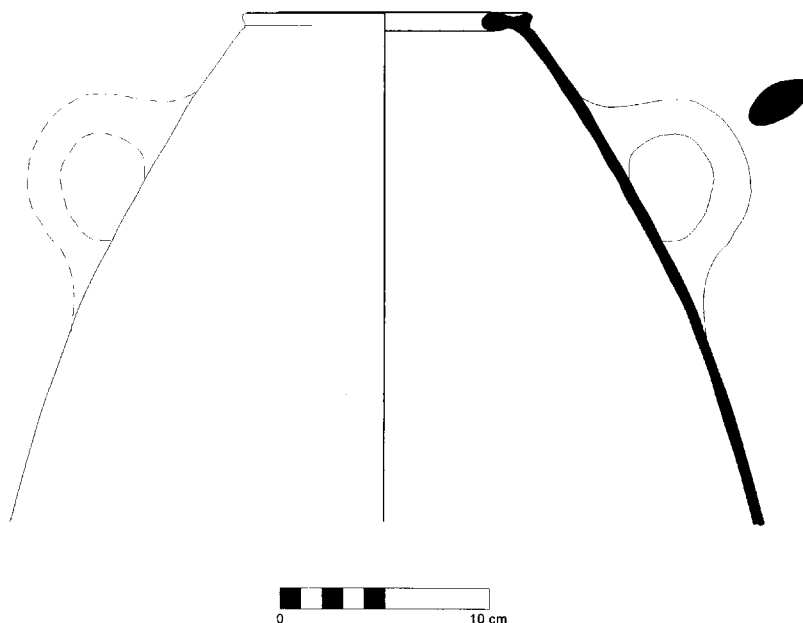


Fig. 2.13. Jar from locus 1003.

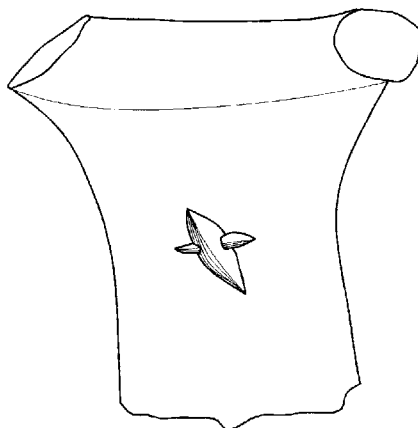


Fig. 2.14. Incised jar handle.

handle before it was fired. It is illustrated in figure 2.14.

Conclusions

There are some tentative conclusions that can be expressed as testable hypotheses from these investigations.

First, electronic means of investigating the Qumran plateau are suggestive, but not conclu-

sive. That is to say, it is possible to detect voids and other features beneath the surface using the confluence of soil resistivity measures, seismic echoes, and soil interface radar. Nevertheless, there remains a relatively large degree of uncertainty in the detection and ranging of the targets. The hopes of some archaeologists that these means would give detailed information of ancient features beneath the surface are only partially justified. There is some indication that this is true for the investigations on the plateau of Qumran by Randall Price.⁸

⁸ R. Price, "New Secrets from the Dead Sea" (<http://scriptco.net/qumrandig.htm>, accessed January 15, 2004).

Furthermore, it is impossible to gainsay the importance of the wetness of the soil from 30 cm below the surface to a depth of 16.5 m. The source of this water may be amendable to geological explanation. Further investigation is needed to understand to what extent the presence of water in the marls of the Qumran terrace affect radar, seismic, and resistivity surveys.⁹

Second, the occupation at Qumran, brief as it was, altered the soil resistivity and therefore its conductivity. Further research is needed to identify the sources of the changes and their cultural significance, but it cannot escape notice that the soil north and east of the ruin is relatively inert, while that of the plateau has a relatively high conductivity. This effect is predicable and in principle measurable in the context of certain industrial technologies—such as smithing, glass manufacture, or other pyrotechnologies—and certain chemical processes. We do not yet know how fundamentally agricultural processes might have altered the soil's physical properties at Qumran.

Third, there is as much to be learned from further archaeological excavations of the Qumran plateau as from the ruin itself. Excavations at Qumran have continued since our expedition left. Magen and Peleg have an extensive preliminary

report in this volume. Also Randall Price has conducted further research on the plateau.¹⁰

Fourth, the occupation at the long, eastern wall was overwhelmingly Iron II. Since we were simply cleaning our deposits from the bottom of de Vaux's trench along the east face of the wall, we cannot say what the stratigraphic situation of the wall is. On the other hand, it is possible, in principle, to cut a soil profile against the interior and exterior of the wall and test this conclusion.

Fifth, it is interesting to speculate that the ostraca were *in situ* in a scatter of sherds of an earlier era. The simplest explanation of how the ostraca arrived at the context in which they were found is that they were discards in antiquity. At this juncture, it is impossible to deduce whether this was a coherent context untouched by de Vaux and others. How far they may have been transported before being discarded is up for speculation.

There is reason to believe that the two halves of the large ostrakon were not broken in antiquity but by visitors to the site since 1956 who walked along the east face of the east wall in the bottom of de Vaux's trench. Surely the ostraca and the other sherds lay more or less undisturbed for many years after de Vaux's excavations. The ostraca and other sherds were not battered or rubbed from transport.

⁹ F. Rohrhirsch and O. Röhrer-Ertl, "Die Individuen der Gräberfelder von Hirbet Qumran aus der Collectio Kurth:

Eine Zusammenfassung." *ZDPV* 117 (2001): 164–70.

¹⁰ See n. 7.

CHAPTER THREE

BACK TO QUMRAN: TEN YEARS OF EXCAVATION AND RESEARCH, 1993–2004

Yizhak Magen and Yuval Peleg

A. Introduction

In 1993, some forty years after the Qumran excavations under the direction of Roland de Vaux came to an end, they were renewed under the auspices of the Staff Officer for Archaeology in Judaea and Samaria, as part of a comprehensive project entitled Operation Scroll.¹ Hundreds of caves along the fault scarp of the Judaeian desert from Jericho in the north to ‘En Gedi in the south were surveyed and excavated. Excavations at Qumran 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 trial trenches were opened throughout the built-up part of Qumran.

In the wake of development activities undertaken by the National Parks Authority, excavations were started again in 1996 and continued without interruption until 1999. This time the entire area north of the site was investigated. Here, a dump was uncovered and next 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 room locus 77² (known as the “refectory”) was excavated. Southeast of the site some Iron Age remains were unearthed. In addition, a number of trial trenches were once again opened inside 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. Over six months of continuous excavation exposed a considerable area along the site’s east wall in which thousands of finds were discovered, dating from the Iron Age through the destruction of the Second Temple. The area to the east of the cracked water pool (loci 48–49) was also excavated. At the time of writing (beginning of 2004) renewed excavations are being conducted—leading us to surprising results. Those latter will appear in the near future in a separate volume of the *Judaea and Samaria Publications (JSP)* series published by the Staff Officer for Archaeology in Judaea and Samaria and the Israel Antiquities Authority.³

The major problem which 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 forty years ago which has never been published in full, but has nevertheless, over the years, become a focus of intensive research world wide. Our purpose in the present article is to provide a preliminary overview 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 which have been at the heart of scholarly attention for over fifty years now.⁴

Originally, the renewed excavations at Qumran were meant to be nothing more than a salvage

¹ On the findings in this operation, which was conducted jointly with the Israel Antiquities Authority, see *Surveys and Excavations of Caves in the Northern Judaeian Desert (C_{NJD})—1993*. ‘Atiqot 41/1 and 41/2 (Jerusalem: Israel Antiquities Authority, 2002).

² Locus numbers are those used by de Vaux, except where indicated otherwise.

³ The volume’s numerous articles will summarize the renewed excavations at Qumran and what was found there. We would like to thank the following people who partici-

pated in the excavations and in processing the finds: Irina Aizenstat, who also participated in the preparation of the present article; Uzi Greenfeld, Orna Sirkis, Yevgeny Aharonovits, Yevgeny Kagan, Arieh Kapiteikin, Yossie Naggar, Donald Zvi Ariel, Baruch Yozopsky, Moshe Sade, Yael Yisraeli, Mendel Kahn, Felix Portnov, Pavel Gartopsky, Shlomi Ammami, Avraham Hayy, Rachel Avraham, Yoav Zionit, and Yana Bar-Rashi.

⁴ The number of books and articles on the archaeology of Qumran which have been published is very large and

excavation, but eventually they were considerably extended and lasted much longer than anticipated. We did not approach Qumran with a view of proving any particular theory about the manuscripts found in the area or the sect which allegedly wrote them (the Essenes).⁵ Rather, our purpose was to see if there remained any unexplored areas on the site and whether we could resolve any of the outstanding scholarly disputes concerning Qumran.

Our goal was to view Qumran in the light of everyday life during the Second Temple period without imposing the sectarian interpretations so frequently forced on the finds. The truth of the matter is that scholarly research into the archaeology of Qumran has stagnated for decades. The results were always determined in advance and served one single purpose only, namely, to demonstrate that it was indeed the Essenes who lived at Qumran. This has been the conclusion even when the finds and other facts were not consistent with an identification of the site with the sect in question. Thus, most studies concerning Qumran are biased and lacking in scientific objectivity. Surprisingly enough, de Vaux himself, whose initial identification of the site with the Essenes was accepted without question by generations of scholars, was more hesitant and careful than his younger successors. Unfortunately, when he was in doubt as to the correct interpretation, he usually picked what we consider to be the incorrect option, because he had already decided, before all the relevant archaeological data was evaluated, that Qumran was the center of the Judaean Desert sect.

In the present paper, we shall describe the results of the renewed excavations at Qumran as well as provide a survey of the new finds. We

shall then present the reader with our interpretations of certain aspects of the site, such as the water supply, the burials, the disposal of animal bones, and the architecture.

B. *The Renewed Excavations at Qumran*

The excavations at Qumran between the years 1993 and 2004 have brought to light remnants and finds that have enabled us to understand the site more fully. Three refuse dumps were excavated, one in the southeastern part of the site, another north of the site, and a third east of the eastern bounding wall. South of the refectory (locus 77) a paved square was exposed, and the eastern part of the building was re-excavated (fig. 3.1).

In the middle 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 north side, we unearthed a built overflow channel covered with stone slabs which directed surplus water from the graded pool (locus 117) to the northern riverbed. The aqueduct that carried rainwater from the fault scarp and from Nahal Qumran to the site was excavated in its entirety (figs. 3.2 and 3.3), as were the stone walls north and east of the aqueduct that served as dams. In addition, a great number of trial trenches were opened inside the built-up area of the site. What we considered as "the discovery" was exposed around the end of the campaign, at the beginning of 2004. While working again in cisterns 71 and 58, which de Vaux had excavated only partially, we found a thick layer of clay (some three tons) used for the

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 mainly de Vaux's excavation reports: R. de Vaux, "Fouille au Khirbet Qumrân: Rapport préliminaire." *RB* 60 (1953): 83–106; id., "Fouilles au Khirbet Qumrân: Rapport préliminaire sur la deuxième campagne." *RB* 61 (1954): 206–36; id., "Fouilles au Khirbet Qumrân: Rapport préliminaire sur les 3e, 4e et 5e campagnes." *RB* 63 (1956): 533–77; id., *Archaeology and the Dead Sea Scrolls* (London: Oxford University Press, for the British Academy, 1973). Also worth noting here are the excavation diaries and photographs published in J.-B. Humbert and A. Chambon (eds.), *Fouilles de Khirbet Qumrân et de Ain Feshka*. Vol. 1: *Album de photographies. Répertoire du fonds photographiques. Synthèse des notes de chantier du Père Roland de Vaux*. NTOA.SA 1 (Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck

& Ruprecht, 1994). 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 which takes the results of the renewed excavations into account.

⁵ See, for example, Y. Hirschfeld, who (rightly) rejects the view that Qumran served as the center for a sect but (wrongly) places the Essenes in 'En Gedi, a site which he himself excavated: Y. Hirschfeld, "A Community of Hermits above 'En Gedi." *Cathedra* 96 (2000): 8–40 [Hebrew]; id., "Qumran during the Second Temple Period: Re-evaluating the Archaeological Evidence." *Cathedra* 109 (2003): 5–50 [Hebrew]; id., "A Settlement of Hermits above 'En Gedi." *TA* 27 (2000): 103–55.

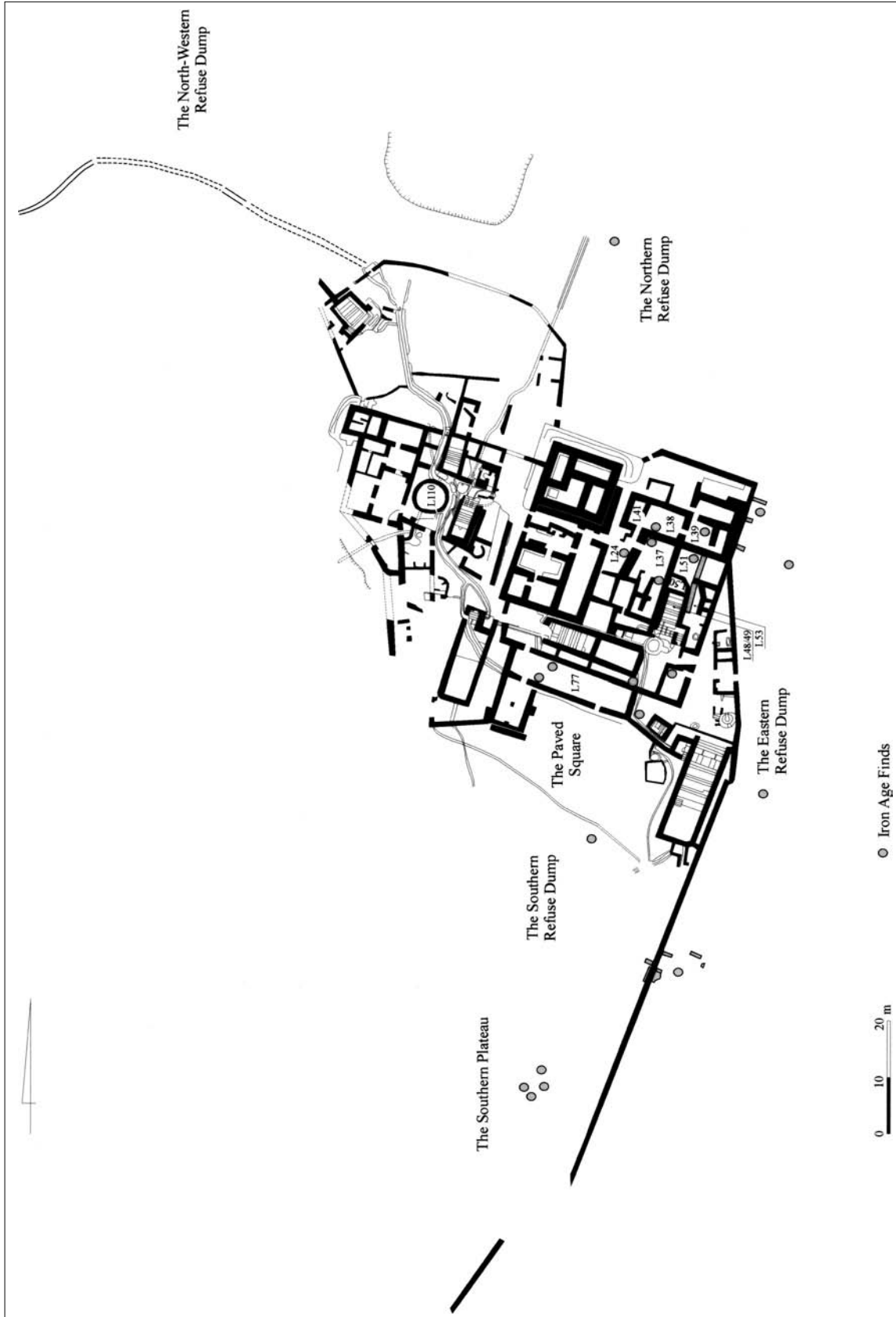


Fig. 3.1. General plan, including Iron Age elements.



Fig. 3.2. The aqueduct on the plan, looking east.

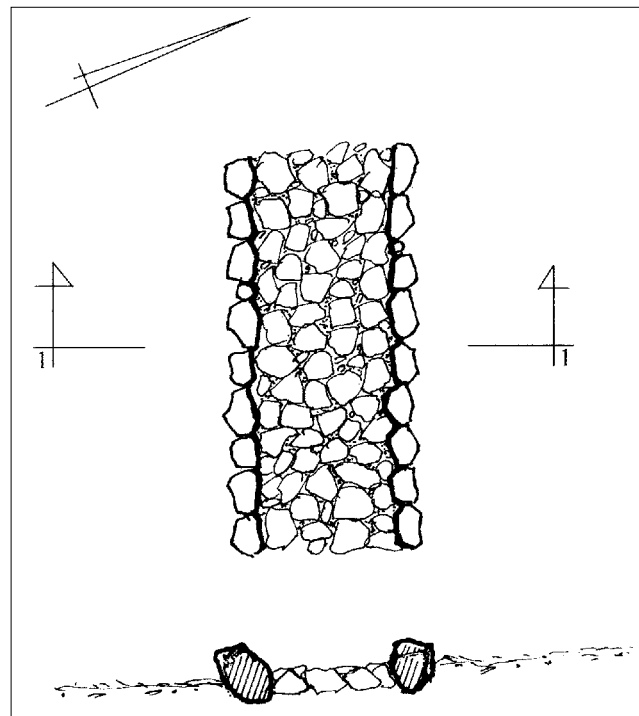


Fig. 3.3. The aqueduct on the plan, stone-by-stone drawing.

manufacture of pottery. The reason for the importance of this find is that it sheds new light on the use of the water reservoirs 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.⁶

The Southern Refuse Dump (fig. 3.4)

The southern refuse dump, excavated in 1993 and again in 1998, lay south of press locus 75 (probably used for pressing dates) and west of pool locus 71. This is the earliest disposal site at

Qumran, which was in use from the Iron Age down to the first half of the first century B.C.E. Its lowest level contained Iron Age pottery, above which were found whole pottery vessels, animal bones contained inside clay vessels, basalt grindstones, a bronze jug (fig. 3.5), various organic materials, and a very large quantity of burnt dates from the first half of the first century B.C.E. It is very likely that dates were grown in this area along the Dead Sea coast as early as the Hasmonean period and perhaps even earlier. The dates were used for the production of date honey, the most common sweetener in antiquity.⁷ The honey was produced in press locus 75, and those involved

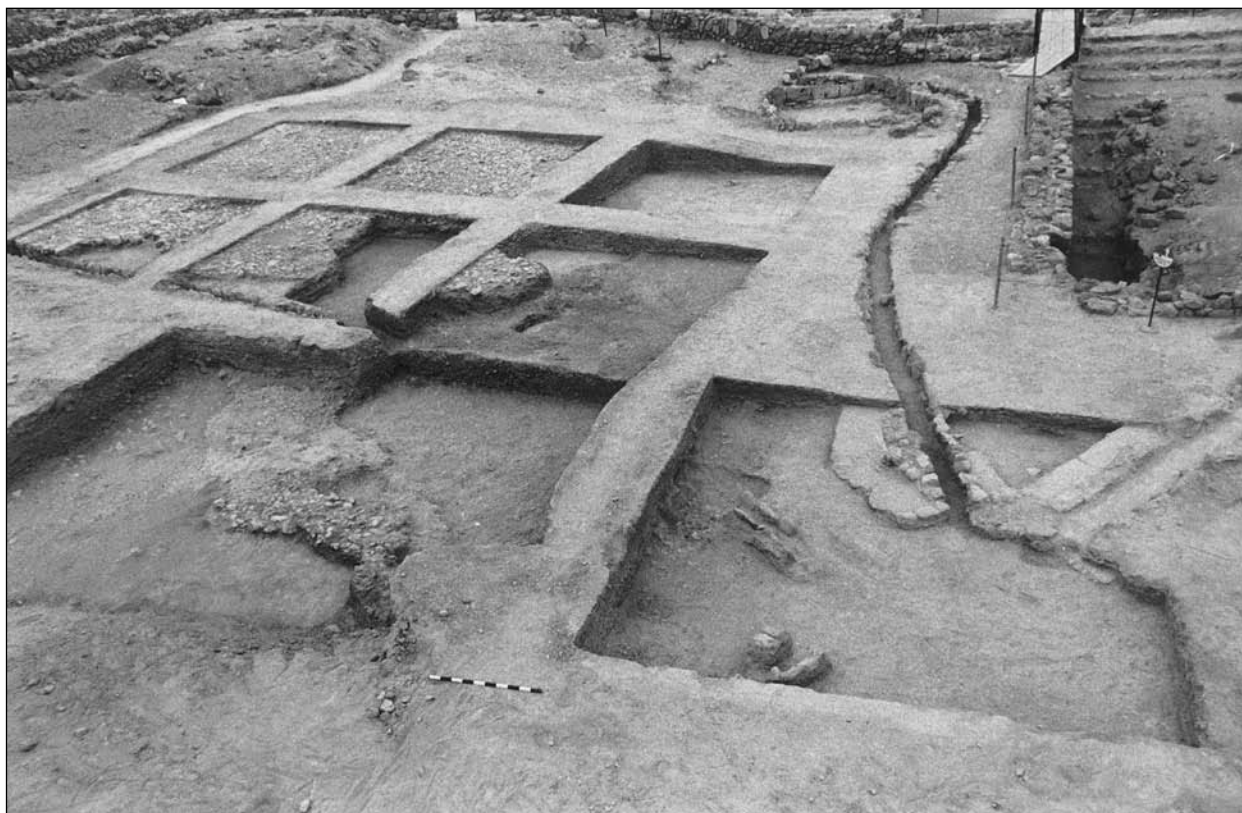


Fig. 3.4. The southern refuse dump, looking north.

⁶ This brief survey demonstrates the inaccuracy of Hanan Eshel's claim that in the renewed excavations at Qumran only "concentrations of refuse east of the site" were investigated. Many other remnants 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].

⁷ Date honey is mentioned several times in the Mishnah: *m. Ter.* 11:2–3; *m. Ned.* 6:8–9, and in the Tosefta: *t. Ber.* 4:2; *t. Ter.* 9:8; *t. Tehar.* 2:5; *t. Ma'aser Rishon* 2:2–3 (Zuckermann edition). See also the article by Joseph Patrich in this volume.



Fig. 3.5. Grinding stone and a bronze vessel as found in the southern refuse dump.

in its production purified themselves in ritual bath locus 68.⁸ The dump in question was used for the disposal of animal bones and dates (fig. 3.6), since these would attract predators, bees, and flies (see below). It was in use during the Hasmonaean period, and due to changes in the buildings, it was already abandoned in the first century B.C.E.

The Northern Refuse Dump

The northern refuse dump (fig. 3.7) was discovered some 10 m north of the site, in a branch of the northern riverbed. It was excavated in 1996–97.⁹

⁸ For locus 75, see Humbert and Chambon 1994, 182. Presses were also found in the Hasmonaean palace in Jericho, but there is some controversy regarding whether date honey, date wine, or grape wine were produced there. See Y. Porath, “Aspects of the Development of Ancient Irrigation Agriculture in Jericho and Ein-Gedi.” In: *Man and Land in Eretz-Israel in Antiquity* (Edited by A. Kasher, A. Oppenheimer and U. Rappaport; Jerusalem: Yad Izhak Ben-Zvi, 1986), 127–41 [Hebrew]; E. Netzer, “Date ‘Winepresses’ in the Royal Estate at Jericho.” *Judea and Samaria Research Studies* 11 (2002a): 69–79

East of the dump there is a white plaster floor with no signs of construction. The dump is about 2.5 m deep. On the lowest level, it contained Iron Age material, above which lay five distinct strata topped by a conflagration layer. In the center of the dump, there was a north-south crack which cut through all its layers; it is likely that this is a continuation of the crack in pool loci 48–49. On the dump’s west side ran a water channel covered with stone slabs which drained surplus water from pool locus 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.

[Hebrew]. Other proposals as to the installation’s function were made by de Vaux, who thought that clay was prepared there for the pottery industry (de Vaux 1973, 16, pl. XIIIa), and by Stephen Pfann, who argued that it was a winepress; see “The Winepress (and Miqveh) at Khirbet Qumran (loc. 75 and 69).” *RB* 101–2: 212–4.

⁹ The dump was partially excavated by de Vaux, who called it “Section A”. He believed that the finds there originated with the site’s reconstruction after the earthquake; see de Vaux 1973, 25 and 35–6.



Fig. 3.6. A layer of burnt dates in the southern refuse dump.

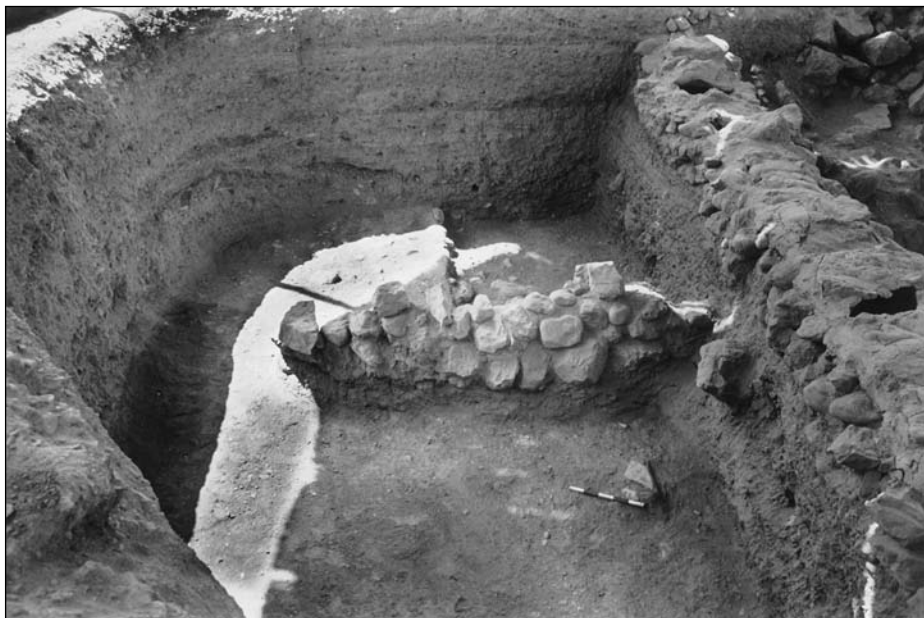


Fig. 3.7. The northern refuse dump and the water channel, looking south.

In 2004, a 3.5 m section of an east-west wall, built of field stones of various sizes, 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, has been preserved to a height of 1.3 m. 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, organic materials, and more (fig. 3.8). These finds were dated to the first half of the first century B.C.E.

The Eastern Refuse Dump

The eastern refuse dump, located next to the external side of the site's eastern bounding wall,

was excavated in 2001–02 (fig. 3.9). Two deep cracks (fig. 3.10), similar to the one found in pool loci 48–49, cross it from north to south. These cracks postdate the dump, since finds clearly fell into them after their formation. They are about 30 m long, 0.7 m wide and go down to a maximal depth of 1.4 m. The cracks found in the pool, the northern dump, and the paved square are consistent with their having been formed as the result of a movement of the ground, perhaps an earthquake. However, the finds here in the eastern dump clearly indicate that whatever caused the cracks was not the earthquake of 31 B.C.E. described by Josephus but a later event, at a time after the site had been abandoned.¹⁰ Perhaps the culprit was the earthquake of 749 C.E., which destroyed the Hisham Palace north of Jericho (see below).¹¹ The very rich finds here, dating from the Iron Age down to the destruction of the



Fig. 3.8. The northwestern refuse dump, looking south.

¹⁰ Josephus' account of the earthquake of 31 B.C.E. appears in *Ant.* 15:121–4 and *J.W.* 1:370–2.

¹¹ On the palace site at Khirbet el-Mafjar, see R.W. Hamilton, "Mafjar, Khirbet el-." *NEAEHL* 3: 922–9.



Fig. 3.9. The eastern refuse dump, looking north.



Fig. 3.10. The cracks in the eastern refuse dump, looking north.

Second Temple, 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 north side of the dump, a ditch or channel was found that began in the room north of the kiln (locus 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 remnants and was used for waste disposal beginning in the mid-first century B.C.E.

The Paved Square

In 1993 and again in 1998 we exposed a paved square (33 × 18 m) south of the hall known as "the refectory" (locus 77) and the adjacent storage room, loci 86 and 89 (fig. 3.11). The floor of the square, a flat surface with a slight inclination toward the south and east, consists of field stones and pebbles. Covering part of the southern refuse

dump, the square was constructed either before or at the same time as water-reservoir locus 71 and at the same time as the refectory and its adjacent storeroom. A narrow water channel lined with stone slabs runs along the square's south side. The channel probably drained the roof of the refectory and the square itself, from where it conducted the water into pool locus 71. The west part of the square is cut by a plastered overflow channel exiting pool locus 91. Unbroken vessels containing animal bones were found on the floor and between the paving stones.

Excavations and Trial Trenches in the Eastern Part of the Built-up Area

In 2001–02, excavations were conducted in the eastern part of the built-up area, yielding a large number of finds. In locus 84, a small kiln was unearthed north of kiln locus 64.¹² The room to the north of the kilns, basically a hallway opening



Fig. 3.11. The paved square, looking west.

¹² The latter had been found by de Vaux; see de Vaux 1973, 17, pl. XIVb.

to the east, was found to have a floor of plaster mixed with potsherds, under which an earlier floor was located. On top of the latter, lay a number of pottery vessels, some whole, as well as two silver half-shekel coins. At the north end of locus 80, we found a covered overflow channel which conducted surplus water eastward out of the site from the plastered installations found by de Vaux in locus 34. The eastern end of this channel, which passes underneath the cracked pool (loci 48–49), was found to lie beyond the site's eastern bounding wall. Various discoveries were also made in loci 61, 59, and 44. These included whole clay vessels, remnants of a cooking oven, and buried animal bones.

East of the cracked pool, inside loci 51, 52, and 53, there is an installation which de Vaux decided was a “laundry” (fig. 3.12).¹³ The renewed excavations brought to light a sophisticated industrial installation consisting of two plastered surfaces and a large stone basin. Sunk into the center of the southern surface (1.6 × 1.2 m) there is a stone basin, 40 cm in diameter and 30 cm deep. A hole in the eastern wall of pool locus 48 enabled water to be fed into the basin, from the bottom of which a pipe leads north. North of this surface there is a large stone basin followed, at a lower level, by another plastered surface (1.3 × 1.1 m) with a stone pierced in its center by three holes. The installation was perhaps a facility for the production of perfume.¹⁴



Fig. 3.12. The installation east of pool loci 48–49, looking north.

¹³ An identification which we reject; see de Vaux 1973, 27–8.

¹⁴ We are not the first to make this proposal. See R. Donceel and P. Donceel-Voûte, “The Archaeology of Qumran.” In: *Methods of Investigation of the Dead Sea Scrolls and*

the Khirbet Qumran Site: Present Realities and Future Prospects. ANYAS 722 (Edited by M.O. Wise et al.; New York: Academy of Sciences, 1994), 22–8; P. Donceel-Voûte, “Traces of Fragrance along the Dead Sea.” *Res Orientales* 11 (1998): 93–124. See also Yizhar Hirschfeld in this volume.

Recently, we have completed the excavation of pool locus 71, the largest water reservoir on the site, which de Vaux had only partially explored (fig. 3.13).¹⁵ We discovered that water came into the pool from the adjacent sedimentation basin (locus 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 dimensions of the pool are as follows: length 19.6 m; width 4.9 m; maximal depth 5.3 m. The pool's total capacity was 310 m³.¹⁶

Excavations and Trial Trenches in the Western Part of the Built-up Area

Renewed excavations were also conducted in the western part of the site, near pools loci 110, 117, and 118. We rediscovered an early system of channels underneath the one currently visible, which had fed the site's western waterworks during the first (Hasmonaean) construction phase. This early system contained a water channel, located under the main channel conducting rainwater collected from the area to the north and west of the site.¹⁷ The entrance to the channel, which we found in the north wall of locus 116, was plastered and covered. The channel led south in a course that took it beneath the floor level of loci 116 and 115 and ended in the sedimentation pit between the round cistern (locus 110) and the pool to the north (locus 118). Sediments sank into the pit and the clean water would flow into the two pools. At that time, the round cistern was about one

meter lower than it is today; its walls were raised at a later stage, as its internal structure clearly demonstrates. The location of this channel proves that the western water reservoirs predated those in the southern part of the site.

"The Discovery"

The two main theoretical conundrums which accompanied our work at Qumran from its beginning ten years ago were: (1) what was the function of the large water reservoirs at the site which, as we already realized at the outset, were not used for ritual bathing?¹⁸ (2) why was pottery produced at Qumran, supposedly a communal center of the Judaean 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.¹⁹ We, thus, suspected already during the initial stages of our work that there must exist a logical connection between the large water pools and the production of clay vessels. But at first we were unable to prove this claim.

In January 2004, we were still examining the site when we came to the decision to complete the excavation of the largest reservoir (locus 71), which de Vaux had only partially exposed. We also decided to dig a small (2 × 1 m) section of pool locus 58, which de Vaux had left unexcavated.

De Vaux did not separate the various layers of sediments at the bottom of the pool. Nor did he differentiate between the bottom layer of

¹⁵ See K. Galor, "Plastered Pools: A New Perspective." In: *Khirbet Qumrân et 'Ain Feshkha*. Vol. 2: *Études d'anthropologie, de physique et de chimie*. NTOA.SA 3 (Edited by J.-B. Humbert and J. Gunneweg; Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht), 291–320 (here 303).

¹⁶ This is the precise volume which the pool holds, as determined following its complete excavation. Wood, who made an attempt to estimate the number of inhabitants at the site based on the amount of water held in the pool, claimed that its capacity was 330 m³; see B.G. Wood, "To Dip or Sprinkle? The Qumran Cisterns in Perspective." *BASOR* 256 (1984): 57.

¹⁷ This channel had already been found and documented by de Vaux who attributed it to Period Ia; see de Vaux 1973, 4 and pl. IV (plan); a photograph of the entrance to the channel appears in Humbert and Chambon 1994, 130, photo 269. Over the years, the entrance was covered up and

was exposed again during our renewed excavations at the site.

¹⁸ Galor 2003; id., "Qumran's Plastered Installations: Cisterns or Immersion Pools?" In: *Cura Aquarum in Israel. Proceedings of the 11th International Conference on the History of Water Management and Hydraulic Engineering in the Mediterranean Region, Israel 2001* (Edited by C. Ohlig, Y. Peleg and T. Tsuk; Siegburg: Deutsche Wasserhistorische Gesellschaft, 2002), 33–45.

¹⁹ On pottery, see the article by Rachel Bar-Nathan in this volume. See also the results of the provenience analysis in J. Gunneweg and M. Balla, "Neutron Activation Analysis: Scroll Jars and Common Ware." In: Humbert and Gunneweg 2003, 4–46 and subsequent articles by J. Michniewicz, M. Krzysko, and K.L. Rasmussen. Jodi Magness's claim that the pottery found at Qumran demonstrates the sectarian identity of its inhabitants is based on outdated and insufficient data (see J. Magness, *The Archaeology of Qumran and the Dead Sea Scrolls* [Grand Rapids: Eerdmans, 2002], 73–89).

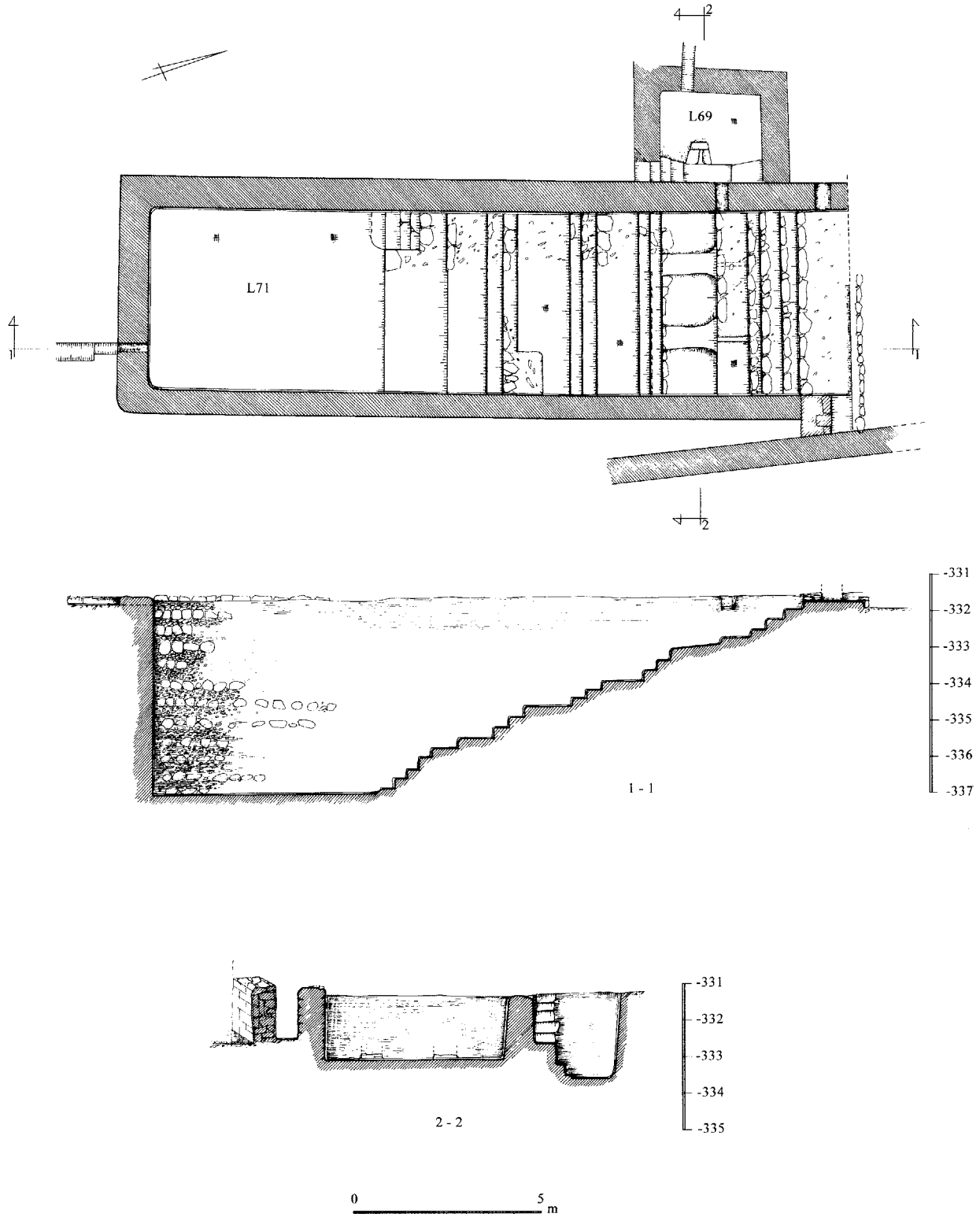


Fig. 3.13. Plan and cross sections of locus 71.

sediment, consisting mainly of clay which the rain-water brought in, 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 (between 0.2 and 0.7 m) layer of high-quality potters' clay, a material already mentioned in the Mishna.²⁰ This clay was part of the sediment which flowed into the site carried by the rainwater flowing through the sophisticated water collection system at Qumran. The estimated total amount of clay which we found is in the range of three tons, enough to manufacture thousands of pottery vessels. The material for making 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 Hasmonaean period that the potential utility of the sediment flowing into the site was realized. Thus, it was 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 B.C.E.²¹

The Finds

The renewed excavations at Qumran brought to light thousands of finds that have enabled us to reexamine the site's history:

²⁰ "Mire, potters' clay and Greek gypsum. What is mire? It is muddy sediment, as it is written (Ps 40:3) '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. Miqv.* 9:2).

²¹ De Vaux attributes the beginning of pottery production to Period Ia, when two kilns were already in operation on the site's southeast side (locus 66 and another kiln that was completely destroyed). Both kilns went out of use in Period Ib, when pool 48 and a new kiln (kiln 64) were constructed. See de Vaux 1973, 4, 16–17, where he also claimed that the marl at Qumran is not suitable for making pottery.

²² Most of the pottery which de Vaux found has never been published. See de Vaux 1953a: 94, 96–101, pls. VIa–b, VIIa; de Vaux 1954: 214–28, pls. Xb, XIa–b; de Vaux 1956: 551–63, pls. Xa–b. All the studies to date on the site's pottery have been based on these partial publications; see, for example, Magness 2002: 281–8 and the discussion in J. Zangenberg, "Opening Up Our View. Khirbet Qumran in a Regional Perspective." In: *Religion and Society in Roman Palestine: Old Questions, New Approaches* (Edited by D.R. Edwards; New York

Pottery

During the ten years that we excavated the site, scores of whole vessels were found (figs. 3.14 and 3.15) as well as tens of thousands of clay fragments, including a large amount of production waste (fig. 3.16).²² The pottery dates from the Iron Age and from the first century B.C.E. down to the destruction of the Second Temple and the Bar-Kokhba rebellion. In the cemetery, a number of sealed jars with "fastened lids" (*tzamid patil*)²³ were found which we believe are to be dated to the end of the second or the beginning of the first century B.C.E. (fig. 3.17). In addition, we found some wide-rimmed jars of the kind which mistakenly received the name "scroll jars" because they were originally found inside the caves where the scrolls were discovered. But similar jars have also been found in Jericho, Amman, and even in the agricultural settlement at Qalandiya.²⁴ 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 beginning of the first century B.C.E., "Jerusalem" bowls, cooking pots, jugs, juglets, bowls, cups, many fragments of Nabatean vessels and sherds 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 which certainly also traded clay vessels. Some of the trade was probably done by barter. This would explain the presence of many glass and stone vessels, as well as coins.

and London: Routledge, 2004), 175–9; id., "Qumran und Archäologie. Überlegungen zu einer umstrittenen Ortslage." In: *Zeichen aus Text und Stein. Studien auf dem Weg zu einer Archäologie des Neuen Testaments*. TANZ 42 (Edited by S. Alkier and J. Zangenberg; Tübingen: Francke, 2003), esp. 281–8. See also the article by Rachel Bar-Nathan in this volume.

²³ Num 19:14–5; *m. Kelim* 10:1.

²⁴ On "scroll jars" in Jericho, see R. Bar-Nathan, *Hasmonaean and Herodian Palaces at Jericho: Final Reports of the 1973–1987 Excavations*. Vol. 3: *The Pottery* (Jerusalem: Israel Exploration Society, 2002), 23–7, and her article in this volume; on Amman, see F.S. Ma'ayeh, "Recent Archaeological Discoveries in Jordan." *ADAJ* 4–5 (1960): 116; on the site at Qalandiya, see Y. Magen, "Kalandia: A Vineyard Farm and Winery of Second Temple Times." *Qad* 17/66–67 (1984): 61–71 [Hebrew]; id., "Qalandiya: A Second Temple Period Viticulture and Wine Manufacturing Agricultural Settlement." In: *The Land of Benjamin*. JSP 3 (Edited by Magen et al.; Jerusalem: Staff Officer of Archaeology–Civil Administration of Judea and Samaria and Israel Antiquities Authority), 29–144.



Fig. 3.14. Two lamps from the northwestern refuse dump.



Fig. 3.15. A jar found in the “gate room” north of kiln, locus 64.



Fig. 3.16. Waste of pottery production from the eastern refuse dump.



Fig. 3.17. A group of sealed jars.

Glass vessels

Numerous glass fragments were found (fig. 3.18), particularly in the eastern dump.²⁵ These included mold-blown lamps, bottles, glasses, as well as a large number of receptacles of the kind known as “Sidon ware.” In fact, fragmentary Greek inscriptions were found on a number of sherds. Many glass receptacles 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 the year 68 C.E.

Stone vessels

Stone vessels of many types were found in most parts of the site. Among these were measuring

cups, lathe-turned bowls, and fragments of large lathe-turned stone jars.²⁶ Stone receptacles, of course, do not become ritually unclean and can, therefore, be confidently attributed to the Jewish inhabitants of the site.²⁷ The receptacles were all made of soft limestone, except for a number of basalt grindstones, including one large mill dating from the Hasmonaean period which was found in the southern refuse dump.

Metal utensils and jewelry

The excavations brought to light a large number of assorted iron and bronze utensils, a bronze jug, bracelets, rings (some with stone insets), a kohl stick, a needle, fibulae (fig. 3.19), belt buckles,



Fig. 3.18. A glass bottle from the eastern refuse dump.

²⁵ The glass implements which de Vaux found were published by H. Wouters et al., “Antique Glass from Khirbet Qumran, Archaeological Context and Chemical Determination.” *Institut Royal du Patrimoine Artistique, Bulletin* 28: 9–40; also Donceel and Donceel-Voûte 1994, 7–9.

²⁶ The stone receptacles found by de Vaux are described, for example, in de Vaux 1953a: 95, pl. 3:12; 99, photo VIb;

Donceel and Donceel-Voûte 1994, 10–13.

²⁷ See Y. Magen, *The Stone Vessel Industry in the Second Temple Period. Excavations at Hizma and the Jerusalem Temple Mount*. JSP 1 (Jerusalem: Staff Officer of Archaeology–Civil Administration of Judea and Samaria and Israel Antiquities Authority, 2002), 138–47.

iron and bronze nails, lead weights (for nets used to catch fish or birds), iron knives, arrowheads (fig. 3.20), and more.²⁸

Ostraca

Some ten ostraca were among the finds. Most were found in the eastern, others in the northern, dump. The languages inscribed on them are Hebrew, Aramaic and Greek. One has a three-line inscription: אלעזר בר ישוע הכוריה (fig. 3.21).²⁹

Coins

De Vaux found 1,231 silver and bronze coins in Qumran,³⁰ to which our excavations added another 180. These coins are useless for stratigraphic purposes, although they can provide evidence for the time span between the site's establishment and its destruction. The seven Ptolemaic and Seleucid coins are not evidence that the settlement already existed during that period, since such coins, particularly those made of silver, remained in use during the Hasmonaean period. Most of the eighty Hasmonaean coins date from the reign of Alexander Jannaeus. None were found from the reign of John Hyrcanus I. For the next phase we have five coins of Herod the Great and one Nabatean coin dated to 17–5 B.C.E. Four coins of Archelaus, a number of coins of various Roman procurators, eighteen coins of Agrippa I, and some of later Roman procurators, testify to the existence of the

site in the first century C.E. until the beginning of the Great Revolt. Another eighteen coins belong to the Revolt itself (67–68 C.E.), followed by some Roman coins dated from after the Revolt down to the year 73 C.E.

C. *Qumran during the Iron Age*

The site at Qumran was first settled toward the end of the eighth or in the beginning of the seventh century B.C.E. and remained in existence until the destruction of the First Temple. Its location both during the Iron Age and later in the Hasmonaean period was chosen very carefully: this was an optimal (and perhaps the only) spot on the upper marl terrace along the northwestern coast of the Dead Sea whose topographical situation offered natural protection and where rainwater flowing down 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 details in the section on Qumran's water supply).³¹

The establishment of the village at Qumran during the Iron Age was part of an unprecedented wave of settlement in Benjamin, Judaea, Jerusalem and the Jordan Valley at the end of the eighth and the beginning of the seventh century B.C.E. (fig. 3.22).³² Many new settlements were constructed

²⁸ Some arrowheads were also found by de Vaux, who attributed them to the time of the site's destruction during the Great Revolt; see de Vaux 1973, 36. Other metal objects found at the site—including fibulae, nails, and a stash of receptacles in locus 52—are described in de Vaux 1953a: 95, pl. VIIIb; de Vaux 1954: 229, pl. XIIb; de Vaux 1956: 564. They are currently being prepared for publication in Qumran 3.

²⁹ The entire corpus of ostraca from de Vaux's excavation was published by A. Lemaire, "Inscriptions du khirbeh, des grottes et de 'Ain Feshkha." In: Humbert and Gunneweg 2003, 341–88.

³⁰ Of particular interest is a hoard of 561 silver coins found inside three receptacles in locus 120, in the northeast part of the site (see de Vaux 1973, 34; see also de Vaux 1953a: 93–4; 1954: 229–31; 1956: 565–9). An annotated list of the coins appears in de Vaux, *Die Ausgrabungen von Qumran und En Feschcha*. Vol. 1A: *Die Grabungstagebücher*. NTOA.SA 1A (Translated and supplemented by F. Röhrhirsch and B. Hofmeir; Fribourg: Universitätsverlag Freiburg; Göttingen: Vandenhoeck & Ruprecht, 1996), 119–29.

³¹ M. Broshi believed the site was chosen for its isolated location. According to him, the Jewish "monks of Qumran"

wanted to live in seclusion and, therefore, looked for somewhere remote from human habitation; see M. Broshi, "A Monastery or a Manor House? A Reply to Yizhar Hirschfeld." *Cathedra* 109 (2003): 68 [Hebrew]; id., "Qumran and Its Scrolls: Stocktaking." *Cathedra* 100 (2001): 170–1 [Hebrew]; id., "Was Qumran a Crossroads?" *RevQ* 19/74: 273–6. We also reject Hirschfeld's opinion (Hirschfeld 2003: 8) that Qumran was a major crossroad teeming with life; on regional traffic, see also Zangenberg 2004, 170–87 (esp. 174–5), and Zangenberg 2003, 262–306, esp. 279–81.

³² On the Iron Age sites in the Land of Benjamin and the Jordan Valley, see P. Bar-Adon, "The Judaean Desert and Plain of Jericho." In: *Judaea, Samaria and the Golan: Archaeological Survey, 1967–1968* (Edited by M. Kochavi; Jerusalem: Archaeological Survey of Israel and Carta, 1972), 92–149 [Hebrew]; I. Finkelstein and Y. Magen, *Archaeological Survey of the Hill Country of Benjamin* (Jerusalem: Israel Antiquities Authority, 1993) [Hebrew]. Most of the Iron Age settlements in Judaea, Benjamin, and the Jordan Valley were founded toward the end of the eighth century B.C.E.; see Finkelstein and Magen 1993, 448–9 (Map 5, Iron Age I) and 450–1 (Map 6, Iron Age II).



Fig. 3.19. A fibula from the eastern refuse dump.



Fig. 3.20. Arrowheads from the eastern refuse dump.



Fig. 3.21. An ostracon from the eastern refuse dump.

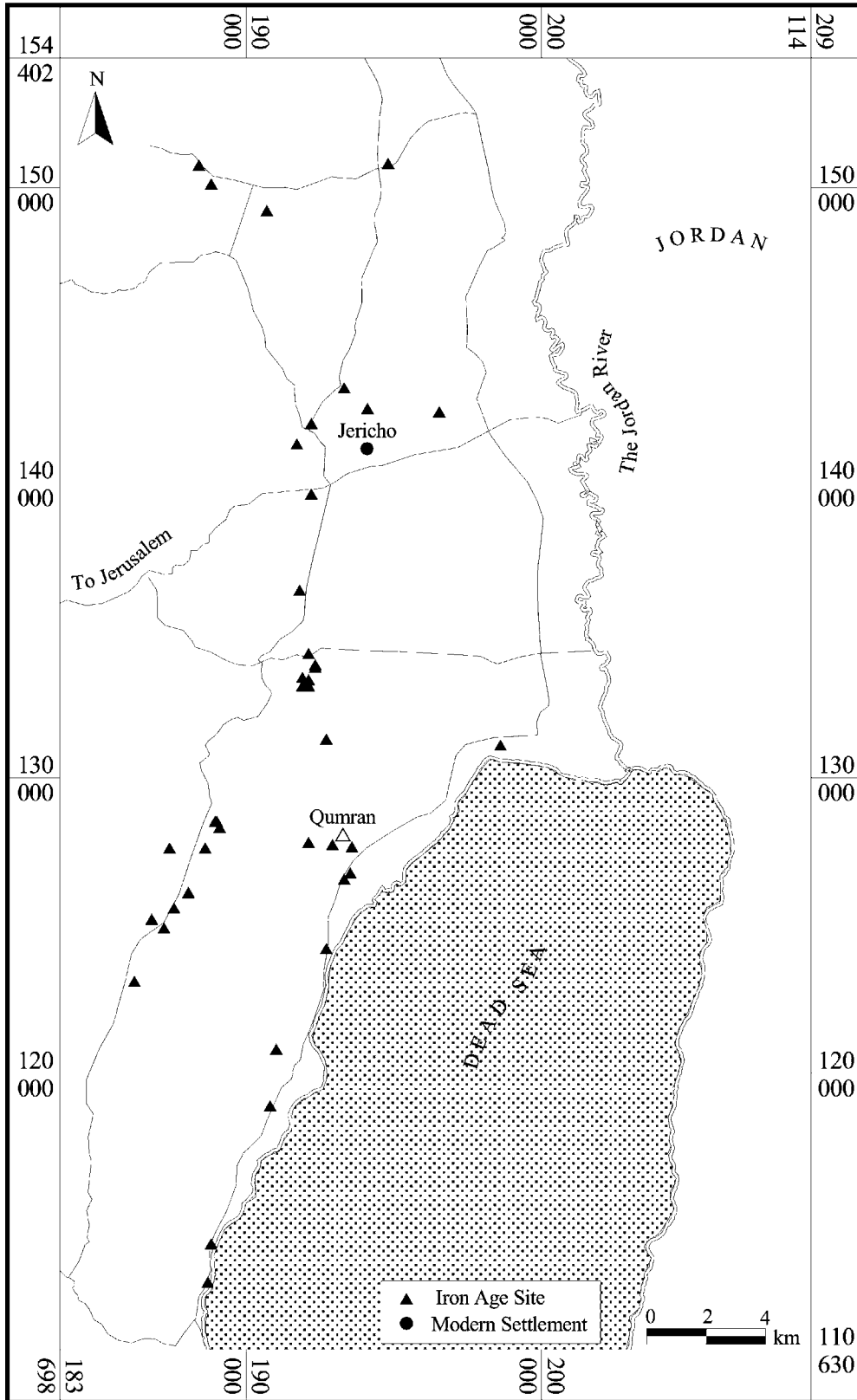


Fig. 3.22. Map of Iron Age sites in the Jordan Valley.

in previously uninhabited areas. It was only in the Hasmonaean period that we again find a population of this magnitude.³³

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 of the land, or something else? How are we to explain the huge difference between the very small number of settlements in Judaea, the Land of Benjamin, and the Jordan Valley in the Iron Age I and the much greater number in the Iron Age II and III? Where did this population come from?

True, with respect to the Land of Benjamin and Judaea one can argue that it was the result of a natural population increase; but this argument is untenable with respect 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 government. There were no cities or great fortresses among them as in the Hasmonaean period. Rather, these were tiny villages, or even individual caves in which one or several families lived and utilized the seasonal water sources and limited other resources in order to survive in the blazing desert.³⁴

This sudden wave of settlement in the Land of Benjamin, Judaea, and Jerusalem began after Samaria was destroyed and turned into an Assyrian province in 720 B.C.E. The Assyrians exiled most of the local Israelite population and brought in

foreigners in their stead.³⁵ Numerous inhabitants of Samaria fled the Assyrians and came to Judaea, Benjamin, the Jordan Valley, the borders of the Judaeian Desert, and other uninhabited areas where they could find shelter and minimal conditions for survival. Biblical sources make explicit mention of such Israelite survivors.³⁶

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 Khirbet el-Uja,³⁷ Tell Jericho (Elisha's Spring),³⁸ Na'aran,³⁹ 'Ain el-Ghuweir,⁴⁰ 'Ain el-Turabe,⁴¹ and 'En Gedi,⁴² and settlements which collected rainwater.

Two sites which are not located near a water source are Ard al-Mafjar⁴³ and Tell es-Samarat, south-west of Tell Jericho.⁴⁴ A ten-*dunam* Iron Age site on the southern bank of Wadi Qelt, south of the Jericho Hasmonaean palaces, had a ready supply of water from the wadi itself, where rainwater flowed in the winter and spring, and water from the wadi springs in summer and autumn. A large amount of pottery dating to the seventh century B.C.E. was found at this site, which was destroyed by fire during the Babylonian invasion.⁴⁵ Another Iron Age site which used rainwater, was a stone structure, perhaps a cult center, dating from the seventh century B.C.E. and located south-east of Vered Jericho.⁴⁶ A considerable number of Iron Age sites were discovered along the shore of the Dead Sea, among them Rujm el-Bahr⁴⁷ and a site on the northern bank of Nahal Qidron near

³³ In this context it is interesting to compare Finkelstein and Magen 1993, 450–1 (Map 6, Iron Age II) and 456–7 (Map 9, Hasmonaean period). See also Y. Magen, "The Land of Benjamin in the Second Temple Period." In: Magen et al. 2004, 1–28.

³⁴ The character of the settlements surveyed in the Jordan Valley (Bar-Adon 1972, 93–4) is such that they were clearly not government projects dated to king Jehoshaphat, of whom it is said that "he built forts and store cities in Judah" (2 Chr 17:12), or King Uzziah, who is reported to have "built towers in the desert and dug many cisterns" (2 Chr 26:10). See also N. Na'aman, "The Town-Lists of Judah and Benjamin and the Kingdom of Judah in the Days of Josiah." *Zion* 54 (1989): 35–45 [Hebrew].

³⁵ 2 Kgs 17:24.

³⁶ Jer 41:5; 2 Chr 30:10–11; 34:9.

³⁷ Bar-Adon 1972, 109, site no. 26.

³⁸ On Iron Age Jericho, see K.M. Kenyon, "Jericho." *NEAHL* 2: 674–81.

³⁹ Although no Iron Age finds have been discovered at

Na'aran so far, the site is mentioned in Josh 16:7 as Na'ara, and in 2 Chr 7:28 as Na'aran.

⁴⁰ P. Bar-Adon, "'Ein el-Ghuweir" in *Excavations in the Judaeian Desert. Atiqot* 9 Jerusalem: Israel Antiquities Authority, 1989: [Hebrew], 33–40 [Hebrew]; id., "Another Settlement of the Judaeian Sect at 'Ein-Ghuweir on the Shores of the Dead Sea." *BASOR* 225 (1977): 1–25.

⁴¹ Bar-Adon 1989, 41–9 ('Ein et-Turabe).

⁴² B. Mazar, T. Dothan and E. Dunayewski, *'En Gedi: The First and Second Seasons of Excavations, 1961–1962. Atiqot* (ES) 5 (Jerusalem: Israel Antiquities Authority, 1966), esp. 17–38.

⁴³ Bar-Adon 1972, 113–4, site no. 59.

⁴⁴ Bar-Adon 1972, 114, site no. 61.

⁴⁵ Y. Magen, "The History of Jericho and Its Sites in Light of the Latest Excavations." *Qardom* 28–30 (1983): 58 [Hebrew].

⁴⁶ The site was excavated by Avi Eitan; see A. Eitan, "Vered Yeriho." *HA* 82 (1983): 43–4 [Hebrew].

⁴⁷ Bar-Adon 1989, 3–14.

its mouth, consisting of remnants of a small hamlet with a few houses and caves.⁴⁸ Another area linked to the wave of settlement in the Jordan Valley was the Hyrcania Valley,⁴⁹ 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 were forced to settle in an inhospitable area. Thus, they made maximal use of the limited resources available in the desert.

This was no official colonization, neither military, commercial, nor agricultural. Rather, here were hamlets built by people who were forced into the area, and who made their living from seasonal agriculture, grazing, and perhaps also utilized the salt and asphalt resources of the Dead Sea itself. Most of the Iron Age sites here were very small, with remains consisting of buildings and huts, rock shelters, and caves used for habitation.⁵⁰

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 during both the excavation of de Vaux⁵¹ and our own. Iron Age pottery was found in the lowest stratum of the northern refuse dump. On the northeast side of Qumran, there are foundations of Iron Age buildings and a conflagration layer in which potsherds and an intact Iron Age juglet were found.⁵² On the site's southeast side, adjacent to and underneath the eastern bounding wall, a conflagration layer was found (fig. 3.23), containing Iron Age pottery and a jar handle with a *lamelekh* seal impression (fig. 3.24).⁵³ A large quantity of Iron Age pottery was also found in the lowest stratum of the

eastern dump. Underneath the refectory (locus 77), a conflagration layer containing a lot of Iron Age pottery was found on top of the remnants of a plastered floor. In the center of the southern plateau, three silos were unearthed, which probably belonged to the Iron Age (fig. 3.25). The many test trenches opened inside the main building of the site all revealed a conflagration layer consisting of ashes and Iron Age pottery. A broad north-south wall was discovered inside loci 51 and 53 that also continues east of pool locus 48 and the pool to the north (locus 50). Other Iron Age finds, including a stone weight calibrated with lead, were discovered in the southeastern part of the main building (fig. 3.26). Interestingly enough, no Iron Age artifacts were found in the many test trenches opened on the west side of Qumran; it would thus appear that this area was already used for collecting rainwater.

On the basis of his own Iron Age findings, de Vaux posited a rectangular structure consisting of a row of rooms along the east side of an open courtyard. He also attributed the earliest phase of the round cistern on the west side (locus 110) to the Iron Age.⁵⁴ De Vaux's proposed reconstruction of the building is based on the assumption that some of the walls of the Hasmonaean stage of the building stand on Iron Age foundations. However, the many trenches opened inside the Hasmonaean building next to the foundations which de Vaux ascribed to the Iron Age as well as elsewhere, clearly refute his proposal. In fact, the foundations in question are an integral part of the Hasmonaean structure. Furthermore, since Iron Age remnants have now been found in the southern and eastern parts of the site, underneath the refectory (locus 77), and under the east wall bounding the southern plateau from the east, we can only conclude that the latter wall postdates

⁴⁸ Bar-Adon 1972, 126, site no. 114.

⁴⁹ F.M. Cross and J.T. Milik, "Explorations in the Judaeen Buqē'ah." *BASOR* 142 (1956): 5–17.

⁵⁰ A careful examination of the Iron Age II archaeological finds of the Jordan Valley Survey shows very clearly that the sites in question were not built by the government. No fortresses or fortified towns were found, only small hamlets, rock shelters, and caves used by shepherds and other nomads.

⁵¹ On de Vaux's Iron Age findings, see de Vaux 1956: 535–7; de Vaux 1973, 1–3.

⁵² Although the remains of the Iron Age walls east of the

northeast corner of the building there (i.e., east of locus 6) were found by de Vaux (see de Vaux 1973, 2), he did not include them in his plan of the site that refers to the period in question (de Vaux 1973, pl. 3). Since these walls are located outside the Hasmonaean structure, it is clear that the Iron Age site was larger than the area delimited by de Vaux.

⁵³ Another *lamelekh* impression was found by de Vaux underneath locus 68; see de Vaux 1973, 2.

⁵⁴ de Vaux 1973, 2–3.



Fig. 3.23. Iron Age remains in the southeastern side of the site, looking south.



Fig. 3.24. “Lamelekh” seal impression from an Iron Age conflagration layer in the southeastern side of the site.



Fig. 3.25. Three Iron Age silos in the center of the southern plateau.



Fig. 3.26. An Iron Age stone weight.

the Iron Age and that the Iron Age settlement continued beyond the building which de Vaux reconstructed.⁵⁵

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 wood huts built partly on fieldstone foundations. It is quite possible that there was a public building or a stone tower in the middle of the site, around which the settlement's social life evolved. We must also reject de Vaux's claim that the round cistern was constructed during the Iron Age. The cistern in question was constructed at the same time as the two water reservoirs with steps (loci 117 and 118) located north and east of it. It defies belief that the Iron Age inhabitants of Qumran, who themselves lived in huts, were capable of digging such a huge cistern and covering its inner walls with the huge amounts of hydraulic plaster needed to prevent seepage. In short, the powerful character of the round cistern is inconsistent with that of the Iron Age residences at the site. It is very likely that the Iron Age cisterns were quite small and probably dried up before the end of summer. In fact, Iron Age Qumran was rather reduced in size and may well have been inhabited only in winter and spring.

Much has been written about the possible name of the site at Qumran during the Iron Age and the site's possible connection with the list of settlements in the book of Joshua.⁵⁶ Some have identified the site with the City of Salt, others with Secacah.⁵⁷ Qumran of the Iron Age was no city, not even a village, in comparison to contemporaneous settlements in the Land of Benjamin

and Judaea. If, indeed, Qumran is included in the book of Joshua, the most fitting name would be Secacah (a Hebrew word meaning "hut"). We do not know what the site's name was in the later periods; if it was still Secacah, it is not clear how the name managed to survive during the five-hundred years that the site was abandoned after the Iron Age settlement was destroyed. Perhaps the hamlet was called after the nearby stream, Nahal Secacah (= Nahal Qumran), and that is how it was preserved.⁵⁸ The modern name of the site, Qumran, has also received some scholarly attention. Two hypotheses are that the name is derived from the Arabic *qamar* ("moon"), or that it denotes the light-colored local marl on which the site is built.⁵⁹ It is our opinion, however, that the name is a distorted form of the Greek word *kalamon* ("reeds"), by which the area was known in Byzantine times.⁶⁰

Following the Babylonian conquest in 586 B.C.E., the site was abandoned for almost five hundred years. During the Persian and early Hellenistic periods the site remained uninhabited, although a few Ptolemaic and Seleucid coins were found there. At that time, only settlements in the vicinity of springs were inhabited, such as 'En Gedi, Jericho, and, perhaps, Na'aran.⁶¹

D. Qumran During the Hasmonaean Period

After a prolonged period during which the site remained uninhabited, it was settled once more at the beginning of the first century B.C.E. Again, as was the case in the Iron Age, the renewed

⁵⁵ The northern end of this wall comes up to the east wall of the Hasmonaean building and was ascribed by de Vaux to the Iron Age; see de Vaux 1973, 3.

⁵⁶ Josh 15:61–2.

⁵⁷ Avi Ofer has summarized the scholarly literature on the identification of sites along the northwest coast of the Dead Sea, see A. Ofer, "The Desert Towns of Judah." *Cathedra* 90 (1998): 7–32 [Hebrew].

⁵⁸ A settlement by the name of Secacah is mentioned in the Copper Scroll; see Ofer 1998: 12–3.

⁵⁹ On the various names and their interpretations, see F.M. Cross, *The Ancient Library of Qumran and Modern Biblical Studies*. 3rd Edition (Garden City: Doubleday, 1961), 38, n. 3; L. Cansdale, "The Name of Qumran in Post-Biblical and Modern Times." *QC* 4 (1994): 157–68; id., "The Metamorphosis of the Name 'Qumran'." In: *The Dead Sea Scrolls Fifty Years after*

Their Discovery. Proceedings of the Jerusalem Congress, July 20–25, 1997 (Jerusalem: Israel Exploration Society, 2000), 631–6; J.E. Taylor, "Khirbet Qumran in the Nineteenth Century and the Name of the Site." *PEQ* 134 (2002): 144–64

⁶⁰ This proposal was first made in J.T. Milik, "Une inscription et une lettre en araméen Christo-palestinien." *RB* 60 (1953): 538, n. 8.

⁶¹ In the Jordan Valley, there were only a few inhabited settlements during the Persian period. Finds from this period were unearthed in 'En Gedi (Mazar, Dothan and Dunayewski 1966: 38–9), Tell Jericho (Kenyon 1993: 674–81), and Na'aran (see n. 39 above). Apart from these, the survey of 1967–1968 came up with only two other sites that contained finds from this period (Bar-Adon 1972, 102, site no. 3; 111, site no. 40).

settlement was not an exceptional historical occurrence, but part of a widespread military and civilian colonization movement along the Jordan Valley, Jericho, and Dead Sea coast.

The colonization of the Jordan Valley and Dead Sea coast came in the wake of the expansion of the Hasmonaean state through the conquests of John Hyrcanus I and his two sons, Judah Aristobulus I and Alexander Jannaeus. Josephus relates that immediately after the death of Antiochus VII (Sidetes) (128 B.C.E.) John Hyrcanus I began a campaign of conquest. He conquered Samaria and destroyed the Samaritan temple on Mount Gerizim; in Idumaea, he captured the city of Maresha; and in Transjordan, he conquered Madaba and Samea.⁶² Excavations conducted at sites which had been conquered by John Hyrcanus revealed that the campaign mentioned by Josephus did not take place immediately following the death of Antiochus VII but many years later, probably during the reign of Antiochus IX (Cyzicenus), in the years 111–110 B.C.E., some six years before John

Hyrcanus' death.⁶³ It thus follows that the widespread military and civilian colonization of the Jordan Valley and the Dead Sea coast became possible only after the year 110 B.C.E., in other words after the conquest of Samaria, Idumaea, and Transjordan.⁶⁴ The project of establishing settlements in the area probably began slightly before John's death in 104 B.C.E., and was probably carried out by his sons, in particular Alexander Jannaeus. The fact that a number of John Hyrcanus I coins were found does not challenge this claim, since coins minted by one king certainly continued to be in use for some years after his death.⁶⁵

The Hasmonaean undertook the development of the Jordan Valley and the Dead Sea area mainly for the purpose of protecting their eastern border from incursions by the Nabataeans, who were hostile to the Hasmonaean kingdom. The Hasmonaean stationed garrisons not only in fortresses along the Jordan Valley and Dead Sea but also in territories which they conquered and whose

⁶² John Hyrcanus' conquests were long the subject of scholarly dispute. According to Josephus, they began as soon as Antiochus VII died in 128 B.C.E.: *Ant.* 13:254–8; *J.W.* 1:62–3. See also E. Schürer, *The History of the Jewish People in the Age of Jesus Christ (175 B.C.–A.D. 135)*. 3 Volumes. Revised edition (Edited by G. Vermes, F. Millar, M. Goodman and M. Black; Edinburgh: T. & T. Clark, 1973–87), 1:106–10; M. Stern, "The Relations between Judea and Rome during the Rule of John Hyrcanus." *Zion* 36 (1961): 8–9 [Hebrew]; B. Bar-Kokhva, *The Battles of the Hasmonaean: The Times of Judas Maccabaeus* (Jerusalem: Yad Izhak Ben-Zvi; Tel Aviv: Ministry of Defence, 1980), 145, n. 5a [Hebrew]; A. Kasher, *Edom, Arabia and Israel: Relations of the Jews in Eretz-Israel with the Nations of the Frontier and the Desert during the Hellenistic and Roman Era (332 B.C.E.–70 C.E.)* (Jerusalem: Yad Izhak Ben-Zvi, 1988), 48–9, 76–7 [Hebrew].

⁶³ The results of the excavations at the sites in question imply that the conquests took place later than 128 B.C.E., probably in the years 112–110 B.C.E., to judge by the numismatic finds. Thus, for example, at Mount Gerizim coins were found dating from 111–110 B.C.E.; see Y. Magen, "Mount Gerizim and the Samaritans." In: *Early Christianity in Context. Monuments and Documents*. SBF.CMa 38 (Jerusalem: Franciscan Printing Press, 1993), 91–145 (here 142–3); id., "Mt. Gerizim: A Temple City." *Qad* 33/120 (2000): 118 [Hebrew]. At Maresha, coins were found dating from 115–112 B.C.E.; see A. Kloner, "Maresha," *Qad* 24/95–96 (1991): 82–3 [Hebrew]. The same is true for Shechem; see L.E. Toombs and G.E. Wright, "The Third Campaign at Tell Balātah (Shechem)." *BASOR* 161 (1961): 11–54 (here 46–7). On this issue, see also M. Stern, "Judaea and Her Neighbors in the Days of Alexander Jannaeus." In: *Studies in Jewish History: The Second Temple Period* (Edited by M. Amit, I. Gafni and M.D. Herr;

Jerusalem: Yad Izhak Ben-Zvi, 1991), 128–50 [Hebrew].

⁶⁴ The fortress of Duk above Jericho was probably in existence already before the conquests of John Hyrcanus; see 1 Macc. 16:11–17 and Josephus, *Ant.* 13:230–4; cf. also reports on the site in the days of Bacchides, 1 Macc 9:50; *Ant.* 13:16. See also the report on the construction of Masada in the days of "John the High Priest" (*J.W.* 7:285), although in this case it is not clear to whom this title refers (see Kasher 1988b, 86 and n. 129).

⁶⁵ Kasher is of the opinion that Alexander Jannaeus began constructing his array of fortifications in the year 100 B.C.E.; see A. Kasher, "The Wars of Alexander Jannaeus Against the Nabataeans." In: *The Hasmonaean State: The History of the Hasmonaean during the Hellenistic Period* (Edited by U. Rapaport and I. Ronen; Jerusalem: Yad Izhak Ben-Zvi, 1993), 379–93 (here 382, n. 13) [Hebrew]; Kasher 1988b, 86–7, n. 129. De Vaux thought that construction at the site began during the reign of John Hyrcanus I (stratum 1a); see de Vaux 1973, 5, a view shared also by J.-B. Humbert, "L'espace sacré à Qumrân: Propositions pour l'archéologie." *RB* 101: (1994): 209 and Bar-Adon, who believes the same to be true of the Dead Sea sites which he had excavated; see P. Bar-Adon, "The Hasmonaean Fortresses and the Status of Khirbet Qumran." *EI* 15: 349 [Hebrew]. Magness wants to push the date for the establishment of the site forward to about 50 B.C.E., contrary to the pottery and numismatic finds that can be dated to the end of the second or beginning of the first century B.C.E. The later date enables her to disassociate Qumran from the Hasmonaean and their colonization project in the area, and to claim that the structure was originally erected by the Essenes as a headquarters for their sect; see J. Magness, "The Archaeology of Qumran." *Qad* 30/114 (1997): 124 [Hebrew] and Magness 2002, 47–72 and 210–25.

populace was perceived as potentially rebellious.⁶⁶

The northern end of the chain of fortresses protecting the kingdom's eastern border was Alexandria-Sartaba, followed by Duk above Jericho and Kypros on the road to Jerusalem, and in Transjordan, Machaerus.⁶⁷ No fortresses were built on the cliffs overlooking the Dead Sea, but two fortified docks were constructed on the shore—Rujm al-Bahr and Khirbet Mazin⁶⁸—as well as two fortified buildings with towers—Qumran and 'Ain el-Turabe.⁶⁹ The docks protected ships landing on the Dead Sea shore and made it possible to send forces to 'En Gedi and Machaerus. In addition to the fortress of Kypros protecting the main road to Jerusalem, alternative passes leading westward from the shore of the Dead Sea were also fortified.⁷⁰ No docks or other structures were found between 'Ain el-Turabe and 'En Gedi; this probably indicates that there was no road along this part of the coast, since the water came up to the scarp. 'En Gedi could, thus, be reached only by boat.⁷¹ The problem of 'En Gedi, its status, the composition of its population, and whether or not it was part of the Hasmonaean system of fortifications, is an issue important enough to deserve a separate discussion.⁷²

The fortified docks and the protected westward passes leading from the Dead Sea inland constituted a reliable defensive system, the main purposes of which were observation of the Dead Sea coast and providing early warning of attacks. In addition, the Hasmonaean constructed another fortification further inland, that of Hyrcania,⁷³ which would block whoever succeeded in landing on the Dead Sea shore with the intention of moving westward. This chain of fortifications had the purpose of providing not only protection against regular armies in time of war but also of preventing nomads and Bedouin-shepherds from approaching and threatening the sedentary population.

The Hasmonaean, therefore, set up a line of fortifications along the Jordan Valley and the Dead Sea. They also developed Jericho and constructed a palace there. Along this array of official Hasmonaean military fortifications, only Qumran, so similar in its physical attributes to all the other fortresses in the area, would 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, Pesah Bar-Adon noticed the similarities between Qumran and the Hasmonaean fortifications in the Dead Sea area and suggested

⁶⁶ An interesting example of such a Hasmonaean garrison in a conquered land is provided by Mount Gerizim, after the site had been destroyed by John Hyrcanus. A large number of coins of John Hyrcanus and of Alexander Jannaeus were found in the excavation, proof 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 come back and repopulate the devastated city (see Magen 1993a and 2000). Further proof is provided by remains of a fortress, north of the Roman temple, which guarded the way up Mount Gerizim. This fortress remained in use in later times as well (see Magen 1993a, 127–8).

⁶⁷ On these fortresses see Y. Tsafrir, "The Desert Forts of Judea in Second Temple Times." *Qad* 8–9/30–31 (1975): 41–53 [Hebrew].

⁶⁸ On Rujm al-Bahr, see Bar-Adon 1989, 3–14; on the dock at Kh. Mazin, see "Qasr el-Yahud" in Bar-Adon 1989, 18–29; E. Netzer, *The Palaces of the Hasmoneans and Herod the Great* (Jerusalem: Yad Izhak Ben-Zvi, 1999), 67–70 [Hebrew]. See also J. Zangenberg, "Wildnis unter Palmen? Khirbet Qumran in regionalen Kontext des Toten Meers." In: *Jericho und Qumran. Neues zum Umfeld der Bibel*. Eichstätter Studien 45 (Edited by B. Mayer; Regensburg: Pustet, 2000), 129–63; 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. 73–8).

⁶⁹ Bar-Adon 1989, 41–9.

⁷⁰ Menashe Har-El has shown that in Hasmonaean times a fortification was constructed opposite every pass leading from the Dead Sea westward; see M. Har-El, *Ancient Journeys and Campaigns in the Land of Israel* (Jerusalem: Effi Meltzer Ltd., 1980), 138–47 [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? The Consensus and Its Challengers. An Archaeologist's View." In: *Caves of Enlightenment* (Edited by J.H. Charlesworth; North Richland Hills: Bibal, 1998), 19–37.

⁷¹ We cannot accept Hirschfeld's rather wild idea that a land road connected the northwestern shore of the Dead Sea with 'En Gedi in the Second Temple period; see Hirschfeld 2003: 8. Traffic from the northern part of the Dead Sea southward moved either by boat or over the Hebron Hills. On this issue see also Broshi 2003: 67–8 and Eshel 2003: 52, who rightly argue that there was no land road going south along the coast.

⁷² The character of 'En Gedi and whether it was a Jewish or Idumaeen village in the Hellenistic period will be discussed at length by Y. Magen in a forthcoming book on the Idumeans, the Cave of the Patriarchs, and the Jewish presence in the southern Hebron Hills.

⁷³ On the fortress of Hyrcania, see J. Patrich, "Hyrcania." *NEAEHL* 2: 639–41.

that perhaps John Hyrcanus I himself brought in the Essenes as soldiers and had them man his fortresses.⁷⁴ Magen Broshi rightly rejected this proposal for the simple reason that the scrolls show conclusively that the Qumran sect was extremely hostile toward the Hasmonaeans and would, therefore, scarcely have cooperated with them in this manner.⁷⁵ 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 Hasmonaean soldiers.

Qumran was, thus, an integral element in the chain of fortifications and early warning stations along the Dead Sea. This was not a fortress capable of withstanding the assault of an attacking enemy, but rather a forward observation and supervision point which controlled land and sea traffic along the Dead Sea coast. We may say, using modern military terminology, that Qumran was the headquarters of the commander of the Dead Sea coast and its docks, a command post subordinate to the main headquarters at Hyrcania, one which 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 Judaean desert.

Qumran is located at a significant military crossroad. One road goes north along the fault scarp

in the direction of Jericho, passes over Nahal Og and, then, meets the "sugar and salt" route to Jerusalem.⁷⁶ The other, more important road, leads up through the scarp to the Buqe'a (the Hyrcania Valley) and, then, continues along the Kidron Valley to Jerusalem. It would appear that the Hasmonaeans improved this latter route and used it as a rapid means of communication between the forward position at Qumran and the fortified array in the rear.⁷⁷

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 an integral part of a pre-planned, official system of fortifications which served the strategic needs of the Hasmonaean kingdom.⁷⁸ Its eastern borders remained, even after the great conquests, vulnerable to Nabataean attack until Judaea was conquered by Rome in 63 B.C.E.⁷⁹

The Hasmonaean kings, Alexander Jannaeus in particular, were notoriously intolerant toward other religions and sects. They tried to eliminate pagan cults in the Greek cities under their control, destroyed the temple dedicated to Yahweh on Mount Gerizim,⁸⁰ forcibly converted the Idumaeans, abandoned the sacred site of Mitspah (Nabi Samwil) because of the veneration it had enjoyed since the days of the Maccabees,⁸¹ and were hostile toward the Pharisees.⁸² In light of all this, and of the mutual hostility between Essenes and

⁷⁴ See Bar-Adon 1981: 349–51. We should like to point out that all three sites (Qumran, Khirbet Mazin, and Rujm al-Bahr) 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.

⁷⁵ M. Broshi, "The Archaeology of Qumran: A Reconsideration." In: *The Scrolls of the Judaean Desert: Forty Years of Research* (Edited by M. Broshi et al.; Jerusalem: Bialik Institute and Israel Exploration Society, 1992), 60 [Hebrew]. We should point out, however, that not everyone subscribes to this opinion. For example, Humbert argues that Qumran was built in the Hasmonaean period not as an Essene site but as a Hasmonaean villa or palace (see Humbert 1994: 174–5).

⁷⁶ For more on this route, see Har-El 1980; id., "The Route of Salt, Sugar and Balsam Caravans in the Judaean Desert." *GeoJournal* 2/6 (1976): 549–56; O. Sion, "Ancient Road in the Northern Judaean Desert." *ESI* 10/2 (1991): 125.

⁷⁷ This pass, connecting the settlements in the Buqe'a with the Dead Sea, was apparently in use already in the Iron

Age and only renovated by the Hasmonaeans. 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.

⁷⁸ See Bar-Adon 1981.

⁷⁹ Kasher 1988a, 84–106; M. Stern 1991, 137–8, 145–6, 148–9.

⁸⁰ Josephus, *Ant.* 13:255–6; *J.W.* 1:62–3. See also Magen 1993a.

⁸¹ On the conversion of the Idumaeans, see Josephus *Ant.* 13:257–8; 15:253–4. On the abandonment of Nebi Samwil in the Hasmonaean period, see Y. Magen and M. Dadon, "Nebi Samwil (Shmuel Hanavi—Har Hasimha)." *Qad* 32/118 (1999): 62–77 (here p. 67) [Hebrew]; id., "Nebi Samwil (Monte Joie)." In: *One Land—Many Cultures. Archaeological Studies in Honour of S. Alliaia OFM.* SBF.CMa 41 (Edited by G.C. Bottini, L. Di Segni and L.D. Chrupcala; Jerusalem: Franciscan Printing Press, 2003)123–38 (here p. 127).

⁸² See, for example, Josephus, *Ant.* 13:398–411; D.R. Schwartz, "On the Question of the Pharisees Resistance to the Hasmonaean Monarchy." In: *Nation and History: Studies in the History of the Jewish People.* Vol. 1: *Antiquity and the Middle*

Hasmonaeans (“the Wicked Priest”), it is quite inconceivable that Jannaeus 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 Hasmonaean chain of fortifications. In the face of this, to argue that it must have been the Essenes who came to this site—which had been 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.

Another proposal with which we cannot agree is that Qumran was initially a Hasmonaean farm.⁸³ 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 building and the water supply system? It was mainly dates that were grown here, but only after the building had been standing for some time. It is highly unlikely that any private person, even a very wealthy one, would have established a farm where no agriculture had ever existed before and water was in scarce supply. It would have been much more logical to have built the villa on the Dead Sea shore, as at ‘Ain Feshkha. Even if we were to suppose that the Hasmonaean 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 Hasmonaeans, 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 from

Crown and Cansdale that the site served as a commercial way-station.⁸⁴

The many imposing structures erected by the Hasmonaeans raise the question of how they managed to obtain the large, skilled workforce needed. No doubt thousands were needed for building the many Hasmonaean fortresses and palaces throughout the land, and, almost certainly, also in Jerusalem. The mystery grows even deeper if we take into account the quality of the work, the engineering skills demonstrated in the construction of aqueducts and cisterns, the architectural sophistication, the fresco paintings, the mosaics, etc. Moreover, we know that the Hasmonaeans suffered from a great manpower shortage. John Hyrcanus, Alexander Jannaeus, and Salome Alexandra all had to hire mercenary soldiers due to a lack of sufficient Jewish manpower.⁸⁵

One possibility is that the craftsmen who worked on the Hasmonaean building projects were forced laborers taken from the areas conquered by the Hasmonaeans, from the Hellenistic cities along the Mediterranean coast, and elsewhere.⁸⁶ Qumran and the other desert fortifications were not built by Jewish soldiers or masons, but rather highly skilled craftsmen, resulting in structures whose quality was much higher than what was required by the army units manning them. Interestingly, Josephus reports that Salome Alexandra entrusted Jannaeus’ senior officers with the fortresses in the Jordan Valley, except for Hyrcania, Alexandrion, and Machaerus.⁸⁷ There were, thus, many other fortresses in addition to these three, fortresses in which Jannaeus’ officers were stationed instead of being executed for their pro-Pharisee sympathies.

The occupation of the land by Pompey in 63 B.C.E. brought about a drastic change in security

Agas (Edited by M. Stern; Jerusalem: Shazar Center, 1983), 39–50 [Hebrew]; see also B.Z. Luria, *Jannaeus the King* (Jerusalem: Kiryat Sepher, 1961), 89–99 [Hebrew]. Of possible relevance in this connection is the revolt against Jannaeus which broke out in Judaea following his defeat by the Nabataean king Obodas I (Josephus, *Ant.* 13:375–6).

⁸³ Hirschfeld 2003: 48–9; id., “Early Roman Manor Houses in Judaea and the Site of Khirbet Qumran.” *JNES* 57 (1998): 185–7. This is also the opinion of Humbert 1994 and 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* 16/63 (1994): 397–420; id., “Qumran: Not a Country Villa.” *BAR* 22/6 (1996): 38, 40–7 and 72–3; Magness 2002, 90–100.

⁸⁴ A.D. Crown and L. Cansdale, “Qumran: Was It an

Essene Settlement?” *BAR* 20/5 (1994): 26, 73.

⁸⁵ See Josephus *Ant.* 13:249; 14:377–8; 16:409; *J.W.* 1:61. See also I. Shatzman, *The Armies of the Hasmonaeans and Herod*. TSAJ 25 (Tübingen: J.C.B. Mohr [Paul Siebeck], 1991), 30–5; M. Stern 1991, 137–8; A. Kasher, *Canaan, Philistia, Greece and Israel* (Jerusalem: Yad Izhak Ben-Zvi, 1988), 133–4 [Hebrew]. As for the number of soldiers in the wars of the Maccabees, see Bar-Kokhva 1980, 60–5.

⁸⁶ Kasher 1988b: 159–61. There is no evidence that the Hasmonaeans 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 (*J.W.* 1:64–5) reports that the inhabitants of Samaria were sold into slavery after the city’s capture.

⁸⁷ Josephus, *Ant.* 13:415–7. See also Kasher 1988a: 104.

considerations throughout the entire area. Judaea lost much of its former importance, and when Gabinius freed the Greek cities from Hasmonaean control,⁸⁸ the position of Jews outside Judaea weakened considerably and the area of the Hasmonaean kingdom was greatly reduced.⁸⁹ The rising power of the Greek cities along the Mediterranean coast left Judaea without an outlet to the sea. Samaria, the Samaritans and Idumaeans were severed from Hasmonaean control and Jews were evicted from the Greek cities and the other areas which they had previously conquered. They were forced to return to the now reduced Judean territory, and, as a result, that region now suffered from overpopulation, a shortage of land, and economic deterioration.⁹⁰ The fortresses at once lost their value and the soldiers that had manned them now found themselves without a job and bereaved of the prestige they had enjoyed under Hasmonaean rule. The major change which occurred at Qumran was thus linked to the Roman occupation, when many former military people in the Dead Sea area had to find a new way of making a living, such as rearing livestock, growing dates and perfume plants, manufacturing pottery, and exploiting the resources of the Dead Sea itself.⁹¹ Qumran, thus, deteriorated from a fortress maintained by the central government to a useless site. That is when the great change occurred.

E. *Qumran's Water Supply*

As mentioned above, the location of the site was chosen during the Iron Age. Based on aerial photographs as well as a study of the site's topography and water regime, we can understand why during the Iron Age as well as in Hellenistic and Roman times, people preferred settling here and not elsewhere on the marl plateau overlooking the Dead Sea.

The site of the village and cemetery of Qumran is protected from both north and west by riverbeds

which prevent floods, falling rocks, and sediment from the fault scarp from pouring into the settlement and sweeping away the houses. North of Qumran is a broad drainage area, which we shall term Flow Basin A (fig. 3.27). It drains rainwater from the part of the scarp located north of Nahal Qumran. The depth of the riverbeds in the marl are proof of the large quantities of water and the powerful floods that have flowed through Flow Basin A. Some of this water spilled into Nahal Qumran (B) and into Riverbed C, whose course runs along the western boundary of the site and eventually flows into Nahal Qumran. North of the site is Riverbed D, which 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 in Passage E was taken into small pools inside the site. In the Hasmonaean period, the settlement was constructed on precisely the same spot as the Iron Age hamlet.

We do not know whether the Hasmonaeans had noticed the ruins and dry cisterns and therefore decided to follow in the footsteps of their ancestors, or whether in both cases it was independently determined that this was the best choice, for the reasons adduced above. However, it is worth pointing out that in most late Hellenistic and early Roman sites excavated in the Jordan Valley and along the Dead Sea coast there were Iron Age finds as well, despite the many centuries that had passed from the destruction of the First Temple until the area was settled again at the beginning of the first century B.C.E.

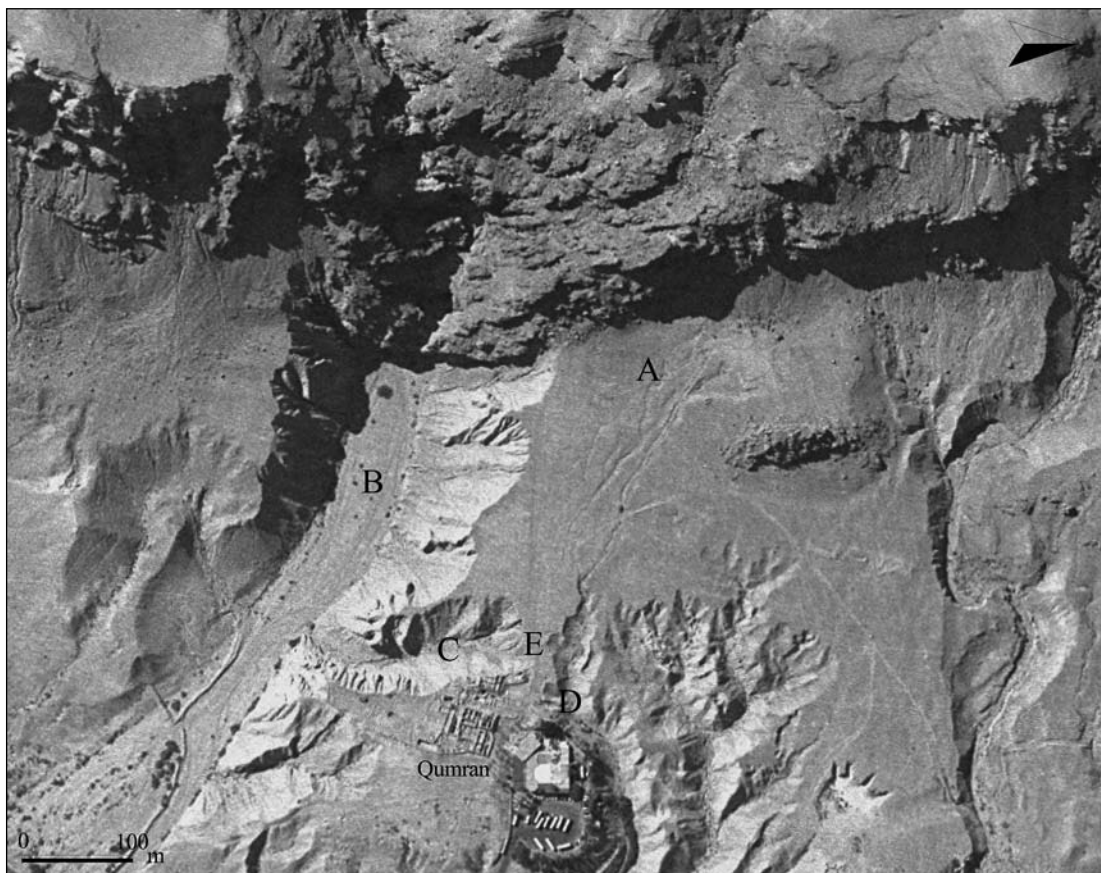
Following the excavation of the aqueduct on the northern plain and a reexamination of the

⁸⁸ Josephus, *Ant.* 5:87–88; *J.W.* 1:155–8, 165–6.

⁸⁹ Y. Ben-Shalom, *The School of Shammai and the Zealots' Struggle against Rome* (Jerusalem: Yad Izhak Ben-Zvi and Ben-Gurion University of the Negev, 1993), 1–6 [Hebrew]; Kasher 1988b: 164–73.

⁹⁰ Kasher 1988b: 173.

⁹¹ One of the latter was asphalt, which was used for insulating ships, as a raw material in the production of ointments and creams, and for embalming; see Kasher 1988a: 99, n. 163; P.C. Hammond, "The Nabatean Bitumen Industry at the Dead Sea." *BA* 22 (1959): 40–8; Zangenberg 2000b.



- A Flow Basin
- B Nahal Qumran
- C Western Riverbed
- D Northern Riverbed
- E Narrow Passage

Fig. 3.27. Aerial view of the water system.

potential water supply at the site, we have concluded that the water reservoirs of Qumran were fed by four distinct sources:

1. *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 per annum), but, in concentrated form, it can be effective. Water flowing down from the rooftops is usually clean, with no silt, since roofs are in general repaired and cleaned before the rainy season. Already during the first phase of the Hasmonaean site, water from the rooftops was brought by gutters and channels

into reservoir locus 117 on the main building's west side. Later, as more buildings and cisterns were constructed, drainage facilities were added as well. For example, gutters were found on the east wall of cistern locus 91 that drained the roof of storehouse loci 86 and 89 and the area between the storehouse and cistern locus 88. While the amount of water collected in this manner could not fill all the water reservoirs at Qumran, an efficient drainage system could certainly provide a considerable amount of good quality water.

2. *Floodwater from Nahal Qumran* Upstream on Nahal Qumran an aqueduct—partly constructed

and plastered and partly rock-cut—drew water from the stream.⁹² The relatively narrow aqueduct, reminiscent in its construction of the Hasmonaean aqueducts connecting the springs of Wadi Qelt with the palaces in Jericho,⁹³ leads out of a natural pool in the upper part of the stream. The narrow aqueduct spills into a wide (1.10 m), long (200 m) open channel with high (35 cm) serrated walls and an unplastered pebble floor, in which the water flowed across the plateau into the site.

3. *Rainwater collection northwest of the site—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, from which the water flowed into the site through the wide aqueduct on the plateau. This aqueduct, with its serrated walls designed to filter out the mud and rocks, has now been excavated along its entire length. It served the double function of conduit and dam for the water which flowed from Flow Basin A into the site. The eastern part of its course deviated somewhat toward the north, a fact which indicates 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 aqueducts, the one connected to Nahal Qumran and the one on the plateau, would operate simultaneously—although probably not always, since the water in Nahal Qumran originated from rainfall in the Buqe'a region, and that of Flow Basin A from rains at Qumran itself.

The water reservoirs inside the site belong to two distinct phases. The round cistern (locus 110) and the two pools adjacent to it (loci 117 and 118), which were filled primarily with locally drained rainwater, belonged to phase 1. During

the second phase, the two large reservoirs in the southern and southeastern part of the site were added and filled mainly with water from outside. It was in this second stage that Qumran's impressive water supply system received its final form; the construction of the two large reservoirs and of the two aqueducts are certainly related.

4. A fourth source of water, one which is usually ignored in the scholarly literature, was the sweet-water springs southeast of Qumran. Spring water in the context of Qumran usually means the water of 'Ain 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, located higher than 'Ain Feshkha, was not under water during the Second Temple period, and the ground water was not yet 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 to determine whether the water was suitable for drinking. At any rate, this particular water source eventually dried up because of the drop in the sea level and the southward movement of the springs.⁹⁴

F. *The Qumran Reservoirs: Ritual Baths or Cisterns?*

Ritual baths first appeared in Judaea at the end of the second and beginning of the first century B.C.E. In the Old Testament, ritual bathing is indicated by the verb בָּטַח (= bathe): “. . . and bathe himself with fresh water, and he will be clean.”⁹⁵ Today it is customary to refer to any plastered water pool with stairs leading to the bottom as a ritual bath (= *miqveh*). Ritual baths are discussed in great detail in the Rabbinical literature.⁹⁶

⁹² On the aqueduct of Qumran, see Z. Ilan and D. Amit, “The Aqueduct of Qumran.” In: *The Aqueducts of Israel*. JRA.SS 46 (Edited by D. Amit, J. Patrich and Y. Hirschfeld; Portsmouth: Journal of Roman Archaeology, 2002), 380–6; Humbert and Chambon 1994, 342; E.W.G. Masterman, “Notes on Some Ruins and a Rock-Cut Aqueduct in the Wâdi Qumrân.” *PEFQS* 28 (1903): 264–7.

⁹³ E. Netzer and G. Garbrecht, “Water Channels and a Royal Estate of the Late Hellenistic Period in Jericho's Western Plains.” In: Amit, Patrich and Hirschfeld 2002: 366–79.

⁹⁴ E. Raz, *The Dead Sea Book* (Jerusalem: Israel Nature Reserve Authority, 1993), 156–9 [Hebrew].

⁹⁵ Lev 15:13.

⁹⁶ Both Mishnah and Tosefta have a tractate *Miqwa'ot*. See also R. Reich, *Miqwa'ot (Jewish Ritual Immersion Baths) in Eretz-Israel in the Second Temple and the Mishnah and Talmud Periods*. Ph.D. Dissertation (Jerusalem: Hebrew University, 1990) [Hebrew]; Y. Shenberger, *Miqwa'ot* (Jerusalem: Mercaz, 1974), 57–75 [Hebrew]; Magness 2002, 134–62; Galor 2002 and 2003.

Immersion in a ritual bath is based on the verse, “A spring, however, or a cistern for collecting water remains clean.”⁹⁷ According to Jewish ritual law, a ritual bath must be connected to the ground, must be filled with either rain or spring water, and the water must enter the pool on its own, without any manual or mechanical assistance. Water that has been moved with such assistance is called “drawn water” and disqualifies the *miqveh*. The minimal amount of water required in a ritual bath is 40 *se’ah*, which equals about 750 to 800 liters. Most Jewish ritual baths dating from the Second Temple period to Byzantine times are rather small, with a capacity ranging between four and nine cubic meters. The ritual bath replaced the bathtubs found in many second century B.C.E. Hellenistic sites.

In Qumran, there were many pools with stairs, some small, some very large. The capacity of the largest (locus 71) was about 310 cubic meters. The earliest of these installations date from the beginning of the first century B.C.E., not long after the use of ritual baths first became common among Jews. Scholars who have studied Qumran have referred to all the water installations at the site as ritual baths.⁹⁸ The facts that there were so many and that some were so large, were explained as resulting from the Essenes’ religious beliefs, which allegedly required frequent ritual bathing.⁹⁹

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, of course, familiar with the concept of the *miqveh* in Jewish religious law and with the findings at Jewish sites from the Second Temple period.¹⁰⁰

We would like to make it quite clear at the outset that we have no objection to the claim that

ritual baths existed at Qumran, just as at many other Second-Temple-period settlements in Judaea, the Land of Benjamin, and Jerusalem. The issue is not whether there were ritual baths in Qumran; rather, it is whether the large reservoirs were also ritual baths. If the answer is negative, the question arises of where to draw the line between pools with stairs that served as ritual baths and similar pools that did not. If most of the reservoirs were used for ritual purposes, what was left for the inhabitants’ other needs: drinking (humans and animals), non-ritual bathing and washing, and cooking—not to mention the large amounts of water needed for the pottery industry. One should not ignore that the site is located in a very hot and arid area where water evaporates rapidly. Certainly, some water also dissipated through cracks in the plaster, adding to the problem. In all, eight pools with stairs at Qumran have been identified by scholars as ritual baths;¹⁰¹ to these must be added a number of small sedimentation basins with stairs, which some scholars have mistakenly also added to the list of ritual baths at the site.¹⁰²

In the following pages, we shall discuss each pool separately and see whether or not it is consistent with the definition of a ritual bath. Two concentrations of water reservoirs exist at Qumran. The chronologically earlier group is on the west side and consists of a round cistern and two pools (locus 110, loci 117 and 118). Pool locus 138 stands by itself at the northwestern edge of the site. The southern group consists of two pools inside the main building (loci 48–49 and locus 50), a large reservoir divided into two (loci 58 and 59), and three installations outside the main building (loci 68, 91, and 71).

As mentioned above, the two pools with stairs belong to the earlier phase: locus 118, fed by

⁹⁷ Lev 11:36.

⁹⁸ On the identification of the pools with stairs at Qumran as ritual baths, see, for example, Reich 1990, 306–18; id., “*Miqva’ot* (Ritual Baths) at Qumran.” *Qad* 30/114 (1997): 125–8 [Hebrew]. Reich enumerates some ten ritual baths, including the sedimentation basins in front of the large pools (loci 83, 69); Reich 1990: 306–318; E. Netzer, “A Proposal Concerning the Utilization of the Ritual Baths at Qumran.” *Qad* 35/124 (2002): 116–7 [Hebrew]; B.G. Wood 1984; A. Strobel, “Die Wasseranlagen der Hirbet Qumrân.” *ZDPV* 88 (1972): 55–86.

⁹⁹ See, for example, Reich 1997: 128.

¹⁰⁰ De Vaux described the way the water was divided among the various reservoirs; see de Vaux 1973, 8–10, 131–2,

and the discussion of their use. He was of the opinion that most of the pools were just cisterns and that only pool loci 68 and 138 were ritual baths.

¹⁰¹ These are: locus 138 on the northwest side of the site; loci 117 and 118, next to the round cistern; locus 91 on the southwest side of the site; locus 56, north of the refectory, and loci 48–49, 68, and 71 at the southeast end of the built-up area.

¹⁰² These are sedimentation basins locus 83 (Reich 1990, 314–5) and locus 69 (Reich 1997: 127). Reich is of the opinion 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 *miqveh*.”

rainwater that was collected north and west of the site and flowed through the sedimentation basin that also fed the round cistern (locus 110); and locus 117, fed by rainwater drained from within the site, including roofs. According to Jewish ritual law, water which has passed through a sedimentation basin is like drawn water and cannot be used for ritual purposes.¹⁰³ If, indeed, there was a ritual bath at the site during its first phase, it could only have been locus 117, which was fed by rainwater and had no sedimentation basin. However, we must consider that it is rather far-fetched to suppose that a ritual bath was constructed on a site intended for a military garrison, manned by soldiers who were perhaps not even Jewish at a time when the institution of the ritual bath was still in its infancy in Jewish society and ritual law.

We believe that the only reservoir which may conceivably have served as a ritual bath on the west side of the main building is locus 138; it dates from a later phase and may perhaps have been used for ritual purification by the potters who worked in the western building, west of the round cistern. Ritual bathing in large deep pools is not attested anywhere in the literary sources; 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 stairs and perhaps even drowned. Standard Jewish ritual baths were all quite small (800 l or more) and had replaced the tubs that were used for bathing in Hellenistic times.¹⁰⁴

The major elements of the water supply system, namely, the external channels and the reservoirs on the south side, were constructed during the second, Hasmonaean phase. Were these reservoirs with stairs ritual baths designed to accommodate a growing population, constructed at the expense of part of the original building which, as a result, was reduced in size? The construction

of these reservoirs was related to the improvements in the water collection system. The collected rainwater that came in from the surrounding area contained large amounts of silt and clay. Therefore, sedimentation basins were added through which the water flowed before entering the reservoirs. It was also decided to build rectangular pools instead of round ones, since the latter were more difficult to build and to clean. According to our calculations, it would have been necessary to dig seven round cisterns like locus 110 in order to obtain the same capacity as the rectangular reservoirs on the south side.

The questions we have yet to answer is why the reservoirs had stairs and whether they are evidence of an intention to use them for ritual purposes. The answer is no. The ground at Qumran consists of unstable marl, which swells when wet, causing walls to come under pressure. 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 this, usually involving the creation of internal separations that would take some pressure off the external walls.¹⁰⁵

The builders of Qumran faced a similar problem. In order to prevent the collapse of the walls of the huge reservoirs they dug, it was necessary to add a number of lateral walls. But such a solution would have made it more difficult to collect the water and move it from the first pool to the next. So, instead of lateral walls, they added a staircase that ran the entire width of the pool, thus achieving the desired effect of strengthening the walls. The stairs were, thus, not intended for ritual bathers, but were built for structural reasons. They also did not reach the reservoir floor, but left 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

¹⁰³ Shenberger 1974, 63; Reich 1990, 30–3.

¹⁰⁴ For this reason, large pools with stairs have not, in general, 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.” *Atiqot* 38 (1999): 75–84; on the Tombs of the Kings in Jerusalem, see M. Kon, *The Tombs of the Kings* (Tel Aviv: Dvir, 1947), 34–8 [Hebrew]; and on a site called Bir Ijeh or Hammam

Sarah in the Hebron Hills, see D. Amit, “Ritual Baths (*Mikva’ot*) from the Second Temple Period in the Hebron Mountains.” *Judea and Samaria Research Studies* 3 (1993): 180–5 [Hebrew].

¹⁰⁵ Thus, 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; rather, they created built-up spaces in order to relieve the pressure on the external walls.

move toward the lower end of the pool, thus, most of the water was kept clear. It also made it easier to remove the clay, which was then used for making pottery.

In reservoir locus 91, another engineering solution to the problem of strengthening the pool walls was implemented (fig. 3.28).¹⁰⁶ The overall length of this reservoir (including locus 85, which is an integral part of the same pool) was 15.5 m. Its maximal width was 4.7 m and its depth 5.4 m. Here, too, a staircase was added on the north side (locus 85), but not along the entire length of the pool. Rather, it ended in a high stair which created a deep pool that took up most of the reservoir's south side.¹⁰⁷ In order to prevent them from collapsing inward, the walls were built with an outward incline, resulting in a difference of 35 cm between the top and bottom of the wall. Such inclines were in common use in construction of support walls, as in the Temple Mount and the Tombs of the Patriarchs in Hebron. A similar technique was also used in locus 138, a reservoir in which the walls were staggered outward.

Further evidence for our claim was found in the reservoir north of the refectory (reservoir loci 56 and 58).¹⁰⁸ Here, there were both a lateral staircase and, in the middle, a massive lateral wall (fig. 3.29). The overall length of this reservoir was 18 m. It was 5 m wide and its maximal depth was 4 m. Since it was located inside the existing building, perhaps the builders—fearing the possible collapse not only of the pool walls but also the building walls, especially the one south of the pool—added the lateral wall as an additional safeguard.¹⁰⁹ This wall probably also helped to filter the water: its east side was inclined so as to withstand the pressure of the water on the pool's west side (locus 56). After the latter filled up and the

sedimentation there sank, the surplus filtered water would have passed over the wall into the east side (locus 58), which did not possess a staircase.

To summarize, not all the reservoirs with stairs were ritual baths; rather, most served as cisterns and as sources for potters' clay. The stairs had both a structural use—to stabilize the reservoir walls—and a functional one, to facilitate the collection of clay. The large reservoirs at Qumran can, thus, be explained very well without the need to suppose that they were ritual baths.

We now turn to the question of whether the pools with stairs satisfy the *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, never through an interceding sedimentation basin. The water in the reservoirs of Qumran, on the other hand, flowed down the mountain and is what in Rabbinical literature is called “drained water.”¹¹⁰ While such “drained water” does not in and of itself disqualify the *miqveh*, the fact that it arrives in the pool after 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 is led through a built channel (in contrast to spring water, which purifies even when it advances by trickles).¹¹¹ All these reservoirs suffer from another *halakhic* flaw, since they are preceded by large sedimentation basins. For some reason, these basins were also identified as ritual baths by some scholars.¹¹² However, the sedimentation basins, whose actual purpose was to remove silt and clay from the incoming rainwater, disqualified the reservoirs from serving as ritual baths. The reason for this is that from a

¹⁰⁶ See Galor 2003: 298.

¹⁰⁷ Our examination of this reservoir has shown beyond doubt that loci 91 and 85 were, in fact, one large pool (*contra* Strobel 1972: 60–1). Furthermore, we discovered, following an excavation carried out in the northeast corner of locus 91, that the staircase did not continue along the entire length of the reservoir. In fact, we found the last stair at a distance of 1.6 m from the north wall. This stair created a large pool, 10.7 by 4.7 m and 5.4 m deep, with a total capacity of 292 m³. Here, again, Wood was mistaken, claiming that its capacity was only 263 m³ (see B.G. Wood 1984).

¹⁰⁸ See Galor 2003: 299.

¹⁰⁹ Here, again, we cannot agree with Hirschfeld 2003:

22–3, who posits the existence of a second floor above this pair of pools. Rather, the fact that it is long and narrow is due to its location inside an existing structural complex and a desire to avoid causing other parts of the building to collapse.

¹¹⁰ *M. Miqw.* 1:4.

¹¹¹ *M. Miqw.* 1:7. See also Shenberger 1974, 62–3.

¹¹² See above, n. 98. This reasoning, which we, of course, cannot accept, would lead to the conclusion that reservoir locus 119 could also have been a ritual bath, since it possessed a small staircase on its north side that facilitated access to the bottom.

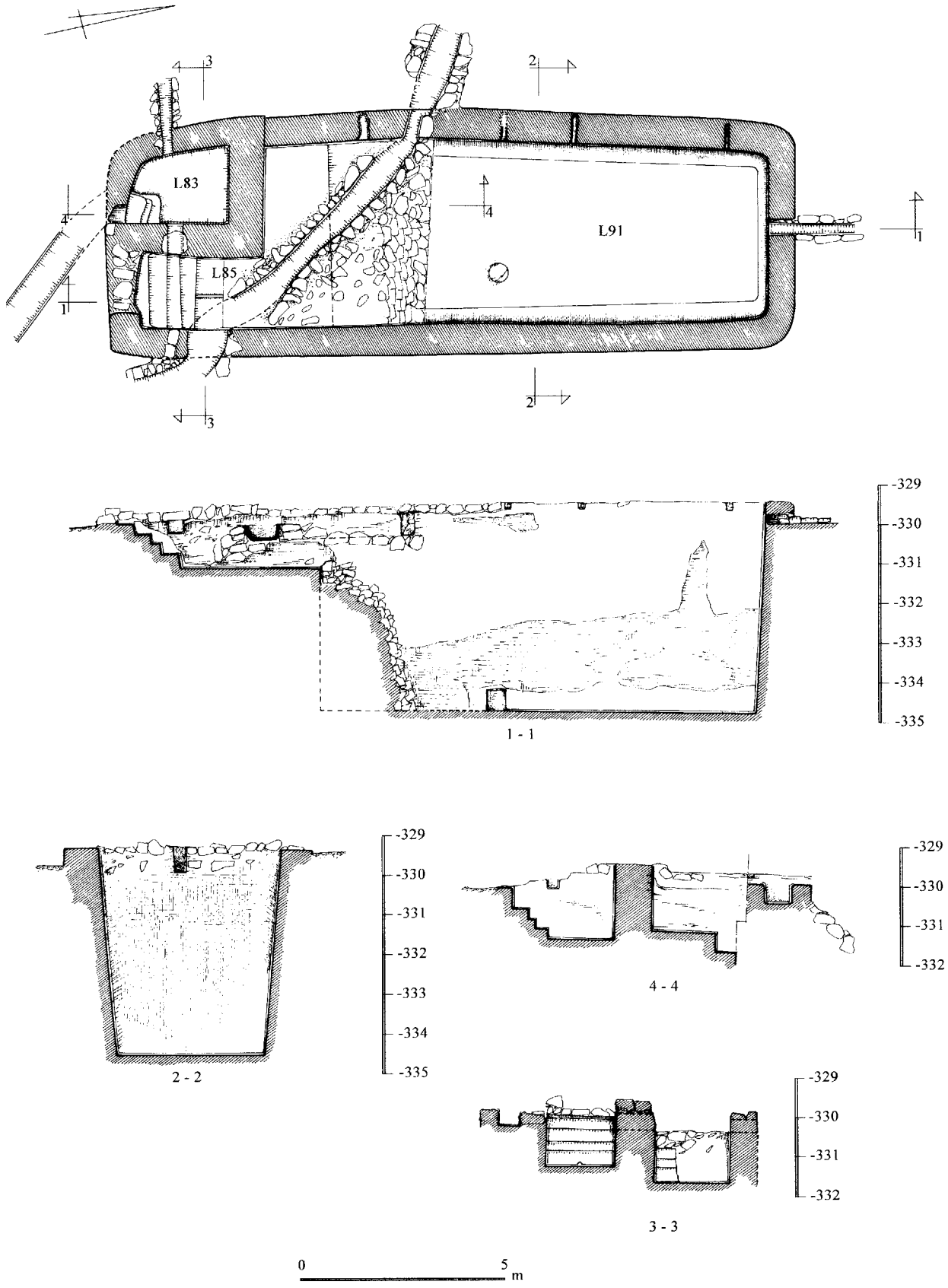


Fig. 3.28. Plan and cross sections of locus 91.

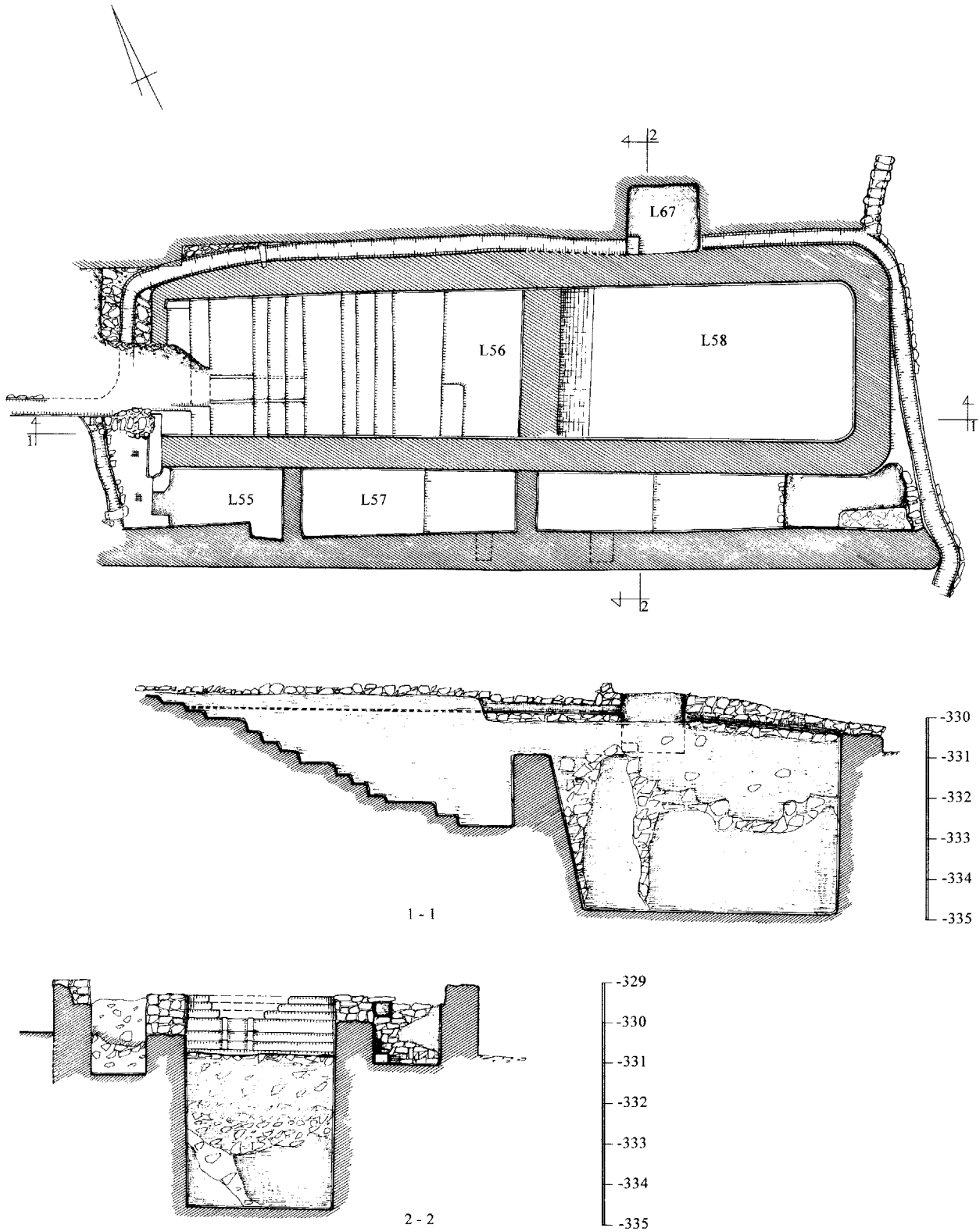


Fig. 3.29. Plan and cross sections of loci 56/58.

halakhic point of view, they are vessels and using a vessel with a capacity of more than three “log” (about 1.5 l) disqualifies a ritual bath and turns its contents into “drawn water.”¹¹³

We, therefore, conclude that the large reservoirs with stairs at Qumran do not have the structure of ritual baths and that their staircases were not constructed for the purpose of bathing. Furthermore, the water in them was “drawn water,” unfit for ritual purification. On the other hand, we do believe that there were two or three pools with stairs which may, indeed, have been ritual baths. These are locus 68, in which rainwater was collected directly; locus 138, which was filled by water that did not go through a sedimentation basin; and locus 118, which was at least partly filled with rainwater from the building. Despite all the *halakhic* reservations mentioned above, these may possibly have been ritual baths used by the potters. Reservoir loci 48–49 was not a ritual bath; rather, we believe that it functioned as a store of clay for the pottery industry.

The Reservoirs and the Production of Pottery

It is an open 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 western building (locus 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 at the site over a considerable period of time whose products were sold in the entire area, including in Jericho. It certainly was not a mere “workshop” catering to the needs of a score of local inhabitants.¹¹⁴ Since 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, not only in Jerusalem and the Temple, but everywhere in the Jewish world. This had far-reaching consequences for everyday life and the material culture, pottery being a major component of the latter. The laws concerning clay vessel purity and impurity appear in the Pentateuch.¹¹⁵ 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.¹¹⁶ An unclean clay vessel cannot be purified by immersion in a ritual bath and must, therefore, be broken to make it unusable.¹¹⁷ 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.¹¹⁸ Before firing, clay vessels are considered as earthen vessels, which, like stone vessels, do not become unclean.¹¹⁹

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. They were “unrefined people,” according to the Rabbis, suspected of being of impure habits, and were, thus, carefully supervised.¹²⁰ Because potters were such “unrefined” people, the Rabbis were quoted as saying that a father should not teach his son the potter’s trade because it is a profession of robbers.¹²¹

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 Mishna 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 he

¹¹³ Shenberger 1974, 63; Reich 1990, 30–3.

¹¹⁴ The large amounts and 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.

¹¹⁵ Lev 11:33–4; 15:12.

¹¹⁶ Num 19:15; *m. Kelim* 10:1–3.

¹¹⁷ Lev 11:33.

¹¹⁸ *M. Kelim* 4:4.

¹¹⁹ *M. ’Ohal.* 5:5.

¹²⁰ *M. ’Ed.* 1:14; *t. ’Ohal.* 5:11; *t. Parah* 4:13–4.

¹²¹ *B. Qidd.* 82a: “Abba Guryan of Sadyan said in the name of Abba Gurya: A man should not teach his son to

must ritually immerse himself and spend the night next to the kiln.”¹²² While this law concerns a guilt offering, whereas 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],”¹²³ there can be 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 for the Temple priests.

Clearly, then, pottery production, in particular during the stages following firing in the kiln, demands that workers purify themselves in a ritual bath. We find this also in the production of olive oil and wine; since there, too, the workers were suspected of neglecting the laws of ritual purity, they were supervised by the owners of the oil and wine presses: “Rabbi Me’ir 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 Shim’on 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.”¹²⁴ R. Me’ir only requires that the owner bring his workers into the *miqveh*; for R. Yossi, this is not enough—he demands that the owner supervise his workers until they have ritually bathed; R. Shim’on 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 quote deals with oil and wine production, but is indicative of the strictness with which the laws concerning ritual purity were observed in the Second Temple period. Adjacent to agricultural mansions where oil and wine were produced, ritual baths have been found.¹²⁵ Wine, oil, and foods such as date honey were produced

in ritual purity, and this was certainly true of the production of the vessels in which these foods were stored.

Pottery production at Qumran began in the Hasmonaean period; the few ritual baths on the site may therefore have been used by the various craftsmen working there. Ritual bath locus 138 was built later and served the potters working on the site’s western half and ritual bath locus 68 was used by the workers who were producing date honey in the nearby press. Locus 118 was constructed during the Hasmonaean period and may have served either as a ritual bath or as a bathing pool. We see that each of the three ritual baths can 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 we have already mentioned, 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 reservoirs on the south side of Qumran, which have been ascribed 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 which can justify the motivation behind both the size of the reservoirs and the sophisticated water supply system.

We must mention another important fact that has been overlooked by those who have worked on Qumran. Qumran is the only site in all the land of Israel which, in the Second Temple period, got most of its water from floodwater that flowed in stream gorges and collected the layer of erosion that was sunk in them. In these streams sank the clay that was used in ancient times in the pottery industry. Sites like Masada, Alexandrion-Sartaba, and Hyrcania, also received their water from run-of-water but not from the streams where

become a donkey-driver, a camel-driver, a potter, a shepherd or a shopkeeper, for their trade is the trade of a robber.”

¹²² *M. Parah* 5:1. See also *t. Parah* 5:1.

¹²³ *M. Parah* 5:1.

¹²⁴ *M. Tehar.* 10:3.

¹²⁵ Ritual baths have been found in the industrial area of the Hasmonaean palaces at Jericho (see Netzer 2002a); and in the agricultural settlement at Qalandiya (Magen 1984;

Magen et al. 2004, 29–144). It would appear that such observance of ritual purity can also be found among the Samaritans; see Y. Magen, “The *Miqvaot* in Qedumim and the Purification Standards of the Samaritans.” *Cathedra* 34 (1985): 15–26 [Hebrew]; id., “The Ritual Baths (*Miqva’ot*) at Qedumim and the Observance of Ritual Purity among the Samaritans.” In: Manns and Alliata 1993, 181–92.

the clay sank. From this it follows that Qumran is a unique site that became a center for collecting clay for the pottery industry. In years that were rainy and in which the streams flooded, the quantity of clay collected in the pools of Qumran was beyond the site's production ability for pottery vessels. In these years, we can assume that clay was transferred to other production centers, such as Jerusalem, Jericho, or other sites where pottery vessels were made.

G. Disposal of Animal Bones

It is certainly no secret that whenever archaeologists are at a loss to explain a building or some other find they tend to look to religion or cult for salvation. This is a rather common ploy for the pre-historic periods, 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. Perhaps because Qumran was from the beginning considered to be the headquarters of a unique dissident Jewish sect, any unusual feature which could not be explained in everyday terms imme-

diately 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, mostly beneath the main building. The piles of bones were found both by de Vaux and in our renewed excavations (fig. 3.30).¹²⁶ The bones were found buried in the ground or stuffed into jars and cooking pots, some of them undamaged. The pots were covered with a small bowl or plate and were on occasion found upside down, with the mouth of the vessel on the bottom. De Vaux dated the buried bones to periods IB and II.¹²⁷ In our renewed excavations, vessels with bones dating from the Hasmonaean 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 which de Vaux found were analyzed by F.E. Zeuner, who identified them as belonging to sheep, goats, lambs, kids, cows, and calves.¹²⁸ The same animal bones 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.¹²⁹ Laperrousaz asked himself why



Fig. 3.30. A cooking pot with bones from the paved square.

¹²⁶ De Vaux 1973, 12–4.

¹²⁷ De Vaux 1973, 13.

¹²⁸ F.E. Zeuner, "Notes on Qumran." *PEQ* 92 (1960): 28–30.

¹²⁹ De Vaux wrote 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 points to a religious act. He further claimed that the bones may have been the remains of sacrifices, although he admitted he had no proof

of this (de Vaux 1973, 12–4). Zeuner agreed with de Vaux that burying animal bones was a ritual act which replaced actual sacrifice (Zeuner 1960). Magness, too, ascribes a religious significance to the burial of bones; see J. Magness, "Communal Meals and Sacred Space at Qumran." In: *Shaping Community: The Art and Archaeology of Monasticism*. BAR.IS 141 (Edited by S. McNally; Oxford: Archaeopress, 2001), 20; Magness 2002, 113–26.

the inhabitants insisted on burying the bones inside the site instead of finding a more convenient spot outside. He argued that the bones were not placed there intentionally; rather, they were left where the inhabitants had their holiday feast because they were reluctant to engage in work on the holiday. He, furthermore, suggested that some participants in the feast did not receive permission to enter the refectory and had, therefore, no choice but to eat outside. After the meal was over, everyone put 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 holiday that the site was attacked and the locals never had the chance to remove the leftovers. Later, the abandoned site was covered with mud. He hypothesized that Qumran was attacked twice, once before 63 B.C.E. and once in 68 C.E.¹³⁰

Our motive for presenting Laperrousaz's explanation in such detail is not to ridicule it but to show the pernicious effects which 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 faced with explaining 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 throughout the site, including next to building walls. They were not, incidentally, covered with mud; they were disposed of intentionally deep in the ground.

Another idea recently proposed by Hirschfeld was that the buried bones were used for improving the fertility of the soil.¹³¹ We also have difficulties in agreeing with Humbert's suggestion that the bones are the remains of sacrifices.¹³² He argues that in the site's northwest courtyard, in the vicinity of the water channel feeding the reservoirs, there was an altar before ritual bath locus 138

was constructed. It was there that members of the sect would bring their sacrifices. He also claimed, contrary to the opinion of de Vaux and Zeuner, who had analyzed the bones, that most of them were burnt.¹³³ This is patently untrue; most of the bones found both by de Vaux and in our excavations were cooked or broiled. Humbert concludes as follows: "À l'époque, tout le monde semblait d'accord pour y reconnaître les vestiges de sacrifices."¹³⁴ Furthermore, he identifies columns unearthed in locus 77 as altars and the room south of loci 86 and 89 as a repository for gift offerings.¹³⁵

Thanks to the extensive excavations carried out on Mount Gerizim, where hundreds of thousands of bones of sacrificial animals were found, we now know for certain the appearance of bones from sacrifices performed according to the commandments of the Pentateuch. All the bones found on Mount 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 thrown over the wall or piled up somewhere inside the sacred precinct. In the Mishna, it is said that bones are an ornament to the altar.¹³⁶ The bones at Qumran are very different from those found at Mount Gerizim, having been cooked and not burnt, and, thus cannot be the bones of sacrificial animals.

During the Second Temple period, the cult came to be practiced exclusively in Jerusalem. The Hasmonaean kings not only abolished pagan rituals but also any cult of Yahweh outside of Jerusalem. Thus, they destroyed the temple of Yahweh on Mount Gerizim, a temple whose rituals were in accordance with the commands of the Pentateuch.¹³⁷ Even the Paschal lamb, a private sacrifice which could be performed anywhere, was now required to be slaughtered on the Temple Mount and eaten in Jerusalem.¹³⁸ The Mishna explicitly mentions Jerusalem as the only place where sacrifices were permitted: "When they entered

¹³⁰ E.-M. Laperrousaz, *Qumrân: L'établissement essénien des bords de la Mer Morte: histoire et archéologie du site* (Paris: Éditions A. & J. Picard, 1976), 218–9.

¹³¹ Hirschfeld 2003: 11–2. We concur with Eshel's comment (Eshel 2003: 52) that the fact that most bones were found inside clay vessels makes it highly unlikely that they were buried with soil improvement in mind.

¹³² See Humbert 1994: 187–9.

¹³³ Humbert 1994: 188.

¹³⁴ Humbert 1994: 188.

¹³⁵ Humbert 1994: 199–203.

¹³⁶ *M. Tamid* 2:2.

¹³⁷ See Magen 1993a and 2000.

¹³⁸ *M. Pesah.* 5:5–10.

Jerusalem the local altars were forbidden; they no longer had permission [to sacrifice]; it [Jerusalem] became the main sanctuary.”¹³⁹ 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 the beginning of the first century B.C.E., when the Hasmonean kingdom was at its height, anyone would sacrifice at Qumran rather than in Jerusalem. Even if we were to accept the possibility that the Paschal lamb may have been 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, thus, 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, however, is a wrong approach. The Judaean desert has always been home to numerous predators. To this day, leopards, hyenas, jackals, and foxes roam the area, and lions existed here down to the Middle Ages; birds of prey—vultures, eagles and others—lived here as well. In this arid region where food is scarce, any settlement whose inhabitants would throw 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.

If leftovers had 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 go out after dark. The clay vessels prevented even animals with a sharp sense of smell from detecting the bones, especially since 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 dump, had been burnt: if they had not 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.¹⁴⁰

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

H. *Burial at Qumran: “A Settlement of Graves”*¹⁴¹

As is the case with every other aspect of Qumran, burial at the site has been treated as a unique feature of the sect and the cemetery has been given the name “the Essene cemetery.” East of the site, there was a large burial field (with an area of over 20 dunams) in which more than 1,200 graves were dug into the marl.¹⁴²

An examination of the burial possibilities in the area revealed that this was the most reasonable

¹³⁹ *M. Zebah*, 14:8.

¹⁴⁰ This position has also been taken by Cansdale. See L. Cansdale, *Qumran and the Essenes. A Re-Evaluation of the Evidence*, Tübingen 1997, 160.

¹⁴¹ *M. ’Ohal*, 16:3.

¹⁴² On the cemetery at Qumran and its ascription to the Essenes, see de Vaux 1973, 45–8; É. Puech, “The Necropolises of Khirbet Qumrân and ‘Ain 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): 35–50; R. Hachlili, “Burial Practices at Qumran.” *RevQ* 16

(1993): 247–64. An updated account of the number of tombs at the site can be found in H. Eshel et al., “New Data on the Cemetery East of Khirbet Qumran.” *DSD* 9 (2002): 135–65, and a new discussion in “Reassessment of Controversial Studies on the Qumran Cemetery.” In: Humbert and Gunneweg 2003, 107–27; J. Zangenberg, “Bones of Contentment: ‘New’ Bones from Qumran Help Settle Old Questions (and Raise New Ones): Remarks on Two Recent Conferences.” *QC* 9 (2000): 51–76. See also the articles by Röhrer-Ertl and by Sheridan and Ullinger in this volume.

and, perhaps, the only spot where buried corpses would be neither washed away nor eaten by predators. The location also dictated the form which the burials took. The marl soil did not lend itself to digging large family mausolea which could be opened from time to time in order to bury an additional person. The kind of individual burial found here also suited the population at the site, first soldiers and then potters. Most of the people buried here throughout its history did not have their families with them, and, indeed, burial here was in single graves. The cemetery, which was perhaps in use as early as the Iron Age,¹⁴³ was located east of the site, protected from flooding, which would have exposed the corpses.

Was the burial style at Qumran unique to that site? We believe it was not.¹⁴⁴ Dug graves or, as they are more commonly called, “field graves,” have been in use from the dawn of history down to our own day and age. 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.¹⁴⁵ In antiquity, burial in the family mausoleum carried great prestige, but most people 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. Since most of the latter contained no objects of interest and were not located in areas of archaeological interest, they were not excavated. Because they did not survive, we cannot today posit with

any degree of confidence the proportion of field to hewn graves 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 Rabbinical literature there is recognition of the fact that field graves can get lost (“A field in which a grave has been lost”).¹⁴⁶ 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.¹⁴⁷ 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.”¹⁴⁸ Burial in the ground was, thus, not a unique feature of Qumran; rather it appears to have been a 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 three hundred 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.¹⁴⁹ Even if we assume that only four people died at Qumran every year, over a period of three hundred years that comes to a total of twelve hundred, very close to the number of graves found in the cemetery. This is, of course, a mere arithmetical game, but it shows that the order of magnitude of the cemetery is reasonable, even without taking into consideration bodies brought in from outside in caskets and burials in later times.¹⁵⁰

¹⁴³ This is only a conjecture since, so far, no Iron Age tombs have been found at the site itself or in its vicinity. We have to mention that the literary sources tell about the need to distance the graves from the settlement: “Carrion, graves and tanyards must be kept fifty cubits from a town” (*b. B. Bat.* 25a).

¹⁴⁴ On other Second Temple period tombs and cemeteries that bear a resemblance to those at Qumran, see, for example, those from Beit Safafa, in B. Zissu, “‘Qumran Type’ Graves in Jerusalem: Archaeological Evidence of an Essene Community?” *DSD* 5 (1998): 158–71; from ‘Ain Ghuweir in Bar-Adon 1989, 33–40; from Hiam es-Sagha in H. Eshel and Z. Greenhut, “Hiam El-Sagha: A Cemetery of the Qumran Type, Judaean Desert,” *RB* 100 (1993): 252–9. On Khirbet Qazone in Transjordan with its 3500 graves of this type, see the article by K.D. Politis in this volume and id., “Rescuing Khirbet Qazone: The Struggle to Save a Unique Nabataean Cemetery.” *Minerva* 13 (2002): 27–29, as well as J. Zangenberg, “The ‘Final Farewell’: A Necessary

Paradigm Shift in the Interpretation of the Qumran Cemetery.” *QC* 8 (1999): 213–8.

¹⁴⁵ A. Kloner, *The Necropolis of Jerusalem in the Second Temple Period*. Ph.D. Dissertation (Jerusalem: Hebrew University, 1980), 244–6 [Hebrew]; J. Patrich, “Graves and Burial Practices in Talmudic Sources.” In: *Graves and Burial Practices in Israel in the Ancient Period* (Edited by I. Singer; Jerusalem: Yad Izhak Ben-Zvi and Israel Exploration Society, 1994), 191–2 [Hebrew].

¹⁴⁶ *M. ’Ohal.* 17:5.

¹⁴⁷ *M. ’Ohal.* 15–18; *t. ’Ohal.* 15–17.

¹⁴⁸ *M. ’Ohal.* 16:2; *t. ’Ohal.* 16:1.

¹⁴⁹ It could very well be that Zias, who believes some of the graves are Bedouin, is right and the cemetery was in use in other periods as well; see J. Zias, “The Cemeteries of Qumran and Celibacy: Confusion Laid to Rest?” *DSD* 7 (2000): 220–53.

¹⁵⁰ De Vaux found wooden coffins in a number of graves; see de Vaux 1973, 46–7. We also found one such coffin.

The graves that have been excavated so far have mostly yielded remains of men and only a few women. We have no intention of becoming involved in the sterile dispute concerning the women buried here.¹⁵¹ If our hypothesis as to the site's nature during the Second Temple period is correct—that it was a fortress and then a pottery factory—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 may have lived a celibate life.¹⁵² During the renewed excavations at the site, 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, another four contained the bones of adults ranging in age from twenty-five to sixty, and one contained a wooden coffin, perhaps an indication that it had been brought from outside the site. In two of the graves without bones, there were fourteen jars with lids (fig. 3.17). These contained residue of an organic material, probably date honey.¹⁵³ The jars date from the end of the second or the beginning of the first century B.C.E.

Why were these jars buried in field graves in the cemetery of Qumran? A possible explanation is 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 Hasmonaean period and that the authorities had prepared for this eventuality by digging more graves than were eventually 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. Such a hypothesis would explain the way the graves in this area are ordered and would provide further evidence for Qumran's having been a military fortress during

its first phase of existence in the Second Temple period. The buried jars prove that the cemetery already existed at the beginning of the Hasmonaean period and, perhaps, even earlier, in the Iron Age.

The jars buried in the cemetery are quite interesting. The Pentateuch 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."¹⁵⁴ The jars found at the site had "fastened lids" (*tzamid patil*) on them but still had become ritually unclean and were buried outside the site. We assume that these jars had become ritually unclean despite the lid, probably through contact with a dead person, which brought about the most severe grade of ritual impurity.

I. Residential Quarters and the Number of Inhabitants at Qumran

The issue of the population of Qumran and where they resided provides another typical example of the way the scientific community has dealt with the site and interpreted the finds there. Some scholars have argued that Qumran was home to several hundred members of the Essene sect.¹⁵⁵ Others attempted to calculate the number of inhabitants according to the size of the cemetery,¹⁵⁶ the water reservoirs,¹⁵⁷ or the rows of people who could sit in the refectory (locus 77).¹⁵⁸ Most scholars' calculations have resulted in numbers between 200 and 250. Surveys conducted in the caves around Qumran led Patrick to conclude that sect members neither resided in them, nor in tents. Rather, he proposed that the inhabitants of Qumran resided on the second floor of the

¹⁵¹ On this issue see, for example, L.B. Elder, "The Woman Question and Female Ascetics among the Essenes," *BA* 57 (1994): 220–34; J. Taylor, "The Cemeteries of Khirbet Qumran and Women's Presence at the Site," *DSD* 6 (1999): 285–323; cf. also Zias 2000: 220–53 and the discussion of prime material by Röhrer-Ertl, and Sheridan and Ullinger in this volume.

¹⁵² Scholars have often ignored the fact that Josephus writes about two different groups of Essenes, one whose members did not marry (*J.W.* 2:119–21; *Ant.* 18:21) and another whose members did (*J.W.* 2:160–1).

¹⁵³ The contents of the jars were examined by Prof. Steve Wiener and Dvori Namdar of the Weizmann Institute.

¹⁵⁴ Num 19:14–5.

¹⁵⁵ De Vaux claimed that at its zenith the site and the surrounding caves were home to more than two hundred sect members; see de Vaux 1973, 56–7 and 86; Laperrousaz 1976: 99–107.

¹⁵⁶ J.T. Milik, *Ten Years of Discovery in the Wilderness of Judaea* (Translated by J. Strugnell; London: SCM, 1959), 59.

¹⁵⁷ B.G. Wood 1984: 58 and table 3, where he claims that at its zenith 312 people lived at the site.

¹⁵⁸ Broshi 1992b: 61–2, rejects most calculations and comes up with one of his own: Since in the assembly hall the 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.

building and that they numbered between 50 and 70 men.¹⁵⁹ Humbert considered Qumran to be a cult site, a kind of temple which members of the sect visited on pilgrimage and where they sacrificed. He, therefore, assumed that only a small number of “temple servants,” say ten or fifteen people, lived permanently at the site. He also agreed that no sect members lived in caves or tents.¹⁶⁰

Eshel and Broshi realized that the site could not contain hundreds of residents and, following a survey and some excavations they conducted on its north side, they went back to de Vaux’s suggestion that the sect members lived in the marl caves and in tents.¹⁶¹ So, the problem was solved: The hundreds of sect members lived on the north side of the site in tents, in the first Jewish monastery of its kind; they lived in caves and would come to the site on occasion to participate in a meal in the refectory (locus 77), where they sat in five rows and ate their bread, while other candidates ate standing.

Indeed, the site of Qumran was too small to accommodate hundreds of residents. Its capacity was about twenty men, thirty at most. But had the leaders of the sect 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 walled in the southern part of the plateau (an area of some 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 occasional passersby stayed, in particular shortly before the destruction of the Second Temple (see below), and not members of the sect. One gets the impression that scholars describe the people of Qumran living 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 every Sunday for prayer.

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 asks how it was possible to feed hundreds of people simultaneously (since they were supposed to have all eaten together in the refectory). In order to provide two meals a day for 250 adult men, an enormous amount of foodstuffs, ovens, and cookware was needed. For baking and cooking a single meal, some thirty 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 as well as thousands of cooking pots. In fact, no such quantities of pots have been found and only a small number of ovens. So, where did the inhabitants cook 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, the so-called laundry, and other arguments of this type. At Mount Gerizim, hundreds of ovens were found dating merely to the last stage of the site’s existence, when John Hyrcanus I laid siege to it.¹⁶² In each building, between five and twenty ovens were found; these served the city’s defenders, who lived in both public buildings and private residences during the siege, which lasted a few months. At Qumran, we should have 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 live, where did they eat, and how were their meals cooked?

J. *The Pottery Industry at Qumran*

A quantitative comparison of the pottery found at Qumran with that found in numerous other Second-Temple-period sites such as agricultural

¹⁵⁹ J. Patrich, “Khirbet Qumran in Light of New Archaeological Explorations in the Qumran Caves.” In: *Methods of Investigation of the Dead Sea Scrolls and the Khirbet Qumran Site: Present Realities and Future Prospects*. ANYAS 722 (Edited by M.O. Wise et al., New York: Academy of Sciences, 1994), 93–4.

¹⁶⁰ Humbert 1994: 175–6.

¹⁶¹ De Vaux 1973, 56–7, followed by Eshel and Broshi; see H. Eshel and M. Broshi, “The Archaeological Remains on the Marl Terrace around Qumran.” *Qad* 30/114 (1997) 129–33 [Hebrew]; M. Broshi and H. Eshel, “Residential Caves at Qumran.” *DSD* 6 (1999): 328–48.

¹⁶² Magen 2000: 91; 1993a.

settlements, large villages, and even urban settlements such as Mount Gerizim, immediately brings to light the differences between them. At Qumran, the amount of pottery, and especially the number of unbroken vessels, is greater by an order of magnitude from that found at any other excavated site of comparable size from this period or any other period, for that matter. Some scholars have explained this fact by hypothesizing the existence here of a large Essene community, numbering in the hundreds, that 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 storage room (loci 86 and 89) south of the refectory.¹⁶³

Qumran possessed a large plant for the production of pottery. The kilns found at the site, the pools for steeping the clay, the large water reservoirs, 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. It would appear that the beginnings of this large-scale industry go back to the first century B.C.E. and that it continued to be in use until the site was destroyed in the year 68 C.E.¹⁶⁴ In addition to the large amounts of industrial waste, the site also shows a rather wasteful use of unbroken vessels, mainly for disposing of animal bones but also as supports for brick walls built on the east side of Qumran. Thus, for example, in the southwest corner of locus 45, a jar was found in the middle of the brick wall (fig. 3.31). Other vessels were found underneath other walls in this area.

Here, we should point out that so 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 contemporary site. At Nabi Samwil, pottery plants from two different periods were found, one dating

from the Umayyad period after the Byzantine monastery was abandoned and the other from the Mameluk period after the Crusader fortress was abandoned.¹⁶⁵ In both cases, the pottery plant was established on an abandoned site. Pottery plants must have been very unclean and unpleasant places due to smoke from the kilns, stores of firewood, potsherds lying about everywhere, surfaces where vessels were put out to dry, ubiquitous damp, and embers. That is the impression we gained while excavating Qumran. In short, a pottery plant is hardly the convenient and clean place one would look for when seeking to establish a secluded community living in ritual cleanliness.¹⁶⁶ In our view, it is inconceivable that 250 people could live here, at a pottery plant, in addition to the fifteen or twenty workers engaged in the actual production.

When was the pottery plant 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.¹⁶⁷ The huge amounts of clay vessels and production waste make this claim untenable. We are, thus, led to the conclusion that the pottery produced here was marketed elsewhere and was not only produced for local consumption.¹⁶⁸ All the elements of the site, including the reservoirs and the water supply system, were geared to this industry.

We believe that the pottery industry here was a result of the realization that the clay which entered with the incoming water and accumulated on the bottom of the reservoirs consisted in fact of potters' clay and could be put to profitable use.¹⁶⁹ In the renewed excavations at the site, blocks of this clay were found in the eastern dump, while huge deposits of this material—enough for producing thousands of clay vessels—were discovered on the bottom of reservoirs loci 71 and 58.¹⁷⁰ This clay was used to test the possibility of firing the material (fig. 3.32).

¹⁶³ About this storage room and the vessels found in it, dated to the mid-first century B.C.E., see de Vaux 1973, 12.

¹⁶⁴ De Vaux 1973, 4–5, points out that he found no evidence that the kilns had been in use in the Iron Age. 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 1997b: 124; Magness 2002, 73–104).

¹⁶⁵ On the pottery industry at Nebi Samwil, see Magen and Dadon 1999: 68, 76–7; Magen and Dadon 2003: 128–30.

¹⁶⁶ We just have to mention what has been written in the literary sources: “That no kilns be kept there (in Jerusalem)—on account of the smoke” (*b. B. Qam.* 82b); “Rabbi Nathan says kilns must be kept fifty cubits from a town” (*t. B. Bat.* 1:10).

¹⁶⁷ Magness 2002, 75, 116.

¹⁶⁸ Zangenberg 2003, 281–8; Zangenberg 2004, 170–87.

¹⁶⁹ See above, n. 21.

¹⁷⁰ See Galor 2003: 299, 303.

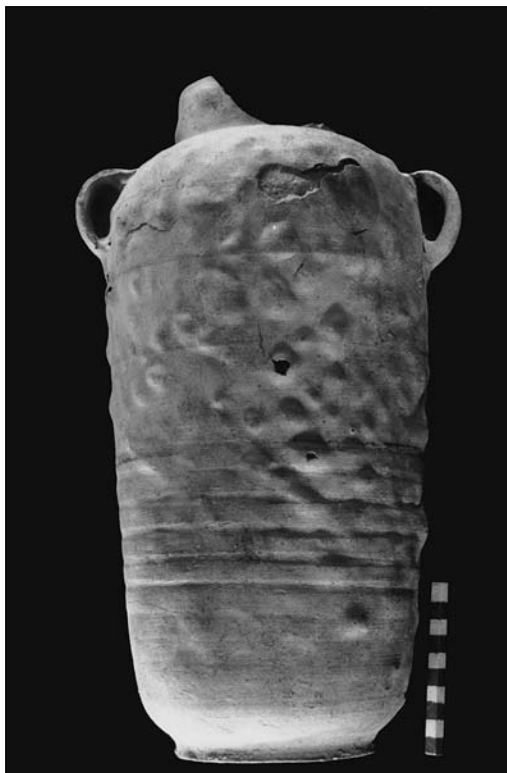


Fig. 3.31. A jar that was found inside the brick wall in the corner of locus 45.

The aridity and great heat at Qumran are real advantages where the production of pottery is concerned. They reduce quite significantly the time newly-made vessels need to be dried before being fired. They also make it possible to produce unfired earthenware vessels made just with clay and straw or reeds.¹⁷¹ Such vessels were very useful for storing grain, and as birdcages, hencoops, beehives, etc. Such earthenware vessels were still in use in Maimonides' day,¹⁷² and can, in fact, be seen in Arab villages to this very day.¹⁷³

K. Architecture and Construction Phases

Our final report will contain a detailed description and analysis of the site's architecture. Here we shall limit ourselves to pointing out certain

new directions that assist us in understanding the site. In what follows, we shall ignore de Vaux's original stratification and chronological classification; most scholars agree that these were based mostly on the coins he found and not on any additional solid archaeological evidence.¹⁷⁴

Phase A: *The Iron Age (Eighth – Sixth Centuries B.C.E.)*

The Iron Age settlement at Qumran was established toward the end of the eighth century B.C.E. and existed until the destruction of the First Temple. Few remains of construction in stone were found; the bulk of the Iron Age remains consisted 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 which has not

¹⁷¹ Magen 2002, 138–41.

¹⁷² Maimonides, *Commentary to Order of Taharot*, Tractate *Kelim* 1–6 (p. 103) [Hebrew].

¹⁷³ Y. Hirschfeld, *The Palestinian Dwelling in the Roman-Byzantine Period*. SBF.CMa 34 (Jerusalem: Franciscan Printing

Press and Israel Exploration Society, 1995), 135–7; O. Bar-Yosef and E. Ayalon, "Chalcolithic Ossuaries—What Do They Imitate and Why?" *Qad* 34/121 (2001): 38–40 [Hebrew].

¹⁷⁴ On de Vaux's stratification, see de Vaux 1973, 1–45.



Fig. 3.32. New pottery vessel made of clay from pool 71.

survived. De Vaux's reconstruction of the Iron Age structure has been shown to be invalid; we know today that the Iron Age village covered a much larger area than he had supposed. We also cannot accept his claim that the round cistern (locus 110) was built in the Iron Age. We found two building stages there, one dating from the Hasmonaean period (the first century B.C.E.) and the second from the time when the extended water supply system was constructed.

Phase B: *The Hasmonaean Period, Beginning of the First Century B.C.E.* (fig. 3.33)

At this time, a solidly-constructed square building, was erected around a central courtyard. A square tower was built on the building's northwest corner and, probably, a second, smaller one on the northeast corner. The main entrance into the building was located on the north side. It

consisted of two openings in the north wall of the hall east of the tower (loci 38 and 41). Another opening, in the building's west wall, led to the western water supply building, which constituted a separate unit. South of the courtyard and opposite the main entrance was a *triclinium* fronted by a portico with two columns. A wooden spiral staircase built around a stone pilaster on the tower's southwest corner led up to the second story. The building as a whole is practically identical to the Twin Palaces in Jericho¹⁷⁵ and similar to a building type of Greek origin that was in common use in the Land of Israel in Hellenistic times.¹⁷⁶ More than a century before this building was erected at Qumran and the Twin Palaces at Jericho, practically identical structures around courtyards were built in a Hellenistic city on Mount Gerizim. Buildings of this type were in use both as private residences and as constituents of palaces and fortresses.¹⁷⁷

¹⁷⁵ E. Netzer, *Hasmonaean and Herodian Palaces at Jericho. Final Reports of the 1973–1987 Excavations. Vol. 1: Stratigraphy and Architecture* (Jerusalem: Israel Exploration Society, 2001), 308–11.

¹⁷⁶ R.C. Rider, *Ancient Greek Houses* (Chicago: Argonaut,

1964), 46–8; J.W. Graham, "Origins and Interrelations of the Greek House and the Roman House." *Phoenix* 20 (1966): 3–31.

¹⁷⁷ At Mt. Gerizim the public buildings (citadels and fortresses) were constructed, as were private residences, in

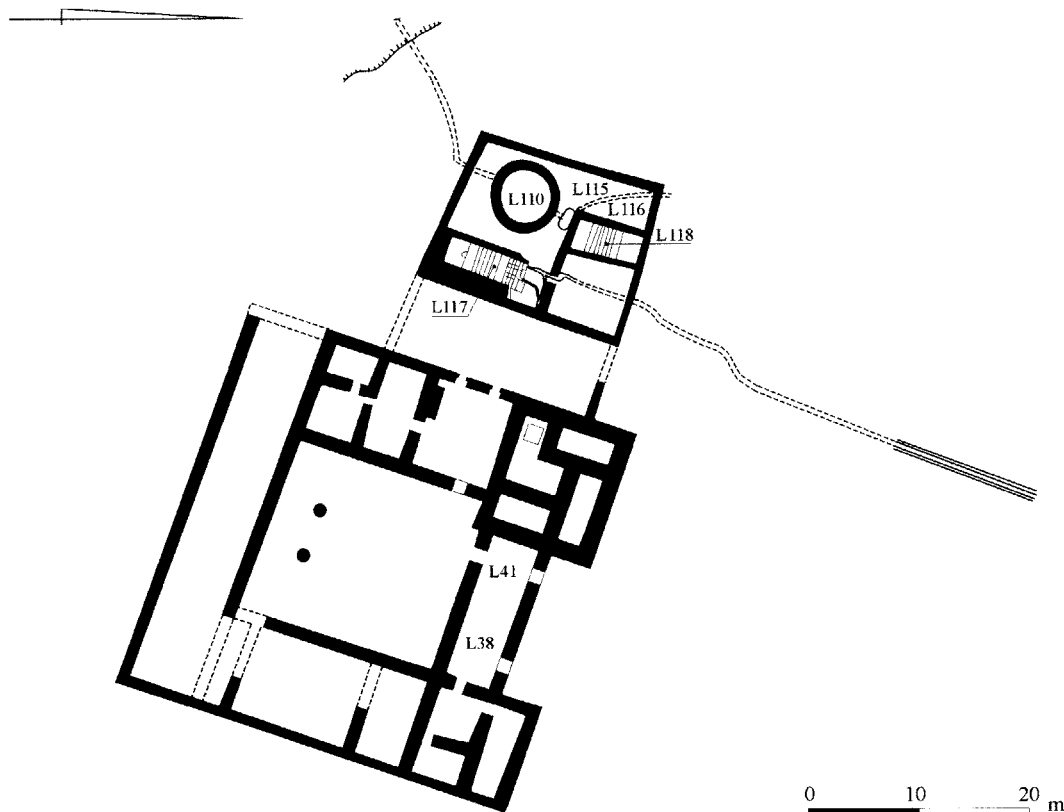


Fig. 3.33. Plan of Phase B: The Hasmonean military post.

The building at Qumran was built in a Hellenistic style using Hellenistic architectural elements such as column drums, wrought doorposts, dressed stones, and more. Identical elements found at two other sites along the Dead Sea shore—Rujm el-Bahr and Khirbet Mazin—include dressed stones, painted plaster, masons' marks, plastered cisterns, and a basic construction technique which is completely identical to that of Qumran, a fact which P. Bar-Adon has already remarked.¹⁷⁸

Qumran was neither a rural villa nor a palace; had those been the site's purpose, the Hasmonaeans would have built it closer to the shore, where there was abundant vegetation and sweet water, as at 'Ain Feshkha.¹⁷⁹ Rather, it was a military post responsible for the security of the Dead Sea shore and constituted part of the defense and surveillance array of the Hasmonaeans along the Dead Sea. Qumran, under command of the military headquarters at Hyrcania, was not

the form of rooms arranged around a central courtyard. Most also possessed a large main reception hall. The fortress in the southern quarter, the two buildings on either side of the south gate (Area B), the eastern fortress, building E1, and the southeastern fortress inside the sacred precinct, were all constructed around a central courtyard and all possessed a main reception room. Architectural elements found in the southeastern fortress of the sacred precinct would appear to point to the existence of a portico with columns, located opposite the reception room; see Magen 2000: 77–95.

¹⁷⁸ Bar-Adon 1981. 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 Hasmonaeans built Qumran for the Essenes, we are led to the inescapable conclusion that all three were built by the Hasmonaeans as part of an official project.

¹⁷⁹ On the site of 'Ain Feshkha, see de Vaux 1973, 60–90. We do not believe that there was any connection between the structure at 'Ain Feshkha and the building at Qumran during the first Hasmonaeans stage. The building at 'Ain Feshkha was constructed later than the main building at Qumran and probably served as a farmhouse for dates or other plantations watered by the springs near the Dead Sea shore.

expected to stop an enemy army, but only to warn of an impending attack, to supervise traffic on the Dead Sea, and, perhaps, also to utilize its natural resources (salt and asphalt), which possessed great economic value. Since it was a headquarters and not a fortress, it was built with the comfort of its personnel in mind: water reservoirs (perhaps also a swimming pool), comfortable quarters, a reception room, and, of course, a sturdy watch- and observation-tower. Qumran was the major Hasmonaean structure erected along the Dead Sea shore for the purpose of supervising traffic and connecting the main headquarters at Hyrcania with Machaerus and 'En Gedi.

Two separate structures were built at Qumran: the main building and the water complex to the west. Why were residence and water supply not united in a single structure? Why were the cisterns 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 cisterns and then erect buildings over them. Nor could the channeled water flowing in from the fault scarp be led into the building without the danger of flooding it. That is why the water supply was separated from the main building. The water complex to the west consisted of a round cistern 5.4 m in diameter and 6 m in depth with a capacity of 138 cubic meters (locus 110), and two pools with stairs (loci 117 and 118) with a capacity of 25 and 26 cubic meters, respectively. Rainwater from inside the site was channeled into reservoir locus 117, while the round cistern locus 110 and the pool with stairs north of it (locus 118) were fed by rainwater flowing from the plateau and the fault scarp, north and west of the site. At this phase, neither of the two aqueducts had been constructed, and the cisterns were filled only with rainwater from the site itself and 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.

Were the two reservoirs with stairs, ritual baths? Could half of the site's available water during this

phase have been set aside for ritual bathing by the military personnel living there, who were perhaps not even Jews?¹⁸⁰ They could certainly have been used for washing and relaxation and not necessarily for ritual bathing. Be that as it may, the only possible ritual bath at this phase would have been locus 117 as it was filled directly with water from the roof, with no sedimentation basin which, as was mentioned already, would have made the water unsuitable for ritual bathing.

Phase C: *The Hasmonaean Period, mid-First Century B.C.E.* (fig. 3.34)

It was in this phase that the central water supply system was built. As just mentioned, originally there was a round cistern (locus 110) and two pools with stairs (loci 117 and 118). To this were now added the aqueduct from Nahal Qumran, the wide aqueduct on the plateau which drained the water flowing from the scarp, and the channel that passed through the entire site distributing the water to the various reservoirs. What is surprising, is 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 items which can be dated (e.g., pottery or coins) necessarily belong to the last stage of use, not of construction. However, it is clear that during the Hasmonaean period, the water supply system underwent two building phases.

The major elements of the water supply system were, thus, added during the second phase, when the main building was already in use. Some of the new reservoirs were located inside the existing building and required modifications to it, i.e., the reception room to the south of the central

¹⁸⁰ It is quite conceivable that mercenaries manned some Hasmonaean fortresses, beginning in the reign of John Hyrcanus. A possible hint that such was the case may be found in the warning which Judah Aristobulus sent his mother

concerning military officers who may have intended to join the Nabateans; we cannot know if these officers were Jewish or foreign mercenaries; see Josephus, *Ant.* 13:409–15.

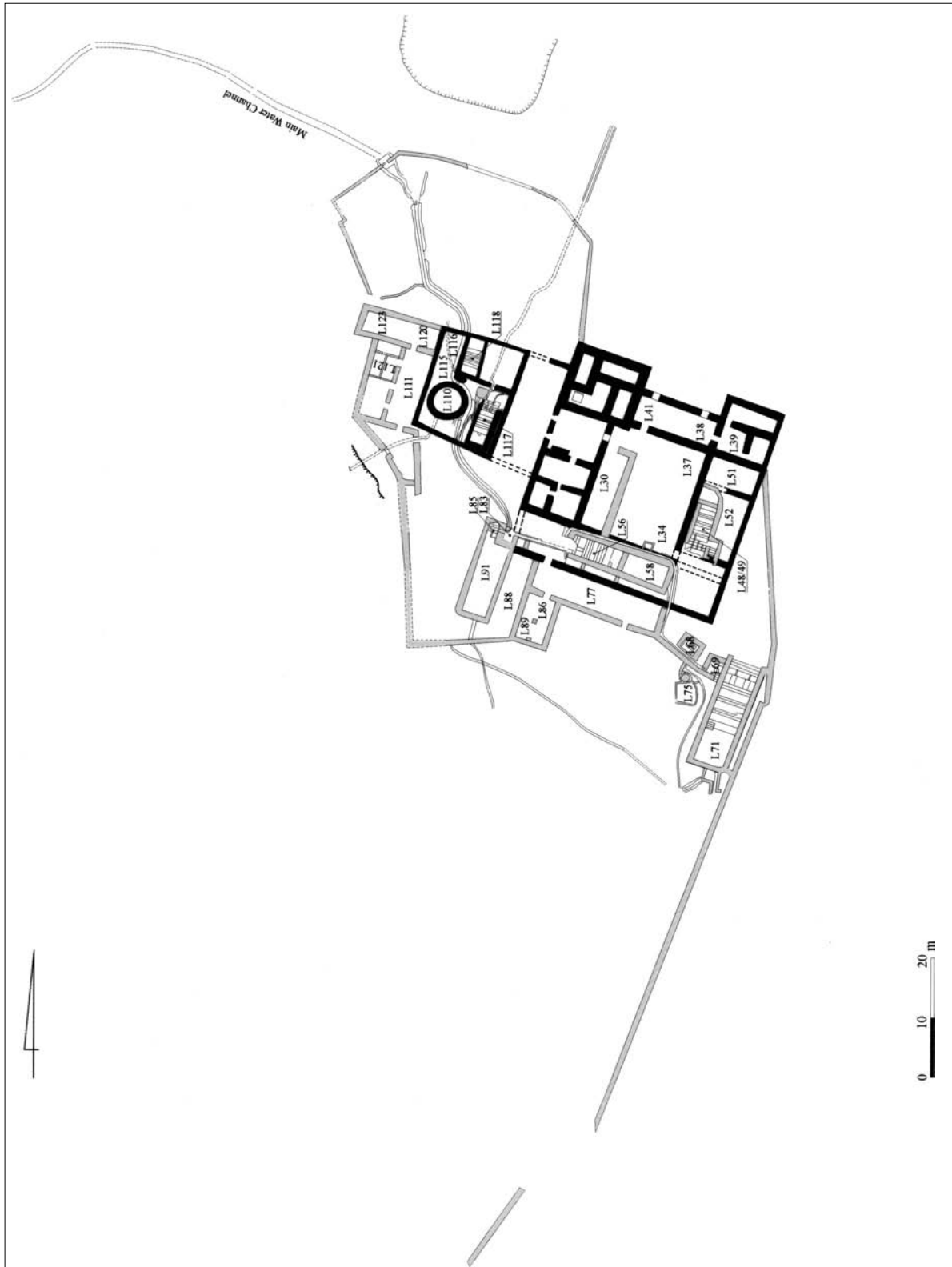


Fig. 3.34. Plan of Phase C: the water system.

courtyard with the two columns in front was now replaced by pools (loci 56 and 58). In place of the abolished reception room, a new one (locus 77) was added south of the existing site while next to it another room (loci 86 and 89) was shifted outside the building. Finally, a plaza with a pebble floor was added in front of it. This was also the phase when pool loci 71 and 91 were constructed. On reexamination, we believe that the cracked pool (loci 48–49) may also have been constructed after the reservoirs on the south side of the site had been completed. To this phase we also ascribe the construction of the site's eastern bounding wall and of the west wing, west of the round cistern. This wing (loci 111, 121, 120 and 123) was the pottery factory.

Why this enormous investment in increasing the capacity of the water supply system? De Vaux argued that this was done in order to meet the needs of the growing Essene community.¹⁸¹ This argument is untenable, since two of the pools were built inside the main building (pool loci 56 and 58, pool loci 48–49) and actually caused a reduction in the space available for residential purposes. And at any rate, the expansion of the water supply system took place in the Hasmonaean period, perhaps when it was still a military command post before the Roman occupation of 63 B.C.E. Certainly, the first stage of the water system was intended for the soldiers stationed at the site. It is quite possible that eventually the first three cisterns no longer sufficed, and, at the same time, it was realized that one could tame the great amounts of flowing rainwater in the area. This second stage was also built with official engineering know-how and probably also funded by the Hasmonaean state, which perhaps also supplied forced labor.

However, it would appear that the main 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 a few years ago, although de Vaux had already found unambiguous evidence (as had

we) that the pottery industry at Qumran had had its beginnings in his stratum Ia (the first half of the first century B.C.E.).¹⁸² It happened when the inhabitants of the site apparently first realized the potential value of the silt that accumulated in the pools of the water system in its first stage. The expanded system was, thus, motivated by commercial considerations: the collection of clay for the production of pottery vessels, a commodity that was in great demand at the time.

Phase D: *From the Roman Conquest (63 B.C.E.) to the Earthquake (31 B.C.E.)*

The greatest change which the site underwent occurred following the Roman occupation of Palestine in the year 63 B.C.E. Qumran ceased to function as a military base and may even have been burnt down following the occupation, before the earthquake.¹⁸³ After the Roman conquest, the site probably changed hands, perhaps more than once, and became a center for the production of clay vessels and perhaps also for trade with dates and date honey. Since Qumran had been a military base, it did not actually have an owner and was not inherited by members of any one family; that is why after the Romans put an end to the Hasmonaean state, the site underwent considerable changes in the century or so that remained until it was destroyed during the Great Revolt.

There can be no doubt that the site was severely damaged by the earthquake of 31 B.C.E. Some of the buildings were destabilized, in particular tall structures like the northwest tower, which, following the quake, had to be supported by a surrounding stone glacis, at the expense of the room to the south of the tower (locus 12) and part of the hall to the east (loci 38 and 41), whose area was reduced by the addition of a new wall on its west side. This was not the only structure at Qumran which had to be strengthened: A support wall was added beyond the west wall and the northwest corner of locus 123; another support wall was added on the site's northwest side;

¹⁸¹ De Vaux 1973, 8.

¹⁸² See above, n. 21.

¹⁸³ De Vaux also blames the earthquake of 31 B.C.E. for the fire that devastated the site; see de Vaux 1973, 21–3, 69. The site may well have been destroyed first in a fire fol-

lowing the Roman conquest of 63 B.C.E. or in the days of Gabinius; the earthquake should, thus, be treated as a separate event, distinct from the fire which occurred in the Hasmonaean period.

and still another was built south and east of the storeroom (loci 86 and 89) immediately south of the refectory.¹⁸⁴

Here, we should like to discuss two pieces of evidence which de Vaux associates with the earthquake of 31 B.C.E., and which exemplify the problematic nature of the stratigraphy and chronology of the site as proposed by him. The first is the crack in pool loci 48–49. The claim that this crack resulted from the earthquake in question is truly odd and quite unreasonable, as it supposes that the pool remained in an unrepaired state for a hundred years with over two-hundred sect members in dire need of ritual baths.¹⁸⁵ Even if we were to assume that the crack reopened from time to time, there is no reason why it should not have been repaired, a job that would have taken a skilled worker no more than a few days. In fact, another crack has now been found east of the site, this one dated by the overlying dump that sank into it at a much later stage, probably 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 (loci 86 and 89) south of hall locus 77. To judge by the pottery, the storeroom was indeed destroyed in the earthquake of 31 B.C.E. But the men of Qumran continued using the refectory for another century, preparing meals for two hundred people every day. Why, then, did they not clear the broken vessels from the storeroom, instead of opening a new entrance on the south side and raising the floor so as to cover the piles of broken vessels?¹⁸⁶ After all, it would have taken three agile Essene “candidates” no more than a few hours to clear the entire storeroom. The ways of

Qumran’s stratigraphy are truly wondrous; surprisingly enough, de Vaux’s arguments gained general acceptance and scholars kept quoting his opinions on the pool that cracked in the earthquake and the storeroom with vessels for two hundred people which was never cleared of its debris.

Phase E: *From the Earthquake to the Destruction of the Second Temple* (fig. 3.35)

In the Herodian period, the site lost much of its importance, and very little was invested in it, publicly or privately. No massive Herodian structures were erected there; in fact there are no buildings at all which reflect the period of either Herod the Great or of Agrippa. The site remained basically as it had been when it was constructed in the Hasmonaean period.¹⁸⁷ We found only minor changes at the site that could be attributed to the Herodian period. Among them were various added structures in the courtyard, perhaps the construction of ritual bath locus 138 outside the site for the use of the potters, and ritual bath locus 68 used by workers producing date honey and dried dates. In this period, more kilns were built and the rate of pottery production increased. In our opinion, a synagogue was built at the site not long before its destruction. The synagogue was fitted with plastered benches and was located south of the tower, in room locus 4. It should be pointed out that in recent years it has become clear that in nearly every site which continued in existence up to the destruction of the Second Temple there was a synagogue, used for prayer and for study of the Torah.¹⁸⁸

Phase F: *From the Site’s Destruction (68 C.E.) until the Bar-Kokhva Rebellion*

Qumran was destroyed in 68 C.E., to judge by the fact that coins of the second and third year

¹⁸⁴ We cannot agree with Hirschfeld that the glaciis 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 glaciis was the result of the earthquake of 31 B.C.E.; see de Vaux 1973, 25. Magness argued also, *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; Magness 2002, 47–69.

¹⁸⁵ De Vaux 1973, 27.

¹⁸⁶ De Vaux 1973, 25.

¹⁸⁷ Here, again, we cannot agree with Hirschfeld, that the site flourished during the Herodian period; see Hirschfeld 2003: 24–8.

¹⁸⁸ On a Second Temple period synagogue found in the village of Kiryat Sefer, see Y. Magen, Y. Zionit, and E. Sirkis, “Khirbet Badd ‘Isa-Qiryat Sefer.” In: Magen et al. 2004, 179–241; on the synagogue at Hurvat Umm el-²Umdan near Modi’in, see S. Weksler-Bdolah, A. Onn, and Y. Rapuano, “Identifying the Hasmonaean Village of Modi’in.” *Cathedra* 109 (2003): 69–86 [Hebrew].



Fig. 3.35. Plan of Phase E.

of the revolt were found there.¹⁸⁹ After the capture of Jericho, Qumran was taken as well and probably also burnt down.¹⁹⁰ De Vaux argued, based on a *Judaea Capta* coin from Titus' reign with the sign of the Tenth Legion on it, that after its destruction a Roman garrison was stationed at the site. However, all of the coins dating from after the destruction (from the reigns of Titus, Agrippa II, Trajan, Hadrian, three coins from the Bar-Kokhba rebellion itself, and even some coins from before the destruction of the Second Temple) were stashed there during the Bar-Kokhba rebellion.¹⁹¹ We have no way of knowing exactly when Jews reoccupied the site in the period of the Bar-Kokhba rebellion. At any rate, it is highly unlikely that a Roman garrison would have been stationed at a burnt out, abandoned site whose water supply system was no longer operative.

Summary

Much has been written about Qumran, and endless hypotheses have been proposed, some of which have attained the status of truths on which archaeological research has built over the past fifty years. In this summary, we would like to clearly distinguish between various hypotheses concerning the site and the archaeological evidence which we have obtained in our excavations.

The site's location: The first settlement at Qumran was established in the Iron Age. When the site was again inhabited in the Hasmonaean period, it was built in exactly the same place. This fact, together with an analysis of the topography and water regime of the area, provide clear evidence that this was the best and perhaps 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 hypothesis that the location was chosen because of its isolation for the purpose of establishing a first Jewish monastery or a community center for the Judaeen Desert sect, is groundless.

Two rather important secondary roads from Jerusalem meet at Qumran, one descending along the bed of Nahal Og and continuing south along the fault scarp and the other descending 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 Hasmonaean period (the beginning of the first century B.C.E.), at the beginning of Alexander Jannaeus' reign, is a solid archaeological fact supported by both pottery and coins. The building's plan, construction method, cisterns, and the huge effort expended on it, all indicate that Qumran was an official Hasmonaean building project with a surprising affinity to two other sites on the Dead Sea shore: the docks of Rujm el-Bahr and Khirbet Mazin. Qumran was part of the Hasmonaean 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 Judaeen Desert sect nor with a rural villa or agricultural settlement. Qumran was a forward command post for the Dead Sea fortresses and docks with the task of supervising coastal traffic and of maintaining communication with the main headquarters at Hyrcania. The archaeological evidence refutes both of the hypotheses that have been proposed with respect to the initial purpose of the main building: A monastery or community center as early as the Hasmonaean period and a rural villa or agricultural settlement. No crops can be grown in Qumran, except for date palms near the shore; a rural villa or agricultural settlement would have been built near the sweet water springs and reeds next to the shore, like the house in 'Ain Feshkha, and not on the marl terrace. There was no connection between Qumran and 'Ain Feshkha, and neither was inhabited by members of the Judaeen Desert sect.

The plan, the architectural style, and the building technique of the main building at Qumran are distinctly Hellenistic. After the Roman occupation, the site was no longer used for military purposes and the building deteriorated. There is no

¹⁸⁹ See B. Kanael, "Some Observations on the Chronology of Khirbet Qumran." *EI* 5 (1958): 164–70 [Hebrew]; on Qumran period III, see also the article by Joan E. Taylor in this volume.

¹⁹⁰ See Josephus, *J.W.* 4:447 on the capture of Jericho and

J.W. 4:449 on the capture of the Dead Sea area.

¹⁹¹ 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 C.E.

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 the water and a great increase in the capacity of the reservoirs. 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 C.E., the site suffered from considerable neglect and was turned into a pottery factory, again contrary to the hypothesis that it was then inhabited by a growing population (eventually to reach 250) of Dead Sea sect members.

Another hypothesis which has gained general acceptance among scholars and contributed in establishing the belief that Qumran was a religious site—a community center or monastery of the Dead Sea sect—was that the pools with stairs were ritual baths. According to this hypothesis, these pools were needed 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. Most of the pools are *halakhically* unfit for use as ritual baths because the water in them would have been considered “drawn water.” On the whole site there are perhaps two ritual baths and even this is not certain. The sole purpose of the reservoirs was to collect rainwater and potters' clay for the pottery industry.

Still another hypothesis which 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 burnt as offerings. The theory that sect members ate communal meals and that this was connected to the burial of animal bones inside the site has also proven to lack any factual basis. Animal bones were buried on the site in order to prevent Qumran from attracting hungry animals, especially predators from the surrounding desert. Another hypoth-

esis which this fact lays to rest is that members of the sect lived in the surrounding caves.

The cemetery and its field graves were taken by scholars for some reason to represent a unique burial method used only by the Judaean Desert sect, again without a scientific basis. 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. In fact, the cemetery may have been in use already in the Iron Age and at the beginning of the Hasmonaean 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 at most twenty to thirty people. Certainly no evidence has been found there for enough food or other necessities, such as ovens and cooking utensils, to have fed 250 people 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 can easily accommodate 250 people?

Of all the theories concerning the site, one is supported by incontrovertible evidence: at Qumran there was a flourishing pottery industry for many decades. Some scholars (but not de Vaux) explained the evidence by postulating a pottery workshop, a kind of occupational therapy, perhaps in order to mitigate the boredom of life in the first Jewish monastery. Others claimed that members of the sect made their own pottery because of their strict observance of the laws of ritual cleanliness.¹⁹² Needless to say, both of these hypotheses are entirely groundless.

Qumran possessed a large, highly-developed, and sophisticated pottery plant. In the Hasmonaean period, its inhabitants had already discovered the

¹⁹² 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].

potential value of the potters' clay that entered the site with the channeled flow of rainwater. Already, de Vaux was of the opinion that pottery production at Qumran began in Stratum Ia. The great number of whole vessels and their distribution, the extensive use of whole vessels for the disposal of animal bones, and the tremendous amount of production waste on the site all show that here there was a pottery production center, whose raw material came in with the rainwater. The three tons of clay found in the reservoirs we excavated, in particular in reservoir locus 71, provide positive evidence for this. We estimate the total amount of clay in the Qumran reservoirs to have been in the region of six to seven tons. This would have been sufficient to produce tens of thousands of clay vessels with enough raw material left over that it could be exported to other areas. It is 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 to pack dried dates in clay vessels of the kind that has been mistakenly called "scroll jars." At any rate, the main activity at the site was the production of pottery, a fact which we find is hardly consistent with the identification of Qumran as a communal center for the Judaean 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 out loud let alone put them in writing. But after ten years of excavation at Qumran, these conclusions are inescapable.

From the outset, we decided not to become involved with the issue of the scrolls and the Essenes but only to analyze the archaeological finds at the site from the perspective of the field archaeologist. However, since we have come to the conclusion that Qumran was a pottery factory and not a communal center or monastery of the Judaean Desert sect, 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 of Qumran.

Such a connection was assumed before excavations at the site began. Furthermore, the site was, in fact, excavated for the express purpose of discovering an explanation for the scrolls which had begun to be discovered in the caves north of Qumran,¹⁹³ 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 to all parties concerned, scholars studying the scrolls as well as archaeologists. Whosoever severs the link between the site, its Essene community, 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 fifty years. The theory linking site and scrolls has survived for so long only because it is so convenient.

But enough said about the scrolls and their supposed association with Essenes residing at Qumran. We would now like to address a completely different issue, one that has, unfortunately, been disregarded almost entirely by Second Temple scholarship: the flight of people from Judaea and the Land of Benjamin during the Great Revolt in an attempt to escape from Roman domination. Despite what we know about the siege of Masada and of the areas where the Bar-Kokhba Rebellion broke out, no one has so far asked how the revoltees came to be in such 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—such as money, documents, books, and so on—they flee to a remote place where they hope the enemy will not

¹⁹³ E.L. Sukenik has proposed a link between the first scrolls that had been found north of Qumran and a settlement on the western shore of the Dead Sea before any excavations were conducted at the site: "I tend to believe that the archive belongs to the Essenes, who according to a num-

ber of literary sources of antiquity had their place of residence on the western side of the Dead Sea, around 'Ain Gedi"; E.L. Sukenik, *Megillot Genuzot* (Jerusalem: Bialik, 1948), 16 [Hebrew].

reach them. Thus, the prophet Jeremiah, writing after the destruction of the First Temple, reports that Jews fled to Moab, Ammon, Edom, and also to what would, in Hellenistic times, become known as Idumaea, namely the Hebron Hills and the northern part of the Negev desert.¹⁹⁴ The prophet Obadiah relates that Edomites who had entered southern Judaea turned in Jewish refugees.¹⁹⁵

Following the campaigns of Cestius Gallus¹⁹⁶ and Vespasian,¹⁹⁷ Jewish villages and towns were abandoned. A mass exodus took place, some people escaping to Jerusalem, others to southern Judaea—Idumaea, the Judaean Desert, the Shefela, and the southern shores of the Dead Sea. The latter were all uninhabited or only sparsely settled areas and possessed 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 rebellion developed, and the survivors of that second revolt then founded the settlements and synagogues in the southern Hebron Hills at ‘En Gedi and in the Shefela.¹⁹⁸ 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 mentioned already, Qumran is located at a crossroad. One road descended to Qumran from the fault scarp north of Nahal Qumran along an easy route which had probably been constructed in the First Temple period and then renovated in Hasmonaean times. It connected with many roads and paths from Jerusalem and from the numerous Jewish settlements that surrounded it on the north, the east, and the south. From the Qidron Valley, one would walk toward the Hyrcania Valley and from there descend to Qumran. The second road was the “salt and sugar” road, coming down to Qumran from the north along

the bottom of the fault scarp.¹⁹⁹ The many caves along the way enabled the fleeing populace to hide during the day and continue walking at night. Qumran is located at the end of both roads; Nahal Qumran blocks the way, and, in order to continue south, one had to descend to the Dead Sea shore, continue south on foot for a while and then take a boat to ‘En Gedi, Masada, the east coast of the Dead Sea, or 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. Certainly, confusion reigns when refugees flee in time of war, and, certainly, there may have been refugees who took their scrolls with them on the way to ‘En Gedi and from there to Masada,²⁰⁰ but most would have hidden them in the Qumran caves before descending to the Dead Sea shore.

In fact, evidence for refugees did turn up in the caves of Qumran and at ‘En Gedi, but was misinterpreted by the excavators. M. Broshi and H. Eshel excavated a number of natural caves formed by floodwater in the riverbeds around Qumran in which they thought, mistakenly, that members of the Essene sect for whom there was no room at the site were housed.²⁰¹ Most of the finds discovered there belonged to refugees who stayed at Qumran before continuing on their way. Neither in these caves nor in those in the fault scarp could anyone have resided for a long time. Those who stayed there did so because they had no choice; they hid there from the Romans during the day and continued on their way after nightfall.

Another find, this time in ‘En Gedi, was discovered by Y. Hirschfeld and, in our opinion, also misinterpreted.²⁰² During an excavation at the

¹⁹⁴ Jer 40:11–2.

¹⁹⁵ Obad 14.

¹⁹⁶ On Cestius Gallus’s campaign, see M. Gichon, “Cestius Gallus’s March on Jerusalem, 66 C.E.” In: *Jerusalem in the Second Temple Period: Abraham Schalit Memorial Volume* (Edited by A. Oppenheimer, U. Rappaport and E. Stern; (Jerusalem: Yad Izhak Ben-Zvi and Ministry of Defence, 1980), 283–319 [Hebrew].

¹⁹⁷ On Vespasian’s campaign and its association with Qumran, see C. Roth, “Did Vespasianus Capture Qumran?” *PEQ* 91 (1959): 122–9; Z. Safrai, “Vespasian’s Campaigns of Conquest in Judea.” In: Oppenheimer, Rappaport and Stern 1980: 320–39 [Hebrew].

¹⁹⁸ This topic will be discussed at much greater length in a book (in press) by Y. Magen on Jewish and Idumaeian settlements in the southern Hebron Hills toward the end of the Second Temple period.

¹⁹⁹ See above, n. 76.

²⁰⁰ Indeed, sectarian scrolls were found at Masada; see Y. Yadin, “Qumran and Masada.” *Yediot* 30 (1966): 117–27 [Hebrew]; S. Talmon, *Masada: The Yigael Yadin Excavations 1963–1964. Final Reports. Vol. 6: Hebrew Fragments from Masada* (Edited by J. Aviram, G. Foerster and E. Netzer; Jerusalem: Israel Exploration Society, 1999), 3–149 (here pp. 117–37).

²⁰¹ See above, n. 159.

²⁰² Hirschfeld 2000a, 2000b.

site, some temporary residences were found and dated to the second half of the first century until the beginning of the second century C.E. The excavator argued that a group of Essenes lived in them. We, however, believe that they were built by refugees who had fled from the Romans.²⁰³ Many more finds which are to be ascribed to these refugees have been found in the many surveys that have been carried out in caves along the riverbeds of the Judaean Desert.²⁰⁴

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 burnt 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 Qumran, indicates that hiding 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 put there by an organized community of several hundred men but rather by refugees, probably at night, without any planning except for the intention to come back some day and pick up the scrolls.

Among the scrolls found at Qumran and Masada,²⁰⁵ there were sectarian and non-sectarian texts. Clearly, these texts did not originate with the official libraries, in Jerusalem and in the Temple, which were under priestly control. Rather, the texts originated with sectarian libraries as well as with libraries from Jewish towns outside Jerusalem.

It is our contention that every community decided what to do with its sacred books. Josephus, it will be remembered, mentions that the Essenes were represented in every city and town.²⁰⁶ In this context we should mention another significant fact emerging from recent excavations which scholars have generally ignored—that every village and town that survived until the end of the Second Temple period had a synagogue.²⁰⁷ These synagogues served mainly for reading the Law and for studying the commandments.²⁰⁸ It is not beyond the realm of possibility 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 hypotheses and theories. Archaeological evidence can usually be interpreted in more than one way. Here, we have attempted to interpret them differently, in a way which 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 so that it may serve their scientific interests, and placed it firmly on the somewhat mundane ground of the Second Temple period and the destruction of Jerusalem.

²⁰³ See also the justified criticism in D. Amit and J. Magness, "The Essenes Did Not Live above Ein Gedi: A Reply to Y. Hirschfeld." *Cathedra* 96 (2000): 57–68 [Hebrew].

²⁰⁴ See, e.g., Bar-Adon 1972, sites 113, 114, 128, and 164; Bar-Adon 1989, 15–7 ("Me'arat HaTe'omot"); 30–1 ("Me'arat HaMatbea") [Hebrew]; N. Avigad, "Expedition A: Nahal David." *Tediot* 26 (1962): 143–58 [Hebrew].

²⁰⁵ See above, n. 200.

²⁰⁶ Josephus, *J.W.* 2:124.

²⁰⁷ See, for example, Josephus, *J.W.* 2:285. In the New Testament, Galilean synagogues are mentioned (Matt 4:23; 9:35, etc.); for details, see L.I. Levine, *The Ancient Synagogue: The First Thousand Years* (New Haven: Yale University Press, 2000): 42–73.

²⁰⁸ In this connection, we may mention the Theodotus inscription found in Jerusalem; see J.S. Kloppenborg-Verbin, "Dating Theodotus (CIJ II 1404)." *JJS* 51 (2000): 243–80, with the text of the inscription and a detailed discussion.

PART II

INTERPRETING THE QUMRAN SITE

CHAPTER FOUR

HEDGING THE HOLY AT QUMRAN: WALLS AS SYMBOLIC DEVICES

Joan Branham

Good fences make good neighbors. . . .
Why do they make good neighbors? . . .
Before I built a wall I'd ask to know
What I was walling in or walling out,
And to whom I was like to give offense.
Something there is that doesn't love a wall,
That wants it down!

—Robert Frost, excerpt from “Mending Wall”

Robert Frost's famous poem “Mending Wall” tells of two farmers in conversation about the wall that separates their two properties. “Good fences make good neighbors,” repeats one of the farmers, effectively creating the poem's mantra. In his simple expression, Frost's literary character touches upon an important problematic for the anthropological study of boundaries and limits. Walls, by their very presence, throw into question what is outside and what is inside, what is excluded and what is included, what is separated and what is united. Like Frost's wall, the walls of Qumran act not only to construct topographical categories, but social ones as well, potentially generating a dialectic of space, such as us/them, settlement/wilderness, pure/impure, sacred/profane. Moreover, barriers, in their very capacity to *divide* two distinct entities, act as the very agent to *connect* realities which might not be related otherwise. This inherent gesture that a wall embodies—the ability to separate and link things concurrently—prompts my inquiry into the enigmatic long walls of Qumran.¹

The first wall under discussion, “the long wall,” consists of a stone structure that runs close to 140 m

in a north-south configuration along the eastern edge of Qumran's marl terrace, palpably tracing and defining the entire location (figs. 4.1 and 4.2). The settlement and caves lie to its west, the cemetery and Dead Sea to its east. A plan of the site shows that approximately one-third of the wall is attached to the core of the site's architecture while the remaining two-thirds is free standing and unattached to any edifice (figs. 4.3–5). A second stone boundary, the “coastline wall,” runs intermittently for 500 m from Wadi Qumran southward to the springs of 'Ain Feshkha. Cliffs rise on its western side and the wall's eastern limits are flanked by the Dead Sea's shoreline.²

How did these two long walls function? Are they separate entities or did they at one time form a single, unified hedge merely interrupted by natural features in the terrain? Their configuration—stretching longitudinally alongside the site and the shoreline and not explicitly surrounding or enclosing a space—renders their purpose especially difficult to decipher. Could the walls have been linked to systems of inclusion and exclusion possibly practiced at Qumran? Such an interpretation would figure the walls as symbolic markers rather than structural edifices flagging functional tracts of land, possibly agricultural or industrial. Or, were the walls strategic players in a fortification system connected to the ancient site? And what is at stake in the penetration of such barriers where breaks or openings occur in a wall's surface?

Scholars have tended to treat the long walls of Qumran either as pawns in larger arguments about

¹ I thank Francis Schmidt, Véronique Gillet-Didier, Andrew McGowan, and Lawrence Wills for their critical comments at various stages of preparing this text. I also acknowledge the Chateaubriand Fellowship in Paris and CAFR grant from Providence College for support while at the École pratique des hautes études and at Qumran. The initial findings were presented in Paris at the “Table Ronde: Qoumrân: Anthropologie d'un site” in 1995 and at the Society of Biblical Literature and American Schools of Oriental Research in 1996. I thank Katharina Galor and Jürgen Zangenberg for

their invitation to share this research at Brown University's 2002 conference on the archaeology of Qumran.

² For further plans and photos of both the long and coastal walls, before and after excavation, please see J.-B. Humbert and A. Chambon (eds.), *Fouilles de Khirbet Qumrân et de Ain Feshkha*. Vol. 1: *Album de photographies. Répertoire du fonds photographique. Synthèse des notes de chantier du Père Roland de Vaux*. NTOA.SA 1 (Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht, 1994), 4–10, 15–8, 184, 232, and 269.



Fig. 4.1. Aerial view of Qumran with the long wall stretching from north to south (left side of photo) and defining the eastern limit of the site. (courtesy of Albatros Aerial Photos)

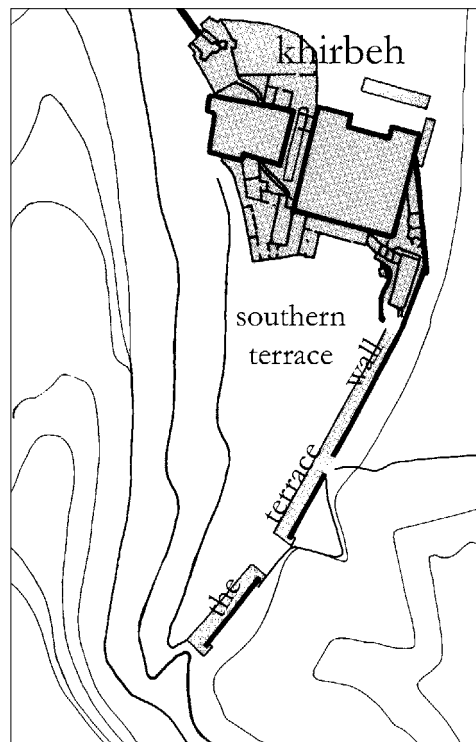


Fig. 4.2. Schematic plan of Qumran and adjacent terrace to the south. (after Humbert and Chambon 1994: 4, Plan II)



Fig. 4.3. Eastern face of Qumran's long wall taken from the north during de Vaux's excavations. (Humbert and Chambon 1994: 184, Fig. 382)



Fig. 4.4. Eastern face of southern section of Qumran's long wall, as reconstructed after the excavations carried out in the 1950s. (photo: Joan Branham)



Fig. 4.5. Eastern face of northern section of Qumran's long wall, as restored by the National Parks Authority. (photo: J. Branham)

Qumran's function or, at worst, as bothersome obstacles to a specific reading of the site, and, therefore, to be ignored. Consequently, the walls have never been adequately examined and remain baffling features of the ruins. While this article, from the outset, does not attempt a definitive interpretation of the walls, it does remove them from their ancillary role in scholarly discourse by thrusting them center stage as primary objects of investigation.

At its core, this study recognizes two fundamental principles: first, the critical role that barriers and boundary markers play in defining the nature of an archaeological site and the concerns of its inhabitants, and second, the deep complexity inherent to the Qumran site itself. Ongoing debates point to a proliferation of theories on Qumran, from long-standing hypotheses interpreting it as a

religious settlement, villa, or fortification structure, to more recent speculations on its agricultural and industrial use for the production of balsam or dates. The approach taken here not only affirms but actively foregrounds the overdetermined and multivalent nature of Qumran. Until we recognize the ability of any site to function as more than one thing at a given time and to change in function over time, we may find our individual theories too wooden and limiting to accommodate the diversity of data. Moreover, the evidence at hand is still fragmentary in nature and the most recent finds are yet to be published.³

The ultimate purpose of this investigation, then, is three-fold: first, to contextualize Qumran's walls in their historical period and setting by comparing them with other contemporary walls; second, to cast the net widely in terms of recognizing the

³ Final publication of de Vaux's findings are still anticipated, but for the purposes of this paper, the most recent excavations carried out by Yizhak Magen and Yuval Peleg from 1996 to 2002 are critical to interpreting the areas

around the long wall. At the time of writing this essay, these findings were not yet published. However, see their article in this volume.

broader evidence that surrounds the site in Second-Temple-period Judaea—both material and textual;⁴ and third, to propose a provisional, anthropological interpretation of Qumran's walls as physical properties capable of symbolic discourse.

Conflicting Scholarly Theories

The Long Wall

Various authors have attempted to determine the original meaning of these walls, resulting in an extraordinary range of provocative theories matched in spectrum only by the disparate scholarly hypotheses that surround the Dead Sea Scrolls themselves. The sundry interpretations seem to fall into two camps: the walls as practical features and the walls as symbolic devices. In relation to the long wall and ruins of Qumran, for example, Alan D. Crown and Lena Cansdale claim Qumran to be an ancient port, transit center, and tax-collecting point for commercial trade on the Dead Sea. Wadi Qumran, in periods of high water, functioned—in their minds—as a port for dropping anchor and the wall was a wharf for delivering and transporting merchandise. They state that “This wall—or wharf—was built along the ancient strandline, the former shoreline above the present water level. It is now well above the water line, for the sea level has dropped considerably, as at least 30 ancient and modern strandlines testify. The actual drop appears to be between 65 and 80 feet.”⁵ Theory one, therefore, perceives the long wall as a shipping wharf.

Pauline Donceel-Voûte, on the other hand, marks Qumran as an opulent, winter villa with small industries and gardens. Interpreting the long wall, she states “The long wall . . . and the water

channel systems that abut it at different points evoke gardens jealously maintained.”⁶ Here, the long wall functions as a horticultural enclosure.

In his book, *Who Wrote the Dead Sea Scrolls*, Norman Golb states that: “surrounding Qumran was a defensive wall” and sees Qumran as a military fortification. Golb discusses several walls especially connected to the tower structure, but does not specifically include the southern half of the long wall in his argument.⁷ Yizhar Hirschfeld moves away from the fortress theory and suggests an alternative model—a fortified manor house. He compares Qumran to other manor houses, such as Horvat Eleq, Qasr el-Leja, Horvat Mazad, and Tel Aroer, and notes that many of these structures exhibit a similar architectural organization to that of Qumran: a fortified tower that is attached to a central courtyard, flanked by various rooms, and “surrounded by a front wall.”⁸ One of the critical features, however, that distinguishes Qumran from these manor houses, Hirschfeld submits, is the presence of the adjacent cemetery.

Émile Puech makes a direct connection between the wall and the cemetery found at Qumran, describing the cemetery as an area 40–50 m from the site and “separated by a large wall.”⁹ By contrast, Rachel Hachlili does not mention the wall in her 1993 study of the Qumran cemetery and suggests elsewhere that it would “be difficult to prove a connection between the wall and the cemetery, probably the other functions suggested for the wall are more plausible.”¹⁰

In his important and ground-breaking study, “L'espace sacré à Qumrân,” Jean-Baptiste Humbert builds on the cemetery/wall relationship and comprehends the long wall as a partition between pure and impure areas. Interpreting mysterious

⁴ On the problematic relationship between the scrolls and the site, see J. Magness, *The Archaeology of Qumran and the Dead Sea Scrolls* (Grand Rapids: Eerdmans, 2002), 43–4. See also the article by J.-B. Humbert in this volume.

⁵ A.D. Crown and L. Cansdale, “Qumran: Was It an Essene Settlement?” *BAR* 20/5 (1994): 25–35 and 73–8.

⁶ P. Donceel-Voûte, “Les Ruines de Qumrân Réinterprétées.” *Archeologia* 298 (1994): 34. All French translations are my own unless otherwise noted. See rebuttal of Donceel-Voûte's theory in J. Magness, “A Villa at Khirbet Qumran?” *RevQ* 16/63 (1994): 397–419; id., “Qumran: Not a Country Villa.” *BAR* 22/6 (1996): 38, 40–7 and 72–3.

⁷ N. Golb, *Who Wrote the Dead Sea Scrolls? The Search for the*

Secret of Qumran (New York: Scribner, 1995): 35–7. See also H. Shanks, “The Qumran Settlement: Monastery, Villa, or Fortress?” *BAR* 19/3 (1993): 62–5.

⁸ See Y. Hirschfeld, “Early Roman Manor Houses in Judaea and the Site of Khirbet Qumran.” *JNES* 57 (1998): 180. Also see H. Shanks's recent summary of the debate about manor houses, “Searching for Essenes: At Ein Gedi, Not Qumran,” *BAR* 28/4 (2002): 19–27 and 60.

⁹ É. Puech, *La croyance des esséniens en la vie future: immortalité, résurrection, vie éternelle?* EB (new series) 22 (Paris: J. Gabalda, 1993), 2: 693.

¹⁰ See R. Hachlili, “Burial Practices at Qumran.” *RevQ* 62 (1993): 247–64, quote from personal communication, 1995.

animal bones found buried in jars as from sacrificial victims at Qumran, Humbert perceives the animal remains as objects of a holy ritual within a liturgically-configured space. In relation to this temple-like compound, Humbert sees the long wall as a screening device explicitly constructed to single out a sacred sacrificial site from the profane cemetery. He writes, "The wall was indispensable for separating the impure world of the cemetery from a pure space to be maintained at all costs. This enclosure wall distinguished pure from impure, the sacred part from the human part, the space of the living from the land of the dead."¹¹ According to this hypothesis, the long wall acts to herald sacred space.

In a related manner, Edward Cook proposes that Qumran functioned both as a site of purification *and* as a place designated for impurity. Cook juxtaposes the high number of tombs in the cemetery—over 1,000—with the limited residential space that accommodated only a fraction of that number. Setting these figures against the backdrop of the enormous water system located at Qumran, Cook interprets the site as both a burial place for members of a Jerusalem group and as a short-term purging location for sectarians awaiting reentry into Jerusalem. Lepers, *zavim*, and tenders of corpses could, consequently, use this area as a three-to seven-day waiting and cleansing station.¹² In his construction of a pure/impure dialectic operating at Qumran, Cook surprisingly does not address the wall, an essential instrument, it would seem, in making such a proposal viable.

¹¹ J.-B. Humbert, "L'espace sacré à Qumrân: Propositions pour l'archéologie." *RB* 101 (1994): 203.

¹² E. Cook, "Qumran: A Ritual Purification Center." *BAR* 22/6 (1996): 39, 48–51, and 73–5.

¹³ E.G. Rey, *Voyage dans le Haouran et aux bords de la Mer Morte, exécuté pendant les années 1857 et 1858* (Paris: Bertrand, 1860), 224–5, according to the translation by R. de Vaux, *Archaeology and the Dead Sea Scrolls* (London: Oxford University Press, for the British Academy, 1973), 83, n. 1.

¹⁴ In de Vaux's own description: "On the eastern side of the [sraelite] building in the plain is the beginning of a long wall, the remains of which can intermittently be traced following an irregular course down the sloping ground to the south (Plate 30a) over a distance of more than 500 m. It is about one metre broad and has been built simply on the natural gravel which lies only just beneath the actual surface of the ground. Its foundations consist of a layer of boulders followed by a layer of large stones, generally set on edge. The whole structure is hardly more than one metre

The Coastline Wall

The hypotheses increase in relation to the coastline wall that runs south of Qumran toward 'Ain Feshkha. The first description of this structure appears in 1857, from an explorer named Emmanuel Guillaume Rey. He discovered a wall just below Wadi Qumran and suspected that another southern wall near 'Ain Feshkha was the continuation of the northern one:

At ten minutes past two we cross the bed of Wadi Ghoumran, and almost at once the remains of a large wall appear on our left, separating the dry land from the marsh, which is covered with tall thickly-clumped reeds. Twenty minutes later this wall comes to an end, or rather disappears in the marsh, which seems to have encroached further upon the dry land in this area. Then we cross a tract of dried-up land which continues right to the foot of the mountain. Shortly before arriving at our camping-ground a new wall appears, still on our left. It may be the continuation of the first. It is ten minutes to three when we alight at the spot where our tents are being pitched, about 200 m from 'Ain Feshkah.¹³

One hundred years later, Roland de Vaux—the major archaeological figure associated with Qumran's excavation—traced the coastline wall for more than 500 m between Wadi Qumran and 'Ain Feshkha and measured it at 1 m broad and 1 m high.¹⁴ Like the long wall of Qumran's terrace, he dates the main body of the coastal wall to the Israelite period—the eighth and seventh centuries BCE) and writes in his excavation notes on March 24, 1956, that the different parts of the wall at 'Ain Feshkha functioned as "territorial

high, and could never have been much higher at any stage. Bounding an area which is irrigated by small springs, it constitutes the containing wall for the plantations extending between it and the shore. Although no object has been found by which its date could be determined, in effect only two possible periods can be in question in deciding when the area was occupied. The wall was probably built during the Israelite period and at the same time as the neighbouring building (or that on the plateau of Khirbet Qumran). The wall with which we are at present concerned, however, certainly continued in use during the period when the community was living at Khirbet Qumran, and it was probably at this time that it was extended southwards as far as 'Ain Feshkha. Here it reappears, still continuing in the same direction, as a wall of different construction and having connection with the buildings about to be described . . ." (de Vaux 1973, 59–60). Cf. id., "Fouilles de Khirbet Qumran. Rapport préliminaire sur les 3e, 4e et 5e campagnes." *RB* 63 (1956): 575–6.

limits or garden enclosures.”¹⁵ Later that year, de Vaux elaborated on his interpretation in the *Revue biblique*, stating that the wall was not only an enclosure for crop planting between it and the sea, but that it also “defended against the incursions of grazing animals and savage beasts, and maybe it protected the crops from streaming waters that, during certain winter rains, descended from the mountains.”¹⁶ And, finally, in 1973, in the English translation of his lectures at Oxford, de Vaux revised his interpretation once more, eliminating all reference to the wall as a territorial defense against wild animals or flooding waters. He simply states two things: first, that the wall made a concrete connection between Qumran and ‘Ain Feshkha; and second, that the wall functioned to define the limits of land irrigated by spring waters.¹⁷

L.M. Pákozdy proposes that the wall along the sea shore carried a conduit for water that led from the spring at ‘Ain Feshkha to Qumran for irrigating Qumran’s gardens.¹⁸ De Vaux challenges this theory, saying that there is no trace of any such water conductor on the wall.¹⁹ Ian Blake, on the other hand, claims that the coastline wall—like similar walls on the Dead Sea shore—served to stop debris falling from the cliffs above. He describes a wall with the same construction between ‘Ain el-Ghuweir and ‘Ain el-Turabe, 15 km south of Qumran. Blake says that a massive wall extended more than 350 m along the riverbank and he dates this wall to the eighth century B.C.E.²⁰ Lawrence Stager counters this theory, claiming that such debris would have been minimal. Stager also questions the relation between the walls and the ravages of wild desert predators and wandering herds of livestock. He believes that such walls

would have had to be at least 1.5 m high to keep out gazelles and goats, commenting that if this were the case, “this must have been one of the most Herculean attempts at crop protection that farmers have ever made.”²¹ Instead, Stager suggests that the Qumran walls resemble farm walls he excavated 5 km west of Qumran at Abu Tabaq.²²

Finally, at a more theoretical level, Humbert interprets the coastline wall as a religious limit for circulation on Shabbat and holy days, a sort of *eruv*. The marked out areas between the wall and the Dead Sea gave the entire sector between ‘Ain Feshkha and Qumran a unified status. Because of the wall, he concludes, “it was possible then, without violating the prescriptions, to come and go between Qumran and ‘Ain Feshkha during regulated days.”²³ Here Humbert attributes halakhic significance to the extended wall.

We note in this selective survey that almost every one of these authors interprets the walls not as independent, self-contained entities, but rather *in reference* to other objects. Blake sees the coastline wall in relation to the cliffs that flank its western side; Crown and Cansdale comprehend the long wall in reference to the Dead Sea’s parallel and once elevated shoreline; Golb and Hirschfeld interpret the long wall against the backdrop of the settlement’s tower and adjoining rooms; Humbert reads the same long wall in relation to the parallel configuration of the cemetery, while associating the coastal wall with its natural counterpart, the line of the Dead Sea. As we shall see, de Vaux and Laperrousaz decipher both the long wall and coastline wall in reference to what they see as adjoining Israelite buildings that exhibit the same spatial orientation and alignment.²⁴

¹⁵ De Vaux’s notes published in Humbert and Chambon 1994, 367.

¹⁶ De Vaux 1956: 575–6.

¹⁷ De Vaux 1973, 83–4.

¹⁸ L.M. Pákozdy, “Der wirtschaftliche Hintergrund der Gemeinschaft von Qumran.” In: *Qumran-Probleme: Vorträge des Leipziger Symposiums über Qumran-Probleme vom 9. bis 14. Oktober 1961* (Edited by H. Bardtke; Berlin: Akademie-Verlag, 1963), 276–9.

¹⁹ De Vaux 1973, 60.

²⁰ I. Blake, “Rivage occidental de la Mer Morte.” *RB* 73 (1966): 565.

²¹ L. Stager, “Farming in the Judaean Desert during the Iron Age.” *BASOR* 221 (1976): 145–58 (quote from p. 151).

²² Stager 1976: 157.

²³ Humbert writes: “Le mur continu pouvait tenir lieu de rempart. En effet la loi juive admettait la libre circulation à l’intérieur des remparts d’une ville, pendant le sabbat et les fêtes, alors qu’elle était réglementée à l’extérieur de la ville et réduite à mille pas . . . Le long mur dans l’oasis avait donné un statut d’agglomération entourée d’un rempart, à tout le secteur entre ‘Ain Feshkha et Qumrân. Les constructions repérées sont sur la bande entre le mur et la mer. La mer fait fonction de mur oriental. Il était alors possible, sans enfreindre les prescriptions, d’aller et venir entre Qumrân et ‘Ain Feshkha pendant les jours réglementés” (Humbert 1994: 208).

²⁴ De Vaux 1973, 93; E.-M. Laperrousaz, *Qumrân: L’établissement essénien des bords de la Mer Morte: histoire et archéologie du site* (Paris: Éditions A. & J. Picard, 1976), 26.

The methodological consensus, then, within these contradictory theories, is to interpret the walls as features connected to other elements at Qumran, as integrated elements helping to formulate the entire site. Moreover, the interpretations proposed for the two walls range from the most practical to the most symbolic. At one extreme, the walls exhibit basic archaeological characteristics that reveal their function to be mundane in nature: a wharf, a retaining enclosure for crops or gardens, a military fortification, a barrier against animals, or a stronghold against the elemental forces of nature. At another extreme, the walls trace non-material zones that are defined conceptually, even in terms of sacrality: a divider of sacrificial space, a territorial flag signaling accessible land during religious days, and a cemetery marker polarizing pure and impure zones. Because the space of this article does not allow me to respond to each one of these conjectures in detail, I will concentrate the thrust of my discussion on the long wall of the terrace at Qumran in connection with the main settlement adjacent to it. In doing so, I am reminded of the danger that exists in positioning the various theories on Qumran as mutually exclusive. While some of them clearly cannot co-exist, many others are potentially compatible. I begin, then, by examining the wall in relation to contemporary counterparts outside of Qumran as well as to its own context at Qumran proper. In this section, I will limit my discussion to the three most prevalent theories concerning the wall: fortification, agriculture, and sacred space.

Comparative Walls

Fortification Walls

Fortification walls in ancient Syria-Palestine generally exhibit two hallmark features. First, they are large scale in terms of both thickness and

height and of the perimeter configuration around the site. For example, Josephus (*J.W.* 4:9–10) describes the wall of Gamala as a fortification edifice that he had strengthened for defensive purposes and that specifically *enclosed* the city.²⁵ Excavations at Hyrcania reveal a double rampart fortification,²⁶ and at Masada a perimeter casemate wall measuring 6.5 m in width—covered with plaster and punctuated by twenty-seven rectangular towers every 45 m—both defines and protects the site (Josephus *J.W.* 7:285–95).²⁷ Similarly, the fortress wall at Herodium consists of two parallel, circular walls with an inner corridor spacing of 3.5 m between them. Their remains today measure an enormous 18 m wide and 16 m high (Josephus, *Ant.* 15:324).²⁸

When stacked up next to fortified sites such as these, it is evident that Qumran's walls do not reflect the same size or configuration. The long wall stretches down one side of the settlement and does not encircle it. Although it could be interpreted as just one component working in tandem with the surrounding cliffs and wadi to create a defensive perimeter, the long wall itself rarely surpasses 1 m in height or width and, therefore, shares little in common with the massive size of fortification walls.²⁹ Only Qumran's tower wall, measuring 4 m wide and at least 5 m high on the north and west facings, exhibits fortification characteristics, making it the only fortified area of the settlement.³⁰ In light of these observations, Qumran's extending walls outside of the tower—both the long and coastal walls—are unlikely candidates for a fortress blueprint.

Agricultural Markers

A closer parallel to the long wall's construction are the agricultural walls in the area. The wall that extends between 'Ain el-Ghuweir and 'Ain el-Turabe 15 km to the south, resembles the Qumran wall and has been designated as an Iron

²⁵ S. Gutman, "Gamala." *NEAEHL* 2: 460; D. Syon, "Gamala: Portrait of a Rebellion." *BAR* 18/1 (1992): 25.

²⁶ J. Patrich, "Hyrcania." *NEAEHL* 2: 639–1.

²⁷ At Masada, the casemate wall measures 1.4 m for the outer wall, 4 m for the inner covered space, and c. 95 cm thick for the inner wall; *Masada: The Yagael Yadin Excavations 1963–1965, Final Reports*. Vol. 3: *The Buildings—Stratigraphy and Architecture* (Jerusalem: Israel Exploration Society, 1991), 385.

²⁸ E. Netzer, "Herodium." *NEAEHL* 2: 619.

²⁹ Furthermore, the water system at Qumran penetrates its various walls so that, if these were fortress walls, the system would have been placed in a vulnerable state accessible to enemies.

³⁰ See Hirschfeld 1998: 180, who speculates that in its original state the tower wall rose much higher.

Age agricultural marker by L. Stager. Like the construction of other agricultural walls in the area, according to Stager, the first section of the wall near Wadi Qumran contained “sluice gates during the winter season when torrents of floodwaters overflowed the Buce’a basin and discharged into the Dead Sea.” Stager maintains that in the southern part of the wall, “standing stones gave way to a solid wall made of large boulders lying on their long sides.” In this segment, he sees the wall as an Iron Age “barrier to enclose and protect the plantations of date palms that grew along the shores of the Dead Sea in the seventh century BC.”³¹ This evidence seems to give some support to the theory that Qumran’s long wall shares characteristics with nearby agricultural walls, as they were built with a similar method and style. But, could the Qumran’s wall builders or later inhabitants of the site simply have employed the regional building style of the day for a different purpose, for a more symbolic function? I now turn to the third proposition that interprets the long wall as a marker of sacred and profane space.

Sacred Dividers

In Second Temple period Judaism, three types of examples emerge that are particularly revealing about the symbolic role that low walls play in dividing and generating sacred space: walls in sectarian communities, walls in the Jerusalem Temple, and walls within ritual baths (*miqva’ot*). The first case comes from a passage by Philo on the Therapeutae, an ascetic Jewish group in first-century Alexandria. Although geographically distant from Qumran, Philo describes the space of a sectarian religious community that is contemporaneous with Qumran and its inhabitants:

This common sanctuary (*semneion*) in which they meet every seventh day is a double enclosure (*peri-*

bolos), one portion set apart for the use of the men, the other for the women. . . . The wall (*toichos*) between the two chambers rises up from the ground to three or four cubits built in the form of a breast work (*thôrakion*), while the space above up to the roof is left open (Philo, *Contempl. Life* 32–33 [Colson, LCL]).³²

The terms Philo employs here, *toichos* (wall) and *thôrakion* (parapet), possibly refer to a stone wall that reaches between 1–2 m high.³³ If Qumran’s inhabitants are sectarian in nature, as some scholars suggest, we may have a parallel social context. On the other hand, the spatial placement of Philo’s wall is quite different from that of Qumran’s long wall. Philo’s wall exists inside a roofed structure, it divides a room into two parts, and it separates two taxonomies of participants, men and women. What is relevant to our discussion of walls as portents of the sacred is Philo’s rhetorical strategy of coupling the term *semnos*—an area that is holy, august, or revered³⁴—with *toichos* and *thôrakion*—wall and parapet—to describe the formulation of both sacred space and gendered space in a first-century Jewish context.³⁵ Here, walls work at both the structural and symbolic levels in order to designate distinct conceptual realms.

The best known examples of architectonic devices used to generate modes of sacrality are only a short distance from Qumran and are contemporary with it: the Temple in Jerusalem.³⁶ According to Josephus and the Mishnah, there were a number of wall-like structures that played essential roles in defining sacred space in the complex of the Second Temple. The first was a long stone wall or barrier that distinguished Jew from non-Jew, insider from outsider, and the ritually pure from the impure within the Herodian Temple. Josephus writes that the second court of the Temple was:

³¹ All of Stager’s quotations in this paragraph are from Stager 1976: 157.

³² For a broader discussion of Philo’s gendered designations, see J.E. Taylor and P.R. Davies, “The So-called Therapeutae of ‘*De vita contemplativa*’: Identity and Character.” *HTR* 91 (1998): 14–5; on the entire subject, see now J.E. Taylor, *Jewish Women Philosophers of First-Century Alexandria: Philo’s ‘Therapeutae’ Reconsidered* (Oxford: Oxford University Press, 2003).

³³ Τοῦρχος or τεῦρχος often indicates a city wall, embankment, or fortification while θωράκιον refers to a parapet, dwarfwall of an enclosure or breastwork; see LSJ 1767, 813.

³⁴ LSJ, 1591.

³⁵ See my longer discussion of this passage in the forthcoming article “Women as *objets de sacrifice*? An Early Christian ‘Chancel of the Virgins.’” In: *La cuisine et l’autel. Les sacrifices en questions dans les sociétés de la Méditerranée ancienne* (Edited by S. Georgoudi, R. Koch Pietre and F. Schmidt; Paris: Brepols), 371–90.

³⁶ See a more sustained discussion of theories of sacred space and the Jerusalem Temple in J.R. Branham, “Sacred Space Under Erasure in Ancient Synagogues and Early Churches.” *Art Bulletin* 74 (1992): 375–94.

surrounded by a stone balustrade three cubits high and of exquisite workmanship; in this at regular intervals stood slabs giving warning, some in Greek, others in Latin characters, of the law of purification, to wit that no foreigner was permitted to enter the holy place (Josephus, *J.W.* 5:193–94).³⁷

M. Mid. 2:3 describes this wall as measuring ten handbreadths high and calls it a *soreg*. The linguistic clue indicated by the term *soreg*—some kind of “woven” architecture—together with Josephus’s reference to “exquisite workmanship,” may allude to a stone screen of lattice-work form. As I have argued elsewhere, the composite description of a latticed barrier measuring 1–2 m high, resonates strongly with evidence from contemporary Roman sacred sites as well, where perforated symbolic dividers—not structurally fortified ones—separated areas of ritual from surrounding common ground.³⁸

While the *soreg* served to separate the Court of the Gentiles from the interior and more sacred courtyards, yet another wall marked the transition from the Court of the Israelites to the Court of the Priests. Josephus remarks: “Surrounding both the sanctuary and the altar was a low stone parapet, fair and graceful, about a cubit high, which separated the laity from the priests” (Josephus *J.W.* 5:226).³⁹ Inside this parapet, the primary activity was the sacrifice of animals on the altar by the priestly class, giving hierarchical and ritual importance to the priestly barrier.

Qumran’s long wall, in use at the same time and in geographical proximity to the Temple *soreg* and priestly parapet, seems to share very little in common with them in appearance and form. The Qumran wall carries no inscriptions of warning announcing purity laws to either insiders or outsiders while the Temple *soreg* is explicit, multilingual, and self-referential about its function and meaning. The rural construction and non-decorative

appearance of Qumran’s long walls are incongruous with the features of the “exquisite workmanship” of the *soreg* or the “fair and graceful” style of the parapet. The reasons for these differences are almost self evident. Qumran was not the capital of Judaea, flooded daily with foreign visitors and pilgrims who required sign posts to direct traffic and maintain crowd control. Qumran was also not a public forum of the same caliber as the royally-funded Herodian structure that showcased fine artistry. On the other hand, the Qumran wall and Temple balustrades do share some common features. None of them exceeds two meters in height, and, therefore, are not physically fortified to prevent human passage or trespassing. Instead, it is only an agreed-upon system at work that makes them effective, a system in which people accept the spatial divisions created by these walls as well as the rules for traversing them. This recalls the view of Frost’s farmer, who sees walls operating at a social and symbolic level and actually generating “good neighbors.” This type of divider, operating at a purely symbolic level, lies at the core of our final example, *miqva’ot*.

Literary and archaeological evidence point to the development of a particular type of *miqveh* during the late Hellenistic and early Roman periods, which exhibits low partitions on the steps in order to forge two different spatial entities. In many of these cases, the physical separation divides the impure status of a person or vessel on one side of the divider from the pure status of a person or vessel on the other side. The description of such a system is attested to in a variety of Jewish sources, including *m. Šeqal.* (8:2), *m. Pesah.* (19b) of the Babylonian Talmud, the *Letter of Aristeas* (106), the *Temple Scroll* (45.4–5), and one second-century Christian text, *Fragment Oxyrhynchus* 840 (2.5).⁴⁰

³⁷ Also see Josephus’ other references to this same barrier in Josephus, *J.W.* 4:182–3; 6:124–8; *Ant.* 15:417; 12:145; *Ag.Ap.* 2:103; and Philo, *Embassy* 31:212.

³⁸ See possible reconstructions of this Temple barrier in Branham 1992: figs. 2–4; id., “Vicarious Sacrality: Temple Space in Ancient Synagogues.” In: *Ancient Synagogues: Historical Analysis and Archaeological Discovery*. 2 Volumes. SPB 47 Edited by D. Urman and P.V.M. Flesher; Leiden: Brill, 1995), 2: 319–45.

³⁹ *M. Mid.* 2:6 also comments on this barrier, stating: “the end of flagstones separated the Court of the Israelites from the Court of the Priests.”

⁴⁰ I thank Katharina Galor for passing along the rabbinic references. See R. Reich, “The Synagogue and the *Miqveh*

in Eretz-Israel in the Second Temple, Mishnaic and Talmudic Periods.” In: Urman and Flesher 1995, 2: 289–97. Cf. id., “Mishnah, *Sheqalim* 8:2 and the Archaeological Evidence.” In: *Jerusalem in the Second Temple Period: Abraham Schalit Memorial Volume* (Edited by A. Oppenheimer, U. Rappaport and E. Stern; Jerusalem: Yad Izhak Ben-Zvi and Ministry of Defence, 1980), 225–56 [Hebrew; English abstract, p. XIV]. See 11QT 45.1–7 in F.G. Martínez and E.J.C. Tigchelaar (eds.), *The Dead Sea Scrolls Study Edition* (Leiden: Brill, 1997), 1263. For good photographs of a divided *miqveh* near the Temple Mount, see R. Reich, G. Ayni and T. Winter, “Ritual Baths.” In: *The Jerusalem Archaeological Park* (Jerusalem: Israel Antiquities Authority, 1999), 13, 146.

Archaeological remains of these types of *miqva'ot* have been found in a number of places as well, including around the Temple in Mount Jerusalem.⁴¹ The height of these partitions is often minimal, indeed less than two or three centimeters in some cases. Such dividers did not succeed *functionally* in dividing the water inside the *miqveh*; the water could intermingle freely on both sides of the low wall. Instead, the dividers acted at a purely *symbolic* level, separating the status of those entering from the status of those exiting.

In all of the examples given here, as well as the Qumran long wall, dividers act at a very basic level to cut up the space they occupy, thereby creating disparate spatial units; for Philo's *toichos*, it divides men and women in a ritual setting; for the *soreg*, it distinguishes Jew from non-Jew, and the ritually pure from the impure; for the priestly parapet, it separates priest from non-priest; and for the *miqveh*, it separates pure from impure people and substances. So, what does the Qumran wall divide and can it be seen to work at a functional as well as symbolic level? To answer these questions, we must now examine the entities that flanked the two sides of the wall, namely the settlement and the cemetery. Critical to understanding the relationship of the settlement-wall-cemetery rapport is their dating and function.

Contextualizing Qumran's Walls

Dating

The dating of the long wall in relation to the Qumran settlement takes on increased importance if the different elements of the site are to be functionally linked. De Vaux, Hachlili, Laperrousaz,

and others generally agree that the date of the Qumran cemetery is from 150 BCE to 68 CE.⁴² Laperrousaz follows de Vaux in supporting an early dating for the wall, five centuries before the tombs: "The long wall, constructed in large stones and oriented exactly like the eastern wall of the Israelite-period building . . . would date from this time period."⁴³ If these attributions are correct, the wall was not built at the same time as the cemetery and, therefore, did not initially function as a separating device between the site and the cemetery, but possibly served as an agricultural wall.

Humbert, Magen, Magness, and others who have revised de Vaux's chronology, however, date the extended long wall to as late as the first century BCE along with many of the tombs and the construction of the cistern in locus 71.⁴⁴ Humbert specifically observes that the longest, southern part of this wall—employing small pebbles as a mortaring agent—reveals a different method of construction from the northern part of the site (figs. 4.4 and 4.5), and is able, then, to confirm a later date for the southern extension of the wall.⁴⁵ If the later dating of the wall is correct, then the wall, the site, and the cemetery *are* contemporaneous, establishing a direct link among them.

Walls—like other charged elements—can, however, shift in meaning and usage over time, allowing for a variety of chronological possibilities between the wall and its context. What may have started out as a utilitarian device in one culture could become a purely symbolic entity in another. A wall previously vacant of religious value can be invested with symbolic import upon the installation of a new community to a site, upon a shift in a particular community's philosophy, or, perhaps

⁴¹ See examples in N. Avigad, *Discovering Jerusalem* (Nashville: Thomas Nelson, 1980), 139–42. Such *miqva'ot* may also exist at Qumran proper, but the identification of the cisterns there is still debated. See the discussion by Magness 2002, 145–50, as well as K. Galor, "Plastered Pools: A New Perspective." In: *Khirbet Qumrân et 'Ain Feshkha*. Vol. 2: *Études d'anthropologie, de physique et de chimie*. NTOA.SA 3 (Edited by J.-B. Humbert and J. Gunneweg; Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht, 2003), 291–320.

⁴² Laperrousaz 1976, 23; Hachlili 1993: 247; see also Magness 2002, 168–75.

⁴³ Laperrousaz 1976, 26; see also n. 14 above.

⁴⁴ See, for example, Humbert 1994: 206 and 211; J. Magness, "The Chronology of the Settlement at Qumran in

the Herodian Period." *DSD* 2 (1995): 58–65; Magness 2002: 49.

⁴⁵ Humbert 1994: 207: "Le long mur qui isole l'esplanade n'est pas homogène dans son mode de construction. L'élément nord qui, comme nous l'avons dit, servait vestige d'une clôture plus ancienne, est construit comme les autres murs du *khirbêh*. La partie la plus longue, à partir du témoin de l'angle périmé, possède un appareil très particulier de gros blocs formant boutisses, empilés sans souci d'assises, et les interstices sont colmatés avec de petites pierres . . . Le P. de Vaux voulait l'attribuer à la période du Fer et pensait confusément à une espèce de défense sur la terrasse. Il était pourtant évident que l'ouvrage venait s'appuyer contre l'état le plus récent de Qumrân."

more importantly, upon the addition of a new spatial element, such as a cemetery. For example, if de Vaux's dating is correct, an earlier community could have traced the boundaries of its settlement and farm lands by building a wall. Later, this pre-existing Iron-Age wall—perhaps originally built for agricultural purposes—may have actually *attracted* some sort of religious community to settle there.⁴⁶ In this case, the wall—incorporated into a new system—acts as a forceful agent to define and choreograph the very habits and customs of its community and not vice versa. Whether it was linked to earlier or later phases of the Qumran settlement and the cemetery, the wall would have predetermined what is “here” and what is “there,” what is “in,” and what is “out.”⁴⁷ In order to understand how the Qumran community contemporaneous with the cemetery may have interpreted this wall, I turn to relevant textual sources for attitudes towards cemetery walls.

Separating the Dead

The Book of Ezekiel both condemns and attests to the use of a wall to divide the Jerusalem sanctuary from corpses buried nearby. Chapter 43:7–8 states that the buried of kings defiled the Holy Name “when they placed their threshold next to

my threshold and their doorpost next to my doorpost with only a wall [*qir*] between me and them.”⁴⁸ Literary evidence from non-Biblical scrolls found in the area sheds very little light on the wall itself, although it does explicate issues of purity and burial. The Temple Scroll describes several monumental walls surrounding the various Temple courtyards, yet, its directive concerning cemeteries—“You shall . . . set apart places within your land in which you shall bury your dead,” (11QT 48:11–14)—makes no mention of walls and leaves open the question as to how this separation is made.⁴⁹ Mishnah *B. Bat.* 2:9, a later and somewhat more specific text, says that “Carcasses, graves, and tanneries may not remain within a space of fifty cubits [approximately 22–27 m] from the town.” The principal edge of the cemetery at Qumran—ranging 31 to 44 m away from the settlement wall—seems to meet the requirements of Mishnaic law.⁵⁰ Besides this distance requirement, no ancient laws appear to require the building of walls to separate cemeteries from towns. Settlements such as Jerusalem and Jericho already employed defensive walls that marked out the limits of the city, and graves were subsequently dug outside these walls.⁵¹ More common are wall-less towns with no structural separation dividing them from neighboring cemeteries.⁵² Excavation reports of burial sites from the Iron Age to Roman times

⁴⁶ Magness argues against the rehabilitation of the site from a non-sectarian locale to one assumed by a religious group; instead, she sees the settlement as sectarian, specifically Essene, from the outset; see Magness 2002, 43, 66, and 73–104.

⁴⁷ The garbage dump recently found on the eastern side of the wall by Yizhak Magen and Yuval Peleg further underscores this point and is critical to it. See their article in this volume.

⁴⁸ For literary and archaeological evidence on this subject, see E. Bloch-Smith, *Judahite Burial Practice and Beliefs about the Dead*. JSOT/ASOR.MS 57 (Sheffield: Sheffield Academic Press, 1992), 116–7 and 138–9.

⁴⁹ “The Impurity of the Dead in the Temple Scroll.” In: *Archaeology and History in the Dead Sea Scrolls*. JSP.SS 8 (Edited by L.H. Schiffman; Sheffield: JSOT Press, 1990), 135–56, esp. 137.

⁵⁰ Golb, however, calculates the cemetery at its closest point to Qumran at 35 m and states that this distance barely meets the Mishnaic requirement. Relating the site to the scrolls found there, he states, “It is impossible to believe . . . that the purity-obsessed brethren described in the *Manual of Discipline*, who were governed by priests, would have allowed themselves to build a communal cemetery so close to their settlement, particularly when more abundant space was available farther away” (Golb 1995, 34). Meyers comments on this subject in relation to other sites in Israel (see quote in

Z.J. Kapera, “Some Remarks on the Qumran Cemetery.” In: *Methods of Investigation of the Dead Sea Scrolls and the Khirbet Qumran Site: Present Realities and Future Prospects*. ANYAS 722 (Edited by M.O. Wise et al.; New York: Academy of Sciences, 1994), 113. See also S.H. Steckoll, “Preliminary Excavation Report in the Qumran Cemetery.” *RevQ* 23 (1968): 323–36. The use of Ground Penetrating Radar in recent excavations has now identified thirty-seven “possible tombs” closer to the settlement, in a less dense and less clearly ordered pattern than the main area of the cemetery. All these are clearly outside the wall, but in any event the excavators caution that “it is impossible to determine if these are indeed tombs” rather than some other sort of disturbance or anomaly; see the most recent article on this: H. Eshel et al., “New Data on the Cemetery East of Khirbet Qumran.” *DSD* 9 (2002): 135–65 (quote from p. 142).

⁵¹ R. Hachlili and A. Killebrew, “Jewish Funerary Customs during the Second Temple Period in the Light of the Excavations at the Jericho Necropolis.” *PEQ* 115 (1983): 110.

⁵² In the nearby sites of ‘Ain Feshkha and ‘Ain el-Ghuweir—settlements associated most closely with Qumran and the cemetery/wall relationship at Qumran—we notice the following. The settlement at Qumran has both a wall and cemetery. The settlement at ‘Ain Feshkha has a wall yet no cemetery. The settlement at ‘Ain el-Ghuweir has a wall and a cemetery (explained below). Moreover, several authors have

are noticeably silent about specially constructed cemetery walls. Could the Qumran community, having met the demands of Jewish law with its distance of forty paces, have constructed an extended wall as yet another measure of separation? In such a case, the wall would have served as an additional buffer zone, insuring that one category of purity or impurity did not encounter, infiltrate, or invade the other. Our focus on the cemetery may, however, be neglecting the fact that there are *two* sides to every wall. What, for example, was the function of the large terrace (locus 97) and the other areas defined by the wall's western border?⁵³

Bones and the Wall

In 1955, de Vaux excavated two trenches, 2 m wide, alongside the western length of the long wall—the southern trench and the extreme southern trench.⁵⁴ In these trenches, he found 13 deposits of animal bones—mostly the heads of sheep and cows—and coins that he dates from 135 BCE to 69/70 CE.⁵⁵ He also found cavities similar to those recently excavated and interpreted them as silos of some kind, speculating that locus 97 served as a stable or barn for animals.⁵⁶ If the terrace functioned as an animal yard, could it have also acted as a burial ground for animals in light of the bones found near the wall? But why would a burial ground for animals contain only parts of animals—mostly heads—in jars? Moreover, these finds inside the long wall (as well as in several loci within the site) challenge the Mishnaic ruling forbidding the presence of animal carcasses within a settlement's boundaries. Humbert has proposed

to answer this enigma by interpreting the animal carcasses as sacrificial victims, and, therefore, sacred substances to be located inside a purity wall.⁵⁷ Other scholars have looked to a passage in *Miqsat Ma'ase Ha-Torah* (4QMMT, lines 58–61) from cave four that states: “And one must not let dogs enter the holy camp since they may eat some of the bones of the sanctuary while the flesh is (still) on them. For Jerusalem is the camp of holiness, and is the place which He has chosen from among all the tribes of Israel.”⁵⁸ Both of these attempts to explain the buried bones presume that the animals were sacrificial in nature, and that animal remains would have been disposed of inside a ritual space.

Such a system seems to be incongruous with other Jewish cultic practices. For example, David Wright's study, *The Disposal of Impurity*, demonstrates that the remains of sacrificial animals—which were, therefore, quasi-sacred entities in themselves—were either fully consumed by fire on the altar inside sacred precincts or specifically taken outside the camp or Temple grounds to avoid contaminating the community. In the late Hellenistic to early Roman period, animal remains—such as the skin, head, legs, entrails, and excrement—were taken to the Kidron Valley for burning in an ash dump.⁵⁹ Burial of such remains inside of sacred grounds does not seem to have been a religious observance. If this were the situation at Qumran, we may have an unparalleled arrangement in Second Temple period Judaism.

These problems are even further complicated by a mysterious passage from de Vaux's excavation notebook that surfaced in the 1994 publication of

attributed the tombs at 'Ain el-Ghuweir to the Qumran community. P. Bar-Adon, for example, writes that “the close resemblance between the tombs and the form of burial in the cemeteries at 'En el-Ghuweir and Qumran” is “striking””; see P. Bar-Adon, “Another Settlement of the Judaean Sect at 'En-Ghuweir on the Shores of the Dead Sea.” *BASOR* 225 (1977): 17. Likewise, É. Puech confirms that “among the 18 tombs excavated, we find all of the characteristics of the Qumran cemetery.” He goes on to list various features, except for the wall of separation he identified with Qumran's graveyard. In fact, the tombs at 'Ain el-Ghuweir were found 800 m to the north of the settlement and disconnected from the wall; thus, its spatial layout in relation to the cemetery differs fundamentally from Qumran's organization. The discrepancy, then, between these neighboring sites and Qumran's wall/cemetery configuration points to the spatial uniqueness of Qumran; see Puech 1993, 2: 696.

⁵³ The dating of the wall and the function of the adjacent areas are related to the objects found next to the walls in recent excavations by Yizhak Magen and Yuval Peleg: a paved floor on the west side of the wall and a garbage dump on the east side. See their article in this volume.

⁵⁴ Laperrousaz 1976, 25.

⁵⁵ De Vaux, *L'archéologie et les manuscrits de la Mer Morte* (London: Oxford University Press, for the British Academy, 1961), 10; Humbert and Chambon 1994, 341.

⁵⁶ De Vaux 1961a.

⁵⁷ Humbert 1994: 187–9 and 205.

⁵⁸ E. Qimron and J. Strugnell (eds.), *Miqsat Ma'ase Ha-Torah. Qumran Cave 4. DJD 10* (Edited by E. Qimron and J. Strugnell; Oxford: Clarendon, 1994), 52–3 and 162–4.

⁵⁹ D. Wright, *The Disposal of Impurity: Elimination Rites in the Bible and in Hittite and Mesopotamian Literature*. SBL.DS 101 (Atlanta: Scholars, 1987), 134.

his notes. While examining this area on February 28, 1955 he writes: “A trench of two m. is opened oriented east-west at the end of the esplanade near the place where the two jars with human bones were found.”⁶⁰ Could *human bones* have been buried inside the wall at the end of the terrace along with animal bones? Is de Vaux mistaken in his identification or is this simply a slip of the pen? Although this passage has been largely ignored, the presence of human bones would radically influence any interpretation about the wall’s relationship to purity issues.

In addition to this overlooked note, an opening in the wall near locus 63⁶¹ appears in some plans and not in others.⁶² Such a penetration or break would dramatically alter a barrier’s function, allowing the entities that exist on either side to converge and mingle.⁶³ Locus 63, a sort of vestibule, gives access to a pottery workshop, kiln, wine press, and, most notably, one of the largest water installations at the site, locus 71. Thus, on the eastern side of the punctured wall lies the cemetery, and directly on the western side stands the enormous cistern locus 71. Could a burial party, for example, have entered here for ritual purification before entering the rest of the site? 11QT 50:4–8 states: “Any man who touches in the open field the bone of a dead man, or one slain with a sword, or a corpse, or the blood of a dead man, or a grave shall cleanse himself according to the statute of this regulation.”⁶⁴ This configuration would allow Qumran to function both as a site of impurity—i.e., cemetery—and as a site of purification. To accommodate such polar identities simultaneously, some palpable device was needed, or at least appropriated from an earlier (possibly agricultural) arrangement, in order to

delineate space and indicate the symbolic presence of both states. In light of the examples from the Jerusalem Temple, the Therapeutae, and the *miqva’ot*—all first-century Jewish contexts—the natural device for such symbolic differentiation was a low wall.

If the builders/users of the Qumran wall are the same people connected to the scrolls found nearby—whether they wrote them at Qumran or brought them there from afar—these inhabitants did not perceive the world around them in conventional or practical terms. Rather, they imbued the details of their existence—including physical and architectural structures—with charged religious meaning and halakhic importance. In this case, the wall may not have separated a “sacred space” from a profane site, but rather a “sacred entity” (namely the *community*) from the contamination of the neighboring cemetery. Terms such as “Council of Holiness,” בעצה הקודש (1QS 8.21), “Community of Holiness,” ליהוד קודש (1QS 9.2), and “Men of Holiness” אנשי הקודש (1QS 9.8) appear repeatedly in the scrolls, emphasizing a sense of sacred community over space.⁶⁵

Conclusion

The long wall, with its double connection to the settlement on one side and the cemetery on the other, as well as its point of passage between them, may have functioned as a liminal device that allowed the entire Dead Sea site to act both as a zone of purity and as a site of impurity. In this sense, the wall may have functioned for the greater site the way low parapets inside of *miqva’ot* distinguish between the impurity of the bather

⁶⁰ “Une tranchée de deux mètres est ouverte orientée est-ouest à l’extrémité de l’esplanade, près de l’endroit où ont été trouvées les deux jarres avec ossements humains” (de Vaux, in Humbert and Chambon 1994, 340).

⁶¹ Magen and Peleg’s unearthing of a water channel here further informs the status of this opening; see their article in this volume.

⁶² See Humbert and Chambon 1994, 16, 168.

⁶³ While neither Laperrousaz nor de Vaux treats this puncture, Humbert labels it “une porte” and gives it a post-68 date, when the site was no longer used by its principal community. Humbert writes: “Il y a de fortes chances pour que, lorsque les esséniens pratiquent leur culte, il n’y ait pas d’accès de ce côté-là. Il ne fallait pas risquer qu’un animal qui aurait traversé les tombes, ne s’y aventure, ou qu’un homme

y soit rentré sans s’être purifié . . . une seule porte . . . pénètre de l’extérieur dans le locus 63, qui est un vestibule. L’accès de ce côté pourrait être associé au niveau III, c’est-à-dire au moment où l’habitat après 68 ap. J.-C. n’était plus qu’un réaménagement dans les ruines” (Humbert 1994: 203).

⁶⁴ Schiffman 1990: 149.

⁶⁵ Quoted from J.H. Charlesworth et al. (eds.), *The Dead Sea Scrolls. Hebrew, Aramaic, and Greek Texts with English Translations*. Vol. 1: *Rule of the Community and Related Documents* (Tübingen: J.C.B. Mohr [Paul Siebeck], 1994), 38. See Francis Schmidt’s discussion of sacred, profane, and community, in *How the Temple Thinks: Identity and Social Cohesion in Ancient Judaism* (Translated by J.E. Crowley; Sheffield: Sheffield Academic Press, 2001), 150–66.

entering and the purity of the bather exiting. In the *miqveh's* ability to house clean and unclean states simultaneously, it represents an instrument of liminality, that is to say, an in-between-place in which a transition is made from one condition to the other. A *miqveh*, then, can be defined neither as a topos of purity nor as a topos of impurity; it is both. By accommodating both states, it acts as an agent of transformation.

Interpreting the wall as a symbolic device of liminality, in turn posits Qumran itself as a liminal threshold for those seeking transition (spiri-

tually or ritually) from an imperfect world to one more *halakhically* resolute. This view of Qumran as a gateway capable of merging and negotiating two states of being rejects the notion of an hermetically sealed, sacred site in favor of one more multivalent and complex in nature, one that affirms the evolutionary and oscillating meaning and function of the long wall over time according to the changing behaviors and identities of the inhabitants. Fences do make good neighbors, and, in this case, when the neighbors are over 1,000 corpses, walls make good sense.

CHAPTER FIVE

KHIRBET QUMRAN IN PERIOD III

Joan E. Taylor

From the beginning, the excavations at Khirbet Qumran in the 1950s jointly undertaken by the Palestine Archaeological Museum, the Department of Antiquities of Jordan, and the École Biblique et Archéologique Française de Jérusalem, and headed by Fr. Roland de Vaux of the École Biblique,¹ focused on the periods most likely to be associated with the Dead Sea Scroll texts, namely Periods I and II, from the end of the second century B.C.E. to 68 C.E.² The earlier Iron Age II (seventh–sixth century B.C.E.) fort established here has not been of such keen interest, and evidence of what took place after Period II has not been considered in great detail. De Vaux suggested that all Period III remains are the result of only 5 years' occupation by a small Roman garrison made up of soldiers of the *Legio X Fretensis*,³ and, therefore, this period of occupation has seemed rather insignificant. In this article, we will look further at Period III. For reasons of space, the discussion here will focus on the date of the beginning

of Period III and the essential character of the settlement.

De Vaux's Presentation of Period III

De Vaux's presentation of the excavations at Qumran shows that the Period III form of the buildings and installations at Qumran were, as in many sites, a mélange of some features surviving from Period I (probably first constructed in the late second century B.C.E.) and Period II (constructed at the beginning of the first century C.E.), with some new features. At the end of Period II, Qumran suffered destruction, but the site was neither completely destroyed nor levelled.

De Vaux thought that Qumran was attacked by the Roman military, which brought the end of Period II occupation. De Vaux connected the iron arrowheads found at the site with this attack.⁴ A powdery black substance in various areas

¹ Preliminary reports by R. de Vaux: "Post-scriptum: La cachette des manuscrits hébreux." *RB* 56 (1949): 234–7; "Fouille au Khirbet Qumrân: rapport préliminaire." *RB* 60 (1953): 83–106; "Exploration de la région de Qumrân. Rapport préliminaire." *RB* 60 (1953): 540–61; "Fouilles au Khirbet Qumrân. Rapport préliminaire sur la deuxième campagne." *RB* 61 (1954): 206–36; "Fouilles au Khirbet Qumrân. Rapport préliminaire sur les 3e, 4e et 5e campagnes." *RB* 63 (1956): 533–77; "Fouilles de Feshkha." *RB* 66 (1959): 225–55. De Vaux synthesized his results in: *L'archéologie et les manuscrits de la Mer Morte* (London: Oxford University Press, for the British Academy, 1961) and expanded this in the English version: *Archaeology and the Dead Sea Scrolls* (London: Oxford University Press, for the British Academy, 1973). De Vaux's field notes were published with photographs and plans of the site in *Fouilles de Khirbet Qumrân et de Ain Feshka*. Vol. 1: *Album de photographies. Répertoire du fonds photographiques. Synthèse des notes de chantier du Père Roland de Vaux*. NTOA.SA 1 (Edited by J.-B. Humbert and A. Chambon; Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht, 1994); cf. the English edition: *The Excavations of Khirbet Qumrân and Ain Feshkha*. Vol. 1B: *Synthesis of Roland de Vaux's Field Notes*. NTOA.SA 1B (Translated and revised by S.J. Pfann; Fribourg: Universitätsverlag Freiburg; Göttingen: Vandenhoeck & Ruprecht, 2003). In addition, the German edition of the field notes contains useful tables and diagrams: *Die Ausgrabungen*

von Qumran und En Feschka. Vol. 1A: *Die Grabungstagebücher*. NTOA.SA 1A (Translated and supplemented by F. Rohrhirsch and B. Hofmeir; Fribourg: Universitätsverlag Freiburg; Göttingen: Vandenhoeck & Ruprecht, 1996). Reports on excavations in the caves around Qumran are published in volumes 1 and 3 of DJD.

² In referring to Period I rather than Period Ib, I follow the revisions of J.-B. Humbert, "L'espace sacré à Qumrân: Propositions pour l'archéologie." *RB* 101 (1994): 161–214; and J. Magness, "The Chronology of the Settlement at Qumran in the Herodian Period." *DSD* 2 (1995): 58–65; id., "The Chronology of Qumran, Ein Feshkha and Ein el-Ghuweir." In: *Mogilany 1995. Papers on the Dead Sea Scrolls Offered in Memory of Aleksy Klaupek*. *Qumranica Mogilanensia* 15 (Edited by Z.J. Kapera; Cracow: Enigma, 1998), 55–86; id., "The Archaeology of Qumran: A Review." *QC* 8 (1997): 49–62; id., *The Archaeology of Qumran and the Dead Sea Scrolls* (Grand Rapids: Eerdmans, 2002).

³ De Vaux 1973, 41–4; 1956: 567.

⁴ De Vaux 1973, 41. Some of these may come from earlier than the Period II destruction. For example, de Vaux identified an object [2509] as the head of an arrow or javelin of a pre-Roman type; de Vaux 1956:564. The attack weapons comprise objects apparently coming from the destruction layer of Period II in locus 4: iron arrowhead [297] and three-winged arrowhead [302]; locus 19: arrowhead [324]; locus

indicates burning, and Period III walls were sometimes built on a thick layer of ash.⁵ The destruction that took place would be consistent with a historical scenario in which the attackers shot burning arrows on to the roofs. All the rooms on the western side of the site were filled with debris from the collapse of roofs (made of palm beams and dried palm leaves sealed with mud). This was also the case in the central area adjacent to the tower, where the upper levels of the main structure collapsed when the roof fell in, but it was not a case of all-encompassing destruction or levelling. When the next group of occupiers came to the buildings, they cleaned up and used the existing structures where it was possible, dumping the debris north of the buildings and into cisterns in the south (loci 56, 58, 83, 85, 91).

The difference between the various occupation periods can be seen by a comparison between the plans of Period II and Period III (Introductory figs. 2, 3).⁶ As de Vaux defined it, the large tower (loci 8–11), which seems not to have been damaged much, was strengthened with mortar in its lower courses, the northeastern wall was strengthened and thickened, the layout of the northeastern rooms was somewhat modified, and the rooms south of the tower were subdivided and were now probably of a single story built over the destruction level of Period II. Loci 1 and 2 remained the same while locus 4 was divided by a wall on the eastern side (designated 149 and 150 by Humbert and Chambon). A large oven was built in locus 14, the room just south of the tower designated as loci 12 and 13 in Period II. Locus 30—the lower scriptorium room—was divided into three smaller rooms (loci 16, 15, 20). The tower remained much the same. The central courtyard area of Period II (locus 37) was shut off by a very thick wall and a doorway provided into this area on the west. Locus 36 was divided by a mud-brick wall into two smaller rooms (loci 31, 32)

entered from the south. Neither Period II rooms loci 34 and 35 outside the thick wall nor other spaces on the eastern side of the compound were redesigned. The area was, nevertheless, still used, and a badly constructed doorway led to it. The northern part of the main structure remained much the same, with the same doorway out of the compound just to the east of the tower, though an additional room (locus 26) was built here. A ditch was dug along the western wall of the main structure and the southwestern edge between loci 1 and 77 was sealed. Locus 77—a dining hall—was still used but the collapsed pantry area of loci 86 and 87 was sealed off.⁷ The southern doorway of locus 77 was blocked and an oven was built against the north wall.

The occupiers apparently did not require the use of water systems as extensive as had been used in earlier periods, but kept the large southeastern cistern (locus 71). A channel was built through the infilled cistern of locus 91 to connect with the old channel of locus 100. The potter's kiln (locus 64) was turned into a lime store. Burning lime for plastering was an essential task if the water system was to be maintained, since the aqueduct and cisterns were plastered.

The walls constructed in Period III—mainly of reused stones and mud bricks—were not as well built as the structures of Periods I and II, but this may have been the result of a hasty process, if the new occupants sought to occupy the damaged site soon after the Period II destruction. They clearly made an attempt to reuse anything they could from Periods I and II, including nicely-cut column drums in loci 6, 14, 19, 23, 24, 42 and 56.⁸ There appears to be no evidence that the Period III structures were improved over time.

One of the most striking features of Period III is the fortified character of the site. The fortifications of the tower, the new thick wall of locus 37, the sealing of the main compound, and, most

30: iron point (of spear?) [433]; locus 33: iron arrowhead [592]; locus 41: arrowhead [715]; locus 45: iron arrowhead [833]; locus 103: spearhead with 40 coins of the First Revolt (67–69 C.E.) [2010]; locus 109: arrow point [2509]. The brackets ([]) indicate catalogue numbers. For the details of the loci with finds, see Humbert and Chambon 1994. Recently, further arrowheads have come to light in new excavations conducted by Yizhak Magen and Yuval Peleg; see their article in this volume.

⁵ De Vaux 1954: 213–4; 1973, 42.

⁶ Introductory figures 2 and 3 are located in the front section of this volume. The following summary uses information from the field notes, along with de Vaux 1973, 41–4, pl. 23; 1953a: 89–90; 1954: 213–4; 1956: 547–8.

⁷ De Vaux states that “the southeastern quarter of the main building was not re-occupied” (de Vaux 1973, 42).

⁸ Magness 2002, 69.

importantly, the ditch in the west (which would also have run around the entire perimeter of the structure), all point to the fact that the new occupants were concerned to make this site more secure.

Another key feature of Period III is the subdivision of larger rooms (though not locus 77). Unlike in Period II, there was probably no upper storey in Period III, so no upper rooms existed where the occupants could sleep. It is characteristic of Roman camps that small bedrooms are created for each *contubernium* of 8 men, with accompanying smaller storerooms for armour.⁹ An average measurement for sleeping quarters was about 4.6 m², and at Qumran one can see the attempt to create rooms approximating this size with adjoining armour rooms in loci 22 (sleeping) and 31 (armour) and 150 (sleeping) and 149 (armour). Other small rooms with doorways between them could have served the same purpose, even when they conveniently existed already (e.g. loci 1 and 2). However, the plan of Qumran is unlike Roman fortlets in not being symmetrical and the fort-like elements, such as the sleeping/armour rooms, thick walls, and ditch, seem curiously *ad hoc*. This may make us cautious in assigning the occupation of the site in Period III to Roman legionaries proper, even though the military character of the restoration seems clear.

De Vaux noted that the western side of the site was left unrestored. This is clearly because the occupiers did not engage in the industrial or agricultural work that required the use of the western sector of the building complex, indicating that they must have been sustained economically by other means. They did not grind their own flour (the millstones of the site were found in the debris of locus 102 and 105, not in the mill area of Period II).¹⁰ De Vaux states that there was no place for communal assembly in Period III, apparently anxious to stress that it was impossible for Essenes to have lived there at this time. But, actually, the dining hall locus 77 could have served this purpose since it was still in use during Period III. A military unit also needed places to eat.

Dating the Beginning of Period III

There has been a scholarly debate about the precise date of the end of the Period II occupation and the beginning of Period III. While the majority of scholars favour de Vaux's suggestion that Qumran was occupied by Vespasian's forces in 68 C.E., Golb has suggested that Jewish rebels continued to exist in this area until after the fall of Jerusalem in 70 C.E., when Bassus attacked Machaerus to flush out Jewish resistance there.¹¹ For this reason, it is important to clarify the issue.

When de Vaux considered the question, he focused on literary sources and on coins. To take the latter first, de Vaux determined that the last coins of Period II are from the period of the First Jewish Revolt. All ninety-four are bronze: eighty-three are from the second year of the revolt (67/8 C.E.), five from the third year (68/9 C.E.), and six are too oxidised to distinguish. Of these, thirty-nine were discovered in locus 103, thirty-seven from the second year and two from the third year. Another group of thirty-three coins was found in a decantation basin not in use during Period III (locus 83), thirty-one from the second year and two from the third year. Both of these hoards indicate caches of coins, hidden away by people—perhaps Essene refugees from Jerusalem—who never managed to retrieve them. Outside the buildings, only one coin from the second year of the Revolt, and another fifteen from the first year, were found. The coin evidence would, then, fit with the idea that Qumran was attacked in 68 C.E.

According to de Vaux, the Period III coins comprise an undated coin of Antioch from the reign of Nero (locus 43), a coin with the name of Nero's daughter Claudia and his wife Poppaea (ca. 65 C.E.); a silver coin of Vespasian (from 69–70 C.E.; locus 35), four *Judaea Capta* coins of Titus (79–81 C.E.; loci 24, 32, 43), two Ascalon city coins (72–3 C.E. and end of the first century; loci 13, and 34),¹² apparently nine coins from Caesarea from the reign of Nero (67/8 C.E.),¹³

⁹ G. Webster, *The Roman Imperial Army*. 3rd edition (London: A. & C. Black, 1985), 197, fig. 41.

¹⁰ Magness 2002, 60.

¹¹ N. Golb, *Who Wrote the Dead Sea Scrolls? The Search for the Secret of Qumran* (New York: Scribner, 1995), 12–3.

¹² De Vaux thought the first of these was in fact a Tenth Legion coin, but later changed his mind; see de Vaux 1973, 40, n. 1.

¹³ De Vaux 1973, 37 and 44. Of the Caesarean city coins mentioned in de Vaux's field notes, that of locus 14 is listed

and four from 67/8 C.E. from Dora.¹⁴ Despite possibly late dates for some coins, de Vaux was able to link the abandonment of Period III Qumran with the conquest of Masada in 73 C.E.

After the publication of de Vaux's field notes by Humbert and Chambon, however, the question of how accurately de Vaux presented the coin evidence has been raised.¹⁵ Already, we should probably have been suspicious given the fact that all the coins of Period III presented by de Vaux appear to have come from the Period III occupation period or very close to it. This would actually be very unusual, given that coins stayed in circulation for a long time. We can learn from the field notes that coins apparently ascribed to Period II, or even Period I, by de Vaux occur in the upper level of Period III contexts: for example, in locus 16, along with two coins from Caesarea minted under Nero, there was a coin of Alexander Jannaeus [293].¹⁶ Likewise in locus 17, on the upper level, another bronze coin of Alexander Jannaeus [269] was found. In locus 22, where de Vaux found distinctive pottery of Period III,¹⁷ he writes of four large bronze coins near the surface before they hit a Period III floor level, among which is a coin of the First Revolt [339]. He goes on to list three further bronze coins on the upper level: one of Herod Archelaus [371] and two of Herod Agrippa I [496, 497]. In locus 24, in the upper level, where he found a *Judaea Capta* coin of Titus, he also found one from the procurators under Nero. In locus 32, where de Vaux identified three pieces of distinctive Period III pottery,¹⁸ he not only found a *Judaea Capta* coin of Titus [595] and a coin of Dora from 66–7 [596], but also one of Herod Agrippa I [594] and another of Alexander Jannaeus [597]. The list can go on, for example, in locus 35, where de Vaux found the silver coin of Vespasian (dated 69–70 C.E.), he also found another possible Alexander

Jannaeus coin [610] as well as a bronze coin of the procurators under Tiberius [608]. A coin of Tyre dated 53 C.E. [1438] was found together with one of the Caesarean coins from the time of Nero [1439] in a 'Herodian' lamp [1437] in the Period III context of locus 40.¹⁹ The upper level of Locus 41 yielded a bronze coin of Alexander Jannaeus [702] and one possibly of the Second Revolt [714] and, on the Period III floor, a coin of the second year of the First Revolt [743]. Locus 44's upper level contained a bronze coin of the procurators under Nero [1017]. Loci 46–7's upper level produced a bronze coin of Herod Agrippa I [899] and one from the procurators under Nero [900]. The field notes, in fact, provide a much more complex picture of the coinage than de Vaux indicates in his preliminary reports or summaries.

It is impossible to provide a comprehensive list of all the coins from a Period III context owing to the vagueness of the field notes at times, but the foregoing remarks should at least make us pause for thought. The picture is, in fact, what we would expect from an archaeological site in the closing decades of the first century: a mixed assemblage of coins from different decades of the first century, with a concentration of coins coming from later decades, but also some quite old coins. It is interesting that neither in Period II nor in Period III are there coins from the Fourth year of the First Revolt. It could be that the absence of Fourth year coins in Period II is by chance.

In view of this, the dating of the destruction of the site may best be determined by considering the literary evidence. Our main literary evidence for Roman military activities in this region comes from the pen of the historian Josephus, who wrote about the events of the First Revolt soon after it took place, and who was involved

among others in the lower level of 8A, corresponding here to Period II [no. 546], that of locus 14 is under the Period III floor level and comes from Caesarea Panias, c. 64 C.E., and another from locus 37, while at the upper level, is apparently only doubtfully identified as coming from Caesarea. The others come from the time of the procurators under Nero.

¹⁴ De Vaux 1973, 37 and 44. Only two are noted by de Vaux in his field notes: one from locus 32 and another from locus 93.

¹⁵ Y. Meshorer, "The Coins of Qumran." *QC* 7 (1997):

7: abstract of paper presented to the July 1997 conference, *The Dead Sea Scrolls: 50 Years after their Discovery*.

¹⁶ The use of brackets (e.g. [293]) in this discussion of the coins indicates the catalogue numbers assigned in the excavation publications.

¹⁷ De Vaux 1954: 583, figs. 6.4 and 6.6.

¹⁸ De Vaux 1954: 583, figs. 6.5 and 8, 9.

¹⁹ De Vaux 1956: 567; 1973, 37, n. 3. The inventory lists the coin as from the First Revolt, but it was identified by de Vaux as coming from Tyre; see Humbert and Chambon 1994, 40.

in the Jewish resistance in the Galilee until he surrendered.²⁰ In Book 4 of his *Jewish War*, it is the year 68 C.E.: Jerusalem is in the hands of Zealots, and civil war has erupted in the city. Vespasian has quelled the rebellion in the Galilee and Gamala and is waiting for an opportune time to act, resting his army (*J.W.* 4:366–76). People escape from Jerusalem (*J.W.* 4:377–80). The Sicarii take over Masada (*J.W.* 4:399–405) and raid the surrounding district for supplies, including ‘En Gedi, massacring the local population in the process. Vespasian marches on ‘Gadara’ (actually Gedora) in Peraea, where there is Jewish resistance, and sends the tribune Placidus to pursue those fleeing from the town, who had taken refuge in a village named Bethennabris, identified as Tell Nimrin, about 18 km. east of Jericho (fig. 5.1). Here, there is a battle in which the Jews are defeated. The Romans loot the houses, massacre the population, and burn the village (*J.W.* 4:430). The people of the region panic and flee towards Jericho, but they are stuck at the Jordan River, swollen by rain; many are killed and captured along with their livestock. The Dead Sea is filled with bodies washed down the Jordan River (*J.W.* 4:437) and then, says Josephus:

Placidus, following up his good fortune, hastened to attack the small towns and villages in the vicinity. He took Abila [Abel-Shittim], Julias [Livias, Tell er-Rame], Besimoth [Sueimeh], and everything as far as Lake Asphaltitis [the Dead Sea], posting in each a *garrison of such deserters* as he thought fit. Then, putting his soldiers on ships, he captured those who had taken refuge on the lake. So, the whole of Peraea up to [—but not including—] Machaerus had either surrendered or was subdued (*J.W.* 4:438–39).

Vespasian had wintered the Fifth and Fifteenth Legions in Caesarea, and the Tenth in Scythopolis (*J.W.* 4:87,450).²¹ Having let Placidus subdue Peraea, Vespasian then marches with one or two of these legions himself, ‘securing with garrisons the villages and small towns that had been subdued’ (*J.W.* 4:442), from Caesarea through Judaea and Idumaea, burning towns and executing and imprisoning people. Who manned these garrisons is not stated. Then Vespasian goes up to Samaria,

passing Neapolis, and down to Jericho, which he reaches on the third of Daesius—21 June—68 C.E. He is joined by the legate Trajan (father of the future emperor Trajan) with the Tenth Legion forces from Peraea. There are now either two or three Roman legions together, a total of between about 10,000 to 15,000 men. Most of the people of Jericho flee to the hills. Those left behind are killed as the Romans take the city. Josephus describes the hill country stretching down from Jericho to Sodom as “rugged and, on account of its barrenness, uninhabited” (*J.W.* 4:453)—apparently not counting ‘En Gedi and the small settlements along the actual shoreline of the lake itself, like Qumran, since these are not strictly speaking “in the hills” but just below them. It is apparently in the hills, west of the Dead Sea, that the Jericho refugees hide in a desperate search for safety. Vespasian then goes down to the lake from Jericho (Tulul Abu el-Alaiq)—which would have brought him near Rujm el-Bahr—and orders captives unable to swim to be thrown in with their hands tied to see whether they floated (*J.W.* 4:476). He establishes a military camp in Jericho (*J.W.* 4:486), and indeed that the Tenth Legion would come from Jericho under Titus to Jerusalem in 70 C.E. (*J.W.* 5:142, cf. 2:69).²² Gerasa is destroyed. Josephus writes: “The war now engulfed the entire region, both hill and plain, and all escape from Jerusalem was cut off” (*J.W.* 4:490).

It makes sense, if Josephus’ narrative is correct, to imagine that Qumran was noticed by the Roman army and burnt in 68 C.E. There were pockets of Jewish resistance in this area: Herodion and Machaerus were not defeated until the time of Lucius Bassus, in 71 C.E. at the earliest, and Masada survived as a stronghold until Flavius Silva’s siege in 72 or 73 C.E. But these sites were built as very resilient fortresses; Machaerus and Masada were especially hard to attack. There were also Jewish rebels hiding in the unidentified Forest of Jarden (*J.W.* 4:210–15), but forests also were tricky in terms of military operations, as the Romans knew well from their operations in Gaul and Germany. Given the immense size of the Roman forces and the Roman determination to

²⁰ See de Vaux 1973, 38–41.

²¹ Cross seems right in identifying that Josephus’ contradictory remarks in *J.W.* 3:412 are a mistake, see F.M. Cross,

The Ancient Library of Qumran and Modern Biblical Studies. 3rd edition (Garden City: Doubleday, 1961), 62, n. 18.

²² De Vaux 1973, 39.

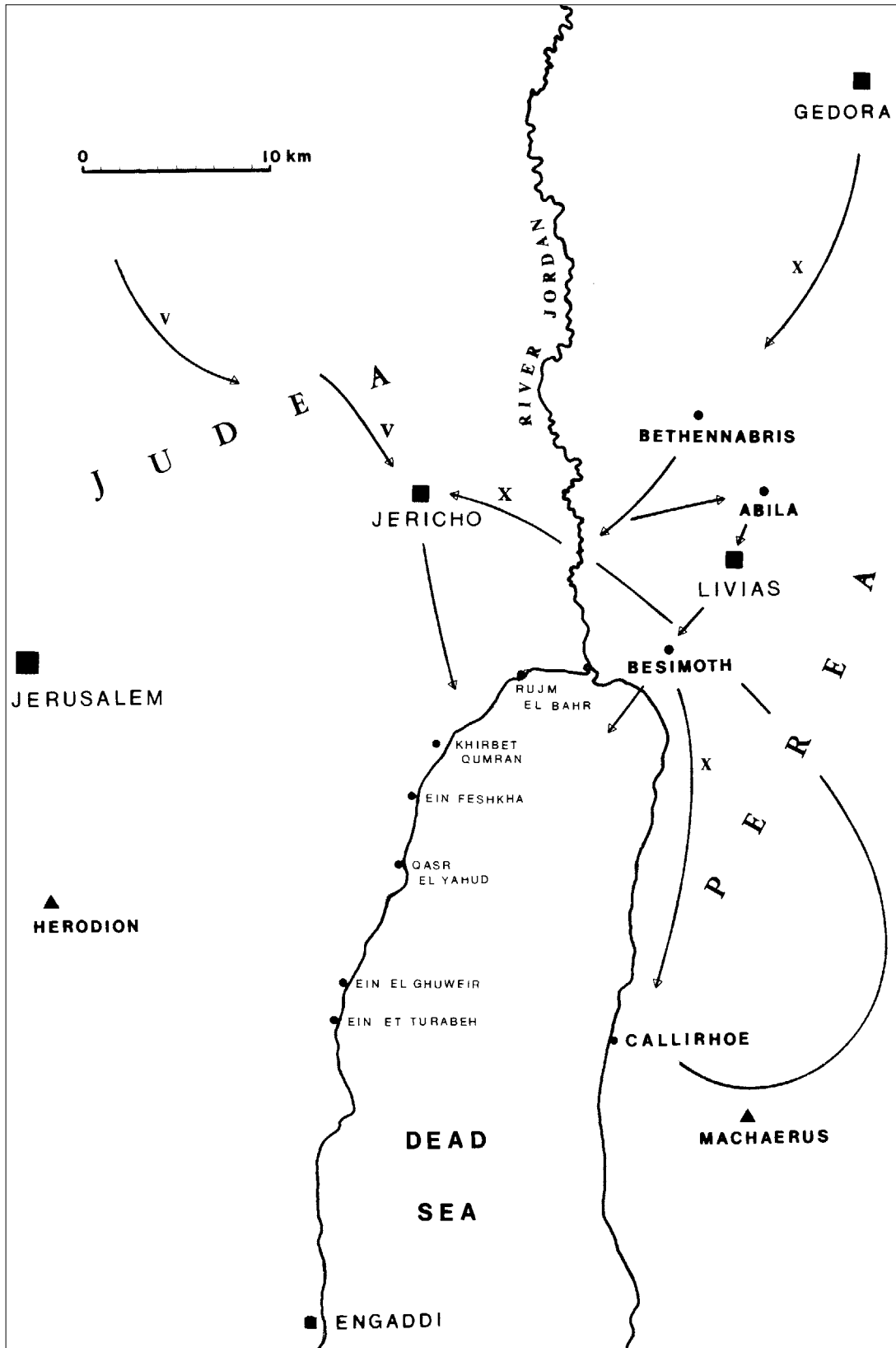


Fig. 5.1. Movement of the Roman army under Vespasian in the Jordan Valley.

subdue the land, it seems impossible that a little unfortified site such as Qumran could have held out like these fortresses and the rebels in the forest. It seems preferable to imagine that Qumran's fate was sealed when Vespasian went down to the Dead Sea to conduct his cruel scientific experiment. This incident may also imply a movement of troops south.

Further archaeological evidence for an attack on Qumran comes from the disturbance of Cave 4.²³ Cave 4 is one of several artificial caves cut into the marl terrace on which Khirbet Qumran is located and lies very close to the ruins. The manuscript fragments of Cave 4 were on the original floor of the cave and were coated with marl sediment which had built up and solidified over a long period, which means they were torn up in antiquity. It seems unlikely that these manuscripts were purposely destroyed by anyone other than Roman soldiers, who probably investigated the caves looking for refugees and booty. 'Ain Feshkha, a kilometer south from Qumran but joined to it by a long wall along the eastern side, was also attacked. According to the new chronology of Jodi Magness, a structure had been established at 'Ain Feshkha at the end of the reign of Herod the Great.²⁴ The structures here—contemporaneous with the Period II structures of Qumran—were partly destroyed, probably also in 68 C.E. In the north, part of the main structure was re-utilised (loci 21 and 22). A coin of Domitian from Antioch (81–96 C.E.; locus 16) and a hoard of seventeen

coins of Agrippa II, dating from 78–95 C.E., indicate the later period of occupation at this site. There was also a legionary brick.²⁵ This brick—previously unpublished and undescribed—indicates some contact between the occupants of this settlement and the Roman forces after 70 C.E.²⁶

The destructions at Qumran and 'Ain Feshkha should not be seen in isolation, but in the context of the other even smaller settlements down the west coast of the Dead Sea between Jericho and to 'En Gedi. Josephus' narrative is silent on what happened to this region, but this silence can be filled by archaeological evidence. The installations of 'Ain el-Ghuweir,²⁷ Khirbet Mazin (Qasr el-Yahud)—an anchorage at the mouth of the Kidron Valley (Wadi en-Nar)—and 'Ain et-Turabe no longer function past the time of the First Revolt.²⁸ Pliny notes that the town of 'En Gedi was burnt (*Nat. Hist.* 5.17.73). There was an outpost of the auxiliary *Cohors I Miliaria Thracum* installed there between at least 70 C.E. and the time of Hadrian.²⁹ The archaeological evidence is consistent with a scenario that would have the Roman army sweeping down all the way from Jericho to 'En Gedi, destroying everything in its path.

The Period III Inhabitants

This brings us to the question of who manned the station at Qumran. If Placidus stationed Jewish deserters at such garrisons in Peraea, there is some

²³ De Vaux 1973, 100–1.

²⁴ Magness 1998, 67–70 and 210–20. Magness's project does not focus on Period III, for which see de Vaux 1973, 63–9, who was uncertain about the dating parameters for Period III here.

²⁵ R. Donceel and P. Donceel-Voûte, "The Archaeology of Khirbet Qumran." In: *Methods of Investigation of the Dead Sea Scrolls and the Khirbet Qumran Site: Present Realities and Future Prospects*. ANYAS 722 (Edited by M.O. Wise et al.; New York: Academy of Sciences, 1994), 14, n. 44, indicate that there were seventy short inscriptions from Qumran and three to four from 'Ain Feshkha, some six being in Greek and Latin, including a weight and legionary brick from 'Ain Feshkha. The weight inscription is in Greek. De Vaux noted at Qumran a sherd with the inscription XI in locus 19 (Humbert and Chambon 1994, 299). The inscriptions and graffiti from Qumran and 'Ain Feshkha are now published by A. Lemaire, "Inscriptions du khirbeh, des grottes et de 'Ain Feshkha." In: *Khirbet Qumrân et 'Ain Feshkha*. Vol. 2: *Études d'anthropologie, de physique et de chimie*. NTOA.SA 3 (Edited by J.-B. Humbert and J. Gunneweg; Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht, 2003), 341–88.

²⁶ The brick is now published by André Lemaire under the siglum "Fesh. 174 (latin)" in Humbert and Gunneweg 2003, 378 and dated to the second century C.E.

²⁷ P. Bar Adon, "Another Settlement of the Judaean Desert Sect at 'En-Ghuweir on the Shores of the Dead Sea." *BASOR* 225 (1977): 1–25.

²⁸ P. Bar Adon, *Excavations in the Judaean Desert*. 'Atiqot 9 (Jerusalem: Israel Antiquities Authority, 1989), 1–88 [Hebrew]. The sites along the shore of the Dead Sea stretch back to Iron Age II, contemporary with the founding of Qumran. Some sites might have gone out of use before 68 C.E.

²⁹ P. Yadin 11.1–7 from the Cave of Letters refers to 'En Gedi as a "village of the lord Caesar" with camps and a camp headquarters, and refers to Magonius Valens, a centurion of the *Cohors I Miliaria Thracum*; see N. Lewis, Y. Yadin and J. Greenfield (eds.), *The Documents from the Bar Kokhba Period in the Cave of Letters: Greek Papyri, Aramaic and Nabatean Signatures and Subscriptions* (Jerusalem: Israel Exploration Society, 1989), 41–6. On 'En Gedi between 70 and 135, see H.M. Cotton, "'En Gedi between the Two Revolts." *SCI* 20 (2001): 139–54.

reason to suggest that similar people also were stationed at Qumran. In fact, it is very unlikely that trained soldiers of the Tenth Legion would have been employed as garrison troops in view of their much-needed skills being required elsewhere. A legion was a fighting machine. Legionaries were trained fighting men, well-equipped and armed in a distinctive way. The archaeological evidence for the identity of the occupiers at Qumran is scanty and as yet not fully published. In locus 14, the area south of the tower with the oven at the center, two pottery items, identified as coming from Period III were found.³⁰ There was also quite a collection of bronze and other metal items, including a buckle with tongue and fragments of a bronze box.³¹ While buckles cannot be exclusively associated with the military, buckles with tongues are found frequently in Roman forts since they formed part of the *lorica segmentata* armour used in the first century.³² However, this armour does not necessarily indicate the presence of legionaries since auxiliaries equipped by the Romans could wear the same thing.³³ In total, there are 12 examples of buckles from Qumran in the inventory, and most of these appear to derive from either Period III or the destruction layer of Period II.³⁴ There does seem to be evidence of weaponry,³⁵ but distinctive legionary items, as well as lamps or other objects depicting pagan scenes, appear to be lacking on the basis of present evidence. Given the legionary brick found in 'Ain Feshkha, an association between this site and the Roman military may be made, but one brick alone is not enough evidence for a thesis of legionary occupation, and in fact de Vaux did not suggest that the Tenth Legion

garrison occupied 'Ain Feshkha in this period. An unpublished inscription on a potsherd with the letters XI from locus 19 may be either Latin or Greek.³⁶

One collection of evidence that may, possibly, derive from the Roman military comes in the form of shoe-nails found by Magen Broshi and Hanan Eshel, which they identified as coming from the sandals of Essenes who lived in surrounding cave dwellings.³⁷ These nails were found along a 90 m stretch of the path that led north from Qumran. They wrote that the "large quantity of nails shows that the trail had been used by many people for a long time" and take from this that the community at Qumran was larger than some would suppose.³⁸ The problem with this argument is that the usual form of civilian shoe was a *soleae* type without nails, that is, a leather sole, made up of several pieces of leather, was secured by binding thin strips of leather through holes in the sole (for the common use of this kind of sandal, see Matt 3:11; Luke 3:16, 10:4, 15:22; Acts 13:25). This type of sandal has recently been exhibited in the Dead Sea Scrolls touring exhibition and shown in the catalogue as apparently being found at Qumran.³⁹ It was undoubtedly the usual footwear of the Essene inhabitants of the site, as in most places around the eastern Mediterranean. This type of sandal was also found in the Naḥal Hever caves from the Second Revolt,⁴⁰ at Masada;⁴¹ in the 'Araq en-Na'asaneh Cave II in Wadi ed-Daliyeh from the Second Revolt;⁴² in a cave in Wadi el-Habibi;⁴³ and in Wadi Murabba'at.⁴⁴ The type of footwear most commonly associated with nails is the Roman army boot, the *caliga*. The *caliga* resembled a

³⁰ De Vaux 1954, fig. 6.1–2.

³¹ Humbert and Chambon 1994, 298.

³² Webster 1985, 123.

³³ Webster 1985, 151, n. 4.

³⁴ De Vaux 1996, 158.

³⁵ These have been studied by Guy Stiebel in his Ph.D. dissertation at the Hebrew University, Jerusalem.

³⁶ Humbert and Chambon 1994, 299. These letters are not listed in Humbert and Gunneweg 2003.

³⁷ M. Broshi and H. Eshel, "Residential Caves at Qumran." *DSD* 6 (1999): 337, pls. 4, 2, and p. 339.

³⁸ Broshi and Eshel 1999: 340.

³⁹ A. Sussmann and R. Peled (eds.), *Scrolls from the Dead Sea: An Exhibition of Scrolls and Archaeological Artifacts from the Collections of the Israel Antiquities Authority* (New York: George Braziller, 1993), 112. No provenance is given for these san-

dals of the *soleae* type.

⁴⁰ Y. Yadin, *Finds from the Bar Kokhba Period in the Caves of Letters*. *JDS* 1 (Jerusalem: Israel Exploration Society, 1963), 165–8, pl. 27.

⁴¹ Shown in Y. Yadin, *Masada: Herod's Fortress and the Zealots' Last Stand* (London: Weidenfeld and Nicholson, 1966), 57 and 196.

⁴² P.W. Lapp and N.L. Lapp (eds.), *Discoveries in the Wādī ed-Dāliyeh*. *AASOR* 41 (Cambridge, Mass.: ASOR, 1974), 81–3, pl. 91.

⁴³ J. Patrich, "Hideouts in the Judaean Wilderness: Jewish Revolutionaries and Christian Ascetics Sought Shelter and Protection in Cliffside Caves." *BAR* 25/5 (1989): 32–41 (illustrated). The sole was made up of two pieces of leather bound together by leather strips.

⁴⁴ *DJD* 2: 43, pl. II.

sandal, but its sole was thicker and made up of layers of leather that were heavily studded with hollow-headed hobnails, just like those found by Broshi and Eshel. Josephus indicates that this footwear was distinctive of Romans and not Jews in his narrative of the siege of Jerusalem, when he notes that a Roman centurion named Julian (known to Josephus), leapt forward to beat back the Jews, but slipped because his “shoes [were] thickly studded with sharp nails, as were every one of the other [Roman] soldiers” (*J.W.* 4:84).⁴⁵ It is characteristic of these nails that they are bent at the tip, where they attach to the top of the sole, as they are here in most cases.⁴⁶ A tile with an imprint of such a sandal was found in the second-century Tenth Legion kiln works excavated at Binyanei Ha’umah.⁴⁷ This thick, nailed sole was typical of soldiers’ footwear because they had to have soles that would survive marches over long distances and battles. In a famous papyrus from Egypt, which seems to show the annual accounts of a soldier named Q. Iulius Proculus from Damascus in 81 C.E., there is an allowance for these boots totalling thirty-six drachma per year.⁴⁸ The presence of the nails could suggest that the Roman army trod this path, looking for the people hiding in the caves. The number of nails should probably be related then to the huge number of soldiers Josephus indicates as being congregated at Jericho. If one of the legions was responsible for clearing the area of Jewish rebels and refugees between Jericho and ‘En Gedi, it would be surprising for them not to have lost some nails on the pathway.

It would certainly have been possible for Jewish soldiers to wear *caligae* for the same reasons that the Romans wore them: *caligae* were durable.⁴⁹ A leather sandal fragment with metal studs was found in a cave near Ketef Jericho, dated to the time of the Second Revolt, which would probably have been worn by a Bar Kokhba rebel.⁵⁰ It would be extremely unlikely that ascetic, non-military Essenes, who most likely lived at Qumran in Periods I and II, wore this type of sandal. Our first and early second century evidence from caves in the region indicates that Jews generally wore the nailless *soleae*.

However, even if we identify a force of soldiers from this evidence, other features of Period III indicate that soldiers were not the only people to live at the site of Qumran. For example, in the context of locus 43, in which there were two coins (one from Antioch in the reign of Nero, and a *Judaea Capta* coin of Titus) de Vaux notes finds which include half of a green faience bead, a fragment of a bracelet, and a large sewing needle.⁵¹ These may be placed with an alabaster spindle whorl found in locus 20 and a glass phial (for cosmetics or perfume?) in locus 31 as evidence for female occupants at the site. An inkwell turned up in a probable Period III context in locus 36.⁵² Recently, a tiny bronze incense stand and a further inkwell have been identified as coming from Period III though the exact provenance of these objects is unproven.⁵³ New excavations at Qumran by Yitzhak Magen and Yuval Peleg have also brought to light objects, some of which may well derive from Period III, including: fibulae, glass

⁴⁵ I am grateful to Shimon Gibson for this reference.

⁴⁶ I am grateful to the leather expert Carol Van Driel-Murray for her information here (by email). The nails found by Broshi and Eshel are sometimes broken, so the bent part is lost. They measure between 1–1.5 cm.

⁴⁷ H. Goldfuss and B. Arubas, “The Kilnworks of the Tenth Legion at the Jerusalem Convention Center.” *Qad* 34/122 (2001): 111–8 [Hebrew]; this article also appeared in English as B. Arubas and H. Goldfuss, “The Kilnworks of the Tenth Legion Fretensis.” In: *The Roman and Byzantine Near East: Some Recent Archaeological Research*. JRA.SS 14 (Edited by J.H. Humphrey; Ann Arbor: Journal of Roman Archaeology, 1995), 95–107 and 273. A further tile imprint was found in the excavations of the western city wall of Jerusalem conducted by Magen Broshi (1975–8). I am grateful to Shimon Gibson for this information.

⁴⁸ See Webster 1985, 266–7.

⁴⁹ Yadin has written about the sandals from Nahal Hever as indicating that Jews were specifically discouraged from

wearing *caligae* during times of conflict with Rome, apparently so that the clattering sound of the *caligae* would alert anyone hiding out in a cave to the presence of Romans (Yadin 1963, 166), but we do not know how far Rabbinic regulations were accepted by the rebels, or among the general population, in this period (cf. *m. Shabb.* 6:2; *b. Shabb.* 60a: “A man must not go out with a nail-studded sandal”).

⁵⁰ See H. Eshel and B. Zissu, “Finds from the Bar Kokhba Period in the Caves of Ketef Jericho.” In: *Refuge Caves of the Bar Kokhba Revolt*, Eretz, Studies and Publications in Geography (Edited by H. Eshel and D. Amit; Tel Aviv: Israel Exploration Society, 1998), 142–3 and figs. 26–7, c. 221–31 (for further discussion of the Jewish sources).

⁵¹ Humbert and Chambon 1994, 306.

⁵² I am grateful to Gregory Doudna for pointing this out to me.

⁵³ T. Elgvin, “Rare Incense Altar Raises Burning Questions.” *BAR* 28/5 (2002): 35–9; T. Elgvin and S. Pfann, “An Incense Altar from Qumran.” *DSD* 9 (2002): 20–31.

phials, jewellery, and pieces of terra sigillata tableware.⁵⁴

These items are given as examples of the range of Period III materials that will need to be carefully looked at when the final publication of the Qumran excavations appears. It seems likely that we will find that Period III contains a more interesting range of artifacts than de Vaux's preliminary remarks suggest; that is, if we can still identify them as coming from Period III.

Period III in Economic Context

A garrison of either Roman auxiliary soldiers or Jewish deserters would have guarded the pass and kept a close eye on activities in the northern sector of the Dead Sea area. De Vaux saw the presence of a look-out garrison in purely military terms, so that once Masada was conquered there was no need for a station at Qumran and the site would have been abandoned. It is possible, however, to view the occupants of Qumran in a different manner.

Josephus wrote of how the Roman forces looted houses (*J.W.* 4:430) and even took their Jewish captives' livestock (*J.W.* 4:437). Plunder, looting, and the appropriation of all the economic resources of conquered populations were characteristic of ancient warfare. Qumran should be seen not only as a useful strategic site but as an economic resource as well.

It is clear that in antiquity the land south of the settlement towards 'Ain Feshkha was cultivated, probably as a date-palm plantation, in an area presently watered by small brackish springs.⁵⁵ The region has in recent times supported tamarisks and oleanders, and up to five species of fish have been identified in the pool of 'Ain Feshkha. A study of 60 years ago established the Cl-content of the pool as 1230–1690 mg/l,⁵⁶ but in 2001 it was read as 1600–9800 mg/l, and questions have

been raised about whether the present level of salinity indicates agriculture here was impossible in antiquity.⁵⁷

'Ain Feshkha might have been a vegetable garden in the Byzantine period. In his work, *The Spiritual Meadow (Pratum Spirituale)*, written c. 600 C.E., John Moschus refers to a gardener who grew vegetables for the anchorite community of Mardes (or Marda), which was located on the hill of Khirbet Mird, ancient Hyrcania. Moschus wrote:

There is a mountain by the Dead Sea called Mardes and it is very high. There are anchorites living in that mountain. They have a garden about six miles away from where they live, near the edge of the Sea, almost on its banks. One of the anchorites is stationed there to tend the garden. At whatever hour the anchorites wish to send to the garden for vegetables, they put a pack-saddle on the ass and say to it: "Go to the one who tends the gardens and bring us some vegetables." It goes off alone to find the gardener; when it stands before the door, it knocks with its head. The gardener loads it up with vegetables and sends it away. You can see the ass returning alone each time. (ch. 167)⁵⁸

A Byzantine mile was 1544.50 m, though mile calculations could vary between 1475 and 1700 m.⁵⁹ If the Byzantine mile was used, 6 miles was 9.267 km. 'Ain Feshkha was, indeed, located just over 9 km from Khirbet Mird. There is evidence of Byzantine settlement in the southern enclosure of 'Ain Feshkha in locus 20, which was made into a dwelling of some kind.⁶⁰ The walls were repaired with blocks, the threshold was raised, the inside walls were faced with a coating of pebbles dug up from the pavement of Period II, and an earth floor was prepared. Pottery sherds from this level are Byzantine. A Byzantine lamp and juglet were found in a layer of silt against the north wall of the enclosure. This would have provided a small dwelling.

Interestingly, John Moschus refers to anchorites such as Abba Sophronios "the grazer," who "grazed

⁵⁴ As presented by Yuval Peleg at the conference "Qumran: The Site of the Dead Sea Scrolls"; see Yizhak Magen and Yuval Peleg in this volume.

⁵⁵ De Vaux 1973, 74.

⁵⁶ H. Steinitz, "The Fishes of 'Ein Feshkha, Palestine," *Nature* 167/4248 (March 31, 1951): 531–2.

⁵⁷ H. Hötzl, W. Ali, and M. Rother, "'Ein Feshkha Springs as a Potential for Fresh Water Extraction, Dead Sea Area," in *Le premier colloque national de hydrogéologie et environnement* (Fes, Morocco), 62 (abstract) and see Magen Broshi and Hanan Eshel in this volume.

⁵⁸ Quoted by J. Wortley (ed. and transl.), *The Spiritual Meadow of John Moschus* (Kalamazoo: Cistercian Publications, 1992), 137.

⁵⁹ See the discussion in G. Freeman-Grenville, R. Chapman and J.E. Taylor, *Palestine in the Fourth Century: The Onomasticon by Eusebius of Caesarea* (Jerusalem: Carta, 2003): Excursus II. This measurement is calculated on the basis of the Byzantine foot published by F.-M. Abel, "Chronique I: inscription grecque de l'aqueduc de Jérusalem avec la figure du pied byzantin." *RB* 35 (1926): 282–8.

⁶⁰ De Vaux 1959: 253–4; 1973, 72 and 74.

around the Dead Sea. For seventy years he went naked, eating wild plants and nothing else whatsoever" (§159),⁶¹ cf. Abba Gregory (§139).⁶² This does raise the question of whether more (edible) wild plants existed in the area than today. The pilgrim Arculf describes trees with broad round milky-coloured leaves that tasted of honey when rubbed to a powder, called 'wood honey' (Adomnan, *Loc. Sanct.* 272/22:3). An elder named Cyriacos from the laura of Mar Saba went down to an unidentified place named Coutila: "He stayed for a little while [there] beside the Dead Sea; then he started back to his cell" (§53).⁶³ The route from Mar Saba along the Wadi en-Nar takes you south of Ras Feshkha, but Cyriacos could have gone anywhere along the northwestern Dead Sea shore, again, presumably "grazing."

De Vaux himself noted that the springs in the plain north of 'Ain Feshkha gush out from a subterranean freshwater river, but the flow of this has changed over the centuries. De Vaux determined on the basis of a channel system he excavated at 'Ain Feshkha and observations of ancient water beds and depressions that the springs of antiquity were higher and further inland. He made a very important observation: the higher and further away these springs were from the Dead Sea littoral, the less salty they would have been.⁶⁴ Today the freshwater aquifers are shrinking, as is the lake itself. It may be unwise to test modern conditions in the area and project them back to the past without careful consideration of alternative data.

In fact, even a date plantation alone would have been a significant economic resource to the Romans. Magen and Peleg discovered a huge quantity of date pits in their re-excavations at Qumran. They concentrated on an installation previously identified as a grape-press, but now seen as a date-press (for date honey).⁶⁵ Date pits and wood were found at the site, and a great deal of date palm wood was used for the construction of the buildings in Qumran.⁶⁶ There is no doubt that date palms

were grown in the immediate vicinity of the settlements of 'Ain Feshkha and Qumran.

Dates were a lucrative crop in the Dead Sea region. Date palms (*Phoenix dactylifera*) are specifically shown on the Madaba mosaic map as being grown around Archelais, Jericho, Bethagla, Besimoth, Livias, Callirhoe, and Zoara (unfortunately, the region from Qumran to 'En Gedi is missing, and there are two other holes over the eastern coastline). In the first century B.C.E. Diodorus Siculus (2:48:9) wrote that in the area of the Dead Sea "the land is good for growing palms, wherever it happens to be crossed by rivers with usable water, or to be endowed with springs that can irrigate it" (cf. Theophrastus, *Hist. P.* 2:5; Pliny, *Nat. Hist.* 5:9, 17; Tacitus, *Hist.* 5:6). This was the case especially around Jericho (Diodorus Siculus, *Bibl. Hist.* 2:48; Strabo, *Geogr.* 16:2:41; Josephus *J.W.* 4:469–71; Piacenza Pilgrim, *Itin.* 165/9; 169/14, also mentions olive groves, citrons, and grape vines; Adomnan, *Loc. Sanct.* 264/ 13: 5; Bede, *Loc. Sanct.* 314/ 9: 3) and 'En Gedi (Eusebius, *Onom.* 86:18). Livias was famous for the Nicolaitan date-palm (Theodosius, *Topografia* 145/19). These dates were renowned for being good for keeping (Theophrastus, *Hist. P.* 2:6:8). Palm tree cultivations feature as an economic resource in the Nahal Hever archives, at an unidentified site named Maḥoza (*P. Yadin* 3, 5, 7, 16, 21, 22, 23, 24; X. Hev. 1).

The industrial or agricultural installations at Qumran were not rebuilt in Period III, but any plantations could still be maintained. Most importantly, dates could be harvested and sold. Recently, suggestions have been made that Qumran also functioned as a place where balsam was processed and perhaps even grown.⁶⁷ The theory aims to explain the presence of the rather mysterious agricultural installations at Qumran during Periods I and II: high, plastered vats, shallow pools (e.g. locus 115), and heating installations (e.g. locus 125).

"Balsam" as a term is loose and can refer to a number of trees and bushes that produce scented resin. One kind of balsam, the *Balanitis Aegyptiaca*,

⁶¹ Wortley 1992, 131.

⁶² Wortley 1992, 113.

⁶³ Wortley 1992, 42.

⁶⁴ De Vaux 1973, 78–9.

⁶⁵ S. Pfann, "The Winepress (and Miqveh) at Khirbet Qumran (loc. 75 and 69)." *RB* 101–2 (1994): 212–4; see also Magen Broshi and Hanan Eshel, as well as Joseph Patrich in this volume. The installation at 'Ain Feshkha was also

probably a date-press, see E. Netzer, "Did Any Perfume Industry Exist at 'Ein Feshkha?" *IEJ* 55 (2005), 97–100, though see Mireille Bélis, this volume.

⁶⁶ De Vaux 1973, 73–4.

⁶⁷ P. Donceel-Voûte, "Traces of Fragrance along the Dead Sea." *Res Orientales* 11 (1998): 93–124; Y. Hirschfeld, *Qumran in Context: Reassessing the Archaeological Evidence* (Peabody, Mass.: Hendrickson, 2004): 138.

grows wild around the Jordan, Dead Sea and desert plain, and, as its name indicates, in Egypt.⁶⁸ However, the plant from which so-called Judaeian balsam (the “Balm of Gilead”) was produced, *Commiphora gileadensis*, also called *Balsamodendron opobalsamum*, is now found only in northeast Africa, Saudi Arabia, and Yemen.⁶⁹ The Judaeian balsam, or opobalsam, was said not to grow wild (Theophrastus, *Hist. P.* 9:6:4). Pliny writes that there were three varieties of opobalsam: (1) *eutheriston*, “easy-to-gather,” with thin hairy foliage; (2) *trachy*, “rough,” with a rugged, curving bushy appearance and a stronger scent, and (3) *eumeces*, “tall,” with a smooth bark. In order of quality, the *trachy* was considered the best, then *eumeces* and, finally, *eutheriston* (Pliny, *Nat. Hist.* 12:53:115). The exact conditions in which these different types thrived are unknown, but the present-day balsam of Arabia likes dry, poor soil and a hot climate with some summer rainfall. The lower Jordan Valley and Dead Sea region provide high temperatures, but the moisture—in an area of low rainfall—would have needed to have been supplied by artificial means (Nigel Hepper, pers. comm.). It is for this reason that opobalsam plants must have required tending in irrigated gardens and would not have grown wild in this region; when the gardens were no longer tended, they could not survive.

The sap of the Judaeian balsam was highly prized for its healing qualities. Ancient sources stress its medicinal value as a cure for headache, cataracts, and dimness of sight as well as its use for perfume (Strabo, *Geogr.* 16:2:41, cf. Diodorus Siculus, 2:48:9; Tacitus, *Hist.* 5:6; Theophrastus, *Hist. P.* 9:7:3). The sap was collected by cutting the bark with sharp stones (Strabo, *Geogr.* 16:2:41; Pliny, *Nat. Hist.* 12:54:115), apparently in mid-summer (Theophrastus, *Hist. P.* 9:1:6). Lower grades of the sap could be produced from the branches, fruit, or seeds of the plant, for example, by boiling the twigs in water and in various combinations with other substances (Pliny, *Nat. Hist.* 12:54:118–123).

Might the Judaeian balsam have grown in the date plantation between ‘Ain Feshkha and Qumran if there was fresh water? According to Josephus, Cleopatra of Egypt leased out to Herod the Great “the palm grove of Jericho where the balsam grows” (*J.W.* 1:361; cf. *Ant.* 15:96). Strabo (*Geogr.* 16:2:41) notes of the palm plantation in Jericho that it “is mixed also with other kinds of cultivated and fruitful trees,” and that here, also, is the “balsam garden.” Its cultivation may fit with the Essenes’ interests in the healing properties of plants and minerals (Josephus, *J.W.* 2:136), but there is no positive evidence, only speculation.

In regard to the extent of its cultivation, Pliny notes that “once” (*quondam*) it grew only in the royal plantations of opobalsam in Jericho and ‘En Gedi (Pliny, *Nat. Hist.* 12:54:111–13, cf. *J.W.* 1:361, 4:469; *Ant.* 9:7, 15:96). This, however, should definitely not be read as indicating its *only* cultivation throughout time, since here Pliny is contrasting the minimal extent of its growth at some point in the distant past with the current extent of its cultivation in his own time (ca. 75 C.E.), when “recently” (*nuper*) it had been taught to grow on trellises, like vines, “covers whole hillsides,” and has “never been more plentiful” (*Nat. Hist.* 12:112–13). In terms of its past extent, Pliny is referring specifically to the ancient report of Theophrastus (ca. 320 B.C.E.), that “there are only two gardens where it [opobalsam] grows [in the valley of Syria]: one of about 20 *plethra* and the other much smaller.” This language is echoed in Pliny’s description regarding the minimal extent of opobalsam cultivation in the old days, when it grew in only two places “one of 20 *iugera* and the other less.” Pliny’s recognition of much wider cultivation in the first century C.E. than the fourth century B.C.E. is clear from the evidence of other writers as well. Diodorus Siculus, in the first century B.C.E., assigns opobalsam groves to the Nabateans (2:28; 19:98) a possible reference to Zoara. Rabbi Jose, in the second century C.E., refers to opobalsam growing “from ‘‘En Gedi to Livias’’ (*b. Shabb.* 26a), a stretch that includes the

⁶⁸ C.R. Conder and H.H. Kitchener, *The Survey of Western Palestine. Memoirs*. Vol. 3: *Judaea* (London: Palestine Exploration Fund, 1877), 169. See also J. Zangenberg, “Opening Up Our View: Khirbet Qumran in a Regional Perspective.” In: *Religion and Society in Roman Palestine: Old Problems and New*

Approaches (Edited by D.R. Edwards; New York and London: Routledge, 2004), 170–87 and Joseph Patrich in this volume.

⁶⁹ F.N. Hepper, “Shrubs Yielding Gums and Resins in the Ancient Near East.” *Bulletin on Sumerian Agriculture* 3 (1987): 110–1, fig. 5.

northwestern Dead Sea. Eusebius, at the beginning of the fourth century, writes very interestingly of balsam and dates growing in Zoara, at the southernmost point of the Dead Sea, where, also, “there is a garrison of soldiers” (*Onom.* 42) as well as in ‘En Gedi (*Onom.* 86). Christian pilgrims confirm the existence of balsam in ‘En Gedi (Jerome, *Letter 108*, to *Eustochium* 11:5, here “vines”) and Jericho (Bede, *Loc. Sanct.* 313/ 9:3) into the ‘Byzantine period’ and appear in the Madaba mosaic map in the territory of Jericho, in the lower Aulon.⁷⁰ A juglet possibly containing this valuable resin was found in a refugee cave only 2 km away from Qumran.⁷¹

Oprobalsam was then a highly treasured crop grown in certain cultivations in the territories of Jericho and ‘En Gedi, and also possibly already in the regions of Livias and Zoara. Its production and transport may have impacted on Qumran’s fate, and the fate of many other settlements of the area, because the Romans would have wished to seize and guard any relevant trade routes. The pass of Qumran may have facilitated the transport of this precious substance. It was actually almost impossible to use the pass for heavier goods like large loads of salt and bitumen, which were major industries of the Dead Sea. The accounts of 19th century travellers stress the difficulty of the pass,⁷² but light goods could have been transported.

Pliny emphasizes that the capturing of the economic resource of oprobalsam was especially significant to both the conquerors and was particularly resisted by the conquered. Oprobalsam plants formed part of the victory procession in Rome: “This type of tree was exhibited to his city [Rome] by the emperors Vespasian and Titus . . .” states Pliny, and ‘the balsam tree now serves [Rome] and pays tribute here together with its [Judaean] race” (*Nat. Hist.* 12:54:111–12). When

the Romans swept into this region, the Jews tried to destroy the oprobalsam plants, writes Pliny:

The Jews raged against it [the oprobalsam tree] just as they did also upon their own lives, but the Romans protected it against them, and struggled in defence of the shrub. It is now cultivated by the treasury authorities, and has never been more plentiful. Its height remains within two cubits.’ (*Nat. Hist.* 12:54:114).

This information should clearly be brought to bear on how we interpret the events of 68 C.E. and subsequent Period III evidence at Qumran. The principal, formerly royal, Judaean oprobalsam plantations at Jericho and ‘En Gedi were the very places in which Roman camps were set up from 68 C.E. onward. The important economic and—apparently—symbolic oprobalsam resource played a part in Roman self-aggrandisement and propaganda. Qumran had the striking physical location of being situated at the entrance to a pass between the two former royal estates in which we know oprobalsam was grown. The pass was suitable only for light goods, connected the Dead Sea with the Buqe’a road system leading to Jerusalem and other Judaean sites.

An ‘Ain Feshkha/Qumran date plantation itself should be recognised as an important source of revenue for the conquering powers. Date-palms, too, held some symbolic significance for the Romans: the date-palm was the very tree depicted on the triumphal *Judaea Capta* coins issued by Titus.⁷³ For such reasons, there is justification for considering that the settlement at Qumran post-68 C.E. was designed to both guard the pass and exploit whatever regional economic resources still existed, under the direction of the Romans.

The value of the economic resources of the region was high. According to Pliny, five years after the Roman conquest of Judaea, the sale of Judaean

⁷⁰ Additionally, in the Byzantine period, there is a curse on the floor of the synagogue (sixth to seventh centuries) upon anyone who reveals “the secrets of the town,” sometimes understood to mean the revealing of information about balsam propagation and processing. F. Nigel Hepper and Joan E. Taylor, ‘Date Palms and Oprobalsam in the Madaba Mosaic Map’, *PEQ* 136 (2004), 35–44.

⁷¹ J. Patrich and B. Arubas, “A Juglet Containing Balsam Oil (?) from a Cave near Qumran.” *IEJ* 39 (1989): 43–59.

⁷² For example: H. Poole, “Report on a Journey in Palestine.” *Journal of the Royal Geographical Society* 26 (1856): 69, states: “It was a very windy path and quite narrow in

some places, so that a loaded mule could not have passed down.” A loaded mule may just have passed up, although S. Schulz (“Chirbet kumran, ‘Ain Feshkha und die Buqe’a. Zugleich ein archäologischer Beitrag zum Felsenquädukt und zur Strasse durch das Wadi Kumran.” *ZDPV* 76 [1960]: 59) noted that one could not get donkeys, mules, or horses up this path. Such comments should clearly discourage the notion that Qumran was on some kind of major trade route.

⁷³ Y. Meshorer, *Ancient Means of Exchange, Weights and Coins*, Reuben & Edith Hecht Museum Collection, A (Haifa: University of Haifa Press, 1998): 105–14 [Hebrew].

balsam trimmings alone—regardless of the actual sap—apparently brought 800,000 sesterces to the Roman treasury (*Nat. Hist.* 12:54:118). Roman control of the region from Jericho to ‘En Gedi could be seen in terms of the Roman desire to seize hold of all trade routes in the vicinity. The Romans would have relied on people working for them who were willing to supervise the exploitation of any economic resource, both the auxiliaries or Jewish deserters who may have manned the garrison on the plateau at Qumran, and the workers able to propagate and harvest crops. As noted

above, ‘Ain Feshkha was occupied in Period III, but there is no military character to this settlement. De Vaux noted that ‘Ain Feshkha was inhabited by “unknown occupiers;” perhaps labourers or gleaners.⁷⁴ The terminus ad quem for Period III occupation does not therefore need to be tied to the date of the fall of Masada (72/3 C.E.). Given the latest possible dates of the coins associated with Period III, occupation may have lasted decades, rather than a mere five years, before Qumran was finally abandoned and left to weather the centuries.

⁷⁴ De Vaux 1973, 71.

CHAPTER SIX

THE LEGACY OF AN ERROR IN ARCHAEOLOGICAL INTERPRETATION: THE DATING OF THE QUMRAN CAVE SCROLL DEPOSITS

Gregory L. Doudna

It is difficult to name a single statement concerning the texts at Qumran which has had more complete scholarly consensus during the past five decades than that the Qumran text deposits either occurred or ended at the time of the First Revolt, late in the first century C.E. It is useful to trace the story of how this came to be and to raise the question of whether this “fact,” which for so long has been thought to be a fact, is, in fact, a fact.

Before the excavation of Qumran, all of the relevant archaeologists—de Vaux, Harding, Albright, etc.—were in agreement that the Cave 1 scrolls near Qumran were no later than mid-first century B.C.E., based on what the archaeologists said was a late Hellenistic dating of the scroll jars.

Thus, Albright (1949):

It cannot be too strongly emphasized that the bulk of the pottery [in Cave 1] (all but those few Roman pieces) consists of absolutely homogenous jars, bowls (made specifically to cover the jars), and lamps, whose pre-Herodian date in the last two centuries B.C. is beyond dispute.¹

and Sellers (1949):

[T]he archaeological evidence [excavation of Cave 1] confirms the views of those who had pronounced the manuscripts pre-Christian from the epigraphic and literary evidence. They were deposited in the cave not later than the first century B.C.²

and Sukenik (1955):

¹ W.F. Albright, “On the Date of the Scrolls from ‘Ain Feshka and the Nash Papyrus.” *BASOR* 115 (1949): 14–15.

² O.R. Sellers, “Excavation of the ‘Manuscript’ Cave at ‘Ain Fashkha.” *BASOR* 114 (1949): 8.

³ E.L. Sukenik, *The Dead Sea Scrolls of the Hebrew University* (Jerusalem: Hebrew University, 1955), 20.

⁴ S.A. Birnbaum, “Notes on the Internal and Archaeological Evidence Concerning the Cave Scrolls.” *JBL* 70 (1951): 232 writes: “the Manuscripts could not have been written—nor, of course, the works composed—later than the middle of the first century B.C.E.”. See also id., “The Dates of the Cave

On the evidence of the sherds it can be determined that the books were deposited at a date no later than the first century B.C.E.³

As Albright stated, the “pre-Herodian date in the last two centuries B.C. is beyond dispute.” This verdict of the archaeologists had been independently confirmed (so it seemed) from paleography. The leading authority on Jewish scripts at the time, Solomon Birnbaum, dated all of the published Cave 1 texts to the second and first centuries B.C.E. through careful paleographical analysis, with none dating later than mid-first century B.C.E.⁴ But this original dating established from the twin disciplines of archaeology and paleography was changed in response to the first excavation of Qumran in 1951.

The 1951 excavation led to the conclusion, later shown to be mistaken, that Qumran had only a single habitation in the first century C.E., which came to an end with the First Revolt. In that excavation, de Vaux found a scroll jar buried in the floor of locus 2. There were first century C.E. coins and pottery on the floor, all of which were covered over by a destruction layer from a fire at the time of the First Revolt. The paved floor was cracked around the top of the buried jar, meaning coins could have fallen underneath the floor.⁵ Because of the first century C.E. coins, de Vaux concluded that the locus 2 scroll jar was dated to the first century C.E. De Vaux reasoned

Scrolls.” *BASOR* 115 (1949): 20: “[I]t was at all times beyond question that the handwriting of none of the Scrolls is later than about the middle of the first pre-Christian century”.

⁵ R. de Vaux, “Fouille au Khirbet Qumrân: Rapport préliminaire.” *RB* 60 (1953): 94; id., *Fouilles de Khirbet Qumrân et de Ain Feshka*. Vol. 1: *Album de photographies. Répertoire du fonds photographiques. Synthèse des notes de chantier du Père Roland de Vaux*. NTOA.SA 1 (Edited by J.-B. Humbert and A. Chambon; Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht, 1994), 292 (3 December 1951) and photo 141.

that the same kind of jars in Cave 1, and the scrolls which had been put in them, must also have been deposited in the first century C.E. De Vaux forthrightly said to the world, “je me suis trompé” [“I was wrong”], in a famous announcement in Paris in 1952.⁶ This correction was widely reported.⁷ G. Lankester Harding, the Jordanian director of antiquities, stated definitively in the introduction to the first DJD volume in 1955: “Excavation of the settlement at Khirbet Qumrân has established beyond doubt that all of the material was deposited in these caves in the late first century A.D.”⁸

However, during the second excavation season at Qumran in 1953, the extensive habitation period of the earlier century at Qumran became known. Period I, subsequently divided by de Vaux into Ia and Ib, ended in a destruction of the first century B.C.E. De Vaux now realized (after this second season at Qumran in 1953) that the floor of locus 2 had actually been built in the earlier period, of the first century B.C.E. The room had been cleared out and the same floor reused in Period II.⁹ That is why coins and pottery from the first century C.E. were found on top of the floor.¹⁰ This ought to have raised the question of whether the scroll jar buried in the locus 2 floor had been deposited in the earlier period and then inherited along with the floor, by the people who used that room in Period II. But the original dating of the locus 2 jar remained unchanged and unquestioned.

⁶ De Vaux wrote in a report to the Académie des Inscriptions et Belles-Lettres in Paris, quoted in *Le monde*, 9 April 1952, as cited in *Mogilany 1995. Papers on the Dead Sea Scrolls Offered in Memory of Aleksy Klavew*. Qumranica Mogilanensia 15 (Edited by Z.J. Kapera; Cracow: Enigma, 1998), 86: “Je me suis trompé en attribuant les jarres des manuscrits à l’époque préromaine; elles sont d’un bon siècle plus tardives.”

⁷ G.E. Wright, “Qumran Excavations.” *BA* 16 (1953): 8 writes: “[A]n excavation in December of 1951 at Khirbet Qumran [. . .] has had the effect of correcting the dating originally assigned to the cave pottery from the 1st Century B.C. to the 1st Century A.D. Coins were found dating as late as the 1st revolt (67 A.D.), in connection with a jar identical with those found in the cave.”

⁸ G.L. Harding, “Introduction, the Discovery, the Excavation, Minor Finds.” In: *Qumran Cave 1. DJD 1* (Edited by D. Barthélemy and J.T. Milik; Oxford: Clarendon), 4.

⁹ R. de Vaux, “Fouilles au Khirbet Qumrân. Rapport préliminaire sur la deuxième campagne.” *RB* 61 (1954): 229 writes: “[L]es premiers dégagements n’ayant pas atteint le niv. I à l’état pur, les périodes I et II ont été confondues et datées du I^{er} siècle de notre ère d’après une juste estimation de la poterie, qui appartenait en effet au niv. II.” On

Could de Vaux have been mistaken regarding the locus 2 jar? Yes, because it is not certain that this jar was deposited in Period II. However, de Vaux thought it was. That was how, from the very beginning, the scroll deposits were dated to the First Revolt.

Dating of Scroll Jars at Jericho

The importance to the archaeology of Qumran of the recent 2002 publication of the pottery of the Netzer excavations at Jericho by Rachel Bar-Nathan can hardly be overemphasized, given the proximity of the two sites and that identical pottery types were found at both sites.¹¹ The excavation and publication procedures followed by the Jericho excavators, however, were more technically precise than de Vaux’s of the 1950s. In fact, methodologically, Bar-Nathan’s volume on the finds at Jericho must be considered more accurate and reliable for dating the Qumran pottery than the preliminary reports on the Qumran pottery currently available.

If the distinctive “scroll jars” associated with the text deposits in the caves near Qumran were used solely for scroll deposits, the date of such a jar could date the scroll deposits. On the other hand, if these jars had other functions unrelated to scroll deposits, as both de Vaux and Harding came to think,¹² then dates of such jars at the site

the Period Ib construction of the locus 2 floor, in which the scroll jar was buried, see id., *Archaeology and the Dead Sea Scrolls* (London: Oxford University Press, for the British Academy, 1973), 5–7 and plate VI. Soundings confirmed there was no floor level in locus 2 below the floor where the scroll jar was found (Humbert and Chambon 1994, 292).

¹⁰ None of the first-century C.E. coins found on top of the locus 2 floor (or for that matter the two found underneath the floor near the jar) are securely associated with the deposit date of the jar (the coins underneath the floor could have fallen through a crack after the jar was already in the floor). Of the two coins beneath the floor, de Vaux reported in 1953 that one was an Augustus procurators’ coin of “?5/6 [C.E.]” (de Vaux 1953a: 93). In 1994, the second coin was identified as an Antigonus Mattathias coin, 40–37 B.C.E. (Humbert and Chambon 1994, 292). Elsewhere de Vaux argued that Antigonus Mattathias coins attested to activity in Qumran’s Period Ib (de Vaux 1973, 22).

¹¹ R. Bar-Nathan, *Hasmonaean and Herodian Palaces at Jericho: Final Reports of the 1973–1987 Excavations. Vol. 3: The Pottery* (Jerusalem: Israel Exploration Society, 2002).

¹² R. de Vaux writes in “Archéologie: IV. Conclusions et Hypothèses.” In: *Les Petites Grottes de Qumrân. DJD 3* (Edited

of Qumran would not necessarily date scroll deposits, since scroll deposits could have occurred during only part of the total range of time these kinds of jars were in use.

“Scroll jars” refer here to the distinctive wide-mouthed cylindrical jars found in large numbers associated with scroll deposits in the outlying caves around Qumran. The Qumran scroll jars are of two basic types: the most common being the tall, straight, cylindrical “classic” scroll jar; the other is a non-ovoid, often shorter cylindrical jar with rounded shoulders.¹³ At Jericho, the first of these—the “classic” Qumran scroll jar—is Bar-Nathan’s Type J-SJ2B. The second kind of Qumran “scroll jar”—the shorter jar with rounded shoulders—is not represented by any of Bar-Nathan’s types at Jericho and seems to be unattested at any site other than Qumran.¹⁴ The “classic” Qumran scroll jar—Bar-Nathan’s Type 2B—is only a narrow slice of a larger family of related jar types (2A, 2C, 2D, etc.) which are not Qumran scroll jars.¹⁵ Bar-Nathan names the entire family of the SJ2 types as “‘Genizah’ or ‘Archive’ Storage Jar[s],”¹⁶ but the only member of this group of Jericho jars which is a Qumran scroll jar is 2B.

From this family of wide-mouthed storage jars at Jericho, Bar-Nathan cites types 2A, 2B, 2C, and 2D as present at Jericho in the first century B.C.E. Of these, Bar-Nathan reports that only 2C/2D

continued at Jericho into the first century C.E.:

Three types of storage jars from the reign of Herod the Great continued into the first century C.E.: J-SJ2C/D, the small, unique storage jar that gradually ceased to be produced, apparently during the first century C.E.; J-SJ7B, the ridge-necked jar [. . .] and J-SJ9, the bell-shaped jar.¹⁷

That is, there is no mention of a Qumran scroll jar—Type 2B—continuing into the first century C.E. at Jericho.

In addition to the non-scroll jars which continued to be produced into the first century C.E. from the previous century, Bar-Nathan cites five new types of jars which began in the first century C.E. at Jericho. None of the new types produced at Jericho in the first century C.E., nor any of the older types which continued to be produced into the first century C.E., are Qumran scroll jars. Only one of the Jericho SJ2 family of jars—2B—is actually a Qumran scroll jar. The other related Jericho types are not associated with scroll deposits in the caves at Qumran. This clarification of terminology is critical to avoid confusion.

Bar-Nathan reports only one 2B jar found at Jericho, which was found in a context dated 31–15 B.C.E.¹⁸ That date either is contemporary with the end of Qumran’s Period Ib or very soon after, depending on which theory one follows for the end of this period.¹⁹

by M. Baillet, J.T. Milik and R. de Vaux; Oxford: Clarendon, 1962), 35: “Ces jarres [. . .] ont servi normalement, à garder des provisions”.

¹³ In de Vaux’s description: “Les jarres cylindriques sans anses, avec des variantes dans la base, le col et l’épaule étaient le type à peu près constant dans la première grotte qui s’est retrouvé dans la fouille du Khirbet. Le type est abondamment représenté dans les autres grottes. [. . .] Une forme apparentée est la jarre de forme plus arrondie [. . .] qui a aussi ses analogues au Khirbet” (“Exploration de la région de Qumrân.” *RB* 60 [1953]: 543–52).

¹⁴ This shorter, rounded-shoulder Qumran scroll jar would be like Bar-Nathan’s type 2A at Jericho if it were ovoid, but it differs from 2A in this respect.

¹⁵ For example, 2A is an ovoid jar (not a straight cylindrical scroll jar) common at Jericho. According to Bar-Nathan, the 2A jars are attested at Jericho solely in the first century B.C.E. (not C.E.; id. 2002, 27 and 150). These 2A jars were found at Qumran in Cave 4 (*Qumran Grotte 4/II*. DJD 6 [Edited by J.T. Milik and R. de Vaux; Oxford: Clarendon], fig. 5:1–2) and Cave 7 (DJD 3, fig. 6.5) from Period Ib according to R. de Vaux (“Fouilles au Khirbet Qumrân. Rapport préliminaire sur les 3e, 4e et 5e campagnes.” *RB* 63 [1956]: 572). Jericho’s 2C is a small cylindrical jar with a bulge and is too small to hold scrolls, with heights of only 23–28 cm (Bar-Nathan 2002, 23). Jericho’s 2D, a small ovoid jar, is also too small to hold scrolls: “J-SJ2D jars [. . .] were

both too small to hold manuscripts and were not associated with a lid” (Bar-Nathan 2002, 27).

¹⁶ Bar-Nathan 2002, 22.

¹⁷ R. Bar-Nathan and R. Gitler-Kamil, “Typology of the Herodian 3 Pottery.” In: Bar-Nathan 2002, 150.

¹⁸ Bar-Nathan 2002, 24–27, and pl. 2, no. 8. “J-SJ2B [= Qumran scroll jar 2B] was uncommon at Jericho [. . .] the finds at Jericho suggest that the cylindrical storage jar with ledge handles [2B, the Qumran scroll jar type] is later [than 31 B.C.E.] and belongs to the end of the first century B.C.E. The earlier type is the ovoid storage jar [2A] which was common in the first century B.C.E.” (Bar-Nathan 2002, 27). The 2B jar’s find spot at Jericho, Pool 176, is dated 31–15 B.C.E. by the excavators (Bar-Nathan 2002, 239).

¹⁹ Both Bar-Nathan and Magness argue for dating the end of Qumran Period Ib later than the traditional dating of ca. 40–37 B.C.E. or (per the later de Vaux) 31 B.C.E., though not for the same reasons. Magness argues for a date of ca. 9/8 B.C.E. or soon thereafter based on an argument that a coin hoard in locus 120 was buried at the end of Period Ib; see J. Magness, *The Archaeology of Qumran and the Dead Sea Scrolls* (Grand Rapids: Eerdmans, 2002), 66–8. Bar-Nathan argues for an end of Qumran’s Period Ib during the reign of Herod the Great based on comparisons between Jericho finds and pottery of Qumran locus 89; id. 2002, 100 and 203–4: “the final dating of Period Ib at Qumran, which seems to be HR1 [c. 31–15 B.C.E.]”.

Bar-Nathan notes that scroll jars could have been in use at Qumran and the surrounding caves earlier than the first appearance of the same type at Jericho.²⁰ On the other hand, Qumran Period Ib may have continued into the reign of Herod the Great and be contemporary with the scroll jar at Jericho. In either case, the single exemplar of 2B at Jericho is associated with Period Ib at Qumran, because the location at Jericho where the jar was found—Pool 176 (31–15 B.C.E.)—is the same location at Jericho in which were found bowls identical to hundreds of bowls from locus 89 of Qumran Period Ib.²¹ Nothing in Bar-Nathan's publication of the Jericho data suggests the existence at Jericho of a Qumran-type scroll jar in the first century C.E., contemporary with Qumran Period II.

Other Dead Sea Sites

In agreement with the picture at Jericho, no Qumran-type scroll jars are known from first century C.E. contexts at 'Ain Feshkha, 'Ain el-Ghuweir, 'En-Gedi, Masada, or any other Dead Sea site.²²

Scroll Jars at Qumran

During at least the first two seasons of excavation at Qumran, de Vaux thought all scroll jars at Qumran were Period II (and none earlier).²³ At a later stage—sometime between 1954 and 1959—de Vaux amended this (though without saying why), stating that scroll jars were in use at Qumran in both Period Ib and Period II.²⁴ But,

was he correct in his claim that there were Period II scroll jars at Qumran? In fact, de Vaux's claim of Period II scroll jars cannot be verified from his published data.

De Vaux's mistaken basis for dating the locus 2 scroll jar uncovered in 1951 has been noted. Another example: during the second Qumran excavation season in 1953, de Vaux found a scroll jar buried at locus 45, in the southeastern pottery annex. He dates to the period of the Zealots (60–73 C.E.). Nevertheless, some of the Herodian pottery which had been stored at the site (belonging apparently to HR1 [31–15 B.C.E.] and HR2 published this jar in 1954 and identified it as being from Period II.²⁵ De Vaux mistakenly assumed at the time, however, that the southeastern pottery annex was in operation only during Period II. Later, he realized the southeastern pottery annex operated in both Periods Ib and II, and he published a correction on this point in 1956.²⁶ The 1956 correction means the scroll jar from locus 45 (or any of the other jars from the southeastern pottery annex published in 1954) cannot be associated with Period II with any confidence.

A third example: during the second excavation season of 1953, three other scroll jars were found buried in locus 13, which de Vaux also reported in 1954 as a Period II jar. But this was at a time when, as noted, de Vaux thought all cylindrical scroll jars belonged, in principle, to Period II.²⁷ Locus 13 is in the same area of the buildings at Qumran as locus 2, and the date of the buried scroll jars of locus 13 may be the same as that of the buried scroll jar of locus 2 (due to the similarity in jar types and the proximity of the loci). Was the perception that all of the scroll jars

²⁰ Bar-Nathan: "Although a larger variety of J-SJ2 was recovered from Herodian [31 B.C.E.–6 C.E.] contexts [at Jericho], it is not unlikely that its entire repertoire could have occurred in Hasmonaean contexts, albeit not at Jericho" (Bar-Nathan 2002, 26).

²¹ Bar-Nathan 2002, 100.

²² Magness cites a claim that Qumran scroll jars were found at Masada in First Revolt contexts from Bar-Nathan's unpublished M.A. thesis of 1988 (Magness 2002, 81). However, this claim does not appear in Bar-Nathan's 2002 publication, where she lists 2C/D jars (not scroll jars) as found in first century C.E. contexts at Jericho and Masada, but makes no mention of 2A or 2B (= Qumran scroll jar) in the first century C.E. at either site. Bar-Nathan does note: "Most of the pottery collected at Masada dates to the period of the

Zealots (60–73 C.E.). Nevertheless, some of the Herodian pottery which had been stored at the site (belonging apparently to HR1 [31–15 B.C.E.] and HR2 [15 B.C.E.–6 C.E.]) was used later by the Zealots" (Bar-Nathan 2002, 147, n. 9). See also her article in this volume.

²³ De Vaux 1954: 217 mentions "entre le niv. I et le niv. II une évolution [...] apparition du type figs. 4, 5 [= classic cylindrical scroll jar of locus 13]".

²⁴ De Vaux 1973, 54 states: "[T]he cylindrical jars [...] are, in fact, common to both periods". Cf. id., "Archéologie I. Exploration de la falaise de Qumrân." In: *DJD* 3, 14: "On les rencontre dans le niveau Ib aussi bien que dans le niveau II".

²⁵ De Vaux 1954, fig. 5.3.

²⁶ De Vaux 1956: 541.

²⁷ See note 23 above.

pertain to Period II the reason de Vaux identified the locus 13 scroll jars as Period II? There is no other known reason. Nothing from de Vaux's notes in the Humbert and Chambon volume gives a stratigraphic reason to know that the locus 13 jars are Period II. Otherwise, de Vaux was making period assignments subjectively (not from stratification). De Vaux's later correction, acknowledging that scroll jars were at Qumran in Period Ib as well as Period II, means the scroll jars of locus 13 (just like the scroll jar of locus 2) cannot be associated with Period II with certainty.

In fact, after de Vaux's corrections are taken into account, no scroll jar at Qumran published by de Vaux can be securely identified as manufactured or installed in Period II. Table 2 is an inventory of all known scroll jars from the site of Qumran on the basis of presently available information. Several are datable to Period Ib. Others are uncertain due to a lack of adequate information. Not one is datable with confidence to Period II.²⁸

At this point, no one disputes that scroll jars were in use at Qumran in Period Ib.²⁹ The issue is whether these jars were in use also in Period II. The answer to this question cannot be assumed, but must be established carefully on the basis of evidence.

²⁸ Table 2 has been updated to reflect available published information. Abbreviations in Table 2 and this note: DV = De Vaux (1953, 1954, 1956, 1973). HC = Humbert and Chambon (1994). Pfann 2003 = *The Excavations of Khirbet Qumran and Ain Feshkha. Vol. 1B: Synthesis of Roland de Vaux's Field Notes. NTOA.SA 1B* (Transl. and revised by S. Pfann; Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht, 2003). HG = *Khirbet Qumran et Ain Feshkha. Vol. 2: Études d'anthropologie, de physique et de chimie. NTOA.SA 3* (Edited by J.-B. Humbert and J. Gunneweg; Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht, 2003). Gunneweg/Balla = J. Gunneweg and M. Balla, "Neutron Activation Analysis. Scroll Jars and Common Ware." In: Humbert and Gunneweg 2003: 3–53. Hirschfeld 2004b = Y. Hirschfeld, *Qumran in Context. Reassessing the Archaeological Evidence* (Peabody: Hendrickson, 2004).

The database of Table 2 is incomplete due to inadequate information, but is intended to be a start. Locus 1's KhQ2, locus 6's KhQ75, locus 8's KhQ192, locus 43's KhQ885, and the South Trench's KhQ2504 are each identified in de Vaux's notes as "cylindrical jar[s]" but are not included because no information was known which could confirm or disconfirm whether those are scroll jars. At Locus 34 a "large, inscribed cylindrical jar", KhQ621, has been omitted because it is classified as a "storage jar" by Gunneweg/Balla (HG 15) rather than a "scroll jar"; it seems a little more bulging and the mouth less wide than other rounded-shoulder scroll jars but nevertheless looks similar. Gunneweg/Balla's lists have KhQ42 at locus 2 as a scroll jar, but KhQ42 is a "pir-

Bowl-lids on Scroll Jars

Another potential means of dating the scroll deposits is by dating the bowl-lids associated with the scroll jars in the Qumran caves. At Jericho, jar lid type J-LD is identical to the most common bowl-lid used with the Qumran scroll jars.³⁰ There are four instances of J-LD bowl-lids at Jericho reported in BarNathan's data. As shown in Table 1, all of these bowl-lids are dated by the Jericho excavators between 85/75 B.C.E. and 6 C.E.³¹

These bowl-lids are all either contemporary or close to contemporary with Qumran Period Ib. Not one J-LD bowl-lid is known to date anywhere near the First Revolt period.

Conclusion Concerning Scroll Jars

The parallels at Jericho suggest that de Vaux's dating of scroll jars at Qumran to Period II may be illusory. An error from de Vaux of this nature may fall into a larger pattern. For example, de Vaux claimed that animal bone deposits found around the site in large numbers occurred in both Periods Ib and II.³² A 1998 study by Robert

iform jug" at Pfann 2003: 12; because of the discrepancy this item was not included. KhQ917, drawn at HG 15 attributed to locus 44, is omitted because it is "a cylindrical jar, but unlike a scroll jar" (Gunneweg/Balla, HG 10). KhQ908 of locus 45C is omitted because Gunneweg/Balla consistently report KhQ908 is an "ovoid jar" (HG 19, 37, 39, 43), even though the drawings at DV 1954, Fig. 5:3 and HG 21 appear to show a non-ovoid, rounded-shoulder scroll jar type. At locus 114, KhQ2656 and KhQ2657 are identified in de Vaux's notes as "jars with a broad opening" (Pfann 2003, 50), but no information confirms or disconfirms affinity to scroll jars. On the other hand, two jars on a page of "storage jars" (HG 15) distinct from a page of "scroll jars" (HG 12) are included in Table 2. These are KhQ2989 of "locus 44" (sic; locus 41), because Gunneweg/Balla elsewhere call it a "burst scroll jar" (HG 45); and locus 84, KhQ1401, because the drawing of this jar at HG 15 and photo at HG 355 appear unambiguously to show a scroll jar.

²⁹ De Vaux thought scroll jars were in use in Ib (see above, n. 24), and Magness 2002, 80 agrees: "cylindrical [scroll] jars are represented [at Qumran] in the post-31 B.C.E. phase of Period Ib".

³⁰ Bar-Nathan 2002, 27 writes: "At Qumran these containers [J-SJ2B scroll jars] were used for storage and were closed with a bowl-lid. The bowl-lid (J-LD) found at Jericho is identical to the one most common at Qumran".

³¹ Table 1 data is from Bar-Nathan 2002, 229, 239, 240, 238, respectively.

³² De Vaux 1973, 120 wrote: "The clearest proof of all

Inventory #246	Room AE16	Western Mansion, Twin Palaces	85/75–31
BCE Inventory #247	Storeroom F165	Building FB2, Industrial Area	31–15 B.C.E.
Uncatalogued	Pool F182, Ritual Bath	Building FB1, Industrial Area	31–15 B.C.E.
Uncatalogued	Locus F123	Industrial Area	15 B.C.E.–6 C.E.

Table 1: Chronological Listing of Jericho Bowl-lids

Donceel concluded that de Vaux erred on this and that the animal bone deposits were Period Ib only.³³ Again, Jericho type BL5 is one of the most common bowls found at Qumran (708 of this kind of bowl were found in locus 89 alone). Bar-Nathan notes that there are no first century C.E. examples of this bowl at Jericho and suggests that de Vaux may have erred in attributing these bowls to both Period Ib and Period II.³⁴ Similarly, the scroll jars, like the animal bone deposits and the BL5 bowls, may have been exclusive to Period Ib and not to both Ib and II, as de Vaux claimed.

The Creation of First Century C.E. Paleographic Dates for Qumran Texts

Many today think that some Qumran texts have been independently dated to as late as the first century C.E. by paleography. But, in fact, those who defined the absolute datings of the formal scribal hands of the Qumran texts—Nahman Avigad, Frank Moore Cross, and, currently, Ada Yardeni—did so based on the assumption that the Qumran cave texts ended c. 70 C.E., which was assumed to be an external checkpoint, an independent archaeological fact. That is how Qumran texts came to be as late as the first century C.E. paleographically. It is one hundred percent circular reasoning, as the following brief historical sketch will make clear. Recall that prior

to the first excavation season at Qumran, all published Qumran texts were palaeographically dated pre-Herodian.³⁵ Then, in 1951, de Vaux excavated Qumran, found the scroll jar in locus 2, and announced to the world that this proved the cave scroll deposits had taken place in the first century C.E. This created an expectation that there should be first century C.E. texts, although at that point none were known. The gap was soon remedied: in 1953 Cross reported the discovery of the first scribal hands in Qumran texts from as late as the Herodian period among the unpublished Cave 4 fragments.

[T]hanks to the enormous quantity of material in the fourth cave, examples of every stage in the evolution of the ‘Aramaic’ character, from cir. 200 B.C. to 70 A.D., are in hand. [They] continue into the script of the Herodian period, known especially from funerary inscriptions (and thus later than the latest of the 1947 finds published to date).³⁶

Soon the First Revolt construct retroactively pulled the palaeographic datings for a large number of additional Qumran texts, including most of the previously published Cave 1 texts, later into the Herodian period.

The organization of a typological series with scores of exemplars of the formal script, both from MSS and inscriptions, is now in progress. [. . .] Similarly, the cursive series can be set up, though with fewer specimens. From Qumran, MSS exhibiting both hands stand side by side from the second century B.C. until the First Revolt.³⁷

[that the occupiers of Period II belonged to the same group which had left Qumran in Period Ib] is, perhaps, the evidence that so special a rite as the burying of the [animal] bones was observed at both periods”. “The majority [of the bone deposits] belong to Ib. This applies to those taken from the trench to the south and to most of those buried to the north of the secondary building, loc. 130” (ibid., 13).

³³ After examining de Vaux’s unpublished materials, R. Donceel, “Poursuite des travaux de publication du matériel archéologique de Khirbet Qumrân. Les lampes en terre-cuite,” in Kapera 1998, 99 wrote: “locus 130 [. . .] d’où provient la majorité des inhumations d’ossements d’animaux en jarres [. . .] nous [. . .] sommes arrivés à la conclusion qu’au-

cune de ces dépositions n’y est postérieure à la phase Ib du R.P. de Vaux”.

³⁴ In Bar-Nathan’s words: “In view of the absence of this bowl [J-BL5] from first-century C.E. contexts at Jericho, the dating of the material from Qumran Period II might have to be revised” (2002, 89).

³⁵ See above, n. 4.

³⁶ F.M. Cross, “A New Qumran Biblical Fragment Related to the Original Hebrew Underlying the Septuagint.” *BASOR* 132 (1953): 16.

³⁷ F.M. Cross, “The Oldest Manuscripts from Qumran.” *JBL* 74 (1955): 147–8.

³⁸ According to F.M. Cross, “The Development of the

However, external data has not cooperated with this construction, which is derived from the First Revolt premise. In 1961, Cross reported that semi-cursive hands from as late as the first century C.E. are entirely missing from the Qumran texts (they never existed in the Qumran texts to begin with).³⁸ And in 1998, Yardeni argued that a tiny handful of first century C.E. true cursive hands among the 4Q texts have nothing to do with Qumran (that is, those 4Q texts indeed are first century C.E., but they are not from Qumran).³⁹ Today the chronologically floating formal hands are all that remain among the Qumran finds which are still generally believed to run as late as the first century C.E.

But an example of “first century A.D.” writing (according to Cross) turned up on a locus 89 bowl from Period Ib—decades before this was supposed to exist in Cross’s system. This caused a perplexed but honest Cross to say that if the locus 89 bowls really were from Period Ib, then the actual dates for developments in the formal hands might be systematically earlier than he had published for them.⁴⁰ Few today question that the locus 89 bowls are Period Ib, and the first century B.C.E. dating of the locus 89 bowls has been corroborated by finds at Jericho.⁴¹ Yet the implications of Cross’s reasonable statement have never been taken seriously. There is no non-circular argument for dating Qumran texts found in the caves on paleographic grounds later than the end of Period Ib.

Radiocarbon

The claim is frequently repeated that radiocarbon dating has confirmed dates of scribal copies

of Qumran texts as late as the first century C.E.⁴² Such claims have arisen from interpreting ambiguous data through the filtering effect of the First Revolt construct and the paleographic “dates” themselves rather than the evaluation of the radiocarbon data viewed independently of such presuppositions. In fact, the existing radiocarbon data, while confirming second and first century B.C.E. dates of scribal activity among the Qumran cave finds, do not confirm scribal activity in the first century C.E.

In the radiocarbon datings from Zürich in 1991 and Tucson in 1994, none of the nineteen Qumran texts included were from the typologically latest formal writing among the Qumran finds (the so-called “late Herodian” formal).⁴³ Otherwise, a fairly representative sampling of the range of script types among the Qumran finds were dated. Here a methodological point must be emphasized. In any series of radiocarbon datings of items from a similar floruit, typically one or two radiocarbon dates will be out a little later at one end than the true latest date of the cluster. That is part of the uncertainty associated with individual data points; it is to be expected if a series of samples are dated which include some from the last generation before an endpoint. One simply cannot run a series of radiocarbon datings on a number of items, then focus on the latest radiocarbon date, whatever it is, as if that proves the latest date for the entire group.

To illustrate this point, consider the radiocarbon dates done in the Zürich and Tucson series on five texts from Bar-Kokhba era sites. The latest of those five radiocarbon dates was 140–390 C.E. at 95% confidence (at 68% confidence, 237–340 C.E.).⁴⁴

Yet the true dates of all five of those texts are known: all of them were copied between 128 and

Jewish Scripts.” In: *The Bible and the Ancient Near East: Essays in Honor of W.F. Albright* (Edited by G.E. Wright; Garden City: Doubleday, 1961), 188: “A gap of considerable length must be posited between the latest of the semicursive of Qumran and the extant [non-Qumran] Herodian cursives and post-Herodian semicursive”.

³⁹ Regarding economic texts 4Q342–348, 4Q351–354, and 4Q356–360b, Yardeni concluded: “Despite their designation, it is unlikely that they came from Qumran Cave 4” (H.M. Cotton and A. Yardeni, “General Introduction.” In: *Aramaic, Hebrew and Greek Documentary Texts from Nahal Hever and Other Sites*. DJD 27 [Edited by H.M. Cotton and A. Yardeni; Oxford: Clarendon, 1997], 6 and 283–4). Yardeni adds, “The cursive script utilized in these texts sets them apart

from the other Qumran manuscripts” (ibid., 283).

⁴⁰ Cross 1961a, 190 note 9.

⁴¹ Bar-Nathan 2002, 89.

⁴² E.g. Magness 2002, 10: “[R]adiocarbon dating confirmed the 2nd century B.C.E. to first century C.E. date that paleographers (specialists in ancient handwriting styles) had already suggested for the scrolls (a date consistent with the pottery types found with the scrolls in the caves)”.

⁴³ See below, n. 43.

⁴⁴ G. Doudna, “Dating the Scrolls on the Basis of Radiocarbon Analysis.” In: *The Dead Sea Scrolls after Fifty Years* (Edited by P. Flint and J. VanderKam; Leiden: Brill, 1998), 1: 430–71 (here 453–6 and 471).

135 C.E. (from date formula). Focusing on the latest radiocarbon date of a group can be misleading in determining the latest true date among a group. Of the nineteen Qumran texts dated at Zürich and Tucson, only two gave radiocarbon dates with 95% confidence ranges entirely later than the time of Qumran Period Ib. The first was 4QS^d, which gave a radiocarbon date of 129–318 C.E. at 95% confidence; and the second was 4QpPs^a, which gave a radiocarbon date of 3–126 C.E. at 95% confidence.

4QS^d was rechecked, because a second–third century C.E. date was considered impossible. A second sample cut from a different area of 4QS^d gave a significantly earlier dating, indicating the original radiocarbon date for 4QS^d had been affected by some modern contaminant which the lab’s pretreatment had failed to remove. 4QpPs^a never was rechecked, since it was consistent with the First Revolt construction. The First Revolt construct—an idea in the minds of scholars having nothing to do with radiocarbon data—had determined which text radiocarbon date was further checked and which was not. Another text with which the scribal copy of 4QpPs^a is probably contemporary, 1QpHab, gave a radiocarbon date significantly earlier than 4QpPs^a. In light of the “outlier” status of 4QpPs^a–4QpPs^a is the latest, non-rechecked date of all 19 dates (the actual latest turning out to be contaminated, when rechecked)—it is simply wrong to claim that the radiocarbon date for it proves true dates of Qumran cave texts as late as the first century C.E. (remember the Bar-Kokhba text example above).

A sound interpretation of the existing data is that true dates in the first century C.E. of texts from the caves at Qumran are neither confirmed nor refuted on grounds of radiocarbon data alone. This ambiguity will not always be the case. The picture will become clearer with further radiocarbon data.⁴⁵

⁴⁵ A first radiocarbon date for a Qumran text characterized as late Herodian formal is now published in *Miscellaneous Texts from the Judaean Desert*. DJD 38 (Edited by J.H. Charlesworth et al.; Oxford: Clarendon, 2000). The text, XJoshua (believed to be from Qumran), is described by its editor as “an example of the late Herodian formal book-hand” (ibid., 232–4). The radiocarbon date for XJoshua is

Concluding Remarks

It is a curious paradox that scholarly constructions often retain momentum after the original reasons which created them are acknowledged to be mistaken. There was no actual basis in the data for de Vaux’s confidence (when in 1952 he announced the first findings at Qumran and declared) that the scrolls of Cave 1 were deposited as late as the first century C.E., since the dating of the locus 2 scroll jar was uncertain. But, de Vaux did not know this, because at the time he found the locus 2 jar he knew of only one occupation period for Qumran, in the first century C.E. The discovery of the distinct, earlier first century B.C.E. occupation at Qumran, including locus 2, was reported by de Vaux after the next excavation season, in 1953. Yet, the perception of certainty surrounding the First Revolt date for the scroll deposits remained uncorrected down to the present day. The first century C.E. dating of the Qumran text deposits is a classic example of a mistaken scholarly paradigm filtering subsequent perception of data (archaeological, paleographic, and radiocarbon), creating illusions of independent corroboration. In fact, it has never been soundly established that texts found in the Qumran caves were composed, copied, or deposited in the caves later than the time of Qumran’s Period Ib. Once this is acknowledged, the question is raised whether there is a sound basis to suppose first century C.E. Qumran text deposits in the absence of evidence.

A significant difference between Qumran Periods Ib and II with respect to the texts is already accepted: the texts in the caves reflect flourishing authorial activity during the time of Qumran’s Period Ib, but, strangely, none at all in Period II. According to the prevailing scholarly construction, the inhabitants at Qumran switched over to copying old texts, without authoring a single new one, through the entirety of the first century C.E. until the First Revolt.⁴⁶ No reason is given. However

reported as 160 B.C.E.–73 C.E. at 95% confidence (as 86 B.C.E.–49 C.E. at 68% confidence).

⁴⁶ E.g. Stegemann, *The Library of Qumran* (Grand Rapids: Eerdmans, 1998), 137: “[I]t is still surprising that, among all the rich Qumran finds, there seems to be not a single Essene work that we can prove to have been composed only after the middle of the first century B.C. [. . .] From that

odd this may seem, it has been regarded as a necessary interpretation in light of what has been assumed to be “archaeological fact” (the First Revolt deposit date).

In light of the foregoing analysis, a different possibility suggests itself. The complete absence of even one allusion to a figure, circumstance, or event in the first century C.E. in a corpus of texts on the scale of the finds at Qumran—compared to dozens of such allusions from the first century B.C.E.—is well explained if the text deposits themselves ended in the first century B.C.E.

In the same way, the fluid, pre-stabilization

character of the biblical texts found at Qumran, compared to the post-stabilization character of biblical texts found at Masada, also is well explained if the Qumran text deposits ended earlier than commonly supposed.⁴⁷ These phenomena are less easily explicable in terms of the existing date paradigm.

And so this paper can be brought to a close with these questions addressed to those involved in the archaeology of Qumran: Is it legitimate to continue to speak of first century C.E. text deposits at Qumran as an established fact? Or is this date construction another “received truth” of de Vaux that also needs to be reexamined?

Locus	KhQ number	Photo #/ drawing	Notes and comments	Dating
2	27	HC #142; DV 1953, Fig. 2:2.	Classic tall cylindrical. Buried in a Ib floor that was reused in II. In 1952 de Vaux announced that both the jar and the floor were 1 st century CE before realizing that Period Ib existed and that the locus 2 floor was built in Ib. There is no reason why this jar buried in a Ib floor could not be Ib. De Vaux: “The jar seems to be contemporary with the flooring” (Pfann 2003, 12). A coin, originally unidentified, later identified as from Antigonus Mattathias (40-37 BCE), was found “against the jar buried under the paved floor.” The dropping of this coin either occurred with the burial of the jar or else postdated the burial of the jar. Elsewhere de Vaux argued that coins from Antigonus Mattathias attest activity in Period Ib (DV 1973, 21-3), but he never commented on this coin.	Ib (?)
13	768	HC #104–107; DV 1954, Fig. 5:4.	Classic tall cylindrical. HC 297. De Vaux assigned this jar to “Niveau II” (Period II). Since this period assignment has no known justification and is among other period assignments of fig. 5 known to be based on flawed and later-corrected assumptions, this Period II assignment is similarly untrustworthy. The authors of HC (p. 48) draw these jars in locus 13 in both Ib and II, indicating they understand these jars were first installed in Ib.	Uncertain

(continued on next page)

time forward, they concentrated essentially, perhaps even entirely, on the biblical writings, on other works of pre-Essene tradition, and on writings of their own that they had already produced, studying and copying these again and again, but neither revising their contents nor expanding or abridging them.”

⁴⁷ I. Young, “The Stabilization of the Biblical Text in the Light of Qumran and Masada: A Challenge for Conventional Qumran Chronology?” *DSD* 9 (2002): 364–90. S. Talmon writes: “[T]he Masada biblical fragments witness to the existence of a stabilized proto-masoretic textual tradition. [...] In contrast, the textual fluidity, which can be observed in the Qumran scrolls and fragments of biblical books and bible-related works, which stem from the last centuries B.C.E.,

proves that these manuscripts were not subjected to such a stabilizing process”, see “Hebrew Fragments from Masada.” In: *Masada: The Yigael Yadin Excavations 1963–1965. Final Reports. Vol. 6* (Edited by J. Aviram, G. Foerster and E. Netzer; Jerusalem: Israel Exploration Society, 1999), 25. E. Tov states: “Les textes de ces trois sites [Nahal Hever, Murabba’at, Masada] sont ainsi presque identiques au texte consonantique médiéval du TM, encore plus que ceux ‘protomassorétiques’ de Qoumrân”, see “L’importance des textes du désert de Juda pour l’histoire du texte de la Bible hébraïque. Une nouvelle synthèse.” In: E.-M. Laperrouzaz (ed.), *Qoumrân et les manuscrits de la Mer Morte* (Paris: Les Éditions du Cerf, 2000): 210.

Locus	KhQ number	Photo #/ drawing	Notes and comments	Dating
13 17	758, 764 939	HC #104- 107 DV 1954, Plate 11b at right; DV 1954, Fig. 5:7.	Two rounded shoulder scroll jars associated and contemporary with KhQ768 above. Rounded shoulder. De Vaux assigned this jar to “Niveau II” (Period II), but since this period assignment has no known justification and is among other period assignments of fig. 5 known to be based on flawed and later-corrected assumptions, this Period II assignment is similarly untrustworthy.	Uncertain Uncertain
17	794		Gunneweg/Balla refer to a “scroll jar” buried in the glacis of the tower (HG 29). This jar is identified as KhQ794 of locus 17 (Pfann 2003, 19 note 31). Although de Vaux thought the glacis was constructed secondarily in Period II (thus dating the jar used as building material either to Ib or the start of II), Hirschfeld has shown that the glacis was constructed when the tower was built, in de Vaux’s Ib (Hirschfeld 2004b, 69-72).	Ib
41	2989	HG 15	Gunneweg/Balla identify this tall cylindrical jar as a “burst scroll jar” from locus 41 (HG 45; locus 44 on p. 15 appears to be a misprint). De Vaux’s notes for locus 41 refer to a sounding in 1956 later than the low-numbered finds listed at that locus from 1953 (compare locus 38). The 1956 digging appears to be the source of KhQ2989. The 1956 sounding “belongs to Period I” (Pfann 2003, 27).	Ib
45a	799 (?)		Classic tall cylindrical. Found in the southeastern pottery annex. HC photo #356 shows this jar with what appears to be an ovoid Jericho type 2A jar (= DV 1954, Fig. 5:8). As with the other fig. 5 jars, de Vaux claimed the fig. 5:8 jar was “Niveau II” at a time when he thought all of the southeastern pottery annex was only Period II. When de Vaux corrected the dating of the southeastern pottery annex to both Ib and II in 1956 the basis for the fig. 5:8 jar attribution to II was removed. At Jericho the ovoid jars (J-SJ2A) are attested exclusively first century BCE (Bar-Nathan 2002, 27 and 150). Gunneweg/Balla comment: “Rachel-Bar Nathan has presented the theory that an ovoid jar is a Hasmonean ‘scroll jar’ whereas the cylindrical jar is a Herodian ‘scroll jar’, thus is chronologically later. Cylindrical jars found in the scroll caves, among which Cave 8 that contained most of the sampled jars in this study, coincided with the presence of ovoid jars found in the khirbeh. Ovoid jars are generally lacking in the caves. This means that the scrolls were buried in the cylindrical jars while the ovoid jars were used as store jars in the khirbeh. The simultaneous occurrence diminishes the chronological division into Hasmonean and Herodian scroll jars” (Gunneweg/Balla, HG 16).	Ib
61	1474	HC #353	Classic tall cylindrical. Not enough information to know dating.	Uncertain

(continued on next page)

Locus	KhQ number	Photo #/ drawing	Notes and comments	Dating
80	1465	HC #359	Small cylindrical “scroll jar”. Southeastern pottery annex. De Vaux’s notes appear to associate this jar with a floor below the Period II level, i.e. Period Ib (Pfann 2003, 39). HC have this jar as Ib in their drawings (p. 168).	Ib
	1492	HG 12.		Ib
81	1401	HG #316–318; HG 12.	Small cylindrical “scroll jar” (HG 12, 44). De Vaux describes this jar as found at the lowest of 3 levels: “lower [level] . . . perhaps period Ib?” (Pfann 2003, 39).	Ib (?)
84		HG 355 (photo); HG 15	Gunneweg/Balla say this is a “storage jar” but it appears to be a rounded-shoulder scroll jar in the drawing and photo. Three letters in red ink read as Latin “LXI”, “61”, caused an early identification of this jar as from Italy at the end of Period II (Zevi cited HG 354-55). But INAA tests published in 2003 refuted the Italian origin (HG 355), and there was other use of red ink at Qumran in Period Ib. The “niveau inférieur” in which it was found (HG 354) could be either Ib or II. Curiously, KhQ734 found in locus 39 is suggested uncertainly by Lemaire also to read Latin “LXI”, “61” (HG 350), the same number on KhQ1401. KhQ734 was found by de Vaux in “niveau inférieur” of locus 39 (HG 350), just before the next-numbered finds from that locus, KhQ735 and KhQ739, coins of Antigonus Mattathias and Archelaus. The find level of KhQ734 appears to be Period Ib (compare a parallel lower floor of locus 41; also the open northern door of locus 39 in the Ib plan in HC). If the readings are correct this suggests the two items are contemporary, with a suggested <i>terminus ad quem</i> being the time of dropping of an Antigonus Mattathias coin in locus 39.	
120	2661A	HG 12	Rounded shoulder; “large scroll jar”. HG 36, 41, 44. Not enough information for certainty, but Ib seems suggested since the jar was found so close to a buried hoard with coins of 9/8 B.C.E. It is plausible that the coins were buried later than the jar (since the coins were not found and removed).	Ib (?)
124	2553	HG 12	Rounded shoulder; “scroll jar”. HG 35, 41, 44. Found outside the western walls of the building among what de Vaux interpreted as debris from Ib thrown outside the buildings by people resettling in Period II (DV 1973: 25; Pfann 2003, 53).	Ib
South Tr:	2548	HG 12	“Small scroll jar” (HG 36, 41). Found among animal bone deposits and coins of John Hyrcanus I and Alexander Jannaeus, but no later coins. Identified by de Vaux as entirely Ib (DV 1973, 13).	Ib

Table 2: Scroll jars found at the buildings of Qumran

CHAPTER SEVEN

A TABLE PREPARED IN THE WILDERNESS: PANTRIES AND TABLES, PURE FOOD AND SACRED SPACE AT QUMRAN

Stephen Pfann

*Khirbet Qumran:
A Farm for a Religious Community*

All people need to eat, even Essenes. It has been emphasized by several participants in this conference that the site of Qumran was a farm, with no connection to a religious society. However, the fact that there is sufficient archaeological evidence to show that the inhabitants of the sites of Khirbet Qumran and 'Ain Feshkha raised crops or tended sheep does not preclude the fact that the inhabitants were members of a Jewish religious sect, such as the Essenes. On the contrary, the cultivation of date palms, grapevines, wheat and barley fields, and even the collection and processing of indigo or balsam, should be seen as an integral part of the daily tasks of such a group, as is also indicated by the ancient writers. Pliny describes the Essenes as living "among the date groves" (*Nat. Hist.* 5:73). Josephus states that they arose in the morning and said "certain ancestral prayers . . . and after these prayers their superiors dismiss them so that each man may attend to the work with which he is familiar" (*J.W.* 2:129). Whatever commodities the group produced depended largely upon the local natural environment or their ability to import raw foodstuffs for processing within their own facilities. These agricultural products could be produced for their own consumption or used to barter for other commodities unavailable to the community. The constant or occasional use of certain industrial facilities for processing various seasonal crops (including grapes and dates, barley, wheat and mustard) is known from antiquity and should be included as part of the overall picture.

The archaeological data, limited in scope by the rare and chance survival of ancient materials at a site, contributes only a few pieces to the overall puzzle. Specialties such as paleobotany,

geology, and ethnography on their own cannot fully reconstruct the life practices of ancient societies. Each specialist must have sufficient material from the site to arrive at a tentative conclusion, and, in the end, they must judge for themselves the degree of certainty they should apply to their overall conclusions. This is often best done by cross-checking their results against those of colleagues in their own field or of researchers in other specialties. Khirbet Qumran is a rare site in the ancient world where most remains have survived in a relatively superb state of preservation. For the natural scientist, the environment has undergone little change in the past two thousand years. For the archaeologist, the ruins of Qumran have survived with walls often standing above one's head and with a rich volume of material remains from all around the site. For the historian, the surviving literature about the beliefs and daily life of the Essenes is greater than that of other contemporary groups. For all of these specialists, some of the most important sources for understanding life at Qumran must be the nearly one thousand fragmentary manuscripts that were found in the caves connected with the site.

Temporarily focusing on one's own specialization by isolating one's research from other sources of data available from a site (whether literary, archaeological or other), can and, perhaps, should be done. However, this should be done only as a momentary task in order to scrutinize and cross-check one's own methods and conclusions against another's. This form of reductionism should never be practiced as either a general or exclusive method, since it isolates and reduces what is perceived as valid data to one source while remaining ignorant of any other source. Excluding other sources of information should only be done if it can be conclusively proven that they are unconnected or are irrelevant to the study.

Khirbet Qumran's Connection to the Dead Sea Scrolls

Several times we have heard in this conference that not one of the scrolls, nor even a fragment of a scroll, was found at the site of Qumran itself. This was used as evidence that the scrolls were not to be seen as being connected with the site of Qumran. However absurd this suggestion might seem to most scholars, nevertheless, this challenge should not go unanswered. First of all, I would like to point out that scrolls were, in fact, discovered at the site of Qumran within the enclosure walls of the site itself. These scrolls were found in caves 7, 8 and 9, access to which was limited and protected by the enclosure walls of the original settlement. To gain access to these caves, one would have had to enter into the site or climb over the enclosure wall from outside.

I would like to add that if these caves, with their scrolls, are now included within the custody of Qumran's enclosure (fig. 7.1), then also all other caves within the marl terrace and certain

of the caves in the cliffs should also be included as property of the Community (whether any number of these scrolls were brought in from other locations or not). Secondly, we should not expect to find any scrolls or scroll fragments within the main buildings of the site itself. All sacred scrolls in use at the main building would have been taken and responsibly hidden from an enemy incursion (and so they were in cave 1 and other caves). Even worn out scrolls and scroll fragments would have been carefully interred in a *geniza*, as more than 17,000 scroll fragments from caves 4, 5, 7, 8, and 9 likely indicate. It would have been totally out of character for this group to leave even the tiniest fragment of a sacred scroll behind at an abandoned settlement. Thus, the ancient library from the Qumran caves should, indeed, be used as both a primary and secondary source for cross-checking research results and for integrating scientific work on the settlement and plateau into a viable overall picture, and vice-versa.¹

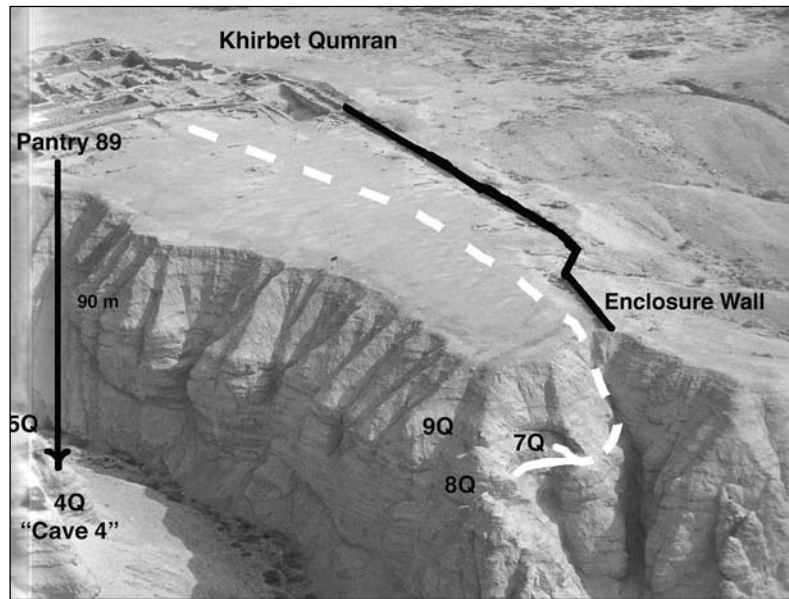


Fig. 7.1. The southern enclosure and its relation to Caves 4Q, 5Q, 7Q, 8Q, and 9Q.

¹ The proposal by N. Golb and others that the Dead Sea Scrolls, being nearly one thousand in number, were actually the last remnants of the great Temple library rescued from Jerusalem is not particularly helpful. To support this suggestion, they would first need to provide a sensible explanation as to why such a large portion of the library was represented by documents which clearly condemn the pre-

sent Temple leadership, the Pharisees and the Sadducees, as "Sons of Darkness" and "the lot of Belial." At the same time, they would have to explain the absence in the caves of Qumran of scrolls originating from the Pharisees and Sadducees. This thesis would lead one to believe that the Temple leadership preferred reading the literature of their enemies and not their own literature.

The Connection of Qumran and its Scrolls with the Essene Movement²

The sectarian scrolls of the caves along with the archaeology of Qumran and other similar sites and cemeteries (e.g., 'Ain Feshkha, 'Ain el-Ghuweir, Beit Safafa, and other sites near Jerusalem) bear witness to a pious group of Jews who: (1) lived during the period spanning the second century B.C.E. and first century C.E.; (2) lived in camps and towns headed by an overseer throughout Judaea, including the area from Jerusalem and its surroundings down to the Dead Sea Coast; (3) had four divisions of participants which included both priests and laity; (4) were excellent farmers; (5) studied and kept scrolls; (6) were particularly concerned about issues of purity, including food; and (7) linked ritual purification with the purity of one's actions and motivations.

The ancient writers Philo of Alexandria, Flavius Josephus, Pliny the Elder, Hippolytus, and Dio Chrysostom provide a highly detailed account of approximately 145 paragraphs (8,485 words) on a group called (by outsiders) "Essenes." Together, they say, that this group (1) lived during the period spanning the second century B.C.E. and first century C.E.; (2) lived in camps and towns headed by an overseer throughout Judaea, including the area from Jerusalem and its surroundings down to the Dead Sea Coast; (3) had four divisions of participants which included both priests and laity; (4) were excellent farmers; (5) studied and kept scrolls; (6) were particularly concerned about issues of purity, including food; and (7) linked ritual purification with the purity of one's actions and motivations.

The list of similarities can be elaborated at far greater length. In fact, there is estimated to be a

95% item-for-item agreement on habitation, lifestyle, and beliefs between the accounts of the ancient writers concerning the Essenes and the evidence derived from the Dead Sea Scrolls and the archaeology of the site of Qumran for the community that lived there.³ The minor discrepancies are easily explainable.⁴ That any ancient (or even modern) historian would be so detailed and still be so accurate should make the critic stand in awe.

Yet, despite this overwhelming agreement between the ancient writers, the sectarian scrolls, and the archaeological data, there persists a skeptical and almost cynical cadre who hold that no justifiable connection can be drawn between the Essenes and the contemporary population that lived at Qumran and produced the sectarian scrolls. They hold that there were two peoples—one being the more than four thousand Essenes, of whom we have extensive historical descriptions and who just happened to have similar beliefs and customs to those of the community of Qumran and the scrolls, and who also just happened to live at the same time and in the same region and, thus, in the same "towns" as that community. A second group, the skeptics further assert, is, the pious community represented in the Dead Sea Scrolls and at Qumran with substantial, widespread and well-documented remains from the same period of time and region inhabited by Essenes; this group was unknown to, or overlooked by, all ancient writers.

The implication of this hypothesis is that, if the community at Qumran was not Essene in character, then not a single stone, manuscript or artifact has been excavated that actually derives from them. In fact, outside of the descriptions by the ancient writers, there is no physical evidence for the existence of the Essenes!

² Here I will elaborate upon a compelling rationale first introduced by F.M. Cross and further advanced by M. Broshi. See M. Broshi, "Was Qumran, Indeed, a Monastery? The Consensus and Its Challengers: An Archaeologist's View." In: *Bread, Wine, Walls and Scrolls*. JSP.SS 36 (Edited by M. Broshi; Sheffield: Sheffield Academic Press, 2001), 259–73.

³ Cf. T. Beall, *Josephus' Description of the Essenes Illustrated by the Dead Sea Scrolls*. SNTS.MS 58 (Cambridge: Cambridge University Press, 1988).

⁴ The few minor differences between the historical sources and the Qumran evidence can be explained as historical errors or scribal errors. The small number of surprising finds—including cosmetics, spindle whorls, and other finds

that have recently been excavated in unstratified deposits—most likely came from one of the five or six non-Essene phases of occupation at the site. The few differences in doctrine or practice observed between the ancient writers and the Qumran Community's literature or material culture at the site are, in most cases, also observable between the writers and even between the various sections written by the writer himself. These differences become understandable once one takes into account the differences among the varied sectors of Essene society and the fact that practices among religious groups tend to evolve over centuries and even decades of history. Cf. J.J. Collins, "Dead Sea Scrolls." ABD 2 (1999), 85–101 (esp. section J: "History of the Community").

The burden of proof for the unfortunate separation of the Essenes from the community at Qumran lies with the skeptics. They must explain the vast incongruities in their argument with more compelling evidence than has heretofore been proposed. And, accordingly, it is not incumbent upon the vast majority of scholarship to continue its research as though the identity of the group is totally unknown due to the amazingly few apparent, and yet explainable, incongruities that exist when evidence is compared.

For the sake of our study, we will explore the question at hand with the admitted assumption or acceptance of the argument that the community that lived at Qumran, and produced the sectarian documents, also represented at least one facet of the movement known as “the Essenes.”

Loci 89 and 114: Pantries at Khirbet Qumran

All people need to eat. However, an understanding of ritual and practice in community meals can only be arrived at by carefully interrelating all the data that is available to us. This includes natural history, archaeology, the ancient histories, ethnography, and the scrolls of Qumran themselves.

Toward the end of the third season of excavation at the site of Khirbet Qumran, on March 21, 1954, Roland de Vaux and his team had excavated approximately three-fifths of the site and had already unearthed and registered 869 pottery vessels. On the next day, de Vaux refocused his attention on a room adjoining what was

then the largest room at the site (locus 77). The southern half of that room (locus 89) was partitioned by a thick wall. That day, the total number of vessels excavated from the site would more than double. De Vaux recorded in his field notes:

22/3/54. The entire room was full of pottery: at least 1,000 pieces grouped according to category and stacked: to the east, bowls; close to the pillar, plates; to the west, terrines, jars and jugs. The small wall that separates loci 87 and 89 was also resting on the plastered floor. We could enter into loci 89 and 87 by a door at the western end of the wall. There were certainly two levels in the locus: that of the plastered floor and small wall, which contained the pottery items, and that which is higher, with a door towards the south at the southeast corner.⁵

The locus and its pottery took more than nine days to excavate, define, clean, and photograph. De Vaux recorded:

30/3/54. We began removal of the goblets: then, in the days following, the progressive removal of the other groups of ceramics.⁶

The discovery of a “pantry” in locus 89 at Khirbet Qumran provided archaeologists with a first-hand look at the meal vessels (or tableware) of the community from Period Ib.⁷

As stressed by de Vaux, in his description of locus 89, the locus should not be viewed as a storage room for general pottery since several pottery forms (including cooking pots, various storage jars, and lids) are missing from the locus.⁸ The fact that the vast majority of the vessels are classified as tableware and serving vessels for meals,

⁵ R. de Vaux, *The Excavations of Khirbet Qumrân and Ain Feshkha. Vol. 1B: Synthesis of Roland de Vaux's Field Notes*. NTOASA 1B (Translated and revised by S.J. Pfann; Fribourg: Universitätsverlag Freiburg; Göttingen: Vandenhoeck & Ruprecht, 2003), 41. The dates given in all of the excerpts from de Vaux's notes are presented as in the original, using the European convention of day/month/year.

⁶ De Vaux 2003, 38.

⁷ Cf. R. de Vaux, “Fouilles de Khirbet Qumrân: Rapport préliminaire sur les 3e, 4e, et 5e campagnes.” *RB* 63 (1956): 533–77, 554–75 and fig. 2. The English term “pantry” seems to have been first applied to the locus by John Strugnell, who used the term in his English translation of J.T. Milik, *Dix ans de découvertes dans le désert de Juda* (Paris: Éditions du Cerf, 1957); id., *Ten Years of Discovery in the Wilderness of Judaea* (Translated by J. Strugnell; London: SCM, 1959), 49. The English term “pantry” means, according to the *Random House Dictionary of the English Language*: “(1) a room or closet in which food, groceries, and other provisions, or silverware, dishes,

etc., are kept. (2) a room between the kitchen and dining room in which food is arranged for serving, glassware and dishes are stored, etc. (3) a shelter or other place where food is dispensed to the needy, either as groceries or as meals.” It is questionable whether any of these definitions applies precisely here. Food, at least wine, was stored here, and tableware, serving vessels, and certain storage vessels were kept here, all of which were intended for dispensing food (to the “poor” no less!). Whatever the case, as anachronistic or lacking precision as the word might be, for our present purposes, the term “pantry” is more useful than a term like “pottery store,” which would include several other pottery items not directly related to the meal service. The term “pantry” will be used here but with these reservations.

⁸ Cf. R. de Vaux, *Archaeology and the Dead Sea Scrolls* (London: Oxford University Press, for the British Academy, 1973), 12, where he also stated that the tableware was likely used in connection with the meal room for regular meals as well as for pilgrimage feasts (e.g., at the Yearly Renewal Ceremony).

coupled with the fact that extraordinary quantities of each pottery form were found, led him to believe that this assemblage served the needs of a large community (and not that of a family or even an extended family). The assemblage of more than 1,000 pottery items was made up of bowls, plates, cups, terrines, jugs, ovoid storage jars, and bag-shaped storage jars.

Since the vessels were found segregated by form and set in neatly stacked rows, it would lead one to believe that the arrangement of this repertoire might in some way reflect the key elements used in the community meals, including what de Vaux termed the “table service” and serving vessels.

The contents of pantry locus 89 included:

Tableware. This comprises the vast majority of the vessels and was represented by bowls, plates, and cups. Each of these forms was uniformly stacked upside down in rows within neatly segregated areas as follows:⁹

- Bowls (southeast corner of locus): 90 stacks of 8 each (720 bowls)¹⁰
- Plates or dipping dishes (along south wall of locus between pilaster and bowls): 12 stacks of 17 or 13 stacks of 16 (ca. 208 plates—actually 209)
- Cups (northeast corner of locus): 10 stacks of 8 (ca. 80 cups—actually 81)

Serving Vessels

- Terrines (west sector of locus set in two east-west rows): 10 stacks of ca. 4 (actually 38)¹¹
- Jugs (west sector of locus): 11¹²

Storage Vessels

- Ovoid jars (west sector of locus, north of a row of bag-shaped storage jars against the south wall): 8
- Bag-shaped jars (west sector of locus, likely leaning against the south and west walls): 13

The numbers and percentages of vessels within locus 89 might be understood to be random and dependent, to a large extent, upon the survival rate of the various vessels. However, it is the present researcher’s conclusion that a second, similar but distinct, “pantry” can now be identified at Qumran in locus 114. The pottery types and the ratios and percentages of each type in this locus are similar, in almost all respects, to those of locus 89.

De Vaux’s field notes contain the following descriptions of locus 114:

22/3/55. We descended in the fill. The upper rim of the cistern appeared. In the northwest corner several pottery forms and many potsherds appeared.

23/3/55. In the northwest corner, under the potsherds from yesterday, we discovered a deposit of pottery: stacks of plates, etc. We must decide if the deposit is contemporary with the first circular cistern or with our major Period 1b.

24/3/55. We cleaned the deposit of pottery. The forms fit Period 1b, but are more varied than that of the large deposit of 1954 in locus 89.

27/3/55. We removed the pottery.

28/3/55. We completed removal of the pottery. Beneath was an iron pick with the remains of its wooden handle. Leaving a part of the floor as evidence, we quickly reached the virgin soil.¹³

De Vaux ultimately concluded that the pottery of locus 114 was later than that of locus 89 and should be associated with the Period II community. This was due to the fact that the repertoire from locus 114 included certain vessel types which exhibited formal developments typical of the later period, including, in particular, three first century C.E. “Herodian” bow-spouted lamps collected from the same locus.¹⁴

The following is a summary of the pottery forms of locus 114:

⁹ The practice of stacking vessels upside down may have been adopted in order to avoid the danger of dead vermin falling into them, which would have rendered any ceramic vessel unclean according to Lev 11:32–4, esp. v. 33: “And if any of them [i.e., dead vermin] falls into any earthen vessel, all that is in it shall be unclean, and you shall break it.”

¹⁰ De Vaux’s states that the bowls “étaient disposés en carré par piles d’une douzaine” (de Vaux 1956: 542), which could be translated literally “stacked upside down in stacks by the dozen.” This number is still far from exact. With the final count of 720 bowls, the ninety stacks of bowls (visible in photo 339 and photo 338) should actually be understood to be in stacks of eight. If the bowls had been in stacks of

twelve, on their own, the ninety stacks would have contained 900–1,080 bowls (in addition to the rest of the pottery forms from that locus)! De Vaux’s field notes and typed notes do not specify any given number per stack.

¹¹ The capacity of the terrines from locus 89 (volume = c. 612.8 cm³) is approximately ten bowls full (at c. 61.0 cm³ each).

¹² The average volume of the jugs from locus 89 (c. 473.7 cm³) is the equivalent of approximately ten cups full (at c. 45.7 cm³ each).

¹³ De Vaux 2003, 50.

¹⁴ Catalog object KhQ2579; cf. de Vaux 1956: 554–5 and fig. 4.

Tableware (Each form was segregated in upside-down stacks¹⁵)

- Bowls (east and center of locus): 127
- Plates or dipping dishes (stacked along western wall): 38
- Cups (stacked just to the east of plates): 13

Serving Vessels

- Terrines: 11
- Jugs: 3

Storage Vessels

- Ovoid jars: 2

The comparison of the two loci or “pantries” must be carried out on the basis of the frequency (or ratio) of each vessel type within each locus and not of the actual quantities (the quantities of pottery in the pantries differ by a factor of about 6 to 1).¹⁶ The vessel chosen as the basis for comparison in each locus is the bowl since (1) it is the most abundant and (2) each bowl likely represents one participant.¹⁷

One eating bowl for each participant

Period IB (locus 89): hemispherical, white-slipped. 720 bowls.¹⁸ Ratio = 1:1

Period II (locus 114): hemispherical, white-slipped.¹⁹ 127 bowls. Ratio = 1:1

The frequencies are as follows:

One cup for every nine or ten participants

Period IB: ring base, white-slipped. 81 cups.²⁰ Ratio (cups to bowls) = 1:8.9

Period II: generally with a disc base. 13 cups.²¹ Ratio = 1:9.8

One dipping dish for every three or four participants

Period IB: shallow, everted rim, white-slipped. 209 dishes.²² Ratio (dishes to bowls) = 1:3.4

Period II: shallow, upturned or slightly inverted rim, white-slipped. 38 dishes.²³ Ratio = 1:3.3

The above statistics seem to imply that, at least at meal times, the community was subdivided into groups of ten. This is implied by the limit of one communal cup for each group of 9 or 10 participants (as indicated by the bowls). This is also supported by the literary evidence treated below.

The fact that 85% of the vessels from both pantries sported whitened surfaces (whether achieved by a slip or by firing) may indicate that, at least for this community, the color was intended to indicate the special use or purity of such vessels at the site (more than 71% of the pottery census within the entire main building²⁴ had whitened surfaces). It should also be noted that this tableware (including communal cups, dipping dishes, and eating bowls), although not unknown in other sites in Judaea (e.g., Jerusalem and Jericho), just the same, is not found in such large concentrations elsewhere. The 1,260 pottery vessels derived from the pantry loci 89 and 114 represent 57% of the catalogued pottery vessels of the main building (2,205 vessels in all).

The Period IB and Period II Dining Rooms and Their Furnishings

In the middle of his third (1954) season of excavation, de Vaux found himself excavating what he considered to be the largest room at the site (locus 77). By the end of that season, with the discovery of a water conduit in locus 77 for washing the floor and the excavation of the annexed

¹⁵ Cf. J.-B. Humbert, and A. Chambon (eds.), *Fouilles de Khirbet Qumrân et de Ain Feshka. Vol. 1: Album de photographies. Répertoire du fonds photographiques. Synthèse des notes de chantier du Père Roland de Vaux*. NTOA.SA 1 (Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht, 1994), photos 222 (note bowls stacked upside down at top of photo) and 223 (note plates stacked upside down at top of photo with toppled stack of cups immediately in front of them).

¹⁶ The reason for the drop in the number of vessels between Periods I and II may be due to a change in the demographics during these two periods.

¹⁷ Cf. Josephus, *J.W.* 2:130: “When they are quietly seated, the baker serves out the loaves of bread in order, and the cook serves a single bowl of only one course to each participant.”

¹⁸ Cf. de Vaux 1956: 554–5 and figs. 2:3, 11, 12; more precisely, according to the Objects Catalogs, KhQ1545–N1ChQ1555 (11 pieces) and KhQ1587 (709 pieces).

¹⁹ Cf. de Vaux 1956: 558–9 and figs. 4:1, 4, 6, 9 and 12, and in the Objects Catalogs, KhQ2591 (11 pieces), KhQ2583 (57 pieces), KhQ2582 (21 pieces), KhQ2600 (4 pieces) and KhQ2581 (28 pieces). Add to these KhQ2513, KhQ2514, KhQ2516, KhQ2601, KhQ2602 and KhQ2652 (1 piece each).

²⁰ De Vaux 1956: 554–5 and figs. 2:8, 9. Objects Catalogs KhQ1587 (75 pieces) and KhQ1545–1555 (11 pieces).

²¹ De Vaux 1956: 558–9 and figs. 4:10, 13 and 16. Objects Catalogs KhQ2580 (7 pieces), KhQ2593, KhQ2594, KhQ2515, KhQ2523, KhQ2592 and KhQ2606 (1 piece each).

²² De Vaux 1956: 554–5 and figs. 2:6 and 7. Objects Catalogs KhQ1591 (204 pieces) and KhQ1540–1544 (5 pieces).

²³ De Vaux 1956: 558–9 and figs. 4:5 and 7. Objects Catalogs KhQ2576 (8 pieces) and KhQ2577 (30 pieces).

²⁴ The term “main building” is intended to denote all loci except those of dumps and outer enclosures.

room and pantry to the southwest (loci 86, 87, and 89), it was apparent that the two rooms formed not just a meeting room but a dining complex for large numbers of people.²⁵ Although the large pantry was discovered, no evidence of the furnishings of the two rooms was thought to have been preserved. However, I would like again to propose a reconstruction I made previously, that not all evidence of the furnishings was lost.²⁶

On March 10, 1954 there appeared in locus 77 a rectangular engaged pillar or pilaster (de Vaux) of mud brick and plaster attached to the middle of the eastern wall of the locus and then a similarly built, freestanding pillar about two meters to the west. During the next nineteen days de Vaux sought more pillars, uncovering two additional ones in close succession, following the line of the central axis of the room. De Vaux was surprised to see that this succession did not continue beyond the middle of the room, which would be expected if the pillars were used to support the roof. He ascertained that since the pillars were built upon the original plastered floor of Period Ib, they were to be associated with the Period II settlement (24/3/54).

De Vaux offered the following record of the excavation of locus 77 in his field notebooks.

9/3/54. We undertook to excavate the large room, locus 77, situated to the south of loci 54, 55 and 57. It had not been divided by partition walls. The walls were plastered. A well-built door leads to locus 54. We collected curved plastered elements, which may be from the corners of the door. It is the largest room of the *khirbeh*. The floor remains uncertain.

10/3/54. We reached a plastered floor which was for the most part destroyed. Against the eastern wall, near the middle, we located the traces of the setting of a rectangular pilaster made from bricks and then plastered. More to the west, on the axis of the room, were traces of a rectangular pillar, with a heap of collapsed bricks around it. The various pieces of rounded plaster found yesterday must have come from the corners of such a pillar.

11/3/54. We proceeded with the excavation.

13/3/54. We progressed slowly. We found no

trace of the second pillar, which we expected after the first, towards the middle of the room. At this height, against the north wall: the remains of an oven?

14/3/54. We proceeded with the excavation.

15/3/54. Excavation of the locus was concluded. At a small distance to the west of the first pillar were traces of a second but we were not yet in the middle of the room and there was nothing beyond it. Towards the western end, close to the south wall, was a circle paved with large stone slabs. We excavated the stairs which descend into the room from locus 54; we counted five steps. Immediately to the west of these stairs in the northwest corner of the room were two lines of stones with some ash: perhaps a hearth? This construction, like the oven against the north wall, appears subsequent to the destruction of the building. In any event, there were only two levels here. Is this room from period I or II? In this latter case, the rudimentary channel which runs along the exterior of the south wall would be from period III.

16/3/54. Cleaning of the "oven" built against the north wall towards the middle. It is certain that it was subsequent to the destruction of the room: some ashes and burnt wood pass under it up to the plastered facing of the wall. But what is it? The material was evidently made of the fire-proof clay, but the structure is not round. We noticed pieces of two corners, as well as a curved part. Could this be a potter's kiln? We cannot see how it functioned. However, two or three wasters were found nearby.

18/3/54. See locus 86.

23/3/54. A sounding around the circle of stones revealed that there was, under the plaster, another floor surface deeper down, then ashes and finally virgin soil. In the ashes, we only collected some potsherds from the Iron II. The layer of ashes passes under the south wall of 77.

24/3/54. We made a trench in the northeast corner in order to follow the lower plastered surface. Around 6 m. from the northeast corner, there was a displacement of the level. During period II, there was a step ascending towards the west. Thus, the brick pillars are clearly from period II.

25/3/54. We continued the trench towards the west finding again the vestiges of both levels along the wall. The plaster of the lower level was poorly preserved, yet was still better than that of the upper level.

²⁵ De Vaux 1973, 11.

²⁶ S. Pfann, "The Messianic Banquets of Qumran and Jesus: A Comparison." In: *Biblical Theology and the Dead Sea Scrolls: A Jubilee Celebration. The Second Princeton Symposium on Judaism and Christian Origins, November 9–12, 1997* (in press); id.,

"The Multifaceted Stratigraphy of Khirbet Qumran and the Dead Sea Scrolls" (ASOR Annual Meeting, Qumran Section (James Charlesworth and Sidnie White Crawford, Chairpersons) November, 1997 in Napa, California (in press); preliminary publication in 1998 is available at <http://www.uhl.ac>.

28/3/54. We began to remove the upper floor.
29/3/54. While taking out floor II, we uncovered an intermediate pillar associated with the step descending towards the east. The three pillars and the pilaster of the eastern wall are made of unbaked bricks, founded directly upon the plaster of period I. They were subsequently strengthened around the base by gravel and the plastering of the floor. They are from period II. In the south wall, we distinguished a door from period I, which was closed during period II. We need to find out into what it opened. It is not likely that it opened to the exterior.²⁷

In the attached room to the south, locus 86/89, de Vaux made a similar find to that of the pillars in locus 77: a pilaster at midpoint on the far wall and a second pillar at the midpoint in the room, each of a construction similar to those of locus 77 but built into the foundation of the floor of Period Ib. The suggestion that these two pillars acted as a support or anchoring point for a central roof beam has proven to be impossible. In such a case, another pilaster would have been expected in the wall opposite the first pilaster and in line with the central pillar, to lend support to a central roof beam. Instead, a doorway was in line with the two pillars which would, rather, have weakened the support.

De Vaux offered the following record of the excavation and explanation of the levels of locus 86 in his field notebooks.²⁸

16/3/54. New locus to the southwest of room 77. We removed a layer with much ashes, finding pottery items *in situ* against the south wall. This wall contains a pillar of plastered bricks belonging to the preceding level. Finally, the room was cut through by the poorly-made channel which runs along locus 77 on the south. The entire puzzle became clear as follows.

Period I. Construction of loci 77 and 86–87–89, the three last forming a single room.²⁹

Period II. Restoration of locus 77. Locus 86 was separated by a wall which incorporated the pillar of the preceding period.³⁰

Period III. Modification of the structures by a poorly-made channel which skirted the southwest corner of locus 77, cut through room 86 and continued east, along locus 77. Farther up, it had traversed diagonally locus 81.³¹

De Vaux offered the following record of the excavation of locus 89 in his field notebooks.

16/3/54. New locus south of locus 87.

17/3/54. Against the south wall we encountered a half-pilaster corresponding to the pillar imbedded in the wall between loci 87 and 86.³²

Clearly, the pillars did not serve as roof supports, but their purpose must have suited the function of the room itself. The similarities between the pillar complexes of loci 86–89 and 77 are striking, which de Vaux assigned to two successive Periods, Ib and II. (1) Their shared characteristics are: the line of pillars of both loci begin with an engaged pillar (or pilaster) attached to the middle of the narrow wall furthest from the entrance to the room; (2) Additional pillars were added in a line extending to the midpoint of the room between the pilaster and the entryway (locus 77: three pillars; locus 86–89: one pillar); (3) in both periods, a low partition wall was built parallel to the back wall (with the pilaster), each about 2.4 m away and with an opening on the right facing the back wall (visible in Humbert and Chambon 1994, photos 319, 329, 331, 336–340); (4) the pillars of each period were built of mud brick and covered with a thick layer of plaster; had approximately the same dimensions, and were preserved to less than a meter high.

In the context of a pantry and dining room, it would be prudent to seek a functional role for these pillars which were in use during Period IB (locus 86–89) and Period II (locus 77). (Locus 86–89 was buried subsequent to the destruction of the site by a supposed earthquake in c. 31 B.C.E.). In each case, the pillars could have functioned as supports for a single table or more,

²⁷ De Vaux 2003, 41.

²⁸ De Vaux 2003, 40.

²⁹ During Period IB the cobbled area south of locus 77 (i.e., loci 90, 93, 94, 98) should be considered to have been an exterior component to the complex, since this area had its most direct access to that locus. It should, perhaps, be viewed as an area for overflow crowds or for those who were considered unfit to enter the main building. Pantry 89 belongs to this period.

³⁰ The dining complex of this period was limited to loci 77 and 86, with access to other loci of the earlier period being blocked (including the exterior “overflow” area). Pantry 114 would have been associated with this complex but at the end of the period was hidden away (from the hands of the approaching army?).

³¹ The “ovens” and other installations of locus 77 also belong to Period III.

³² De Vaux 2003, 41.

as might be expected in a dining room. If the pillars functioned as table supports, then four options present themselves: (1) each pillar would have been plastered on its top and served as a table on its own;³³ (2) each pillar served as a support for a tabletop (fig. 7.2); (3) each set of pilaster and pillars supported a single extended tabletop (fig. 7.3); (4) a combination of the last two options in which the table in each case remains outside the preparation area, defined by the low wall (locus 89 would follow option 2 and locus 77 a single tabletop spanning the three pillars alone).

Option 1 is problematic since the upper surface of each pillar is relatively small in comparison with the task of serving a large number of participants (as the pottery cache indicates). Option 2 might be supported by an apparent round “shadow” of charred remains visible next to the pillar of locus 86/89 which might suggest that it is the remains of a round, wooden tabletop which surmounted the free-standing pillar (cf. photos 338, 331). Option 3 is credible if one considers that the literature surrounding cult meals often reflect a single communal table. Although this would have demanded the provision of unusually large wooden or plastered tabletops for the period, it still would be feasible, especially if mortise and tenon construction were used.

Within any of the above scenarios, the low wall would have served as a partition (perhaps with a curtain extending from the ceiling above), separating the food preparation area from the area where the food was served. In the case of locus 89, the pantry stood behind this wall in the food preparation area.

*Dining Practices at Khirbet Qumran Based on the
Archaeological and Literary Evidence*

Rather than belaboring the question of the identity of the Qumran community, I would, at this point, like to use the group’s own literature, the Dead Sea Scrolls, found associated with the site itself, as a primary source. The information on the Essenes from Philo and Josephus are utilized only as secondary sources for presenting a sensible reconstruction of the communal meals which once took place relative to the rooms and pantries of the site of Qumran.

It was posited above that, based upon a statistical analysis of the various pieces of tableware associated with each of the two pantries, the ratio of bowls to cups indicated that the meal participants were seated in groups of ten. This is also supported by the primary literature of the group: (1) in the Dead Sea Scrolls, the annual census includes arranging and ranking the membership in groups of “thousands, hundreds, fifties and tens” (CD 13:1; 1QS 2:21; 1QSa I.14–15);³⁴ (2) At all assemblies, including the communal meals, the divisions, each with a leader, were to be organized in groups of “thousands, hundreds, fifties and tens” (1QSa I.27–II.3). *The Rule of the Congregation* (1QSa)³⁵ specifically states that the meals would take place “where ever ten are gathered” (1QSa II.22).³⁶ These divisions evidently were intended to reflect the divisions of the Israelites in the wilderness under Moses: “So I took the heads of your tribes, wise and experienced men, and set them as heads over you, commanders of thousands, commanders of hundreds, commanders of

³³ J.-B. Humbert, “L’espace sacré à Qumrân: Propositions pour l’archéologie.” *RB* 101–2 (1994): 199–201. Humbert proposed that the so-called pillars were actually altars (“autels”) for use of libations and meal offerings.

³⁴ Similarly, in the Synoptic Gospels, at the Feeding of the Five Thousand, the disciples were directed to seat the people in groups of “hundred and fifties,” although the divisions of “thousands” and “tens” are not mentioned (Mark 6:40).

³⁵ The Rule of the Congregation (1QSa) begins with the statement: “This is the rule for all the congregation of Israel in the last days,” which might, at first, seem to indicate that it was a rule book to be utilized only during a future eschatological period. However, in the mind of the community, the “last days” had already begun: “Now this is the Last Days: when all those of Isra[el] shall return forever,” 4Q398 MMT 11–13:4 (C21). The “last days” was the period preceding

the coming of the Messiah and his eternal kingdom and was the period in which the community was currently living. Thus, the guidelines for the community meal given in 1QSa, and in abbreviated form in 1QS 6:4–6, should be taken as the current practice required for the community meal. For an overview of the Essenes’ schematization of history, see S. Pfann, “Historical Implications of the Early Second Century Dating of the 4Q249–250 Cryptic A Corpus.” In: *Things Revealed: Studies in Early Jewish and Christian Literature in Honor of Michael E. Stone*. JSJ.S 89 (Edited by E.G. Chazon, D. Satran and R.A. Clements; Leiden: Brill, 2004), 171–86.

³⁶ In Rabbinic practice, a quorum of ten men was necessary for religious events. However, the further divisions of thousands, hundred and fifties was not. In the New Testament, at the Last Supper, a single cup was shared among at least thirteen individuals (Mark 14:23), which the Christians of the first century also commemorated (1 Cor 11:26).

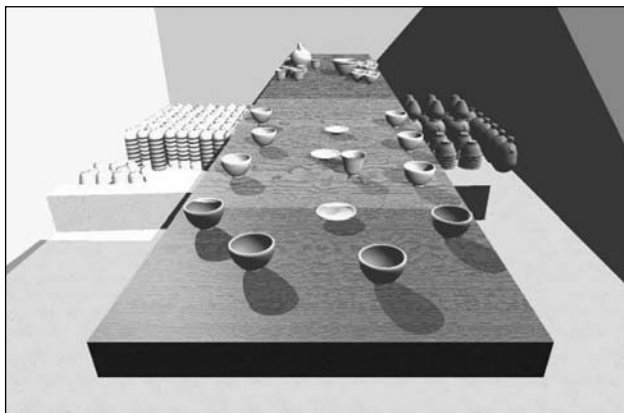


Fig. 7.2. Locus 89 restored with a rectangular table. (drawing by S.J. Pfann, Jr.)

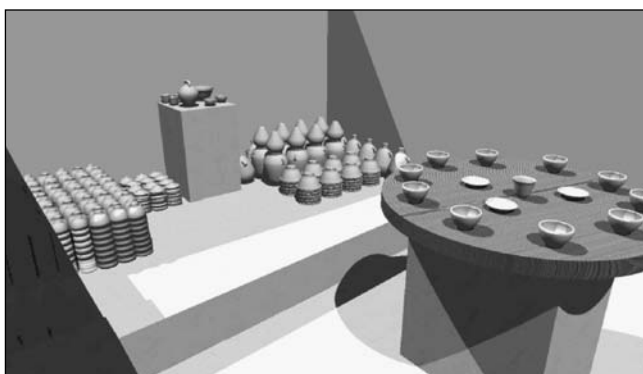


Fig. 7.3. Locus 89 restored with a round table. (drawing by S.J. Pfann, Jr.)

fifties, commanders of tens, and officers, throughout your tribes” (Deut 1:15).

1. *Preparation of the Participants for the Meal*

The participants in the two daily meals of the community at Qumran were restricted to full members who were between the ages of 20 and 60 and who were not physically impaired. The participants, as in all assemblies, entered the meal room in order: the priests with the high priest at the lead, followed by the Israelites headed by the “anointed (or messiah) of Israel” (1QSa II.11–17).³⁷

According to Josephus, the Essene communal meals took place twice a day: at the beginning of

the fifth hour (i.e., the beginning of the second watch of daylight) and at sunset. In each case, the participants immersed themselves, changed from work clothes to sacred garments, and entered a special “sacred” room for the meal.

Then, after working without interruption until the fifth hour [11:00 am], they reassemble in the same place and, girded with linen loincloths, bathe themselves thus in cold water. After this purification they assemble in a special building to which no one is admitted who is not of the same faith; they themselves only enter the refectory if they are pure, as though into a holy precinct. (Josephus, *J.W.* 2:129)

On the basis of its unique architectural features,

³⁷ The appearance at each meal of an “anointed one of Israel,” i.e., an actual lay member of the community who officiated at the meal alongside an “anointed of Aaron” (i.e., a priestly member), took place in every community meal. Neither of these individuals was to be mistaken for the com-

ing “messiah” or “messiahs,” although these meals may have prefigured a future messianic banquet. By extension, it is affirmed that such an anointed representative will participate “at every me[al], where at least ten me[n are ga]thered together” (1QSa II.22 and 1QS 6:4–6).

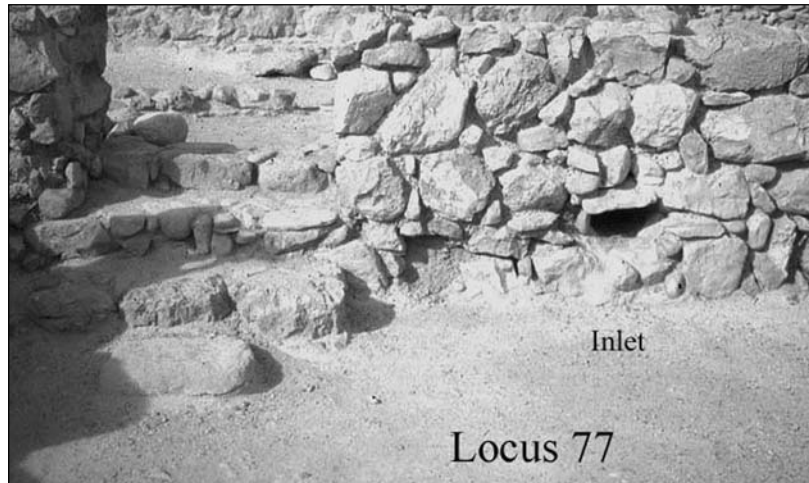


Fig. 7.4. The aqueduct inlet that once channeled water onto the floor of locus 77.

de Vaux concluded that locus 77 served as the community's refectory (fig. 7.4):

Furthermore, a conduit leading out of the main channel has its opening in this room near the north-western door. This conduit could easily be opened or closed. The fact that water was brought into the room in this way, combined with the sloping of its floor, made it easy for the room to be washed, the water being carried off to the outside by way of the south-eastern door. This arrangement indicates that it was necessary to clean the room at frequent intervals and suggests that it also served as the refectory.³⁸

The emptying into locus 77 of an aqueduct for washing the floor of the sacred area reminds one of the procedure that was utilized at Herod's Temple in Jerusalem. Herod's aqueduct connected the springs south of Bethlehem directly to the Temple precincts. This may imply that "holy precincts," as Josephus also calls the Essene dining rooms, were best cleansed with water from a living water source.

2. Preparation of the Food and Order at the Common Table

Whether described as "the Community Table," "the Common Table" or "the same table," all extant texts speak of a single table shared by the

entire community that stood as the centerpiece of the communal meal. The community entered into the meal room in procession by rank preceded by the priests (headed by the chief priest) and followed by the laity (headed by the anointed of Israel). The bread and wine were blessed by the chief priest before the main course of the meal. Then, the head (anointed/messiah) of the Congregation and the congregation itself blessed the bread. According to Josephus, two priests distributed the elements of the meal in two stages: (1) the baker distributed the bread (before the initial blessing) and (2) the cook distributed the main course, one bowlful to each participant. A blessing was said at the end of the meal. According to the community's own rule books:

In these (precepts) (2) shall walk those that are together in all their dwelling-places. And in whatever concerns work or property, the lower shall obey the higher. And they shall eat in common, (3) bless in common, and deliberate in common. And in every place where there are ten persons of the Council of the Community, let them not lack among them a man (4) who is a priest. And let them sit before him, each according to his rank, and in the same order let them ask their advice in everything. And then when they set the table to eat, or (prepare) the wine (5) to drink, the priest shall first stretch out his hand to pronounce a blessing on the first-fruits of bread and

³⁸ De Vaux 1973, 11, and earlier, in French, de Vaux 1956: 542.

wine. (1QS *Rule of the Community* VI.2–5; Dupont-Sommer, trans.)

And [when] they gather for the Community tab[le], [to drink w]ine, and arrange the Community table [and mix] the wine to drink, let no man [stretch out] his hand over the firstfruits of bread and [wine] before the Priest; for [it is he who] shall bless the firstfruits of bread and w[in]e, and shall] first [stretch out] his hand over the bread. And after[ward], the Messiah of Israel shall [str]etch out his hands, over the bread. [And afterward,] all the Congregation of the Community shall [bl]ess, ea[ch according to] his rank. And they shall proceed according to this rite at every mea[l where] at least ten persons [are as]sembled. (1QSa *Rule of the Congregation* II.18–22; Pfann, trans.)

And the testimony of first-century Jewish writers concerning the practices of the Essenes:

Their clothes and food are also held in common, for they have adopted the practice of eating together. In vain would one search elsewhere for a more effective sharing of the same roof, the same way of life and the same table. (Philo, *Prob.* 86)

Daily they share the same way of life, the same table, and even the same tastes, all of them loving frugality and hating luxury as a plague for body and soul. And not only do they have a common table, but common clothes also. (Philo, *Hypoth.* 11–12)

They choose virtuous men to collect the revenue and gather the various products of the soil, and priests to prepare the bread and food. (Josephus, *Ant.* 18:22)

When they are quietly seated, the baker serves out the loaves of bread in order, and the cook serves only one bowlful of one dish to each man. Before the meal the priest says a prayer and no one is permitted to taste the food before the prayer; and after they have eaten the meal he recites another prayer. At the beginning and at the end they bless God as the Giver of life. Afterwards they lay aside the garments that they have worn for the meal, since they are sacred garments, and apply themselves again to work until the evening. Then they return and take their dinner in the same manner, and if guests are passing through they sit at the table. No shouting or disturbance ever defiles the house; they allow each other to speak in turn. To those outside, this silence of the men inside seems a great mystery; but the cause of it is their invariable sobriety and the fact that their food and drink are so measured out that they are satisfied and no more. (Josephus, *J.W.* 2:130–133)

Defining Sacred Space and Pure Space at Qumran

1. “Camps and Towns”

The evidence in the scrolls is that the Community divided their settlements into two categories, camps and towns.

This is the elaboration of the laws to be followed during the entire period of visitation, that which will be visited upon them during the periods of wrath and their journeys, for all who dwell in their camps and all who dwell in their towns. (4Q266 D*11.ii.18–21)

Our Law-giver encouraged the multitude of his disciples to live in community: these are called Essaeans, and I think they have merited this title because of their holiness. They live in a number of towns in Judaea, and also in many villages and large groups. (Philo, *Hypoth.* 1)

The community structure represented by the term *machaneh* “camp” was modeled on the concept of the camp of Israel as comprised during the wilderness wanderings described in the Books of Moses. Among the Dead Sea Scrolls, the rules governing such camps were elucidated in *The Rule of the Congregation* (1QSa), *The Damascus Rule* (D, CD), and *The Rule of the Community* (1QS). According to these texts, the camps apparently represented settlements that were exclusively Essene. Among the camps there are varying lots or degrees of status. The highest degree are those which are called “holy camps,” Jerusalem itself being the most holy. The settlement at Qumran was also apparently a holy camp, having all of the apparatus necessary within its borders to produce products which were required to be both pure and holy. Those who lived in such a camp were required to be pure and holy themselves to maintain this level of purity in the camp. These camps were sacrosanct; those who lived in them lived exclusively according to their own (and heaven’s) rules and judgments, separated, by definition, from the rules of the land in which they sojourned. The rituals and products which were produced there necessarily demanded the highest level of purity, as at Qumran: sacred food, sacred wine, holy anointing oil, sacred scrolls, and pottery vessels to contain sacred substances and objects.

The camps which were not classified as “holy” existed according to the rules of the land in which

they were established. The occupants were able to conduct commerce with outsiders and were subject to the taxation and laws which governed the land. These lower-level camps produced products and services for situations where a high state of purity was unnecessary (such was the case of the Essene camp at 'Ain Feshkha which, according to de Vaux, processed bitumen, produced reed mats and tanned leather for shoes and belts).

There were also camps within *'arim* ("towns" or "cities"). These *'arim*, made up of mixed populations which were primarily non-Essene, contained an Essene colony or quarter. Within the quarter, there was a sector, or at least a meal room, that had been purified and sanctified as a "sacred precinct." This was the bare minimum requirement for an Essene colony—made up of at least ten male members between the ages of 20 and 60 (including a priest and a scribe)—to carry out the necessary purification rites and consume sacred meals. This quarter could include married members, "But if they live in camps according to the rule of the land and marry women and beget children, then let them live in accordance with the Law, and by the ordinance of vows according to the rule of the Law" (CD VII.6–8).

Josephus and Hippolytus note:

They are not in one town only, but in every town several of them form a colony. Also, everything they have is at the disposal of members of the sect arriving from elsewhere as though it were their own, and they enter into the house of people whom they have never seen before as though they were intimate friends. (Josephus, *J.W.* 2:124)

But there is not one city of them, but many of them settle in every city. (Hippolytus, *Haer.* 9:15)

It seems likely that Josephus's description of Essene daily life (*J.W.* 2:129–33, quoted above), comes from these colonies, as it reflects a context in which visitors could be entertained and the uninitiated could listen in on the meals from just outside the dining room.

2. *Graduated Levels of Holiness*

The designation "holy camp," applied to Jerusalem and select other sites (e.g., Qumran, but not 'Ain

Feshkha), was drawn from the pattern of Israel's sojourn in the wilderness. There the tabernacle and the associated camp of the tribes of Israel were considered to be both pure and holy, but in graduated levels of holiness. The focal and most holy point was the Holy of Holies at the heart of the tabernacle. The degree of holiness radiated out from there in a diminishing fashion to the less holy, but nevertheless holy, perimeter of the camp. It was only when one crossed out of the camp to the area outside, that one passed from the sacred to the profane realm. Likewise, in the Qumran literature, both the Temple and the rest of the walled city of Jerusalem—"the Temple city"—were considered both pure and holy.³⁹

A. *Holy People and Holier Priests*

This gradation of holiness within the Temple was, first of all, superimposed upon the members of the Essene community: "While these things exist in Israel, then the Council of the Community is established in truth as an everlasting planting. It has become the Holy Temple for Israel and the foundation of the Holy of Holies for Aaron" (1QS VIII.4–5). 4QMMT also notes the graduated levels of holiness within the membership of the community: "Because they [the Israelites] are holy and the sons of Aaron are most holy" (4Q396 f1–2.iv.8 [B79]). And Josephus adds:

They are divided into four lots according to the duration of their discipline, and the juniors are so inferior to their elders that if the latter touch them they wash themselves as though they had been in contact with a stranger. (*J.W.* 2:150)

B. *Holy Precincts and Pure Enclosures*

Since the settlement at Qumran served as one of the holy camps, a similar gradation of holiness applied there. As mentioned above, the holy camp or Temple city included all areas that were both holy and pure. Outside the walls of the camp or Temple city, there were areas that were considered to be pure but not holy. Such a demarcation of the camp at Qumran can be discerned through an examination of the use of the site. The accompanying map delineates areas that were both holy and pure at Qumran versus areas that were pure but not holy.

³⁹ Cf. J. Maier, "Temple: The Temple of the Temple Scroll." EDSS 2: 921–7 (here p. 925).

The curious practice of disposing of animal bones by burying them in pots in the outer courtyards of Qumran has been an enigma ever since significant quantities of these were discovered in its open courtyards.⁴⁰ As I proposed earlier, this practice fits well with the form of sacred meals practiced at Qumran.⁴¹ This unusual practice was common to both Periods Ib (loci 80, 130, 135, and the southern enclosure)⁴² and II (loci 60, 80, 92, 130, and 132) at Qumran just as the table settings and protocol used in the communal meals continued through both periods. The community's buildings may have been changed and even adapted radically between Period Ib and II, but the group's communal practice seems to have remained relatively stable and unchanged throughout much of its history.

Furthermore, I illustrated that a separation existed between areas at the site which were considered both pure and holy (which included most of the rooms within the main building, marked on the map [fig. 7.5] by a bold, solid line) and those which were only pure and restricted by control gates, like the external courtyards where the animal bones were buried (marked with a broken line on the map). Each gate house (*beit sha'ar*) served to control access between either the area outside the camp and a pure enclosure (as in the case of gate loci 45 and 92) or between a pure enclosure and a sacred precinct (as in the case of gate loci 104, 128, and complex loci 48–53, 66, and 74). In a certain way, the gate houses formed a sort of "air lock" between the impure and the pure, between the profane and the holy. All other gates in the outer walls evidently remained closed and locked (or otherwise permanently blocked), serving only for carrying out refuse or perhaps as

discreet exits for members to visit the *beit tso'a* (the toilet) outside the camp.

I consider the existence of pots with animal bones an important means toward distinguishing those areas that are pure but not holy, from those that are considered both pure and holy. The Bible prescribes that the leftovers and ashes of various offerings be carried "outside the (holy) camp to a pure place" to be disposed of (cf. Lev 4:12 and 6:11; Num 19:19). The practice of burying bones in pots in courtyards at Qumran was apparently intended to fulfill the requirement to not allow the leftovers of sacred meals and sacrifices to be eaten by animals in general and dogs in particular; cf. 4Q394 8.iv.8 (MMT B58) "We do not allow dogs to enter the holy camps" (note the plural).⁴³ This is not to say that animal sacrifice was practiced at Qumran, for animal sacrifice outside of Jerusalem had been forbidden by Mosaic law. However, the killing of an animal, whether for ordinary consumption or for ritual purposes such as the Passover sacrifice, included prayers for thanksgiving or of dedication to God. It would have been inconceivable to the priestly group at Qumran that the remains of a meal that had been sanctified to God through prayer should become food for unclean animals, such as jackals or hyenas.⁴⁴ The remnants of holy food, including the bones of the animals that had been consumed, required suitable disposal. Thus, numerous pots of bones were buried within the pure areas at Qumran, safely within the community's enclosure wall, protected from scavenging animals (fig. 7.5).

If the courtyards constituted holy but not pure space within the compound, what constituted holy *and* pure space? It should be anticipated that a graduated level of holiness existed within the sacred

⁴⁰ Recent excavations have also unearthed many in the southern enclosure (personal communication from Oren Gutfeld and Randall Price); see also J. Magness, *The Archaeology of Qumran and the Dead Sea Scrolls* (Grand Rapids: Eerdmans, 2002), 121.

⁴¹ Pfann, in press b. Ashes were found inside the pots and the bones themselves often showed signs of burning. Thick layers of ash and an installation that may have been connected with the burning of the leftovers were also discovered in association with the potted bones in the eastern part of locus 130.

⁴² A broken jar with bones was unearthed in the original central courtyard of the building in locus 23. The early pot-

tery forms associated with these bones provide evidence for their burial during an early point in period I, before the building and the sacred space were expanded to include that area.

⁴³ This is likely also the issue which provided the pretext for Jesus's statement: "Do not throw what is holy to the dogs" (Matt 7:6).

⁴⁴ The idea that the bones were part of consecrated foods and thus could not be carelessly discarded was first proposed by K. Schubert, *Die Gemeinde vom Toten Meer* (Munich: Ernst Reinhardt, 1958): 27, 50. For other early hypotheses, see de Vaux 1973, 13–4, note 3. This question was taken up more recently by J. Magness 2002, 121.

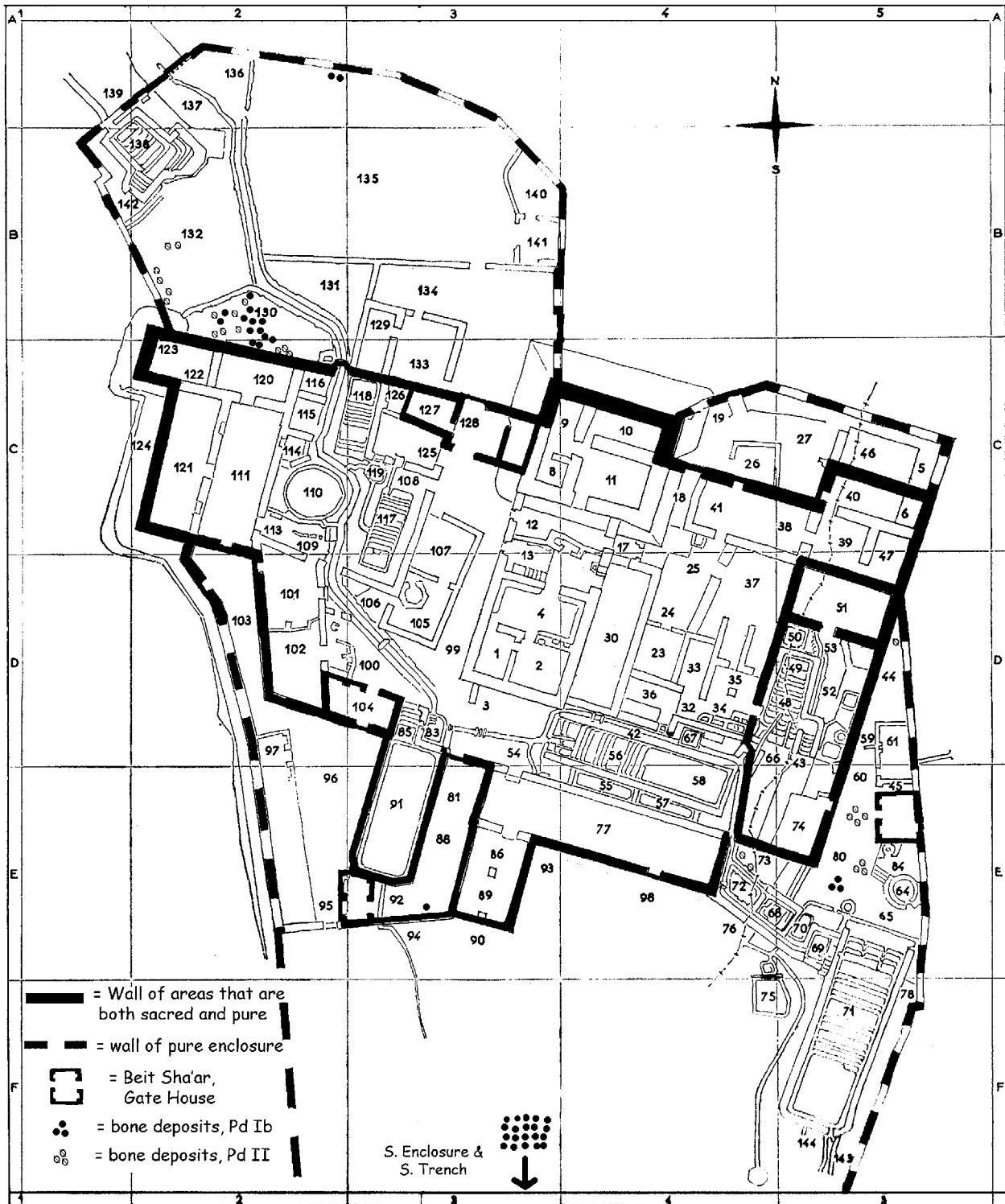


Fig. 7.5. Holy precincts and pure enclosures of Qumran Phases Ib and II.

areas at Qumran just as there were degrees of holiness at the Temple in Jerusalem.⁴⁵ In all probability for the holy camp at Qumran, the areas in which the most sacred activities took place—i.e., the areas of study, worship, and meals—were held in higher esteem than the utilitarian areas of food production, pottery making, and laundering. As evidence, note that loci 1–30 (the assembly rooms for the nightly study of the Torah), were secured with locking door frames, and loci 77 and 86–89 (the dining room) were provided with a unique aqueduct system for cleaning.

Food in the Sacred Space of Kh. Qumran

1. *The Necessity for Pure Food*

On the surface, all food looks the same; the distinction between pure and impure food is not readily discernible to the naked eye. However, what defines the same food as pure or impure, sacred or profane, makes the difference between what is edible for one group and not for another, both today and certainly within Second Temple Period Judaism. For the Essenes, clear demarcations existed between clean and unclean food which were prescribed by *halakhic* guidelines for its cultivation and preparation.

The priestly background of the founders of the Essene movement provided a framework for their relationship to food preparation and consumption within their communities. These defining principles are reflected in the sectarian documents and corroborated in the archaeological remains from Qumran.

For the Essenes, the camp at Qumran (like the Temple) was a sacred space where heaven and the human world met. All food consumed in a sacred space had to achieve a new status to be acceptable not only to man but also to God himself. All food, beginning at its point of origin, had to be pure and unblemished, since it was to be prepared, dedicated, and blessed by priests before

God. The various foods utilized in communal meals, whether bread, wine, or the main course, had to be prepared in a pure setting and remain pure. As a result, each food preparation area at Qumran—whether the bakery, the winepress, or the kitchen—was designed to produce a specific part of the meal from start to finish while maintaining that food in a high state of purity (see below). Pure food could only be prepared by pure priests. To facilitate this, each food preparation area was furnished with its own purification bath (*mikveh*), so that the individuals who prepared the food could maintain a state of purity while in contact with it.

Only food that had been prepared within these guidelines could be offered and received back as a gift and then consumed with thanksgiving by men of the community in the Divine Presence.

2. *Access to Pure Food*

The dietary rules of the community were strictly observed. Before a novice could become a full member, he was first required to pronounce certain mortally binding oaths before heaven. In the case of eating foods prepared by others, he bound himself to eat only the pure and sanctified food (Hebrew *tohorot* “pure [victuals]”) properly prepared by the priestly cooks and bakers for the community. When a member was absent from community meals for whatever reason, whether on a journey or due to punishment or excommunication, he was compelled to eat only what he was able to gather (and examine) with his own hands.⁴⁶

Only blameless, physically unblemished, full members of the community had access to the pure food of the communal meals. The pure food used in the meals, and even the disposable leftovers of those meals, were to be protected from any potential source of contamination. This was especially true concerning contact with the impurity of non-members and animals.⁴⁷ But it is also true of contact with members who were temporarily in an

⁴⁵ For a thorough exposition of the graded levels of holiness at Qumran, see H.K. Harrington, *The Impurity Systems of Qumran and the Rabbis. Biblical Foundations*. SBL.DS 143 (Atlanta: Scholars, 1993).

⁴⁶ Josephus, *J.W.* 2:143.

⁴⁷ See 4Q MMT B58–9: “And it is not permitted to bring dogs into the holy camps [note plural] since they eat some of the bones of the san[ctuary] while there is still some meat [on them].”

impure state, and, as a general rule, with the blind, the lame, the deaf, lepers and women.⁴⁸ The scrolls also provide restrictions as to who should harvest, and how to protect produce, so that it can be eaten as pure food within the community.⁴⁹

3. *Foods Consumed at Qumran*

Both literary sources and archaeological remains indicate some of the foodstuffs consumed by the Essenes in their communal meals. The only foods specifically mentioned by Josephus and the Scrolls are bread and wine, both of which were used in a ritual context within the communal meals. However, while the central importance of the ritual blessing of these items is highlighted in both Josephus and the Scrolls, the main course of the meal that followed is either mentioned or implied, though with no specific definition as to its contents.

Alongside this literary evidence relative to the sacred meal of the Essenes, a significant number of agricultural tools,⁵⁰ industrial installations, and organic materials have been preserved at Qumran,

which indicate the various types of foods that were consumed by the community, and that were cultivated locally.⁵¹

Grain, Fruit of the Earth

Although neither whole grain nor carbonized grain has yet been recovered from the site, a number of sickles (including two nearly intact examples),⁵² at least four ample grinding mills,⁵³ and at least two bread ovens (cf. loci 100–109)⁵⁴ with an accompanying *mikveh* (locus 117), were unearthed during the excavations. The grinding mills and a plastered shelf (apparently the place for kneading the dough and forming the loaves) were found in close proximity to the ovens, allowing the entire bread-making process to be carried out, from beginning to end, within a pure enclosure (Qumran loci 101–109).

Grapes, Fruit of the Vine

The notable presence of a wine press in locus 75 (with *mikveh* locus 69) illustrates that the community had the means to produce wine from grapes.⁵⁵ By building a winepress within the site, the

⁴⁸ The community's restrictions on access to pure foods and sacred space are similar to those that governed access to the Temple in Jerusalem. Justification for these restrictions is provided in the sectarian documents: the blind are restricted because they cannot see if they have touched something that has made them impure (4Q MMT B49–50) and the deaf because, even if they can read the Torah and the rules of purity, they cannot hear the proper interpretation as to how to protect oneself from impurity (4Q MMT B52–3). It seems that the lame (and the physically blemished) are restricted since they repulse the angels (cf. 1QSa II.5–9), while women are excluded due to issues of chronic ritual impurity.

⁴⁹ "... (when gathering fruit) in a] baske[t any unclean person should n]ot gather them, [nor anyone else who] may not touch the community liquids; for these [will defile both the] basket and the figs {and the pomegranates}, [in the event that] their [ju]ice comes out wh[en he cru]shes any of them, while they were gathered by [one] who had not been brou[ght into the co]venant" (4Q284a Harvesting 1:2–6).

⁵⁰ Several of these tools have been published recently, including sickles, pruning hooks, knives, and a hoe; N. La Coudre et al., "L'amas métallique KhQ 960" and J.B. Humbert, "L'agglomérat métallique KhQ 960 et son contexte." In: Humbert and Chambon 1994, 397–405. Also, see de Vaux's account of locus 52 and its associated objects in de Vaux 2003, 31. Early PAM photographs of these objects are available in E. Tov and S. Pfann (eds.), *The Dead Sea Scrolls on Microfiche* (Leiden: Brill, 1993); see especially PAM 40.952–5.

⁵¹ Food production among the Essenes for personal use and trade should come as no surprise. Philo states: "There are farmers among them expert in the art of sowing and

working the land, shepherds leading every sort of flock, and bee-keepers" (*Hypoth.* 8). He also states: "Some Essenes work in the fields, and others practise various crafts contributing to peace; and in this way they are useful to themselves and to their neighbors" (*Prob.* 76b). Pliny the Elder states that the Essenes "have for company only the palm trees" (*Nat. Hist.* V:73), implying that they are closely connected with palm groves. According to Josephus, "For the rest, they are excellent men and wholly given up to agricultural labour" (*Ant.* 5:19).

⁵² Still today Bedouin raise wheat and barley along the wadis of the Judaean wilderness, so there is little doubt that the community would have had ready access to grain, even from their immediate vicinity. However, until flotation analysis is applied extensively at Qumran, it is unlikely that carbonized grain will be found in the excavations. For photograph and drawings of two of the sickles, see Humbert and Gunneweg 2004, 397–405; figs. 2h, 3h.

⁵³ Humbert and Gunneweg 1994, 141–4, photos 293–300; de Vaux, 1973, pl. XX.

⁵⁴ Humbert and Gunneweg 1994, 134, photos 273–4; 136, photos 278–9; 140, photos 290–1.

⁵⁵ See S.J. Pfann, "The Winepress (and Mikveh) at Khirbet Qumran (loc. 75 and 69)." *RB* 101–2 (1994): 212–4. As stated in the article, the form of the installation is typical for a winepress. Winepresses, in addition to being used for producing wine, may also be utilized for other purposes, including the production of olive oil, or, though less well attested, date honey. Until flotation analysis is applied extensively at Qumran, it is unlikely that tiny grape pips will be found in the excavations. The potential to grow vines along the Dead Sea plain is amply illustrated by the fact that vineyards have been successful in various places in the region,

members were able to maintain the ritual purity of the wine from the place of its pressing to the place of its use nearby. Also, the inside surfaces of most of the bag-shaped storage jars, such as those found in the locus 89 pantry, are impregnated with a telltale purplish-grey stain, typical of vessels which have stored wine (or grape juice) for extended periods of time. The scrolls state that grapes and other fruits may be eaten with the pure food unless they have become susceptible to uncleanness by being covered by moisture (whether by water, dew, or their own juice), and then are touched by someone who is unclean.⁵⁶

Olives and Olive Oil

Olive pits have been found at Qumran in recent excavations. No obvious olive press has been found at Qumran. However, the means and equipment for pressing olives in the Second Temple Period relied to a certain degree upon improvisation. The means of pressing olives varied from the classic double beam industrial press to the use of a wine press with a column drum for a crushing stone (e.g., locus 75) or even the use of a simple mortar and pestle. The processing of oil, susceptible as it is to defilement, would best be performed within the confines of a pure and holy site that was carefully monitored and guarded from outside impurities.⁵⁷ Due to this, the production and use of olive oil and the practice of anointing was

likely restricted to the “holy camps” spoken of in MMT, which included both Qumran and Jerusalem.⁵⁸ The presence of olive oil at the site could not have been avoided since it was the only source of fuel for the numerous lamps found there. The scrolls actually provide instructions on how to treat the olives during crushing so as to keep them and the oil pure for eating:

And if [olives] are pressed [in the olive pr]ess, let him b[y] no [mean]s defile them by splitting them before he pours [them into the press. Let them be squee]zed in purity, and when their processing is [finish]ed they will be ea[ten in purity]. (4Q284a Harvesting 1:2–8)

The farming of olives and the production of olive oil must have continued as an ongoing industry among the group’s members. This is best illustrated by the fact that one of the major pentacotad (“fifty day interval”) feasts of their liturgical year, the “Feast of New Oil,” was devoted to the tithing of the olive harvest, which was to be given in kind.⁵⁹

Dates and Date Honey

From Qumran itself, significantly large quantities of whole carbonized dates and date pits have been recorded in all excavations since the 1950s in both the caves and at the site, including a large pit of carbonized whole dates found adjacent to the wine press (locus 75) where date honey or date wine

including on the plain immediately below Qumran itself. As to the question of whether there was enough water to support vineyards, it is important to note that the springs of nearby ‘Ain Feshkha are second only to the Jordan River in providing semi-fresh water along the Dead Sea coast.

⁵⁶ 4Q274 Tohorot A 3.i.6–8.

⁵⁷ For evidence of the production of olive oil at the settlement, one might turn one’s attention to the enigmatic wall between loci 120 and 122, whose narrow apertures may have served as sockets to support levers for a pressing mechanism (Humbert and Gunneweg 1994, 97, photo 203). Alternatively, and more simply, the winepress could have been of multi-purpose use, serving in the late fall as the crushing floor for an olive press (with column drums used as crushing stones, as has been attested elsewhere). This may be also the rationale for the name of Jerusalem’s garden “Gethsemane” (*gath* = “winepress” + *shemen* = “for olive oil”). Olive pits and date pits were found in close proximity to the southern enclosure in the 2002 season of excavation (personal communication from R. Price and O. Gutfeld).

⁵⁸ The use of olive oil for anointing was problematic among the Essenes for purity reasons, as stated by the historians and further explicated in the scrolls. Josephus writes: “They regard oil as a defilement, and should any of them be involuntarily anointed, he wipes his body clean. They make a

point of having their skin dry and of being always clothed in white garments” (*J.W.* 2:123). Hippolytus notes: “And they do not use oil, regarding it as a defilement to be anointed” (*Haer.* 9:17). In CD XII.15–17, it is evident that oil is seen as a liquid that can absorb uncleanness from touching or from dust in the air: “Every piece of wood or stone or dust that is desecrated by human uncleanness, by reason of oil stains: according to their uncleanness, whoever touches them will become unclean.” As J. Baumgarten points out, it is not that they necessarily disregard or abandon the anointings prescribed by Mosaic Law, but that the one who is anointed must immediately wipe away the oil to avoid remaining susceptible to airborne impurities. J. Baumgarten, “Liquids and Susceptibility to Defilement in New Q Texts.” *JQR* 85 (1994): 91–101.

⁵⁹ Scrolls which cite the feast include 4QCalendrical Documents “E” (Festal Calendars, i.e., 4Q325, 4Q327^{c–g} and 4Q394), 4Q365 Temple (?) and 11QTemple^a; cf. also Y. Yadin, *The Temple Scroll* (Jerusalem: Israel Exploration Society, 1983), 111–4. The means toward determining the amount to offer from an olive harvest is described in the Damascus Document: “And for the harvest [of the olive and the fruit] of its produce, if [(the harvest) is intact, its noqef is one out of thi]rty” (4Q266 D^a 6.iii.7–9).

was produced at some point in the history of the site.⁶⁰ Dates and date honey would logically have been readily available foods for use during the community meals in the dipping dishes mentioned above. Evidence of date honey production and storage have recently been confirmed at the site: Several pruning hooks for harvesting dates were discovered during the excavations,⁶¹ and residue from date honey has been found in jars associated with the site.⁶² This confirms the statement by Pliny the Elder that the Essenes were closely associated with palm groves, “having for company only the palm trees” (*Nat. Hist.* 5:73).

Figs

Until now there is but one example of a fig found at Qumran. It was in association with other fruits found on the floor of cave 8Q (which can only be accessed from within the outer walls of the site).⁶³ Figs are mentioned in conjunction with other fruits in a passage which deals with purity regulations for the gathering of fruit into baskets: for these [will defile both the] basket and the figs {and the pomegranates}, [in the event that] their [ju]ice comes out wh[en he cru]shes any of them, while they were gathered by [one] who had not been brou[ght into the co]venant” (4Q284a Harvesting 1:2–6).

Other Fruit Trees

There is no evidence thus far from the excavations of Qumran that other fruits were provided in their meals, although the presence of other fruits at the meal should not be discounted.⁶⁴ Both terms *peri ha'ets* “fruit of the tree” and *teuat ha'ets* “produce of the tree” are used in particular for all covenantal fruits (five of the so called “seven species”) including olives, grapes, figs, pomegranates (and presumably) dates. “And the produce of the tree (*teuat ha'ets*) [the grape, the date, the fig, the pome]granate, and the olive in the fourth year, [all their fruit shall be holy and shall be set aside as] a holy offering. All (of them) are dedicated to the priest” (4Q251 Halakha A 10:7–9).⁶⁵

Vegetables, Legumes, Herbs, and Spices

Concerning other plants, the scrolls confirm that, as long as the rules of purity were kept, the eating of greens was allowed, “Every green upon [which there is no] dew moisture may be eaten (by the pure person) . . . including ripe cucumbers” (4Q274 Tohorot A 3.ii.4). The historians also speak of wild greens being eaten by excommunicated members, who by oath could eat only what they themselves gathered by hand. Herbs were also used in treating the sick, by those community members who were well studied in the arts of healing.⁶⁶

⁶⁰ E.g., a quantity of these can be seen in A. Roitman, *A Day at Qumran* (Jerusalem: Israel Museum, 1997), 33 [English] and 32 [Hebrew].

⁶¹ Cf. Roitman 1997, 33 [Hebrew]. Although pruning hooks might be used for harvesting either grapes or dates, the relatively large size of certain of these hooks (e.g., KhQ1409bis is c. 34 cm in length) would indicate that at least some of them were used for harvesting dates. These include three from locus 52 (KhQ963–KhQ65, PAM photo 40.952) and one from locus 84 (KhQ1409bis, PAM photo 42.681). For the PAM photos, see Tov and Pfann 1993 (PAM 40.952 can be found on fiche no. 17 and PAM 42.681 on fiche no. 55). Object KhQ1409bis (locus 84) was listed by de Vaux as an “ember scooper.” Whatever the object’s subsequent use, the blade was actually manufactured to serve as a typical pruning hook.

⁶² A number of sealed bag-shaped storage jars were recently discovered buried close to the site. Upon opening and subsequent testing at the Weizmann Institute in Rehovot, they were found to contain a thick layer of polysaccharides at the bottom, likely the remains of dehydrated date honey (personal communication from S. Winer and D. Namdar of the Weizmann Institute).

⁶³ DJD 3, 31.

⁶⁴ Desiccated pomegranates and walnuts were preserved along with olive and date pits in the Judaeen desert caves

of the Bar Kokhba period; cf. Y. Yadin, *Finds from the Bar Kokhba Period in the Cave of Letters*. JDS 1 (Jerusalem: Israel Exploration Society, 1963), pl. 42.

⁶⁵ However, understanding the Biblical injunction of Lev 19:23–5 more broadly, *teuat ha'ets* seems to have been applied to other fruit trees and to other products derived from various trees (including wood) and plants (including herbs). “When you come into the land and plant all kinds of trees for food, then you shall count their fruit as forbidden; three years it shall be forbidden to you, it must not be eaten. And in the fourth year all their fruit shall be holy, an offering of praise to the LORD. But in the fifth year you may eat of their fruit, that they may yield more richly for you: I am the LORD your God.” This would extend the laws of purity, tithes, and offerings well beyond the bounds of the five covenantal fruits. This may be what is expected as the offerings of the yearly feast known as *qorbanot ha'etsim* (the wood [or trees] offering), which immediately followed the Feast of New Oil.

⁶⁶ Josephus states: “Those who are caught in the act of committing grave faults are expelled from the order. The individual thus excluded often perishes, the prey to a most miserable fate; for bound by his oaths and customs he cannot even share the food of others. Reduced to eating grass, he perishes, his body dried up by hunger. They have also out of compassion taken back many who were at their last

Concerning the actual practice of eating herbs and plants at Qumran (taking into account limits of access to certain of them in the Judean desert), only further excavations done with scientific care and testing will determine the extent of their use.⁶⁷

Salt of the Earth

Although salt was readily available from the shores of the Dead Sea, it was inedible before processing.⁶⁸ Once processed, there should be little doubt that this was an important trade item as well as a common part of the diet at communal meals for both food and for ritual purposes.

Meat and Fowl

The raising of flocks of sheep and goats is natural in the desert environment. The fact that shepherding should be one of the occupations found among the people of Qumran should come as no surprise, especially since a pair of sheep shears was found during the excavations.⁶⁹ Although it is not clear that meat was consumed at every meal, it would have been served, at least, on special occasions and during special rites, especially those related to the Feast of Passover and the annual Covenant Renewal Ceremony.⁷⁰ If meat was served in the bowls of loci 89 and 114, then it would likely have been stripped from the bones, chopped, and simmered in one of the numerous cooking pots found at the site, as part of the recipe for a stew or a soup. The copious bone deposits

at the site, often accompanied by cooking pots or jars, bear witness to the importance of meat in the community's meals. Bird bones, although rarer, have also been found among the bone burials, indicating that birds or fowl were, from time to time, on the menu.⁷¹ A likely location for the kitchen where these meals were prepared is the installation of locus 125 with the associated *mikveh* in locus 118.

Conclusion

There are those who say that farmers lived at Qumran and, therefore, the Essenes did not. Others say that Essenes lived at Qumran and, therefore, farmers did not. It is this author's sincere hope that the preceding paper has demonstrated, on the basis of literary, archaeological, and historical data, that, indeed, the Essenes did live at Qumran and that clearly they engaged in agricultural activity. They lived a life of reflection and ritual in a sacred sphere in which food and meals played an essential role. Their daily provision was seen as the ongoing fulfillment of God's steadfast promise to provide staples on a daily basis to His people, as He had during Israel's wilderness wanderings. Their single table was perhaps an answer to the question of Psalm 78:19: "Can God spread a table in the wilderness?" The unity of their communal experience answered emphatically, "Yes."

gasp, judging this torture to death sufficient for the expiation of their faults" (*J.W.* 2:143–4). Concerning the medicinal use of plants, Josephus relates: "They apply themselves with extraordinary zeal to the study of the works of the ancients choosing, above all, those which tend to be useful to body and soul. In them they study the healing of diseases, the roots offering protection and the properties of stones" (*J.W.* 2:136). Hippolytus affirms: "And they evince the utmost curiosity concerning plants and stones, rather busying themselves as regards the operative powers of these, saying that these things were not created in vain" (*Haer.* 9:17).

⁶⁷ Early results of the flotation of soils in association with pottery and bone burials excavated in the summer of 2004 have produced numerous carbonized plant remains, including seeds and a carbonized lentil (at the labs of the University of the Holy Land).

⁶⁸ De Vaux suggested that the Essenes processed salt as part of their industry. He also concluded that the site of Khirbet Mazin, six kilometers south of Qumran, likely would have been utilized to exploit the local salt resources during the Roman period, although he had doubts that the site was

actually connected with Qumran and 'Ain Feshkha (de Vaux 1973, 85 and 88).

⁶⁹ Humbert and Gunneweg 2004, 397–405, figs. 2g, 3g; and Roitman 1997, 34 [English] and 33 [Hebrew]. Spindle whorls, likely for spinning wool, were found at the site, although their stratigraphic connection to the occupation layers of the Qumran religious community itself seems doubtful.

⁷⁰ Humbert 1994, 205; Magness 2002, 18. However, the meat meal could not have been limited only to the Passover sacrifice, since many of the animals were significantly older than one year (the age required for the Passover). There are also a number of bovine remains (cf. F.E. Zeuner, "Notes on Qumran." *PEQ* 92 (1960): 27–36). The remains of these older animals likely represent the community's flock and herd animals that were eaten when the flock was culled. Their meat would otherwise have been needlessly wasted if they were simply allowed to die naturally.

⁷¹ Early results of the flotation of materials from an oven in the southern enclosure, excavated in 2002 and sampled again in 2004, include a fragment of a chicken egg (the author is grateful to E. Lass for this information).

PART III

THE QUMRAN CEMETERIES IN CONTEXT

CHAPTER EIGHT

FACTS AND RESULTS BASED ON SKELETAL REMAINS FROM QUMRAN FOUND IN THE *COLLECTIO KURTH*: A STUDY IN METHODOLOGY

Olav Röhler-Ertl¹

1. Preliminary Remarks

The *Collectio Kurth* contains anthropological finds from the Middle East either personally collected by Gottfried Kurth in the 1950s or entrusted to him by colleagues. The majority of the finds are from Tell el-Sultan in Jericho, where Kurth served as anthropologist on Dame Kathleen Mary Kenyon's excavation team between 1954 and 1958.² A smaller portion of the *Collectio*, however, comes from Qumran and is the focus of this article.³

On 24 February, 1956, Kurth visited P. Roland de Vaux at Qumran. The visit was prearranged and de Vaux had some graves opened, so that Kurth could carry out *ad hoc* diagnoses on the contents of twenty-four graves *in situ*. During his visit, Kurth also had skeletal remains from the 1953 and 1955 excavation seasons at his disposal. Later, in 1956, de Vaux brought some of the Qumran skeletal remains to Jericho and gave them to Kurth as a present. Both scholars agreed that Kurth should work on the anthropological material and deliver the results for the final publication. De Vaux passed away in 1972, leaving Kurth unable to fulfill his promise, since he felt the anthropological work could not be carried out without the necessary archaeological background information on context, find assemblages, or interrelations, which were largely still lacking.⁴

After moving from Brunswick to Munich in 1979, Kurth, my former teacher, entrusted me with the *Collectio Kurth*, which became the author's property after Kurth's death. In 1990, the Qumran component of the *Collectio* was intensively treated for preservation by the author because clear signs of disintegration were increasingly appearing on the material. When Ferdinand Rohrhirsch approached me in 1998, he inquired about the "missing" material from the Qumran cemetery he had read about. Since he was able to supply the necessary information on the archaeological context of the human remains in the *Collectio Kurth*, a systematic appraisal and publication of the anthropological material was agreed upon. An interdisciplinary team was formed consisting of Ferdinand Rohrhirsch (archaeology), Manfred Baumann (hydrochemistry and related sciences), Ehrentraud Bayer (botany), George Bonani (C¹⁴ dating), Dietbert Hahn (medical diagnostics), and myself (anthropology and related disciplines). Apart from the anthropological material, soil samples were taken from sediment still attached to the bones and pieces of wood. Additional soil probes were included in the systematic study. The latter series of samples was collected by Rohrhirsch at various places in Qumran according to the author's specifications and also included one sample supplied by Magen Broshi. The entire data

¹ Translated from the German by Giles Bennett.

² On the anthropological material from PPN Jericho, see O. Röhler-Ertl, "Zu Tod und Glauben im präkeramischen Neolithikum vom Tell es-Sultan in Jericho." In: *Jericho und Qumran: Neues zum Umfeld der Bibel*. Eichstätter Studien 45 (Edited by B. Mayer; Regensburg: Pustet, 2000), 41–87.

³ The present essay summarizes data that have been comprehensively published in O. Röhler-Ertl, F. Rohrhirsch and D. Hahn, "Über die Gräberfelder von Khirbet Qumran, insbesondere die Funde der Campagne 1956. I: Anthropologische Datenvorlage und Erstausswertung aufgrund der *Collectio Kurth*." In: Mayer 2000: 165–226 (= *RevQ* 19/73 (1999): 3–46); O. Röhler-Ertl et al. "Über die Gräberfelder von Khirbet Qumran, insbesondere die Funde der Campagne 1956. II:

Naturwissenschaftliche Datenvorlage und Befunddiskussion, besonders der *Collectio Kurth*." In: Mayer 2000: 227–76. Any discussion of the results presented in this short article has to be based on the primary data published and extensively discussed with ample references in the three German articles. A German summary is given in F. Rohrhirsch and O. Röhler-Ertl, "Die Individuen der Gräberfelder von Hirbet Qumran aus der *Collectio Kurth*. Eine Zusammenfassung." *ZDPV* 117 (2001): 164–70.

⁴ Cf. J. Zangenberg, "Bones of Contentment: 'New' Bones from Qumran Help Settle Old Questions (and Raise New Ones): Remarks on Two Recent Conferences." *QC* 9 (2000): 51–76.

set retrieved from the scientific analysis was processed and presented on the occasion of a symposium at the Catholic University of Eichstätt on the 18 and 19 of February 2000 (exactly forty-four years after Kurth's visit to Qumran). All data and their final synthesis were published in the Proceedings of the Symposium.⁵ Shortly before the Symposium, the entire *Collectio Kurth* had been entrusted to the Jura Museum in Eichstätt, where it is now stored and administered, with the sole exception of the parts used up during testing.⁶

2. Methodology

All available and field-specific methods of diagnosis were used for the data collection. Anthropological methods have improved immensely over the last 20–30 years. In Kurth's time, for example, the methods available were almost exclusively qualitative; whereas now, *de facto*, only quantitative methods were applied. Today, there is the advantage of unambiguously identifying immanent errors in method and, furthermore, the examiners are required to put their personal and subjective experiences aside. Any other anthropologist—using the same methods—will, therefore, arrive at results almost identical to those presented here.⁷ This fact is even more apparent if compared to the results

supplied by the colleagues from natural science and medicine. In other words, the majority of the acquired individual pieces of data are reliable to a degree inconceivable a few decades ago. Interestingly, this applies to the anthropological as well as the other scientific-medical fields. These secured individual pieces of acquired data had to be interconnected into a coherent interpretive model, which presented a methodological problem—a situation well known to anthropologists of prehistory.

First, de Vaux did not collect the samples systematically. Instead, they were acquired heuristically. This means their value, *n*, was and still is too minute to base any statistically relevant general conclusions on them.⁸ From this fact, it follows that the nature of the data can only be used qualitatively and not quantitatively. The data is not representative of the entire population, but only pertains to the condition of the individual person from which they were taken. Moreover, for the same reasons, all negative statements based on the data are *per se* inadmissible. Thus, if a certain feature is not found (e.g., evidence for a certain disease, evidence for certain age groups, etc.), one cannot conclude that this particular feature was not present in the total material (of which, currently, 90% remains buried in the ground). Therefore, only positive statements are permissible and only on an individual basis.

⁵ Bibliography and footnotes are kept to a minimum here because all relevant data are published in the three articles quoted above (see n. 3).

⁶ Among the latter are seven teeth or teeth fragments belonging to adult male individuals from Q20, Q21, Q24–I, Q26, Q28, Q31 and the female individual from Q22. These teeth or teeth fragments were given to Joseph Zias for testing in the spring of 1999—before the results of the author's own research were published. Zias was warmly recommended to Ferdinand Rohrhirsch by Magen Broshi with the urgent request of allowing him to conduct tests on the material, as they were considered essential for the "Kohanim-Project" (the DNA-examination of living and deceased Israelis and Israelites, respectively), which is currently under way and which the author did not want to impede. The author pointed out to Zias, however, that the dental material had been treated with PONAL—an organic cold glue—to harden it, as the collagen had already been reduced to less than 1% due to the high salt content in the soil. The author also pointed out that C14-dating would, therefore, be useless and produce an expected result in a date range of c. x<1990<x if subjected to incorrect treatment. He further pointed out to Zias that due to the salt entry, the bone cells were most likely completely destroyed and no analyzable DNA would be available for extraction. It was further agreed between Zias and the author to return the dental material after test-

ing; this promise has yet to be fulfilled by Zias. Finally, the author emphasized to Zias that he had already worked out and used Tooth Measurement Tables (Röhler-Ertl 2000) for sex diagnosis, which were at that time not yet published.

⁷ Despite a lack of familiarity with the material from the *Collectio Kurth*, J. Zias, in his article "The Cemeteries of Qumran and Celibacy: Confusion Laid to Rest?" *DSD* 7 (2000): 220–53, felt compelled to challenge the results of the anthropological analysis of the present author. There is no reason from the physical appearance of the bones or the graves, however, to assume that any of the individuals has to be dated to modern times. On Zias' methodology, see also S.G. Sheridan, "Scholars, Soldiers, Craftsmen, Elites? Analysis of the French Collection of Human Remains from Qumran." *DSD* 9 (2002): 199–248 (esp. 211, n. 36). On the question of intrusive Bedouin burials in general, see the analysis of the cemetery in J. Norton, "Reassessment of Controversial Studies on the Qumran Cemetery." In: *Khirbet Qumrân et 'Ain Feshkha. Vol. 2: Études d'anthropologie, de physique et de chimie*. NTOA.SA 3 (Edited by J.-B. Humbert and J. Gunneweg; Fribourg: Éditions Universitaires and Göttingen: Vandenhoeck & Ruprecht, 2003), 107–27. Beads do not suffice to postulate a Bedouin presence, as proposed by C. Clamer in Humbert and Gunneweg 2003, 171–83 (cf. Zangenberg 2000a).

⁸ On the "error of a mean," see A. Student, "The Probable Error of a Mean." *Biometrika* 6 (1908): 1–23.

Because only renewed and systematic archaeological examination can possibly achieve results that go beyond those established here under the given circumstances, the final publication provided all essential data in relation to the individual finds. Consequently, there are and there will be only two types of conclusions presented by us about the Qumran material: findings *per se* (with their respective reliability) and conclusions only of the first degree according to Aristotle's logic. For the individuals examined, this means that the presented evidence can be considered "complete" and in its absolute majority incontrovertible. The results can only be made more specific and increasingly precise if systematic excavations are carried out in the future. In this respect, the present study distinguishes itself from many other publications about Qumran, which are inductive in their methodology and, therefore, often quite speculative.

The following paragraphs contain some of the most important results of our investigation. We consider the results incontrovertible on the basis of our analysis of the material, and, therefore, we believe it should be taken into consideration for future research on Qumran.

3. *Environment and Economy*

3.1. The hydrochemical analysis⁹ produced firm evidence that in the late Hellenistic and early Roman periods and for some time afterward's, the level of the regional underground water reservoir ("aquifer") that had accumulated during the Wurm or Vistula glacial epoch was far higher than today and perennially fed Wadi Qumran. The aquifer carried water with high natural salinity and had a brackish, bitter taste; nevertheless, the water was potable for both humans and animals. Some time after antiquity, the level of the aquifer dropped below the natural outlet feeding Wadi Qumran and the perennial local water supply ceased.

3.2. Diagnostic analysis of the types of wood mentioned in the literature demonstrates that the region

possessed a seamless natural plant cover in antiquity comparable to the Jordan Valley today. The flora formed a self-sustaining system, which was based on about the same quantity of precipitation that occurs today. In the Jordan Valley itself, there was a river forest embedded in tropical grasslands. A park-savannah existed at a higher elevation, above which were areas of deciduous wood, then coniferous wood, and, finally, clear coniferous wood (fig. 8.1).

3.2.1. According to the available literature, plants existed in the region that were not drought resistant and were freshwater based (for example, the poplar used for the construction of the ramp at Masada). These vegetational zones existed at least until the thirteenth century, when the aquifer probably ceased supplying water to the Qumran area. The strong and rapid erosion witnessed today in the region is a relatively new phenomenon and is accelerating due to increased desertification.

3.2.2. The assumption that the marl terrace (still) carrying Qumran was at least double in size than it is today should, therefore, be considered correct.

3.3. The hydrochemical analyses of soil and bone specimen from the grave contents suggests that the settlement and its surrounding environment, including the water system, the cemetery, and the esplanade, were exposed to infusions of salty and bitter aquifer water over a long period of time (fig. 8.2). The highest salt concentrations were registered on the bottom of tombs as well as on the floors of the Iron Age silos on the esplanade.

3.3.1. By way of comparison, one can assume that the economic basis of Qumran was based on regulated irrigation and on the cultivation of fields. The traditional oriental oasis culture, which was prevalent at Qumran and 'Ain Feshkha, consisted mainly of date palm cultivation as its staple crop. Apart from date palms, the Doum palm was also likely grown. It was less favourable, however, due to its smaller yields and its inferior taste. Doum is systematically cultivated to some degree in the Nile Delta.

⁹ See Röhrer-Ertl et al. 2000.

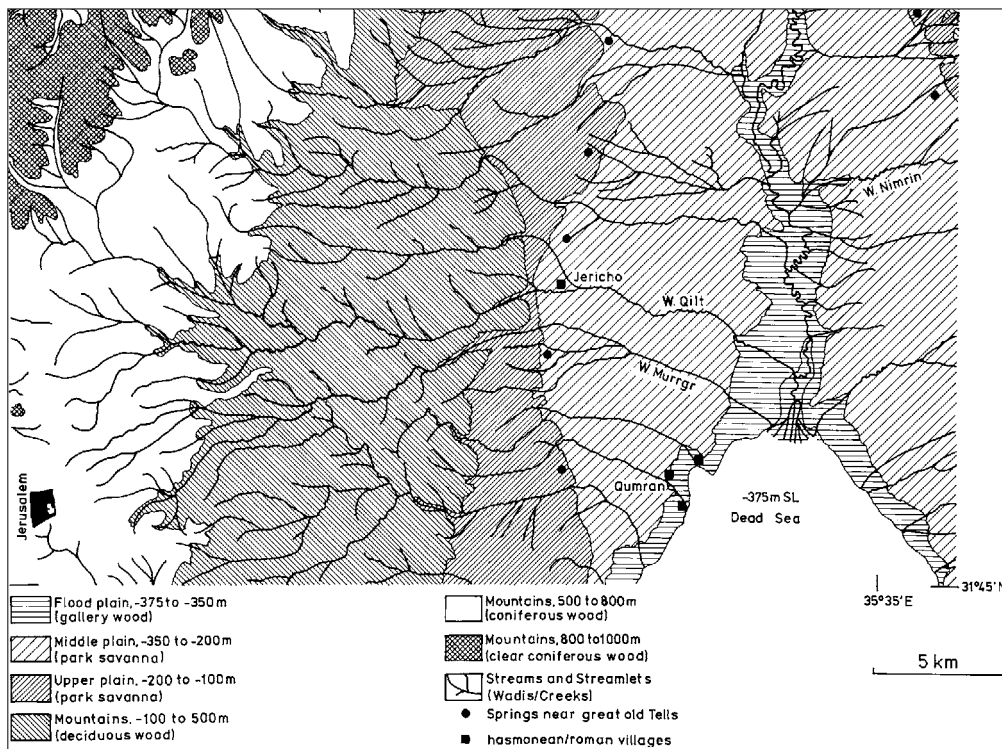


Fig. 8.1. Map of the zones of vegetation at the northern Dead Sea around the turn of the common era.

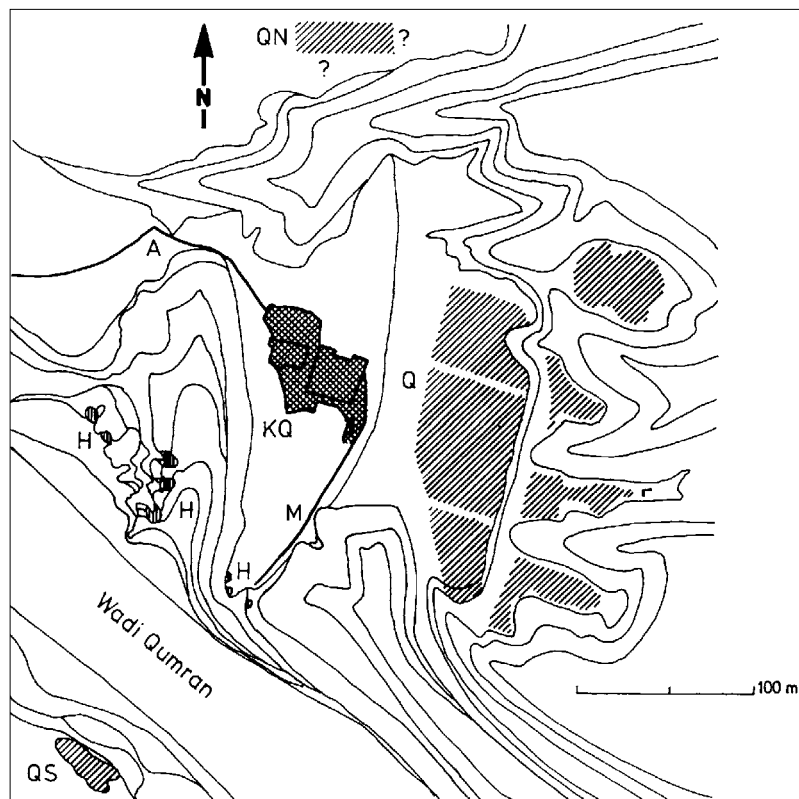


Fig. 8.2. Plan of Khirbet Qumran with sites where soil specimens were taken. (Abbreviations: E: Elouat, salt examination; P: phosphate examination; Z: Zeuner probe)

3.3.2. In the subsistence economy of traditional oriental oasis culture in the Dead Sea region—which uses water from aquifers that share the same origin and hydrological nature—one can find plantations of nutrient crops (such as peas, beans, and vegetables) in rows. If the desired crop is halophobic (salt sensitive), it can be protected by planting halophile (salt loving) plants next to them. The rest depends on the good eye and skill of the farmer during the course of the agricultural work.

3.3.3. The fact that the Qumran cemetery is located in the middle of an irrigated area (with the exception of the esplanade; there is no data from the northern cemetery) can be established on the basis of the layout of the graves in rows and the existence of the passageways (“rues” running east–west through the main cemetery). The “rues” can be understood as servicing paths or dams, from which the farmer opened and closed the furrow with a pick to control the water flow. As on average, the marl has only a thin cover of Lisan gravel, the natural surface evaporation must have been high. As a result, it can be assumed that daily irrigation of the fields on the terrace took place.

3.3.4. The irrigation system should be seen as the primary feature. The graves were embedded as a secondary feature only when necessary. This habit is not unusual in the Israelite–Judaean environment. For instance, Wenning has reported that graveyards can be found in contemporary industrial areas.¹⁰

3.3.5. Such highly sophisticated and repair-intensive irrigation systems in an exceptionally complex and demanding area as the Dead Sea region, are only conceivable in the context of an economy based on aristocratic capital in conjunction with a relatively stable and secure political situation. While these conditions prevailed in the wider region, at least after the establishment of the Hellenistic states (e.g., Ptolemaic Egypt),

only the Hasmonaeans were able to create them in relatively backward Judaea.

3.3.6. Due to the results of the phosphate analyses, one can finally infer half-stationary livestock breeding as an additional form of economic activity. The esplanade was probably used for date plantation and as a winter pen (fig. 8.2). In addition, livestock had the great advantage, of producing sufficient fuel for the Qumranites in the form of dung briquettes. These are known to be well suited for cooking because at low temperatures they maintain a constant level of heat as opposed to other sources of fuel. The forest was located directly above the settlement, and it provided for the collection of leaves for use as foliage hay, which could have served as an additional source of fuel in this context—compare Russian Inner Asia in the nineteenth and twentieth centuries. In parts of Europe, foliage hay was still harvested well into the nineteenth century in May as June growth replaced the losses caused to the trees by harvesting. While the elm played a special role in Europe and also in Russian Inner Asia, it (though its existence in the area cannot be proved) and other leaf trees would have fulfilled this function in the Orient.

3.3.7. Our reconsideration of Zeuner’s probe analyses clearly shows that neither in Qumran nor in ‘Ain Feshkha leather production could have played a role.¹¹ The humus components identified by Zeuner only seem normal for such a large canal system if one assumes that they were flushed thoroughly on a daily basis. That is, when the given water properties are taken into consideration.

4. *The Cemeteries*

According to our investigation, there are three cemeteries in or near Khirbet Qumran: the main cemetery on the terrace east of the settlement; the southern cemetery across Wadi Qumran; and

¹⁰ R. Wenning, “Bestattungen im eisenzeitlichen Juda.” In: Mayer 2000: 73–87.

¹¹ F.E. Zeuner, “Notes on Qumran.” *PEQ* 92 (1960): 27–36; on the tannery hypothesis, see also F. Rohrhirsch, “Die Geltungsbegründungen der Industrie-Rolle-Theorie zu Chirbet Qumran und En Feshkha auf dem methodologischen Prüfstand. Relativierung und Widerlegung.” *DSD* 6 (1999):

267–81. For an alternative interpretation of the installations at ‘Ain Feshkha, see Mireille Bélis in this volume. On the regional economy around Qumran, see J. Zangenberg, “Opening Up Our View: Khirbet Qumran in a Regional Perspective.” In: *Religion and Society in Roman Palestine: Old Problems and New Approaches* (Edited by D.R. Edwards; New York and London: Routledge, 2004), 170–87.

the northern cemetery located about 200 m from the terrace (fig. 8.3). The main cemetery still comprised about 1,500 graves in 1900 C.E., and between 1,200 and 1,000 graves in 1956; each recognizable by a stone covering.¹² Here, de Vaux opened thirty-seven graves with forty identified individuals and Solomon H. Steckoll opened ten graves with eleven identified individuals.¹³ In the northern cemetery, de Vaux opened another two graves, with two identified individuals and in the southern cemetery, he excavated four tombs with five identified individuals. The *Collectio Kurth* includes the contents of fourteen graves with sixteen identifiable individuals from the main cemetery and the contents of four graves with five identified individuals from the southern cemetery—a total of eighteen graves containing the remains of twenty-one individuals. Therefore, we have data from a maximum of fifty-three graves excavated in the 1950s and 1960s with different levels of reliability and significance, mostly only as *ad hoc*- and *in-situ*-diagnoses of a qualitative sort. Of them, only the eighteen assemblages from the *Collectio Kurth* and the eighteen individuals from fifteen tombs in the *Collections Paris et École Biblique et Archéologique Française*, recently published by our colleague Susan G. Sheridan, can be used with confidence.¹⁴

The following is not a presentation of individual sets of data. Instead, these are conclusions of a qualitative nature that appear valid on the basis of the entire material available to us.

4.1. The *Collectio Kurth* contains evidence for nine males (Q20, Q21, Q23, Q24–I, Q26, Q28, Q29,

Q30, and Q31), seven females (Q 22, Q24–II, Q32, Q33, Q35, Q35–I, and Q35–II) and for an approximately seven-year-old girl (Q36) from the main cemetery, and for one female (QSo1), three boys (QSo2, QSo3–I and QSo4), and a child of undetermined sex (QSo3–II) from the southern cemetery. (figs. 8.4–8.16).

4.1.1. All these individuals exhibit constitutional-typological signs of acceleration and weak musculature. They did not earn their livelihood through physical labour, which is confirmed by data on diseases and dental abrasion, etc.¹⁵ All individuals represented in the *Collectio Kurth*, therefore, must be considered members of the upper stratum of local society.

4.1.2. This picture indicates some kind of social stratification. We have to assume that there were persons who performed physical labour under orders of the upper class, mentioned above, and through this work earned their livelihood. There is, as yet, no proof of members from this group in the cemeteries nor can we possibly expect such data in the future, although it should not be ruled out completely.

4.1.3. Next to the individuals with low levels of tooth abrasion (Q20, Q21, Q24–I, Q27, Q28, and Q31), we identified others featuring relatively high levels of tooth abrasion (Q22, Q32, and Q33), with female Q33 also suffering from sinusitis, which is regularly induced by a dental fistula primarily caused by high abrasion. The individuals from both groups exhibit great differences in age. Differences in dental quality are not necessarily

¹² Renewed surveys and the publication of the first reliable map of the cemetery have refined the picture summarized here; see H. Eshel et al. “New Data on the Cemetery East of Khirbet Qumran.” *DSD* 9 (2002): 135–65 (esp. 135–43 and the maps; on the metal coffin from tomb 978 and the supposed “mourning enclosure” presented on pp. 143–53, see objections in J. Zias, “Qumran Archaeology: Skeletons with Multiple Personality Disorders and Other Grave Errors.” *RewQ* 21 [2003]: 83–98). On the cemetery in general, see now Norton 2003.

¹³ R. Donceel, *Synthèse des observations faites en fouillant les tombes des nécropoles de Khirbet Qumran et des environs. The Khirbet Qumran Cemeteries: A Synthesis of the Archaeological Data*. QC 10 (Cracow: Enigma, 2002); Röhrer-Ertl et al. 2000.

¹⁴ See now Sheridan 2002; S.G. Sheridan, J. Ullinger, and J. Ramp, “Anthropological Analysis of the Human Remains from Khirbet Qumran: The French Collection.” In: Humbert and Gunneweg 2003, 129–69; as well as Susan Guise Sheridan

and Jaime Ullinger in this volume. In 2001 two more individuals (a female aged between 25 and 35 years and another female aged over 50 years), and in 2002 one more male individual (aged between 35 and 45 years) were found in “burial 1000” and analyzed by Y. Nagar et al.; see Eshel 2002: 165).

¹⁵ As a rule, tooth abrasion proceeds quickly if the food contains non-separable grinding material. This is the case with baked flour products, as they regularly contain some grind stone residue. Regular bread consumption, therefore, quickly resulted in the decay of existing teeth. As good cereals did not produce a high yield well into the modern era, only members of the upper classes had regular access to this luxury. This fact explains, for instance, why in France the revolutionary demand “Bread for the people!” could only be fulfilled through high subsidies (continuously since the 1830s). Only maize and rice among the different types of cereals can be classified as basic food.

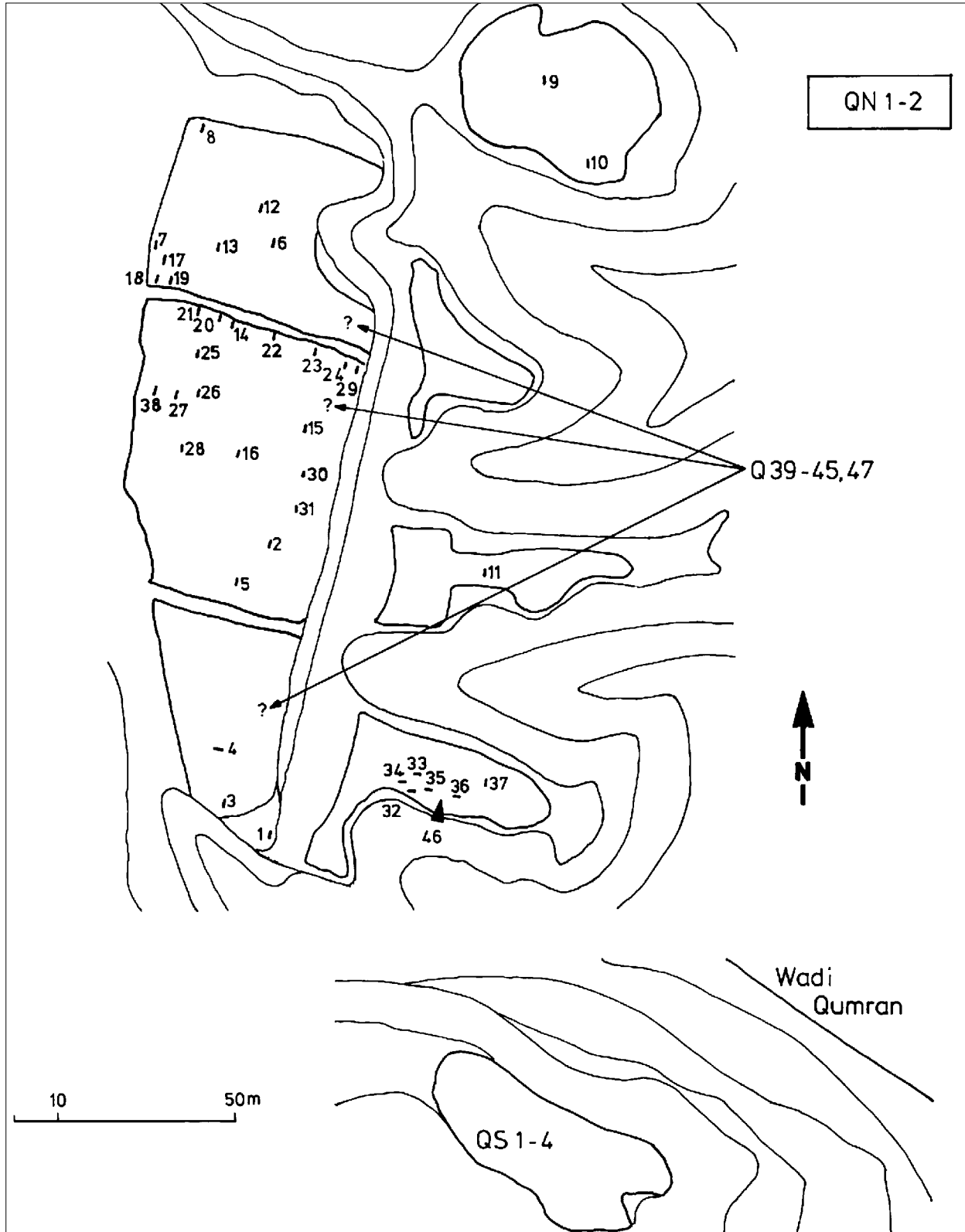


Fig. 8.3. Burial grounds in and around Khirbet Qumran with the opened graves marked.



Fig. 8.4. Skull of male from Q 20 (late-adult) in *norma lateralis dextra*.



Fig. 8.5. Skull of male from Q 21 (late-mature) in *norma lateralis dextra*.



Fig. 8.6a. Skull of male from Q 24-I (late-adult) in *norma frontalis*.



Fig. 8.6b. Skull of male from Q 24-I (late adult) in *norma lateralis dextra*.



Fig. 8.7. Skull of male from Q 26 (late-adult) in *norma lateralis sinistra*.

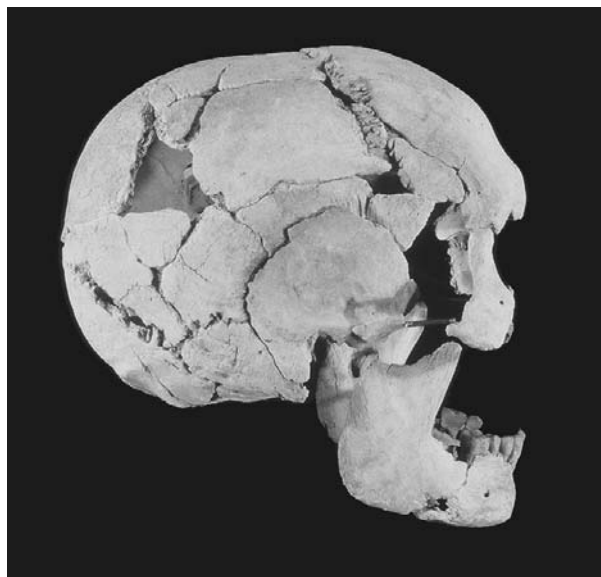


Fig. 8.8. Skull of male from Q 28 (early-adult, ca. 20–22 years) in *norma lateralis dextra*.



Fig. 8.9a. Skull of male infant from QSo2 (6 years) in *norma frontalis*.

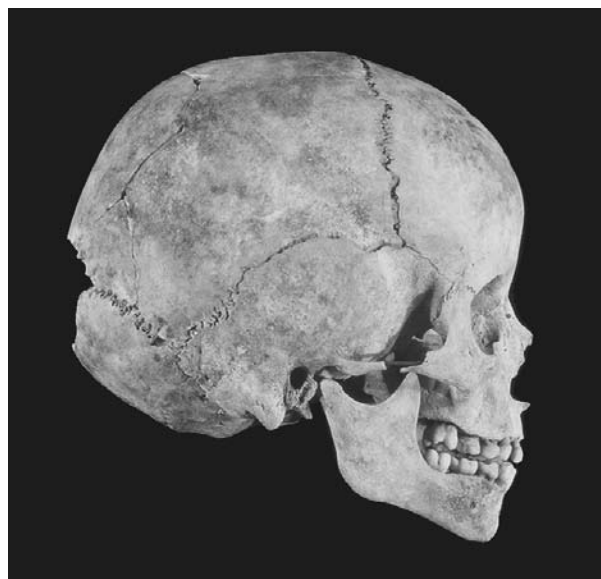


Fig. 8.9b. Skull of male infant from QSo2 (6 years) in *norma lateralis dextra*.



Fig. 8.10. Skull of male infant from QSo3-I (9 years) in *norma lateralis sinistra*.



Fig. 8.11a. Skull of male infant from QSo4 (10 years) in *norma frontalis*.



Fig. 8.11b. Skull of male infant from QSo4 (10 years) in *norma frontalis sinistra*.



Fig. 8.12. Skull of female from Q 22 (late-adult) in *norma lateralis dextra*.



Fig. 8.13. Skull of female from Q 32 (early-adult, ca. 25–30 years) in *norma lateralis sinistra*.



Fig. 8.14. Skull of female from Q 33 (late-adult), (a) in *norma frontalis*.



Fig. 8.14. Skull of female from Q 33 (late-adult), (b) in *norma laterlais sinistra*.

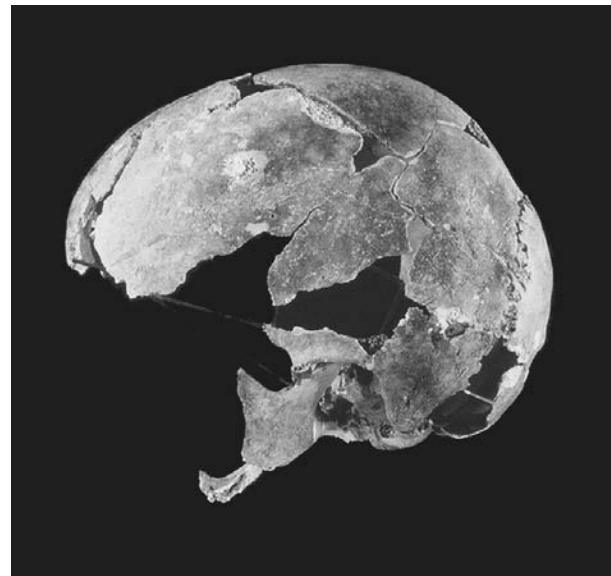


Fig. 8.15. Skull of female infant from Q 36 (7 years) in *norma lateralis dextra*.

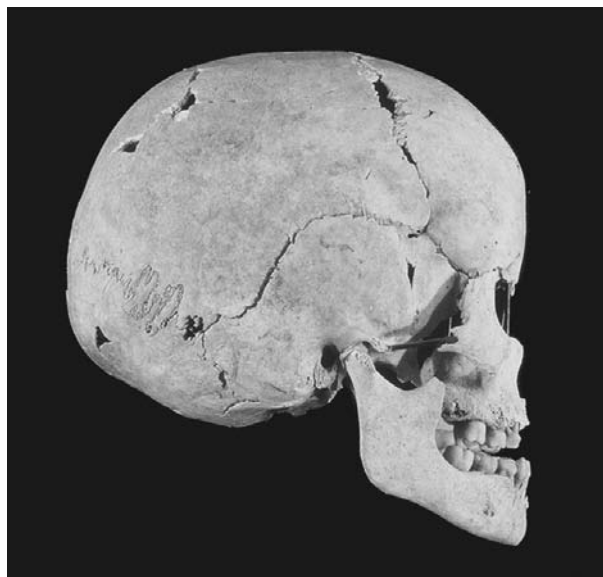


Fig. 8.16. Skull of child (ksedit) from Q 36 (7 years)
in *norma lateralis dextra*.

related to age, because strong and hard teeth are a genetic predisposition. Comparison leads to the conclusion that one group (“bread eaters”) ate baked flour products regularly, and the sand that mixed into the flour during grinding caused a high degree of dental abrasion. This, apparently, did not affect the other group (“date eaters”), which showed a low degree of abrasion, because they seem to have preferred dates over bread as staple food. As both groups belong to the social—here, rural—upper class, the assumption of different cuisines seems feasible. We can thus conclude that both products had the same status.

4.1.4. The anthropological analysis clearly produced evidence of men, women, boys, and girls. This necessarily indicates a family-structured population. All these individuals were unquestionably buried within the same time frame, as is amply demonstrated by the almost identical postmortem

histories of all the grave contents surveyed.¹⁶ All bones were clearly exposed for an equally long time to the moisture of salty and bitter water from the aquifer. Only after this very long period is there evidence that the bones dried out.¹⁷

4.2. Typologically, all members of the group—including male Q38 (QG2), published by Steckoll¹⁸—have robust skull structures and can be identified as a “robust-orientalid.”¹⁹ This type has been present, mainly in the Jordan Valley, since at least the Kebaran, mostly since the Prepottery Neolithic A (PPNA = tenth-eighth millennium B.C.E.). As is well known, this group of humans spread during the PPNB (seventh-sixth millennium B.C.E.) and Chalcolithic periods to the east and south into the Wadi el-‘Araba through the establishment of permanent settlements for farming. The robust-orientalid has not yet been identified in the Jerusalem area and certainly not

¹⁶ *Contra* Zias 2000 and his followers.

¹⁷ Cf. Röhrer-Ertl et al. 2000; Röhrer-Ertl, Rohrhirsch and Hahn 2000.

¹⁸ See S.H. Steckoll, “Preliminary Excavation Report in the Qumran Cemetery.” *RevQ* 23 (1968): 323–44; N. Haas and H. Nathan, “Anthropological Survey on the Human Skeletal Remains from Qumran.” *RevQ* 23 (1968): 345–52; S.H. Steckoll et al., “Red-Stained Human Bones from Qumran, Israel.” *Journal of Medical Science* 7 (1971): 1219–23. On the reliability of Steckoll’s excavations and analyses, see Norton 2003, esp. 120–3.

¹⁹ This explains why female individuals of the robust type were, up to the 1960s, often classified as males. At the time, mainly morphognostic characteristics—that is, macroscopically identifiable skeletal features (e.g., superciliar arches, the thickness of the calotte-bone, the curvature of the cranium, etc.)—were used for diagnosis. If a group with gracile skull structures is used as the basis—as was the rule at the time—mistakes in gender determination are inevitable. An anthropologist like Kurth, for example, who was well familiar with the Jericho material, surely made fewer mistakes than others.

in the coastal plain. The population(s) of Khirbet Qumran and its vicinity appeared to have had a closer genetic relationship with the Jordan Valley area and, to a lesser extent, the Wadi el-‘Araba. This could mean that the inhabitants of Qumran moved from the north when the settlement was established—an assumption that I propose as a working hypothesis to invite further examination.

4.3. According to all classifiable characteristics—including anatomical skeletal variants—the examined individuals from the main and the southern cemeteries exhibit close or very close morphological similarities. In a sociological sense, this observation would probably mean that they were “genetically

interrelated” until the opposite is proven. Not only does the “skew face” occur repeatedly (male Q24-I and male Q38 from Steckoll), but there are also special forms of ossicles of sutures, like, for instance “Inca-bone” (Q22), *os lambdae* (Q21), or *ossa suturae lambdaeideae* as “zones from ossicles” (Q21, Q22, Q33, Q36, QSo1, QSo2, QSo4). As discussed earlier, this is only a qualitative statement, since the number of all examined individuals is too minute to allow a quantitative evaluation of the entire population. Nevertheless, it seems appropriate to conclude as a working hypothesis and invitation to further discussion that the examined Qumranites stem from a population that can be described sociologically as intermarried.

CHAPTER NINE

A RECONSIDERATION OF THE HUMAN REMAINS IN THE FRENCH COLLECTION FROM QUMRAN¹

Susan Guise Sheridan and Jaime Ullinger

Skeletal remains from the cemetery at Qumran were exhumed between 1949 and 1955 by Roland de Vaux. Gottfried Kurth and Henri-Victor Vallois conducted the original anthropological analyses on these remains, although their investigations did not proceed beyond basic demographic descriptions. The bones disappeared shortly thereafter. Thus, the observation that “the real persons who lived, suffered, hoped, and whose mortal remains are found in rows in the three cemeteries around Qumran, reach us merely as voices”² held true for nearly 50 years.

In the absence of detailed osteological evidence, many theories emerged regarding the people of Qumran based on textual and archaeological records. Great hope was placed on the shoulders of those buried in the cemetery, with the expectation that if/when skeletal material became available, such debate would be laid to rest.

Sadly, the recovered remains did not rise to the challenge. Portions of several skeletons from the de Vaux excavations re-emerged in the late 1990s; however, little additional information could be gleaned from the bones despite considerable advances in the methods available to biological anthropologists. Incomplete exhumation, poor preservation, and varying curation conditions pre-

cluded the development of community profiles of diet, disease, or demography.

Detailed osteological analysis began in 1998, first in Germany by Olav Röhrer-Ertl and colleagues.³ Analyses of remains housed in Paris and Jerusalem were conducted by our team from the University of Notre Dame in 1999 and 2000.⁴ Multiple manuscripts have been produced and lectures given by both groups in the subsequent years. However, recently published correspondence between Vallois and de Vaux, have caused us to re-evaluate some of our findings, as outlined in this chapter.

Bio-archaeological Context

Bioarchaeology encompasses (but is not limited to) the reconstruction of ancient lifeways using mortuary analysis, material culture, skeletal biology, spatial patterning, faunal/botanical examination, relative and/or absolute dating methods, and taphonomy. As you will see in the sections to follow, many of these areas were explored, but the poor quality of the bones precluded complete analysis. The human remains from 17 graves comprise the French Qumran collection (Table 1),

¹ Sincere thanks to Katharina Galor and Jürgen Zangenberg for their invitation to participate in the Brown University Qumran archaeology conference. Special thanks as well to Fr. Jean-Baptiste Humbert, OP and the École Biblique et Archéologique Française de Jérusalem for making the Jerusalem Qumran skeletal collection available for study, and to Mario Chech and Rachel Milstein for their hospitality at the Musée de l'Homme while studying the Paris remains. Additional thanks to Jeremy Ramp for his tireless efforts with the restoration of the Jerusalem collection remains. We are likewise indebted to the following individuals (in alphabetical order): Magen Broshi, Hanan Eshel, John Kampen, Jodi Magness, Sarianna Metso, Jerome Murphy-O'Connor, Elaine Myers, Olav Röhrer-Ertl, J. Rosenberg, Mark Schurr, and Joan Taylor.

² F. Garcia Martínez and J.T. Barrera, *The People of the Dead Sea Scrolls: Their Writings, Beliefs and Practices* (Leiden: Brill, 1995), 47.

³ O. Röhrer-Ertl, F. Röhrhirsch, and D. Hahn, “Über die Gräberfelder von Khirbet Qumran, insbesondere die Funde der Campagne 1956. I: Anthropologische Datenvorlage und Erstauswertung aufgrund der Collectio Kurth,” *RevQ* 19/73 (1999): 3–46.

⁴ Susan Guise Sheridan, Ph.D., Nancy O'Neill Associate Professor of Anthropology, University of Notre Dame; Jaime Ullinger, MA, Distinguished University Graduate Fellow, Ohio State University; Jeremy Ramp, JD, of Kelly, Haglund, Garnsey & Kahn LLC, Attorneys at Law (formerly of the University of Notre Dame's Department of Anthropology).

including tombs 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, A and B. Since the rediscovery in 1999, their provenience has been determined; numerous dating methods attempted, and detailed metric and non-metric studies conducted.⁵

Provenience

Provenience has been established for the individuals in the French collection (Table 2);⁶ however, the sample size was too small, preservation too poor, and the remains too contaminated with preservative to permit meaningful reconstruction of community profiles. There were portions of only 17 individuals available, and in many cases bones were literally held together by a paraffin preservative applied at the time of recovery.⁷ These problems were compounded by incomplete exhumation, clearly indicated when photographs of whole skeletons *in situ* were compared with de Vaux's notations of minimal recovery of the available remains. In the majority of cases, only the cranium and pelvis were removed from each grave.

The excavation pattern for the cemetery did not follow any established systematic archaeological sampling method, making the extant collection non-representative of the community interred therein. Magness observed a random pattern in

the selection of graves,⁸ however we would argue that the sheer dearth of excavated tombs precludes any statistically plausible representation. Even de Vaux conceded this point in his statement: "we opened 43 [graves], and this number is quite inadequate to establish any valid statistical evidence."⁹ Of the tombs remaining in the cemetery ($n = 1178$)¹⁰, we have accounted for less than 40 skeletons. This represents approximately 3% of the available graves, a figure further diminished by only partial exhumation of the skeletons. Figure 9.1 illustrates the cemetery plan as mapped by Rosenberg and Myers' surface survey,¹¹ with the tombs of the French collection highlighted,¹² illustrating the paucity of the sample size.

Although the cemetery is arguably one of the most immediately visible features at Qumran, little attention was given to exhuming the bones. Archaeologists of the time did not fully appreciate the promise of skeletal analysis. As Bush and Zvelebil observed, "Unaware of the potential of human remains, many archaeologists view them as, at best, an irrelevance [. . .] whose excavation is time-consuming and which somehow does not constitute 'real' archaeology."¹³

Indeed, physical anthropology of the 1950s did not help this matter, with a myopic emphasis on the estimation of age, sex, and "race." Those

⁵ S.G. Sheridan, "Scholars, Soldiers, Craftsmen, Elites?: Analysis of the French Collection of Human Remains from Qumran," *DSD* 9 (2002): 199–248; S.G. Sheridan, J. Ullinger, and J. Ramp, "Anthropological Analysis of the Human Remains from Khirbet Qumran: The French Collection," in *The Archaeology of Qumran*, Vol. II (ed. J.-B. Humbert, OP and J. Gunneweg; Fribourg, Suisse: Éditions Universitaires; Göttingen Vandenhoeck & Ruprecht, 2003), 129–169.

⁶ Provenience has been established using enclosed notes and packaging materials, photographic analysis, agreement with de Vaux's excavation notes, writing on the bones, and museum archives.

⁷ Figure 10 in R. Donceel, *Synthèse des observations faites en fouillant les tombes des nécropoles de Khirbet Qumran et des environs* (Cracow, Poland: The Enigma Press, 2002), illustrates the paraffin application during exhumation.

⁸ "... the fact that de Vaux excavated random graves distributed throughout the cemetery means there is a good chance that this sample is demographically representative of the whole." Jodi Magness, *The Archaeology of Qumran and the Dead Sea Scrolls* (Grand Rapids: Eerdmans Publishing Company, 2002), 172.

⁹ R. de Vaux, *Archaeology and the Dead Sea Scrolls* (London: Oxford University Press for the British Academy, 1973), 128. Unfortunately, he then goes on to make generalizations about the cemetery nonetheless.

¹⁰ H. Eshel, M. Broshi, R. Freund, and B. Schultz, "New

Data on the Cemetery East of Khirbet Qumran," *DSD* 9 (2002): 135–65. See page 141 for tomb count. De Vaux claimed "more than 1200" at the time of his excavations (see de Vaux, *Archaeology*, 128).

¹¹ Originally published in Sheridan, "Scholars, Soldiers, Craftsmen, Elites?" 214; and Eshel et al., "New Data on the Cemetery" 138.

¹² The survey was supported by funds from the Dorot Foundation. Additional support was provided by the Dead Sea Scrolls Foundation, the WF Albright Institute of Archaeological Research in Jerusalem, the Orion Center for the Study of the Dead Sea Scrolls and Associated Literature at the Hebrew University-Jerusalem, Scandinavium Films, and the University of Notre Dame's Institute for Scholarship in the Liberal Arts, the Graduate School, the Department of Theology and the Department of Anthropology. Particular thanks to Professors James VanderKam, Eugene Ulrich, Julia Douthwaite, Chris Fox, and John Cavadini (University of Notre Dame), Weston Fields (Dead Sea Scrolls Foundation), Sterling Van Wagenen (Florida State University), Ernest Frerichs and Michael Hill (Dorot Foundation), Esther Chazon (Orion Center), and Seymour Gitin and John Spencer (AIAR) for their help in securing these funds.

¹³ H. Bush and M. Zvelebil, *Health in Past Societies: Biocultural Interpretations of Human Skeletal Remains in Archaeological Contexts* (British Archaeological Reports, International Series, 1991), 567.

TOMBS		DATE ²	ORIGINAL INVESTIGATOR ³	EXTANT COLLECTION	
<i>DeVaux's Sequence</i>	<i>Reeder Sequence</i> ¹				
Paris Collection	T3	697	1951	Vallois	possibly an innominate, sacrum, some cranial fragments
	T4	661	1951	Vallois	much of the cranium, several maxillary teeth, innominate, sacrum
	T5	526	1951	Vallois	cranium, 2 mandibles, several mandibular teeth, innominates, sacrum
	T6	37	1951	Vallois	cranium, mandible fragment, several mandibular teeth
	T7	749?	1951	Vallois	cranium, innominate, proximal femora, sacrum fragment
	T8	–	1951	Vallois	cranium, several maxillary teeth, innominate, sacrum
	T10	1085?	1951	Vallois	cranium, mandible, several mandibular teeth, innominate
	T11	959	1951	Vallois	cranium
	T12	23	1953	Kurth	several mandibular teeth, cranium
	T13	55	1953	Kurth	sacrum, innominate
	T15	290	1953	Kurth	cranium, most mandibular and maxillary teeth, proximal femora, humerus, innominates
Jerusalem Collection	T16a&b	360	1953	Kurth	2 crania, numerous teeth, 2 cervical vertebrae, scapula and innominate fragments
	T17	131	1953	Kurth	no bones available
	T18	130	1953	Kurth	virtually the entire skeleton except the cervical vertebrae and several phalanges
	T19	129	1953	Kurth	cranium, many teeth, innominates, sacrum fragments, lumbar vertebra, femur fragments
	TA	–	1955	Kurth	cranial fragments, tooth, clavicles, scapula, humeri, radius, innominate, femur, tibia, fibula
	TB	–	1955	Kurth	cranial fragments, mandible, 5 cervical vertebrae, hyoid, ossified thyroid cartilage

Table 1: Survey of the remains available for study in the French collection from Qumran

¹ Eshel et al., “New Data on the Cemetery,” 135–65.² Humbert et al., *Fouilles I*.³ Röhrer-Ertl et al., “Gräberfelder I,” 3–46.

TOMBS			MATERIALS AVAILABLE							
	<i>De Vaux's Sequence</i>	<i>Reeder Sequence</i> ¹	Photos A ²	Photos B ³	Writing on Bones	Masking Tape	Enclosed Notes	Writing on Box ⁴	De Vaux's Notes	Additional Grave Goods ⁵
Paris Collection	T3	697	X	—	? ⁶	—	—	—	X	—
	T4	661	X	—	X	—	—	X	X	X
	T5	526	X	X	X	—	—	X	X	—
	T6	37	—	—	X	—	—	X	X	—
	T7	749?	X	X	X	—	—	X	X	—
	T8	—	X	X	X	—	—	X	? ⁷	—
	T10	1085?	—	—	X	—	—	X	? ⁸	—
	T11	959	X	—	X	—	—	X	X	—
Jerusalem Collection	T12	23	X	—	—	—	—	X	X	—
	T13	55	X	—	—	X	—	X	X	—
	T15	290	X	—	—	X	—	X	X	—
	T16 a&b	360	X	—	—	X	—	X	X ⁹	—
	T17	131	X	X	—	—	—	—	X	X
	T18	130	X	X	—	X	—	X	X	X
	T19	129	X	X	—	X	—	X	X	X
	TA	—	X	—	—	—	X	X ¹⁰	? ¹²	—
	TB	—	X	X	—	—	—	X ¹¹	? ⁸	X

Table 2: Provenience of the collection

“X” = present; “—” = unavailable; “?” = questionable

¹ Eshel et al., “New Data on the Cemetery,” 135–65.

² Please see Figure 9 in S.G. Sheridan, J. Ullinger, and J. Ramp, “Anthropological Analysis of the Human Remains from Khirbet Qumran: The French Collection,” in Humbert/Gunneweg, *Qumran 2*, 137.

³ Humbert et al., *Fouilles I*, 217–24.

⁴ Writing on outside of the box and/or the packing materials.

⁵ As published in Humbert et al., *Fouilles I*, 346–39.

⁶ These bones are marked with large blue wax pencil “3”s, but the notations differ from the India ink writing on most of the other bones. Also, these fragments were found in boxes marked as “Tomb 8”.

⁷ Although de Vaux describes the grave, he does not discuss the presence of a skeleton, or the removal of any bones (Humbert et al., *Fouilles I*, 347). The skeleton *in situ* does however appear in the archived photographs.

⁸ Tomb B is listed as synonymous with Tomb 10 in Humbert et al., *Fouilles I*, 347. The description states that the cranium and pelvis were removed. If this indeed refers to Tomb B, then: a) the excavators counted the cervical vertebra as part of the cranium and we are now missing the pelvis portions; b) this is a reference to Tomb 10; or c) the remains marked as Tomb B are not from the de Vaux Qumran collection.

⁹ Portions of two skulls and pelvis were available for study. However, according to de Vaux’s notes, the skeletons were removed. Humbert et al., *Fouilles I*, 348.

¹⁰ The box is labeled T9 (A).

¹¹ The box is labeled T10 (B).

¹² Tomb A is listed as synonymous with Tomb 9 in Humbert et al., *Fouilles I*, 347. The description states that the cranium and pelvis were removed. If this is a reference to Tomb A, then: a) the excavators failed to mention the removal of several postcranial bones; b) this is a reference to Tomb 9, which has to date not been rediscovered; or c) the remains marked as Tomb A are not from the de Vaux Qumran collection.

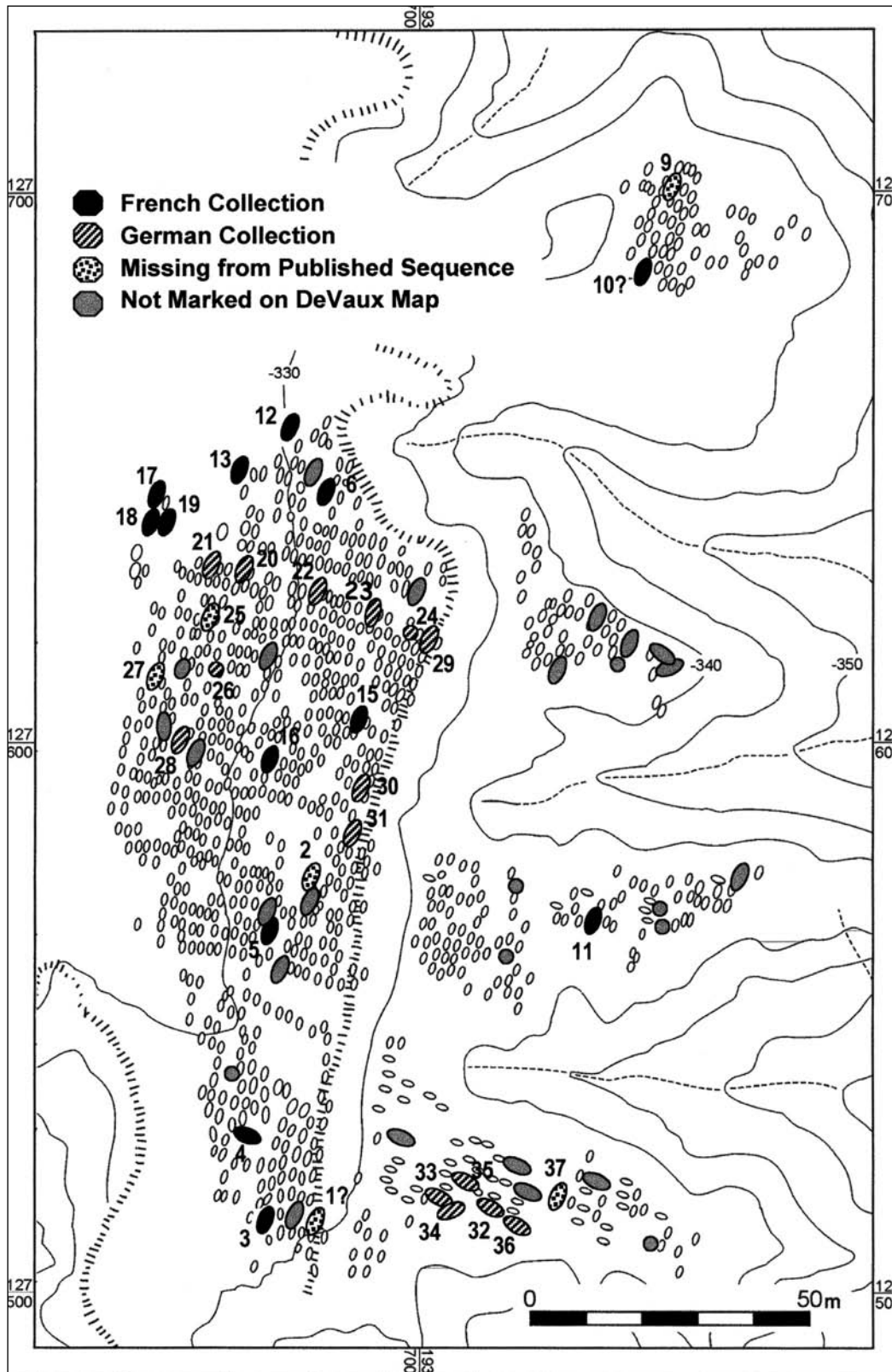


Fig. 9.1. Cemetery survey of the graveyard at Qumran, with all opened tombs indicated. Missing from this diagram are Tombs 7 and 8, which are no longer evident above ground, and Tombs A and B, for which conflicting information exists as to location.

portions of the skeleton extracted from the graves clearly illustrate this bias. Today, a considerably more holistic approach is practiced by biological anthropologists, interested in reconstructing daily activities, population movement, health and nutrition, female resiliency, childhood adaptability, etc. Sadly, many of the bones needed for these analyses were not extracted.

Temporal Placement

Several methods were used to place the remains in a temporal context (Table 3).¹⁴ Radiocarbon dating proved ineffective because the bones were too denatured for analysis. Carbon and nitrogen isotope analysis further demonstrated the lack of preserved organic matter. Likewise, no discernable patterns were evident in the fluoride content of the bones, rendering even relative dating methods moot. Chronometric dating of the wood associated with some of the burials was hampered by heavy carbon contamination from the paraffin preservative used by the original excavators.¹⁵ A dearth of associated grave goods further complicated temporal placement. The shape of the metal nails and spikes found in some of the tombs provided a possible Roman period placement, however this again was inconclusive as no systematic nail typology exists for the Southern Levant.¹⁶

Demography

As is true when building any circumstantial case, the more information available, the more reliable the final outcome. Demographic analysis for the Qumran remains has benefited from the advent of many new methodologies, most developed since the original estimates by Kurth and Vallois. Although study of complete skeletons would have significantly enhanced demographic reconstruction, those bones removed upon exhumation were among the best for age and sex determination. Unfortunately, postmortem degradation has reduced the utility of these indicators considerably.

Applying multiple demographic techniques (Tables 4 and 5) has demonstrated that all of the individuals in the French collection were over 30 years of age at death, except the boy buried in Tomb 15. And, all were likely male, except for the woman in Tomb A, and possibly a second individual in Tomb 5.

Reconsideration of the Paris Collection

Robert Donceel recently published his study of the cemetery-related archives at the École Biblique et Archéologique Française de Jérusalem.¹⁷ Included in this work are excerpts from correspondence

METHOD	SAMPLE	TOMBS																FINDINGS				
		3	4	5	6	7	8	10	11	12	13	15	16a	16b	17	18	19		A	B		
¹⁴ C Dating	bone	-	-	-	-	-	-	-	-	x	x	x	x	x	-	-	x	x	x	x	n/a	no discernable carbon signal
	wood	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	n/a	severe paraffin contamination
C/N isotopes	bone	-	x	x	-	x	x	x	x	x	-	x	x	x	-	x	x	x	x	n/a	no preserved collagen	
Fluoride Dating	bone	-	x	x	-	x	x	x	x	x	x	x	x	x	-	x	x	x	x	n/a	random sorting by fluoride concentration	
Typology	nails/spikes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-	-	Roman (?)	based on shaft morphology
	pottery	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Roman	found at excavation, part of fill

Table 3: Dating methods used for the French Qumran collection

¹⁴ Sheridan, "Scholars, Soldiers, Craftsmen, Elites?" and Sheridan, et al., "Anthropological Analysis of the Human Remains."

¹⁵ However, Gunneweg and co-workers report finding a

clean enough sample to establish a radiocarbon date.

¹⁶ R. Nagy, "Nails and Metal Artifacts," *Michigan Archaeologist*, 35 (1989): 177-180; L. Nelson, "Nail Chronology as an Aid to Dating Old Buildings" *History News*, 24 (1968): 203-14.

TOMBS		Pubic Symphysis I ²	Pubic Symphysis II ³	Auricular Surface ⁴	Cranial Suture Closures ⁵	Palate Suture Closure ⁶	Epiphyseal Fusion ⁷	Dental Eruption ⁸	Dental Attrition I ⁹	Dental Attrition II ¹⁰	Dental Attrition III ¹¹	Dental Attrition IV ¹²		
													<i>DeVaux's Sequence</i>	<i>Reeder Sequence</i> ¹
Paris Collection	T3	697	-	-	-	-	X	X	X	X	X	-		
	T4	661	-	-	X	-	-	X	X	-	-	-		
	T5[g]	526	-	-	-	-	-	X	X	X	-	-		
	T5[r]	526	-	-	-	-	-	X	X	X	X	-		
	T6	37	-	-	-	X	-	-	X	X	X	-		
	T7	749?	-	-	X	X	-	X	-	-	-	-		
	T8	-	X	X	-	-	-	X	X	X	-	-	-	
	T10	1085?	-	-	X	X	-	X	X	-	X	X	-	
	T11	959	-	-	-	-	-	X	-	-	-	-	-	
	Jerusalem Collection	T12	23	-	-	-	X	X	-	X	X	-	-	X
		T13	55	-	-	X	-	-	X	X	-	-	-	-
T15		290	-	-	-	-	X	X	X	X	X	X	X	
T16a		360	-	-	-	X	-	X	X	X	X	X	X	
T16b		360	-	-	X	-	-	X	-	X	X	X	X	
T17		131	-	-	-	-	-	X	-	-	-	-	-	
T18		130	X	X	X	-	X	X	X	X	X	X	X	
T19		129	X	X	-	-	-	-	-	X	X	X	X	
TA		-	-	-	X	X	X	X	X	X	-	-	X	
TB		-	-	-	-	-	X	-	-	X	X	X	X	

Table 4: Methods used for age reconstructions for the French collection

“x” = method used; “-” = method unavailable; “g” = gracile mandible; “r” = robust mandible

¹ Eshel et al., “New Data on the Cemetery,” 141.

² T.W. Todd. “Age Changes in the Pubic Bone I: The Male White Pubis,” *American Journal of Physical Anthropology* 3 (1921): 285–334.

³ S.T. Brooks and J.M. Suchey. “Skeletal Age Determination Based on the Os Pubis: A Comparison of the Acsádi-Nemeskéri and Suchey-Brooks Methods,” *Human Evolution* 5 (1990): 227–38.

⁴ C.O. Lovejoy, R.S. Meindl, T.R. Pryzbeck, and R.P. Mensforth. “Chronological Metamorphosis of the Auricular Surface of the Ilium: A New Method for the Determination of Age at Death,” *American Journal of Physical Anthropology* 68 (1985): 15–28.

⁵ R.S. Meindl and C.O. Lovejoy. “Ectocranial Suture Closure: A Revised Method for the Determination of Skeletal Age at Death Based on the Lateral-Anterior Sutures,” *American Journal of Physical Anthropology* 68 (1985): 57–66.

⁶ W.M. Bass. *Human Osteology: A Laboratory and Field Manual*. 4th ed. (Columbia, Missouri: Missouri Archaeological Society, 1995).

⁷ J.E. Buikstra and D.H. Ubelaker. *Standards for Data Collection from Human Skeletal Remains* (Fayetteville, Arkansas: Arkansas Archaeological Survey, 1997).

⁸ D. Ubelaker. “Estimating Age at Death from Immature Human Skeletons: An Overview,” *Journal of Forensic Sciences* 32 (1987): 1254–63.

⁹ B.H. Smith. “Patterns of Molar Wear in Hunter-Gatherers and Agriculturalists,” *American Journal of Physical Anthropology* 63 (1984): 39–56; B.H. Smith “Standards of Human Tooth Formation and Dental Age Assessment” In *Advances in Dental Anthropology*, ed. by M. Kelley and C.S. Larsen (New York: Wiley-Liss, 1991), 143–68.

¹⁰ D. Brothwell, *Digging Up Bones*. 3rd ed. (Ithaca, New York: Cornell University Press, 1981).

¹¹ A. Miles. “Dentition in the Estimation of Age,” *Journal of Dental Research* 42 (1963): 255–63.

¹² E.C. Scott. “Dental Wear Scoring Technique,” *American Journal of Physical Anthropology* 51 (1979): 213–18.

¹³ S. Molnar. “Human Tooth Wear, Tooth Function, and Cultural Variability,” *American Journal of Physical Anthropology* 34 (1971): 175–89.

TOMBS		Mastoid Process	Browridge	Supraorbital Margin	Nuchal Crest	Temporal Line	Mental Eminence	Gonial Eversion	Genial Tubercles	Mandibular Breadth	Humerus Metrics	Ventral Arc	Subpubic Concavity	Ischiopubic Ramus	Ischiopubic Index	Sciatic Notch	Auricular Surface	Preauricular Sulcus	Sacrum Curvature	Sacrum Width	Femur Metrics	Linea Aspera
<i>DeVaux's Sequence</i>	<i>Reeder Sequence</i> ¹																					
Paris Collection	T3	697	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-
	T4	661	X	X	-	X	X	-	-	-	-	-	-	-	-	X	X	X	X	X	-	-
	T5 [g]	526	X	X	X	X	X	X	X	X	-	-	-	-	-	X	X	X	X	X	-	-
	T5 [r]	526	-	-	-	-	-	X	X	-	X	-	-	-	-	-	-	-	-	-	-	-
	T6	37	-	X	-	-	X	X	-	X	-	-	-	-	-	-	-	-	-	-	-	-
	T7	749?	-	-	-	X	X	-	-	-	-	-	-	-	-	X	X	X	-	X	X	-
	T8	-	X	X	X	X	X	-	-	X	-	-	X	X	X	-	X	-	-	X	X	-
	T10	1085?	X	X	X	X	X	X	X	X	X	-	-	-	-	-	X	X	-	-	-	-
	T11	959	-	X	X	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jerusalem Collection	T12	23	X	X	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-
		T13	55	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X	-	-
T15		290	X	X	X	X	X	X	X	X	X	-	-	-	-	-	X	X	-	-	X	
T16a		360	X	X	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	
T16b		360	X	-	-	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	
T17		131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
T18		130	X	X	X	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T19		129	X	X	X	X	X	X	X	X	X	-	X	X	X	-	X	X	X	-	-	-
TA		-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	X	X	X	X	X	X
TB		-	-	-	-	-	-	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-

Table 5: Sex determination methods used for the French Qumran collection

“x” = feature available for study; “-” feature unavailable; “g” = gracile mandible; “r” = robust mandible

¹ Eshel et al., “New Data on the Cemetery,” 141.

between Vallois and de Vaux. These letters were quite revealing, and have forced a reconsideration of previous reconstructions for some of the individuals in the Paris collection.

Based on Professor Vallois’ report to de Vaux, he felt there might have been as many as four commingled tombs in the Paris segment of the collection. Perhaps even more interesting was his belief that in each case, the tombs contained a man and a woman buried together. In a letter dated November 14, 1952,¹⁷ Vallois listed bones from Tombs 4, 5, 6, and 10 as possibly containing male and female burials. These reconstructions were based upon the presence of bones that did not

match the majority of remains from each grave, and/or represented duplication of skeletal elements.

In the following section we will outline whether our findings match Vallois’ interpretations, and discuss the evidence he presented in his correspondence. We will begin with an overview of the confusion surrounding Tomb 3, which laid the foundation for our interpretation of Tomb 5 prior to finding Vallois’ report:

Tomb 3 (Reeder 697)/Tomb 8 (Reeder-) commingling

De Vaux reported removal of portions of a cranium and pelvis for Tomb 3,¹⁹ and the photo

¹⁷ Donceel, *Synthèse*.

¹⁸ Donceel, *Synthèse*, 36-7.

¹⁹ Humbert et al., *Fouilles I*, 346.

archive showed a complete skeleton with the head crushed by a stone.²⁰ Vallois in part confirmed this in his description of a ‘very deteriorated’ cranium, although he made no mention of any portion of the pelvis. He did provide a fairly specific age determination of 20–25 years old,²¹ a difficult determination using only the skullcap reported.

As we began our work in Paris, we noted that there was no box labeled “Tombe 3” in the Musée de l’Homme collection. However, several pieces in the two “Tombe 8” boxes (the only grave for which there were two trays of remains), were bones with a large “3” written in blue wax pencil or crayon. There were two sacra present—for one, the Tomb 8 designation was written in India ink on the thick paraffin preservative covering the bone, but underneath this waxy matrix was a large blue “3”. Figure 9.2 illustrates these discrepancies. An innominate had a large “T3” in the same blue lettering, and a partial “3” (although possibly an incomplete “8”) was also seen on the broken margin of a large cranial fragment.

Based on the remains believed to represent Tomb 3, we were not able to corroborate Vallois’ specific age determination. In fact, the remnant sagittal suture on the cranial fragment was completely obliterated on the interior surface. This indicated (although only superficially given the incomplete nature of the skull) an individual somewhat older than Vallois’ estimate.²² Even with the aide of the innominate and sacrum portions, we only had two additional general aging methods available and therefore could not be more specific than “adult” for this person. The innominate and sacrum were however quite useful for sex deter-

mination, thus we were able to conclude that this was a male. A strong temporal line on the cranial fragment likewise fit the male pattern.

Interestingly, this person displayed lumbar sacralization—the complete or partial fusion of the 5th lumbar vertebra to the sacrum. Although there are no detrimental effects during life and the individual would have never known he possessed this trait, it is rare enough that it would not have escaped Vallois’ notice²³ (fig. 9.3). Thus, the sacrum might not be a part of this tomb, despite the labeling—in which case, two distinctively different sacra were part of the Tomb 8 remains. . . . which admittedly merely shifts the conundrum.

Tomb 4 (Reeder 661)

De Vaux’s excavation notes only mentioned the removal of one very brittle cranium and pelvis from this tomb,²⁴ and the photo archive contains two pictures of the skeleton *in situ*.²⁵ They both show a single interment, although the right side of the skeleton is obstructed from view by the wall of the loculus. Many of the bones in the pictures are disheveled, and features were not cleaned to the same degree that they are today for archaeological photography, making detailed analysis of the photos difficult.

Vallois believed there might be two people in this grave.²⁶ For the first he recorded a portion of a skull and innominate, from which he provided an estimated cephalic index, described marked tooth wear, determined age (40 years old), sex (male), and estimated “race.” He also described two other innominate portions as female.

²⁰ École Biblique et Archéologique Française Catalogue: #11434, album LV, 55.

²¹ See figure 2 in Donceel, *Synthèse*, to see the Vallois letter to de Vaux.

²² The age determination technique using cranial suture closure was not available at the time of Vallois’ analysis. See: R.S. Meindl and C.O. Lovejoy, “Ectocranial Suture Closure: A Revised Method for the Determination of Skeletal Age at Death Based on the Lateral-Anterior Sutures,” *American Journal of Physical Anthropology* 68 (1985): 57–66.

²³ F. Bustami, “The Anatomical Features and Functional Significance of Lumbar Transitional Vertebra,” *Jordan Medical Journal* 23 (1989): 49–59. Bustami studied 340 sacra of modern Arab and Indian groups. Thirty-two (9.4%) showed evidence of unilateral sacralization and 14 (4.1%) demonstrated bilateral sacralization.

²⁴ Humbert et al., *Fouilles* I, 346.

²⁵ École Biblique et Archéologique Française Catalogue: #11443 and 11444, album LVII, page 57.

²⁶ Vallois’ description of Tomb 4 states: “2 sujets dont l’un n’est représenté que par un fragment du bassin: a) Crâne volumineux, épais, à voûte rhomboïde, nettement brachycéphale. L’indice céphalique, avec une longueur maximum prise un peu plus haut qu’à l’endroit normal par suite de la détérioration du crâne, donne le chiffre très élevé de 89. Si la longueur avait pu être mesurée exactement, il semble que l’indice aurait été voisin de 85. Toutes les saillies osseuses sont prononcées. La face est orthognathe et n’a rien de négroïde. Les dents sont bien usées. Sexe nettement masculin. Age autour de 40 ans. Le type anthropologique est celui de la race alpine. Un morceau d’os iliaque de type masculin devait provenir du même sujet. b) 2 autres os iliaques de type féminin correspondent à un second sujet dont le crâne fait défaut.” See figure 2 in Donceel, *Synthèse*.

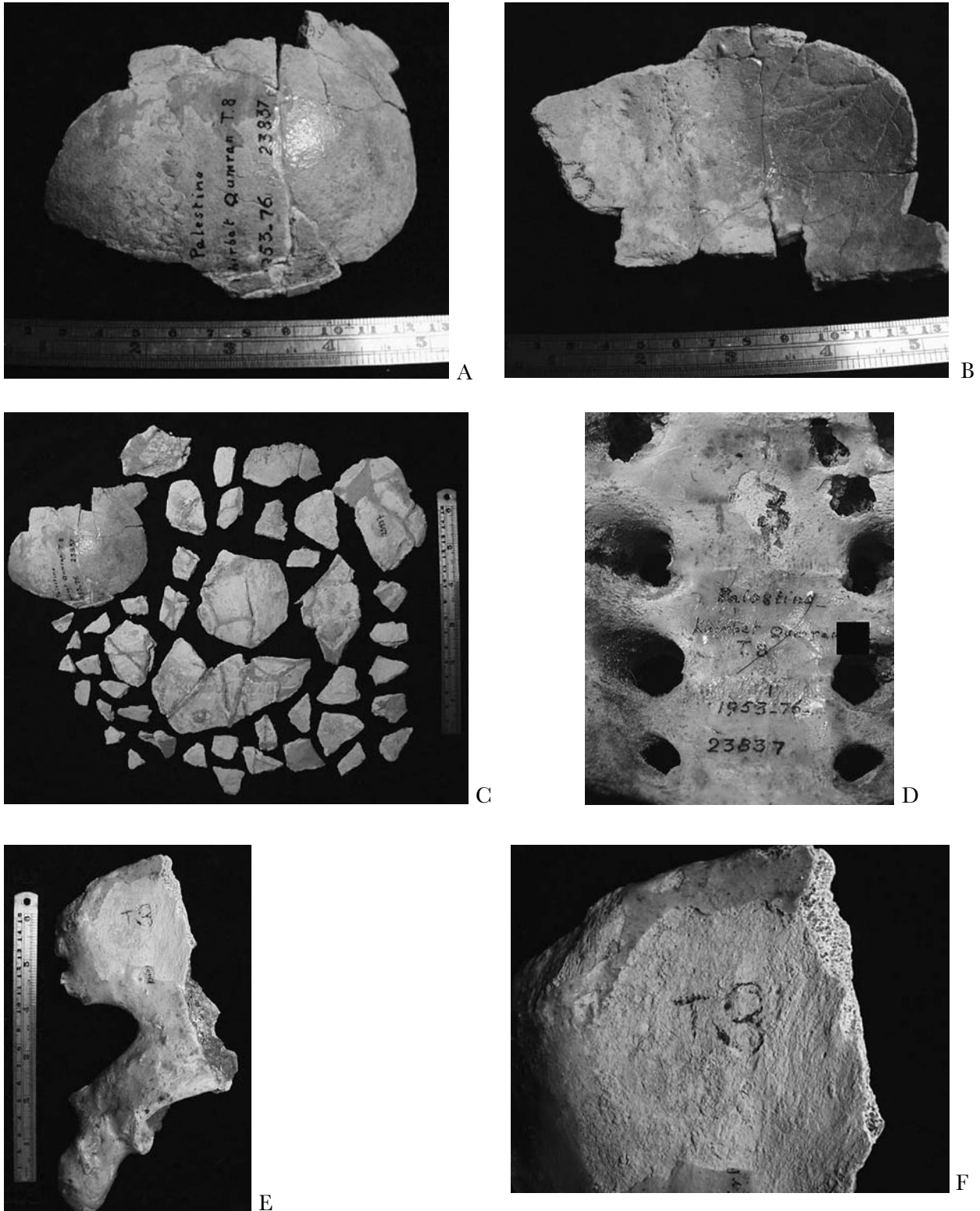


Fig. 9.2. Skeletal elements associated with Tomb 3: (a) exterior view of a cranial fragment, labeled as “T8;” (b) interior view of the same cranial fragment, illustrating the partial “3;” (c) additional cranial fragments in the second Tomb 8 box which we have described as part of Tomb 3; (d) a second sacrum from the Tomb 8 box, illustrating the India ink “T8” designation over a graphite “T3;” (e) a full view of a graphite-labeled “T3” from the Tomb 8 box; (f) close-up of the innominate designation.

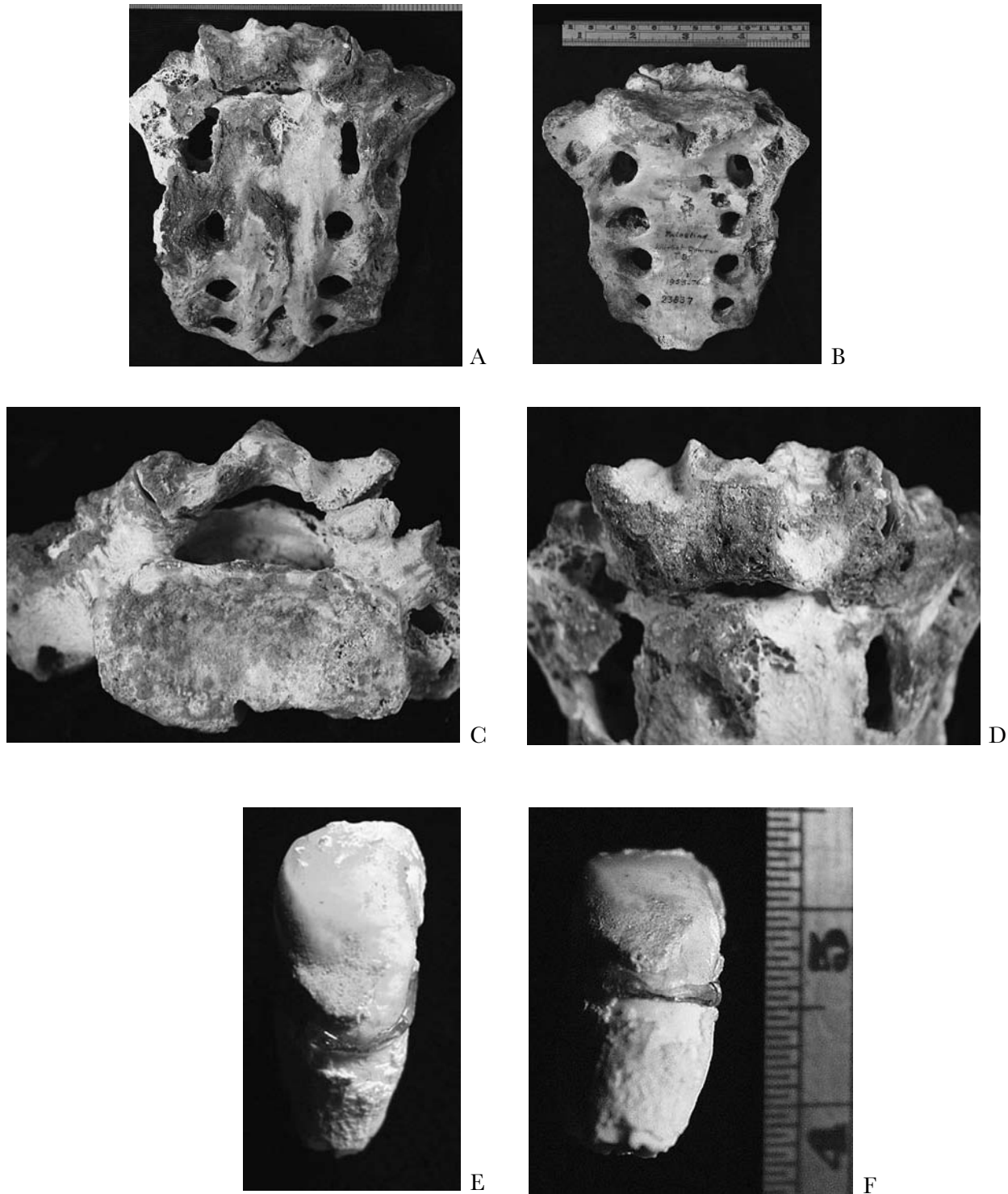


Fig. 9.3. Features of the Tomb 3 remains, including: (a) a dorsal view of the questionable sacrum, with the lumbar sacralization and mild spina bifida occulta indicated; (b) a ventral view of the same bone; (c) a superior view of the fused lumbar vertebra; (d) a close-up of the fused vertebra; and (e) and (f) buildup of dental calculus on a tooth from Tomb 3.

The current remains include parts of two innominates, a sacrum, several pieces of skull, and a maxilla with eight intact teeth. One of these bones was reconstructed, presumably by a curator at the Musée de l'Homme or by Vallois himself. The two innominates did appear somewhat different on initial inspection, largely due to the width of the sciatic notch.²⁷ However, this is an artifact of the alignment of the pieces during restoration (the glued bone has a slightly wider notch, a female feature). All other features appeared male. The two innominates were comparable in size, robusticity, and other morphological features,²⁸ suggesting they came from the same individual.

The sacrum in the "Tombe 4" box was notably more yellow and lighter in weight than the other pieces. It was also far less encrusted with paraffin which might explain both the coloration and weight differences. This was a highly friable bone as a result, and broken edges crumbled at the slightest touch. The sacrum was narrow and very curved, both distinctly male features.²⁹ Small portions of both ala (articulation points with the innominates) were preserved and seemed to fit the aforementioned innominates to compose a single pelvic girdle.

But here the picture becomes somewhat more complicated. The right innominate was labeled "T4" with India ink on the paraffin, but underneath we found a "T3" in graphite written directly on the bone. A blue-pencil "5" was also present on the upper portion of this bone, with a corresponding "4" on the lower half. It is possible that these numbers were added by the curator prior to applying the adhesive putty and do not reflect tomb designation.³⁰ No such markings were found on the intact left innominate. Thus, while we

could say with relative confidence that the two innominates in the T4 box came from the same individual, we were left asking "which individual?" yet again.

The cranial portions described by Vallois matched the extant remains. They contained several features useful to sex determination,³¹ and appeared quite robust (male). Based on the degree of tooth wear, auricular surface morphology, and cranial suture closure we obtained a slightly younger age of 30–35 years.

Tomb 5 (Reeder 526)

De Vaux's excavation notes indicated one burial in this tomb whose face was crushed by a fallen flagstone,³² and there was one photograph in the archive to corroborate this.³³ Vallois however indicated a possible double interment based upon superfluous bones.³⁴ He recorded the "bulky cranium" and very worn teeth of a young man (20–25 years old), using portions of the skull and a robust mandible. In addition, he noted a gracile mandible, indicating a second person, probably female.

We also found two distinctively different mandibles in the "Tombe 5" box at the Musée de l'Homme (fig. 9.4). One was quite robust and manifested every sign of being male.³⁵ The rest of the remains were likewise distinctively male, including the calvarium (based on the mastoid process, nuchal crest, browridge, and temporal line), portions of both innominates, and a sacrum.

Our age for the robust individual differed considerably from Vallois' however. Based on dental attrition, features of the innominates, and degree of cranial suture closure, we placed this individual at 40–50 years of age. Some arthritic lipping

²⁷ A wide sciatic notch is a female trait, a narrow notch is associated with men.

²⁸ These features include retroauricular surface response, degree of auricular surface elevation, and arthritic response along the superior and inferior demiface of each bone.

²⁹ Furthermore, this person suffered from a mild case of spina bifida occulta. This is the most common congenital spine abnormality, a benign form of the disorder that likely went unnoticed in the lifetime of this individual. It occurs in about 5–10% of the general population, so this also would have likely drawn Vallois' attention to this bone were it present.

³⁰ For the tomb 3 bones with blue tomb designations, they often appear on intact bones which would preclude the notion that they were marked in order prior to reconstruction.

³¹ Robust mastoid processes, temporal lines, browridge, and nuchal crest.

³² Humbert et al., *Fouilles I*, 346–7.

³³ École Biblique et Archéologique Française Catalogue: #11447, album LIX, 59.

³⁴ Vallois' description of Tomb 5 states: "a) Crâne volumineux et très nettement brachycéphale. Sexe masculin bien caractérise et âge relativement jeune: 20 à 25 ans. Mâchoire inférieure remarquable par la grande usure des dents, malgré l'âge peu avancé du sujet. Morceau de bassin masculin également. B) Une deuxième mâchoire inférieure, beaucoup plus grêle, paraît correspondre à un sujet féminine." See figure 2 in Donceel, *Synthèse* to see the Vallois letter to de Vaux.

³⁵ With a marked mental eminence (partial), square chin, gonial eversion, and mandibular torus, indicative of a male.

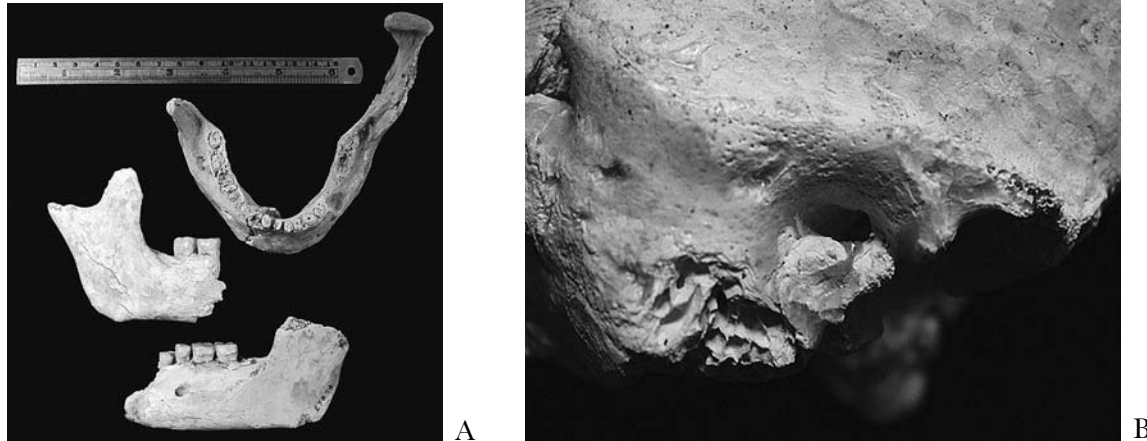


Fig. 9.4. The extant remains for Tomb 5 are indicated in the skeleton schematic to the left, with: (a) the robust and gracile mandibles, and (b) the auditory ossicle (growth in the ear) pictured.

around the articulations of the pelvis were likewise indicative of an individual beyond their 20s. This person suffered from iron deficiency, had rather severe calculus (hardened tartar) buildup on his teeth, and a large auditory exostosis (growth in his ear opening).

Vallois' observation of a second mandible however, holds true for the current collection. This second jaw was notably more gracile than the first, however it did include some marginally masculine features.³⁶ Although the mandible alone is not the best indicator for a conclusive determination of sex, its presence does indicate the possible commingling of two individuals of notably different robusticity. If nuclear DNA can be extracted from the teeth,³⁷ future analyses may be able to determine sex conclusively.

Tomb 6 (Reeder 37)

According to de Vaux's excavation notes, the remains in this tomb were very damaged.³⁸ The

skull and mandible were crushed by several fallen stones, as was the thorax. He reported that the pelvis was missing, and postulated that it may have dissolved from the infiltration of water. Only the skull was removed for analysis.

Unfortunately, there were no photographs of this skeleton *in situ*, although pictures do exist of the grave prior to excavation,³⁹ and upon reaching the cover stones.⁴⁰ It is possible that glass slides for these pictures exist in the École Biblique archive, but were not printed for the large site archive albums.⁴¹

Vallois described the possibility that this tomb also represented a double burial.⁴² He reported that most of the cranial fragments belonged to a 40 year old man, but believed several pieces did not fit with the "very thick skullcap" and thus possibly signified a woman.

Our age range of 35–45 years was inclusive of Vallois' estimate, however we could not corroborate his reconstruction of female remains. Although there was not much material to work with, the

³⁶ Some gonial eversion and a protruding chin.

³⁷ This is unlikely in the near future given the poor preservation. Even if DNA can be extracted from the dentin of these worn teeth, the odds that both mitochondrial *and* nuclear DNA could be extracted using current techniques is quite low.

³⁸ Humbert et al., *Fouilles I*, 347.

³⁹ École Biblique et Archéologique Française Catalogue: #11453, album LXI, 61.

⁴⁰ École Biblique et Archéologique Française Catalogue: #11450, album LXI, 61.

⁴¹ Until 1953 de Vaux photographed aspects of the excavations at Qumran using glass plates. Many of these negatives were printed for inclusion in a large multi-volume set of albums of the site. Notes are included next to the pic-

tures related to orientation, location, etc. We have published several photos of the skeletons *in situ* in previous papers, and Humbert and Chambon included several in their *Fouilles de Khirbet Qumran*.

⁴² Vallois' description of Tomb 6 states: "a) Une calotte crânienne très épaisse correspond à un crâne robuste avec apophyses mastoïdes volumineuses, mâchoire inférieure puissante. C'est certainement un homme d'à peu près 40 ans. La forme de la voûte indique la mésocéphalie; b) Un petit morceau crânien isolé porte une apophyse mastoïde beaucoup moins volumineuse que celle qui est attachée à la calotte précédente; il s'agit donc d'un autre sujet, très probablement féminine." See figure 2 in Donceel, *Synthèse* to see the Vallois letter to de Vaux.

masculine features of this skull were quite pronounced, including a very square chin, protruding jaw, and thick browridge. Although the mastoid processes were not particularly long, they were quite robust. There was no evidence of a second, more gracile individual in the “Tombe 6” box at the time of our analysis.⁴³

Tomb 9 (Reeder)

Confusion arises in the classification of this tomb, for several reasons. According to de Vaux’s notes, Tomb 9 and Tomb A were synonymous. He described Tomb 9 as “Tombe A, cimetière nord,”⁴⁴ and reported removing only the skull and pelvis for this individual. A photo of the skeleton *in situ* exists, located in the archive album next to pictures of this “cimetière nord.”⁴⁵ Vallois reported only very fragmentary remains in the Paris collection corresponding to “Tombe 9” as possibly representing a woman of indeterminate age.⁴⁶

At the time of our visit to the Musée de l’Homme in the late summer 2000, there were no remains available for Tomb 9. But in Jerusalem, remains for “Tomb A” do exist. They are not fragmentary, indeed this skeleton provides some of the only complete postcranial material available for the French collection. They are of a female approximately 45–50 years old.

It seems improbable that Tomb 9 and Tomb A are one and the same. The striking difference in preservation, variation in the amount of material available, and the geographic separation (Paris vs. Jerusalem), indicate that we have two distinct graves. It is unfortunate that the remains for Tomb

9 are no longer available, especially given the controversial classification of this as a possible woman.

Tomb 10 (Reeder 1085?)

The last tomb Vallois claimed “double occupancy” for was Tomb 10.⁴⁷ Like Tomb 9A, de Vaux recorded Tomb 10 and Tomb B as indistinguishable.⁴⁸ For this grave he reported the removal of a pelvis and skull. As was true for Tomb 6, pictures exist of the grave prior to excavation,⁴⁹ and upon reaching the cover stones,⁵⁰ but not of the skeleton in the ground.

Vallois described a well-preserved robust skull and mandible, belonging to a 40 year old man. He also reported a second deteriorated mandible and innominate of a female.

Again, we could not fully corroborate his description. The cranium for Tomb 10 was indeed in better shape than any other in the Paris sequence.⁵¹ And it demonstrated very robust, masculine features at every point of analysis. However, only one mandible was present. It was in poor condition, although the features preserved were quite male.⁵² There were two innominates present; unfortunately there were no preserved features of the left bone available for either age or sex determination. The right innominate was *very* poorly reconstructed, with the ischium affixed backwards! There was a comparable degree of arthritic lipping at the same location of the sacroiliac joints of both innominates, indicating that they may have been from the same person.⁵³ Sex was indeterminate for the right bone.⁵⁴

Prior to reading Vallois’ report, there was lit-

⁴³ Of note, there was a large graphite “T6” on the calvarium for this individual. This was in addition to (and in agreement with) the india ink marking for “Tombe 6.”

⁴⁴ Humbert et al., *Fouilles I*, 347.

⁴⁵ École Biblique et Archéologique Française Catalogue: #13, album LXVII, 67. This picture appears next to photos of “the northern cemetery” and is probably a shot of Tomb A rather than Tomb 9.

⁴⁶ Vallois’ description of Tomb 9 states: “Débris très fragmentaires; on a cependant l’impression qu’il doit s’agir d’une femme (?)” See figure 2 in Donceel, *Synthèse* to see the Vallois letter to de Vaux.

⁴⁷ Vallois’ description of Tomb 10 states: “a) Crâne cérébral à peu près en bon état (le seul vraiment utilisable de toute la série). Sujet masculin de 40 ans à peu près avec un voûte brachycephalic (indice céphalique: 82.1), une face large, un menton bien accusé. Le type est celui des brachycephales arménoïdes; b) A côte de la manibule presque intacts du

sujet précédent, une autre mâchoire inférieure très détériorée semble de type féminin, diagnostic que confirme l’existence d’un os iliaque de sexe féminin certain.” See figure 2 in Donceel, *Synthèse* to see the Vallois letter to de Vaux.

⁴⁸ Humbert et al., *Fouilles I*, 347.

⁴⁹ École Biblique et Archéologique Française Catalogue: #14, album LXVII, 67 (Tomb 10—this picture is credited to Harding).

⁵⁰ École Biblique et Archéologique Française Catalogue: #13811, album LXVII, 67.

⁵¹ Of note, there was a large blue pencil “T10” on the well-preserved skull, that agreed with the India ink markings of the same designation.

⁵² Gonial eversion, square chin, mandibular torus.

⁵³ Very lipped margin of the inferior demiface on both innominates.

⁵⁴ The sciatic notch was wide, but the auricular surface was not elevated around its entire margin. The preauricu-

the reason to suspect a second burial because it is possible to have some degree of variable expression of secondary sexual characteristics in the skeleton of one person. However, with this new information, the possibility of two individuals increases.

Our age assessment matched Vallois'. Although the third molars (wisdom teeth) had not erupted, the level of wear on the remaining dentition indicated that the molars were either impacted or never present.⁵⁵ Auricular surface morphology, dental attrition, and cranial suture closure were used to determine an age between 45–50 years old.

The designation of Tombs 10 and B as synonymous again does not fit the available data. The remains in Paris matched the excavation notes for Tomb 10. Remains for Tomb B were found in Jerusalem and represent a markedly different person—an older toothless man, indicated by little more than his edentulous mandible and neck (vertebrae and ossified thyroid cartilage). For the reasons outlined for Tomb A, a joint designation of Tomb 10 and B is not warranted.

Summary

It is interesting to note that the letter from Vallois to de Vaux dated November 11, 1952⁵⁶ on file at the École Biblique contained several notations in de Vaux's hand. Next to each tomb he jotted the sex of the individuals. However, he crossed out Vallois' description of a second, possibly female mandible from Tomb 5 and listed this tomb as "male." Likewise, there were hatch marks through the paragraph about a female burial in Tomb 6 with only "male" written next to the tomb. The notation for Tomb 10 was "male" with a question mark next to Vallois' comments about a possible second interment that was "de sexe féminine certain."

Sadly Vallois never published a final report about his findings on the Qumran skeletons. He did not seem particularly interested in this collection, as indicated in a letter to the director of

the École Biblique in May 1952.⁵⁷ This is understandable given the small sample size, poor preservation, and the fact that interest in Qumran at the time paled by comparison to today. In addition, de Vaux apparently dissuaded Vallois from publishing, as seen in a letter dated November 25, 1952,⁵⁸ because he believed Vallois' findings were in error.

Possible Interpretations

Based on the information outlined in the previous sections, we would like to present the following reconsideration of the remains in the French collection (Table 6). To date, comparable correspondence with Kurth has not surfaced to cause a re-evaluation of the Jerusalem segment of this collection. However, in light of Donceel's published accounts of the exchanges between Vallois and de Vaux surrounding the bones curated in Paris, our original reconstruction requires a bit of adjustment.

These include adding the possibility of a second individual to Tomb 5, now labeled "T5r" and "T5g" (for "robust" and "gracile"). These designations provide ease of identification, and distinguish our assessments from examples of clear double burials such as Tomb 16 a & b. Also, a question mark has been added to the designation of "male" for Tomb 10, due to the indeterminate nature of the innominates in light of Vallois' concerns. At this time, we choose not to make changes to our designations for Tombs 4 or 6 because we could find no evidence to support Vallois' proposal of double inhumations. The remains for Tomb 9 have not as yet re-surfaced, so this reconstruction remains blank in our accounting. There were no adjustments to age designations, even though our assessments at times varied with Vallois'.

The incomplete nature of the available excavation records for Qumran makes it difficult to determine the true cause of the discrepancies

lar sulcus was unfortunately so encrusted with paraffin and dirt that removal with the instruments at hand risked damage to the bone.

⁵⁵ Unfortunately we did not have access to an x-ray machine during our 1 week visit, and were a bit limited for time

given the operating hours of the Museum.

⁵⁶ See the Illustrations section of Donceel, *Synthèse*, fig. 2.

⁵⁷ Donceel, *Synthèse*, 36, n. 87.

⁵⁸ Donceel, *Synthèse*, 39–40.

	TOMBS		AGE		SEX	
	<i>DeVaux's Sequence</i>	<i>Reeder Sequence</i> ¹	<i>Vallois & Kurth Estimates</i> ²	<i>New Estimates</i>	<i>Vallois & Kurth Estimates</i> ²	<i>New Estimates</i>
Paris Collection	T3	697	20–25	adult	M	M
	T4	661	40 <i>adult</i>	30–35	M <i>F</i>	M
	T5[g]	526	adult	adult	F	M?
	T5[r]	526	40	40–50	M	M
	T6	37	adult	35–45	<i>F?</i>	M
	T7	749?	40–50	40–45	F ⁵	M?
	T8	–	50+	40–45	M	M
	T9 ⁶	–	<i>adult</i>	–	<i>F?</i>	–
	T10	1085?	40 <i>adult</i>	40–45 ³	M <i>F</i>	M?
	T11	959	50+	adult	M?	M
	Jerusalem Collection	T12	23	30	30–35	M
T13		55	–	40–45	M	M
T15		290	16	15–16	M	M
T16a		360	30	30–40	M	M
T16b		360	30–40	30–40	M	M
T17		131	–	adult ⁴	–	–
T18		130	30	30–33	M	M
T19		129	30–40	40–42	M	M
TA		–	30–35	45–50	F	F
TB		–	<50	60+	M	M

Table 6: Revised demographic profile for the French Qumran collection

“M” = male; “F” = female; “x” = feature available for study; “–” = feature unavailable; “g” = gracile mandible; “r” = robust mandible

¹ Eshel et al., “New Data on the Cemetery,” 141.

² Donceel, *Synthèse*; Röhrer-Ertl et al., “Gräberfelder I,” 3–46.

³ If there is a second individual in this tomb, age estimates for each would become more general—“30+”.

⁴ Based on photograph evidence.

⁵ Vallois refers to this burial as “certinement feminins” although this tomb is usually published as “F?”

⁶ Vallois also described remains for “Tombe 9” as an adult woman (?).

outlined above. This is compounded by the fact that both written and photographic evidence for each tomb was deficient by today's archaeological standards. Furthermore, ambiguities about the nature of the material in Paris further complicates interpretation, especially with the absence of a professional report of Vallois' research. Based on the available information—our osteological analysis, de Vaux's photographic and written excavation records, and the recently published correspondence highlighted throughout this paper—we propose the following possible scenarios. It is important to remember however that we were not able to corroborate all of Vallois' claims, so some of this conjecture is based solely on his accounting:

1. *Post-excavation contamination*—At least two possibilities arise in this category:
 - a) the remains of a woman were inadvertently added to those of several tombs prior to their shipment to Paris. For example, perhaps they were mixed-up at graveside or while being cleaned/catalogued. The graves in question were all exhumed within a week of each other,⁵⁹ and by de Vaux's own admission they were not labeled as well as they should have been. As all the questionable bones were classified as female by Vallois, perhaps the skeleton of one woman was accidentally distributed across several tombs.
 - b) Alternatively, a mixing may have happened at the Musée de l'Homme. All of the remains were presented to us in lid-less boxes/trays. If this is how they have been stored over the long term, it is possible that new elements have been introduced.
2. *Intentional or unintentional biasing of the finds*: A second possibility is that there were two individuals buried in the disputed tombs, but only one skeleton was excavated. Due to their lack of osteological training, the archaeologists may have occasionally included pieces from the second person, while attempting to remove only one. Missing and obstructed-view photographs

for some of these tombs, combined with de Vaux's dismissal of the "female" interpretations of Vallois could lead the conspiracy-minded to this conclusion.

3. *Intrusive elements prior to exhumation*—Finally, each of the extra elements may be intrusive. Perhaps they were introduced into the grave by a burrowing animal such as a rock hyrax or desert mouse. Although quite possible in a large cemetery setting, it does beg two questions—why was there no evidence of rodent chewing on the remains, and where were the burrowing animals getting the remains of women?

Nature abhors a vacuum, and the void created by a lack of complete documentation is rather large. Many additional possibilities will likely be proffered by Qumran scholars in the years to come. And hopefully, more information will come to light to help fill in the gaps. However, the absence of a taphonomic record for these exhumations, which would have included detailed notations about the state of the graves, possible intrusions, a stratigraphic sequence for each tomb, etc., means that we may never know the correct answer. The "chain of custody" of the remains is long and serpentine, resulting in more questions and speculations than answers.

Conclusions

At the time of our original analysis, the most parsimonious reconstructions for Tombs 5 and 10 were that duplication resulted from post-curation disturbance, as commingling apparently occurred with Tombs 3 and 8 after excavation.⁶⁰ However, Donceel's reference to Vallois' original claims about Tomb 5 provided reason for reconsideration.

The above sequence of events may simply reflect a series of coincidences. Nevertheless they do raise cause for concern since we have: a) the possibility of four tombs with double burials, where photographs of two of the *in situ* skeletons can not be found; b) two mandibles of considerably different

⁵⁹ All were exhumed in 1951—Tomb 4 (Nov. 25); Tomb 5 (Nov. 26), Tomb 6 (Nov. 27 & 28) and Tomb 10 (Dec. 1).

⁶⁰ Based on the likely Tomb 3 and 8 mixing, and the fact that the second mandible was not clearly labeled. Please see figure 4 in Sheridan et al., "Anthropological Analysis," 138.

At the time of this first article on the French collection, we proposed that the extra Tomb 5 mandible might be another misplaced portion of Tomb 3. Given the Vallois note, this now seems unlikely.

robusticity in the Tomb 5 box, with little previous mention of the potential for commingling in the literature about Qumran; c) missing remains from Tomb 9 which were possibly female; d) incomplete labeling of the remains by the excavators⁶¹ prior to shipment; e) and a letter indicating de Vaux's interpretations of Vallois' findings, which dismissed most of the information about possible female finds.

It is entirely possible that each concern has a logical explanation. Glass slides may indeed exist for Tombs 6 and 10 showing the skeletons upon excavation, that were simply never printed due to time and/or budgetary constraints. The second mandible in the box for Tomb 5 might be the result of mixing during curation as we believe happened for Tomb 3. It has been almost 50 years since the Qumran bones were shipped to the Musée de l'Homme, and it is therefore possible that the Tomb 9 remains have been lost in the intervening decades. And de Vaux may have had ample reason to question Vallois' interpretations based upon his first-hand observations graveside. However, given the number of points outlined

above, these issues warrant further investigation.

In summary, additional questions have been raised about the French collection. This casts a pall over a collection that was already lacking in many respects. About all that can be said with confidence is that our analysis of the remains in Paris and Jerusalem indicate a preponderance of adult men. However, one cannot propose this age or sex profile as a community *pattern*. A questionable excavation plan, an exceptionally unrepresentative sample size, poor preservation, Vallois' claim of up to six possible women among the Paris remains,⁶² and incomplete exhumation are but a few of the features complicating analysis of this collection beyond "reasonable doubt."

Our inability to contribute to a conversation about the function of Qumran using the skeletal remains is indeed a loss, as the scholarly community has waited over 40 years for analysis of the bones. Nevertheless, any attempt to extrapolate these reconstructions to represent a larger community profile is a misuse of data from the French collection. This fact is made all the more poignant by the concerns raised in this paper.

⁶¹ According to Donceel, *Synthèse*, 39–40, n. 90, de Vaux conceded this point in the last paragraph of a letter dated

November 25, 1952.

⁶² Tombs 4, 5, 6, 9 and 10 as discussed, plus Tomb 7.

CHAPTER TEN

THE DISCOVERY AND EXCAVATION OF THE KHIRBET QAZONE CEMETERY
AND ITS SIGNIFICANCE RELATIVE TO QUMRAN

Konstantinos D. Politis

The Discovery of the Khirbet Qazone Cemetery

In 1996 and 1997, a rescue excavation was mounted at a previously unregistered cemetery site locally known as Khirbet Qazone, near the village of Mazra'a at the southeastern end of the Dead Sea (figs. 10.1 and 10.2). Over 3,500 looted burials were recorded but of these, only twenty-three undisturbed shaft graves were excavated by archaeologists.¹

Each of these graves had a single burial and there was no evidence of re-interment. Most of the graves were dug more than 1.5 m into the soft Lisan sediments, undercut to the east, and covered by adobe brick slabs in what can best be described as *arcosolia* (fig. 10.3). At least two graves were constructed of stone cists. Men, women, and children alike were laid to rest on their backs with their heads placed towards the south end of the grave.

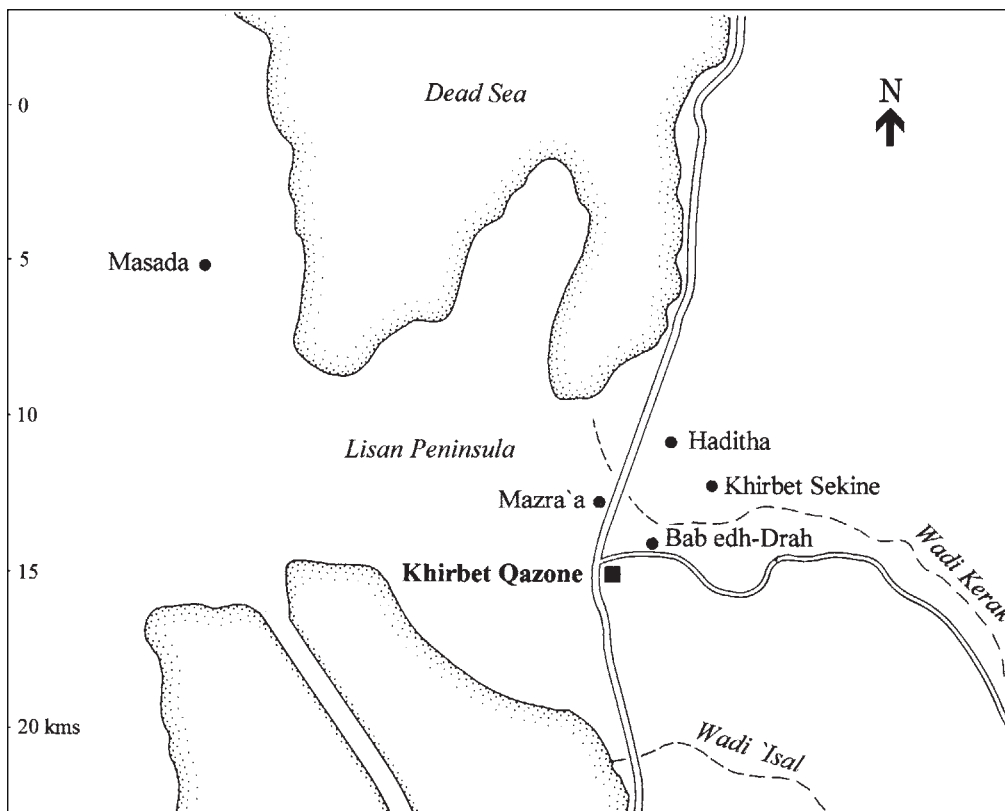


Fig. 10.1. Location map of Khirbet Qazone. (by J.M. Farrant)

¹ K.D. Politis, "Rescue Excavations in the Nabataean Cemetery at Khirbat Qazone 1996–1997." *ADAJ* 42 (1998): 611–4.



Fig. 10.2. Aerial view of Khirbet Qazone from the north with Mazra'a in the foreground and the Dead Sea in the background.
(photo: K.D. Politis)

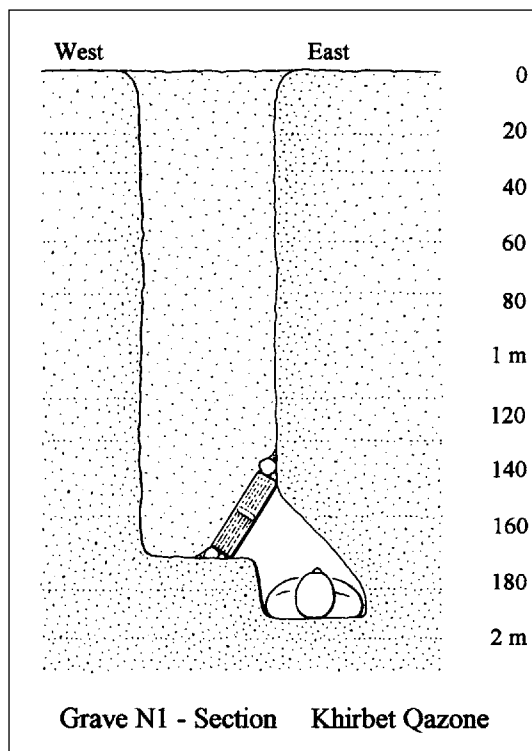


Fig. 10.3. Section of the shaft grave N1 at Khirbet Qazone, which was characteristically undercut to the east and covered by adobe brick slabs. (by J.M. Farrant after C. Pickersgill)

The arid conditions of the soil into which the burial shafts at Khirbet Qazone were cut and the nearly airtight construction of the arcosolium desiccated many of the bodies, resulting in the survival of skin, hair, and even internal organs. Some of these bodies were wrapped in leather and textile material (fig. 10.4). The leather hides were specifically made into shrouds, which were stitched together, decorated, and sometimes painted in red. The textiles, on the other hand, consisted mostly of reused Graeco-Roman-style mantles and tunics. One of the best-preserved bodies from Khirbet Qazone, which was confiscated from an antiquities dealer in 1997, is now at Yarmuk University in Irbid, Jordan.² The “mummy,” as it is erroneously named, is actually the body of an adult male wrapped in the remnants of three or four textile layers, at least one of which has been identified as a Roman-period tunic.

Although local tomb-robbers claimed to have found jewellery, glass vessels, small wooden boxes,

and inscribed papyri in the graves at Khirbet Qazone, only a few of the burials which were legally excavated contained such grave goods. Adornments found include iron bracelets; copper and silver torcs and earrings; gold earrings and bracelets; beads; and a very worn scarab. A wooden staff, a pair of sandals, and a laurel wreath were discovered in the grave of an adult male. All of these objects relate to the late Roman period.

From surface collections made at Khirbet Qazone, more metalwork was found together with pottery and glass fragments belonging to the first to early third centuries C.E. Broken ceramic Nabataean painted bowls, plates, and drinking vessels scattered around the cemetery may be interpreted as remnants of funerary meals, a common Nabataean religious practice.³ Other pottery finds include a spouted filter jug of cream-coloured ware that may be a second-century C.E. Mesopotamian import, as well as several pieces of eastern terra sigillata. No evidence of domestic storage jars was found.

² K.D. Politis, “Rescuing Khirbet Qazone: The Struggle to Save a Unique Nabataean Cemetery,” *Minerva* 13 (2002): 27.

³ J.F. Healey, “Death in the West Semitic Texts: Ugarit

and Nabataea.” In: *Archaeology of Death in the Ancient Near East*. Oxbow Monograph 51 (Edited by S. Campbell and A. Green; Oxford: Oxbow Books), 188–91.



Fig. 10.4. Burial A1 from Khirbet Qazone with textiles wrapped around the body. (photo: T. Springett)

Four “Dushara” *betyls* and/or *nefesh* stelae (fig. 10.5) recovered from looted tombs are similar to ones found at Petra.⁴ Such aniconical depictions of deities are characteristic of the Nabataean religion.⁵ One funerary stele was inscribed in Greek, ΑΥCENΗ Η ΚΑΛΗ [*Afseni*, the pretty girl] (fig. 10.6). The use of the Greek language during the first to third centuries C.E. in Nabataea was not unusual as it was the lingua franca of the eastern Roman Empire. One of two (privately owned) papyri inscribed in Greek, which were found by tomb-robbers at Khirbet Qazone, is signed with a Nabataean name and refers to land-ownership.⁶ No evidence of Aramaic or Hebrew texts or symbols which would indicate the presence of Jews was found at the site.

Perhaps the most exciting finds at Khirbet Qazone were the unusually well preserved textiles, many of which are virtually complete. At least fifty-

seven identifiable textile garments have now been recovered from the site, dating between the first and early third centuries C.E.⁷ Most are characteristic sleeveless Roman tunics with a purple-colored stripe running down the garments from either side of the neck opening or rectangular Greek mantles decorated with four symmetrically-placed colored motifs, usually gamma-shaped. Similar textiles have been found at the Cave of Letters in the Judaean Desert and at Dura Europos on the Euphrates River. Wall paintings in the synagogue at Dura Europos depict such garments, as do the painted portraits of Graeco-Egyptian men and women found at Fayyum in Egypt. As exciting and rare as these finds may be, they do not characterize a specific ethnic group nor can they be attributed to a particular religious affiliation; they simply reflect the popular clothing styles of the period.

⁴ F. Zayadine, “Recent Excavations at Petra (1979–81).” *ADAJ* 26 (1982): 366, pl. CXXI.1.

⁵ J.F. Healey, *The Religion of the Nabataeans: A Conspectus*. Religions in the Graeco-Roman World 136 (Leiden: Brill, 2001), 185–9.

⁶ J. Gasco, “Unités administratives locales et fonctionnaires romaines: Les données des nouveaux papyrus du Moyen Euphrate et d’Arabie: La pétition de Bostra (P. Bostra 1; 29 mai 260).” In: *Lokale Autonomie und römische Ordnungsmacht*

in den kaiserzeitlichen Provinzen vom 1. bis 3. Jahrhundert. Schriften des Historischen Kollegs, Kolloquien 42 (Edited by W. Eck; Munich: Oldenbourg), 61–73.

⁷ H. Granger-Taylor, “The Textiles from Khirbet Qazone (Jordan).” In: *Archéologie des textiles des origines au Ve siècle. Actes du colloque de Lattes, Octobre 1999*. *Instrumentum* 14 (Edited by D. Cardon and M. Feugère (Montagnac: Éditions Monique Mergoil, 2000), 151, pl. 2, figs. 4 and 9.



Fig. 10.5. “Dushara” *betyl/nesesh* stele (reg. no. KQ 2) from Khirbet Qazone. (photo: T. Springett)

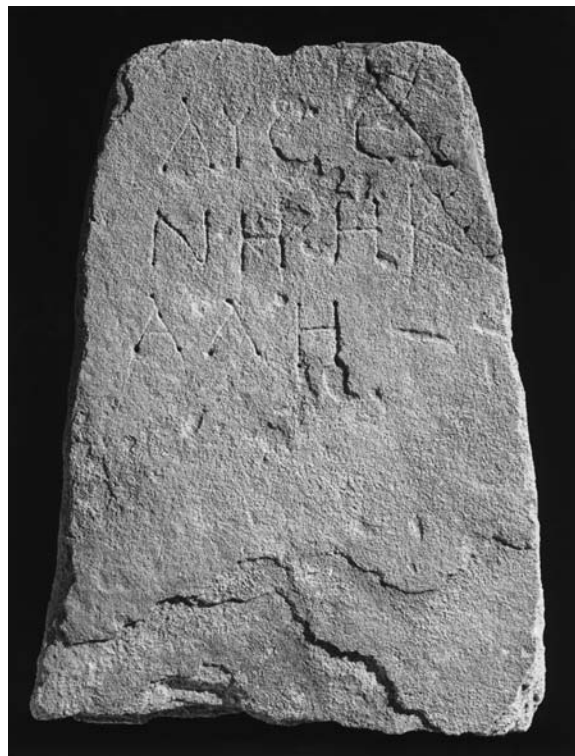


Fig. 10.6. Funerary stele (reg. no. KQ 5) inscribed in Greek from Khirbet Qazone. (photo: T. Springett)

Khirbet Qazone in Context

The importance of Khirbet Qazone is understandable considering its proximity to Masada, which is about 16 km to its west, across the Lisan peninsula. The remnants of the medieval Islamic town of Mazra'a are located immediately to the north of the Khirbet Qazone cemetery, by the Wadi Kerak (figs. 1, 2). Various first to third century C.E. pottery sherds have been found there, which may indicate the location of the Nabatean settlement associated with the cemetery. Further north, at 'Ain Sekine and at Haditha, two more settlement sites with adjacent cemeteries can be found.⁸ These can now be identified as the two communities associated with the harbour of Mahoza/Maoza (Haditha, which lies nearest to the Dead Sea) and Mazra'a (Khirbet Qazone/Mazra'a) in the Zo'ara region, as mentioned in the Babatha papyri from the Cave of Letters.⁹

The ancient writers Diodorus Siculus, Strabo, and Josephus described Nabataean communities as living by the Dead Sea. They flourished by trading in the rich natural resources of the area, such as bitumen, salt, balsam, dates, and sulphur.¹⁰ Considering that there was no ancient road running along the southeastern section of the Dead Sea shore, a port would have been essential for such trade. No port facility (such as that of Callirrhoe/'Ain ez-Zara' on the northeastern shore) has yet been discovered. This is probably because it has been buried by eroding wadi sediments, compounded by the receding Dead Sea shoreline. There is no doubt, though, on the basis of historical sources as well as archaeological finds, that there were close communications across the waters of the Dead Sea by boats during the first to third centuries C.E. The depiction of two such vessels laden with goods on the sixth century mosaic floor-map at Madaba graphically provides good

evidence of this trade link. In this context, the people of Khirbet Qazone would have participated in the greater Dead Sea community, reflecting various common traits and habits.

Khirbet Qazone and Its Relationship to Qumran

The question of Khirbet Qazone's similarity with Qumran is crucial in interpreting the nature of the communities, or community, which lived there. Considering the infamous status of the established and much-studied site of Qumran, it is not surprising that scholars would be keen to fit the new discoveries at Khirbet Qazone into this context.

The controversy focuses on the deep shaft graves with single in arcosolia-sealed burials, once thought to be exclusively characteristic of graves at Qumran.¹¹ This burial type was originally attributed to adult males belonging to the Jewish Essene sect, but recent investigations have revealed a more complicated scenario; some of the skeletons unearthed at Qumran were revealed to be of women and children.¹² Furthermore, the complex at Qumran is more typical of a large Roman-period manor house or farmstead rather than religious buildings or simple dwellings inhabited by ascetic Essenes.¹³ Similar "Qumran-type" burials found at Beit Safafa near Jerusalem have also been attributed to Jews.¹⁴ But, since "most of the graves had no small finds," there was no other evidence to assign ethnicity or a specific religion to them. However, the lack of grave goods cannot be used as negative evidence as only forty-one burials were excavated by archaeologists.

The survey and excavation of Khirbet Qazone has revealed over 3,500 "Qumran-type" burials that are similarly dated, but here the majority belong to ordinary women and children, largely characterised as Nabataean.¹⁵ Similar burials,

⁸ K.D. Politis and H. Granger-Taylor, "Nabataeans on the Dead Sea Littoral." In: *Petra Rediscovered: Lost City of the Nabataean Kingdom* (Edited by G. Markoe; New York: Harry N. Abrams in association with the Cincinnati Art Museum, 2003), 110–12 [111].

⁹ G.W. Bowersock, *Roman Arabia* (Cambridge, Mass.: Harvard University Press, 1983), 76–89.

¹⁰ See Joseph Patrich in this volume; see also J. Zangenberg, "Opening Up Our View: Khirbet Qumran in a Regional Perspective." In: *Religion and Society in Roman Palestine: Old Problems and New Approaches* (Edited by D.R. Edwards; New York and London: Routledge, 2004), 170–87.

¹¹ H. Shanks, "Who Lies Here? Jordan Tombs Match Those at Qumran." *BAR* 25/5 (1999): 130–6; J. Zangenberg, "The 'Final Farewell': A Necessary Paradigm Shift in the Interpretation of the Qumran Cemetery." *QC* 8 (1999): 213–8.

¹² Y. Hirschfeld, "Early Roman Manor Houses in Judaea and the Site of Khirbet Qumran." *JNES* 57 (1998): 161–89.

¹³ Hirschfeld 1998: 187–9.

¹⁴ B. Zissu, "'Qumran Type' Graves in Jerusalem: Archaeological Evidence of an Essene Community?" *DSD* 5 (1998): 158–71.

¹⁵ Politis 1998: 611–4.

opened by tomb robbers, have also been found at the cemetery adjacent to the 'Ain Sekine settlement site (mentioned above) and further south, at Feifa.¹⁶ So, what conclusions can be drawn from the "Qumran-type" burials in general and the site of Qumran in particular?

First, single shaft burials are not only very common at Petra and elsewhere in Nabataea, but can also be found at sites west of the Dead Sea, such as 'Ain el-Ghuweir and Hiam es-Sagha.¹⁷ Second, the variety of burial types in Qumran, as well as at Beit Safafa, argues against one single "Qumran-type" burial at these "Jewish-Essene" sites. Clearly, shaft burials can neither be attributed to any particular ethnic group nor be used to identify a specific religious practice.

What can be more realistically asserted, is the widespread use of deep shaft graves during the first to third centuries C.E. in the Dead Sea area and its environs. There were other cultural affinities between the Dead Sea communities, such as language (Aramaic together with Greek were the lin-

guae francae of the area), dress, architecture, and luxury items. The Babatha archives tell us of the peaceful coexistence between Jews and Nabataeans in the area. Recent archaeological excavations at 'En Gedi and 'Ain Feshkha on the western shores of the Dead Sea have verified historical sources attesting to a thriving balsam industry shared by these two groups.¹⁸ Certainly, trade of this and other commodities would have led to various intercommunal influences, among which, apparently, were shaft burials. Even intermarriage between the two groups at the highest level was acceptable. A good example of this is King Herod the Great, whose father was Jewish and mother was Nabataean.

The question of to whom the shaft burial-type should be attributed is significant in terms of identity. It is not immediately apparent that they belong to Essenes or even Jews, for that matter.¹⁹ In fact, they are not exclusive to any ethnic or religious group. Therefore, shaft burials should be viewed as a feature of the multicultural society prevalent in the Dead Sea area during later Roman Empire.

¹⁶ See Politis and Granger-Taylor 2003, 110.

¹⁷ Shanks 1999: 76; Zissu 1998.

¹⁸ See Yizhar Hirschfeld and Joseph Patrich in this volume.

¹⁹ Zangenberg 1999: 214.

PART IV

REGIONAL ASPECTS OF QUMRAN ARCHAEOLOGY

QUMRAN IN THE SECOND TEMPLE PERIOD—A REASSESSMENT

Yizhar Hirschfeld

Introduction

The Brown University conference devoted to the archaeology of Qumran was held in 2002, some fifty years after the beginning of excavations at the site.¹ During this period, there have been dramatic developments and many innovations in Qumran research. Excavations have been conducted at major sites in the Dead Sea region, such as Masada,² Jericho,³ ‘En Gedi,⁴ ‘En Boqeq,⁵ and smaller sites along the west coast of the Dead Sea, like Rujm el-Bahr, Khirbet Mazin (Qasr el-Yahud), and Qasr el-Turabe,⁶ all of which are contemporary with Qumran and date from the late Hellenistic and early Roman periods (fig. 11.2).

Investigations have also been carried out at two sites on the east coast of the Dead Sea, Callirrhoe (‘Ain ez-Zara)⁷ and Khirbet Qazone,⁸ which served as the main cemetery of the settlements of the Dead Sea’s Lisan Peninsula during this period. In an archaeological survey and the excavations carried out in the early 1990s in the caves of Qumran, the finds included a juglet of the Herodian period that apparently contained remains of *opobalsamon* (balsam), the luxury perfume produced exclusively in the Dead Sea region in antiquity.⁹ Extensive excavations were conducted at Qumran itself

between 1993 and 2004 by Yizhak Magen and Yuval Peleg. The results of the excavations, which yielded abundant finds and are important for the understanding of the site, were recently presented at the Brown conference.¹⁰

In addition to the new archaeological evidence, there have been developments in research on the origin of the scrolls and the identity of Qumran’s inhabitants. Several studies have challenged the general assumption that Qumran was the communal center of the Essenes and the place from which the scrolls derived. Scholars like Karl Heinrich Regenstorf, Norman Golb, and Lena Cansdale have proposed that the scrolls originated not from Qumran but from a library or several libraries in Jerusalem.¹¹

Any attempt to reconstruct the archaeology of Qumran must take into consideration the discovery of the scrolls in the nearby caves. While it is true that most scholars see a connection between the inhabitants of the site and the depositors of the scrolls, the question is, what kind of connection was it? According to Roland de Vaux, the excavator of the site, as well as many other scholars, the depositors were the Essenes, who inhabited the site. In her book on the archaeology of Qumran and the Dead Sea scrolls, Jodi Magness states that,

¹ The first season of excavations at Khirbet Qumran took place in 1951; see G.L. Harding, “Khirbet Qumrân and Wady Murabba’at.” *PEQ* 84 (1952): 104–9; R. de Vaux, “Fouille au Khirbet Qumran: Rapport préliminaire.” *RB* 60 (1953): 83–106.

² Six volumes of the final reports of Masada by various authors have appeared so far under the title: *Masada: The Yigael Yadin Excavations 1963–1964. Final Reports* (Edited by J. Aviram, G. Foerster and E. Netzer; Jerusalem: Israel Exploration Society).

³ E. Netzer, *Hasmonean and Herodian Palaces at Jericho. Final Reports of the 1973–1987 Excavations. Vol. 1: Stratigraphy and Architecture* (Jerusalem: Israel Exploration Society, 2001); E. Netzer, R. Laureys-Chachy and Y. Meshorer, *Hasmonean and Herodian Palaces at Jericho: Final Reports of the 1973–1987 Excavations. Vol. 2: Stratigraphy and Architecture. The Coins* (Jerusalem: Israel Exploration Society, 2004).

⁴ B. Mazar, “En-Gedi.” *NEAEHL* 2: 399–405.

⁵ M. Fischer, M. Gichon, and O. Tal, *‘En Boqeq: Excavations in an Oasis on the Dead Sea. Vol. 2: The officina. An Early Roman*

Building on the Dead Sea Shore (Mainz: Philipp von Zabern, 2000).

⁶ P. Bar-Adon, *Excavations in the Judaean Desert. ‘Atiqot 9* (Jerusalem: Israel Antiquities Authority, 1989) [Hebrew].

⁷ C. Clamer, *Fouilles archéologiques de ‘Ain ez-Zara/Callirrhoe, villégiature hérodienne* (Beirut: IFAPO, 1997).

⁸ K.D. Politis, “Rescue Excavations in the Nabataean Cemetery at Khirbet Qazone 1996–1997.” *ADAJ* 42 (1998): 611–4.

⁹ J. Patrich and B. Arubas, “A Juglet Containing Balsam Oil (?) from a Cave near Qumran.” *IEJ* 39 (1989): 43–59.

¹⁰ See the article by Yizhak Magen and Yuval Peleg in this volume.

¹¹ K.H. Rengstorf, *Hirbet Qumran und die Bibliothek vom Toten Meer* (Stuttgart: W. Kohlhammer, 1960); N. Golb, *Who Wrote the Dead Sea Scrolls? The Search for the Secret of Qumran* (New York: Scribner, 1995); L. Cansdale, *Qumran and the Essenes: A Re-Evaluation of the Evidence. TSAJ 60* (Tübingen: J.C.B. Mohr [Paul Siebeck], 1997); see now also Y. Hirschfeld, *Qumran in Context: Reassessing the Archaeological Evidence* (Peabody: Hendrickson, 2004), 29–48.

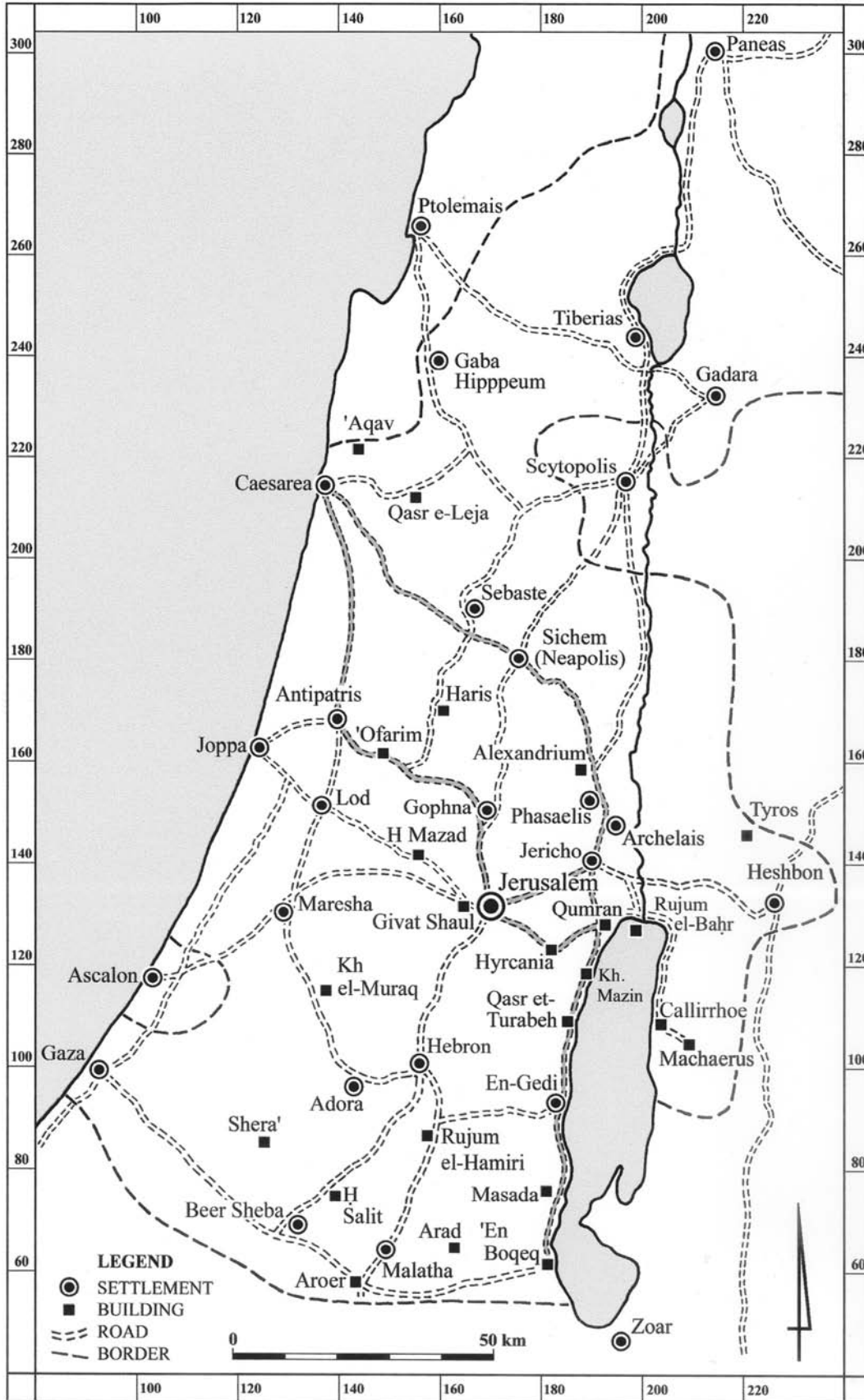


Fig. 11.1. The roads from the Dead Sea region to Caesarea.

“archaeology establishes a connection between the settlement at Qumran and the scrolls in the caves.”¹² Magness returns to de Vaux’s claim that the unique pottery found both at the site and in the caves provides the evidence for this connection. However, recent studies have shown that the pottery of Qumran, including the “scroll jars,” is not unique but typical of late Hellenistic and early Roman sites in the Dead Sea basin.¹³ All one can say on the basis of the pottery, is that during the first half of the first century C.E., there was a connection of some kind between the depositors of the scrolls and the inhabitants of Qumran. One can reasonably assume that, as Jews, the people who lived at the site had an interest in helping to hide the scrolls and offered their aid. Any assumption beyond this is strictly conjectural.

The interpretation of the archaeological finds solely in accordance with the content of the scrolls, without any comparative archaeological study, could trap the scholar within a vicious interpretive circle in which the scrolls explain the finds, and the finds explain the scrolls.¹⁴ To avoid such a circular argument, the interpretation of the site will be studied independently from the contents of the scrolls.

Stratigraphy and Chronology

In 1994, the first volume of a series intended to contain the Qumran excavation final reports, was published.¹⁵ The editors, Jean-Baptiste Humbert

and Alain Chambon, from the *École biblique et archéologique française de Jérusalem*, chose to present in this volume the raw materials of the excavation: plans, photographs of the area, and texts, including de Vaux’s summary on each of the 144 loci that he had excavated at the site.

The publication of the report made it possible, for the first time, to analyze de Vaux’s working methods at Qumran. A careful examination reveals that the excavation was not conducted according to the customary stratigraphic rules. De Vaux gave each architectural space (room, hall, courtyard, or water installation) a separate locus number that, in most cases, remained permanent, even when two or three overlying floor-levels were revealed in the same space.¹⁶ On the few occasions when de Vaux did change the locus numbers, it appears that this was done not on account of the appearance of new habitation levels but because of the great thickness of the debris he sought to remove.¹⁷

The conclusion to be drawn from this, is that the excavation at Qumran was not done according to stratigraphic methods.¹⁸ The basic principle of chronological distinction between archaeological strata according to dated finds (ceramic, vessels, coins, etc.) above and below floor-levels is not expressed in the Qumran excavation. It, thus, emerges that the locus numbers allocated by de Vaux at Qumran are merely inventory numbers for the various architectural spaces and installations that were excavated at the site.

The fact that the Qumran excavation was not conducted according to the usual stratigraphic

¹² J. Magness, *The Archaeology of Qumran and the Dead Sea Scrolls* (Grand Rapids: Eerdmans, 2002), 43.

¹³ See Rachel Bar-Nathan in this volume.

¹⁴ In a brilliant paper, E. Ullmann-Margalit pointed to the vicious circle characterizing de Vaux’s interpretation; E. Ullmann-Margalit, “Writings, Ruins and Their Reading: The Dead Sea Discoveries as a Case Study in Theory Formation and Scientific Interpretation.” *Social Research* 65 (1998): 839–70.

¹⁵ Humbert, J.-B. and A. Chambon (eds.), *Fouilles de Khirbet Qumrân et de Ain Feshka. Vol. 1: Album de photographies. Répertoire du fonds photographiques. Synthèse des notes de chantier du Père Roland de Vaux*. NTOA.SA 1 (Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht, 1994). In 1996 a German edition (*Die Ausgrabungen von Qumran und En Feshcha. Vol. 1A: Die Grabungstagebücher*. NTOA.SA 1A [Translated and supplemented by F. Rohrhirsch and B. Hofmeir; Fribourg: Universitätsverlag Freiburg; Göttingen: Vandenhoeck & Ruprecht, 1996]) and in 2003 an English edition (*The Excavations of Khirbet Qumrân and Ain Feshka. Vol. 1B: Synthesis of Roland de Vaux’s Field Notes*. NTOA.SA 1B [Translated and revised by S.J. Pfann; Fribourg: Universitätsverlag Freiburg; Göttingen:

Vandenhoeck & Ruprecht, 2003]) were published, both containing important additional data.

¹⁶ For example, in the description of loci 1 and 2, de Vaux lists the two floors from bottom to top (see Humbert and Chambon 1994, 291–2). The lower two floors are close to one another; the highest floor is a level of habitation above a layer of destruction caused to the site in 70 C.E.

¹⁷ For example, the changing of the locus numbers within the tower from 8 to 8A and from 9 to 9A was carried out, according to de Vaux, at a level at which the walls became thicker (see Humbert and Chambon 1994, 294–5). At the bottom of the tower rooms (loci 28 and 29), two levels of paving were found (Humbert and Chambon 1994, 302), but this did not lead to a change in the locus numbers.

¹⁸ A similar conclusion was reached by Jean-Baptiste Humbert, de Vaux’s successor in processing the excavation finds. See J.-B. Humbert, “L’espace sacré à Qumrân: propositions pour l’archéologie,” *RB* 101–2 (1994): 109. For the same conclusion, see Magness 2002, although she tends to accept most of de Vaux’s stratigraphical conclusions.

methods, removes the foundation from most of the stratigraphic proposals that de Vaux repeated in various publications.¹⁹ The only points that may be made with certainty are: (1) most of the site's construction existed for about 200 consecutive years, from the second half of the second century B.C.E. until the Great Revolt in 70 C.E.,²⁰ and (2) sometime in the first century B.C.E. the structure underwent modification and expansion. As we shall see, there is no level of violent destruction between these two stages; rather, they are interconnected, a fact attested to by the elevation of the floors at the site. It is reasonable to assume that this last modification occurred some time during the beginning of Herod's reign (37 to 4 B.C.E.), which was a period of prosperity and economic boom in Judaea.

One learns of the existence of two stages at the site of Qumran from an analysis of its plan (fig. 11.6). At the center of the site, stands a square right-angled precinct, with a corner tower. This precinct, which de Vaux called the "main building," most likely belongs to the first building stage, during the Hasmonaean period, while the constructed additions within this building and beyond it belong to the second building stage, during the Herodian period. What are the characteristics of each of the two building stages at the site? The following two parts of this essay are devoted to this question and its implications.

*Qumran during the Hasmonaean Period:
A Fortified Road-Station*

The site of Qumran is located on a plateau of the Lisan formation, 325 m below sea level (fig. 11.3). This location, which is about 90 m above the Dead Sea level as it is today, offers a prominent view in all directions. The British scholar Gourney Masterman, who visited the site in the beginning of the twentieth century, describes it as follows:

The whole of these ruins stands on a commanding position, surrounded on all sides, and especially the south, by steep declivities; at one point at the north-west corner, however, a narrow neck connects it with the plateau to the west. From this site every part of 'Ain Feshkhah oasis and all its approaches can be overlooked; it is, also, a fresher, healthier situation than any spot in the plain below. I found a fresh breeze there when on all the lower ground it was hot and still. The site is just such a one as would have been chosen in, say, Roman times to protect the springs and the road passing through the district to the south, a road which very possibly at such times may have been continued along the shore round Râs el-Feshkhah.²¹

Scholars supporting the Essene-Qumran hypothesis generally point out the isolated location of the site. Thus, for example, in an article published in 1999, Magen Broshi points out that the Dead Sea level in the Second Temple period covered the area to the south of Qumran and prevented any transportation along the western coast further south. He claims that the level of the Dead Sea "has to recede below 400 m below sea level to enable any traffic along the Feshkha cliffs."²² A survey made recently by a professional team, however, has shown that the height of the 'Ain Feshkha plain is 391 m below sea level, much higher than what Broshi claims. Geologists like Amos Frumkin and Revital Kantor have shown that the Dead Sea level during the early Roman period was between 395 and 400 m below sea level,²³ thus, enabling free transportation from Jerusalem to Jericho via Qumran to 'En Gedi, Masada, and 'En Boqeq at the southern end of the Dead Sea. Along the section of the road between Qumran and 'En Gedi, two important sites are located: Khirbet Mazin, which served as a Hasmonaean anchorage for boats transporting goods to Callirrhoe and Machaerus on the eastern coast of the Dead Sea, and Qasr el-Turabe, which was a fort and road-station for the protection of the desert oases of 'Ain el-Turabe and

¹⁹ For a summary of de Vaux's chronological stages, see his entry "Qumran, Khirbet and 'En Feshkha." *NEAEHL* 4: 1235–41.

²⁰ The chronological frame of Qumran in the Second Temple period is established by the rich assemblage of coins found in the site; see E.-M. Laperrousaz, *Qumrân l'établissement essénien des bords de la Mer Mort* (Paris: Éditions A. & J. Picard, 1976), 149–54.

²¹ E.W.G. Masterman, "Observations of the Dead Sea Levels: 'Ain el-Feshkhah, El-Hajar el-Asbah, and Khurbet Kumrân." *PEFQS* 27 (1902): 162.

²² M. Broshi, "Was Qumran a Crossroads?" *RevQ* 19/74 (1999): 273.

²³ A. Frumkin and Y. Elitzur, "The Rise and Fall of the Dead Sea." *BAR* 27/6 (2001): 42–50.

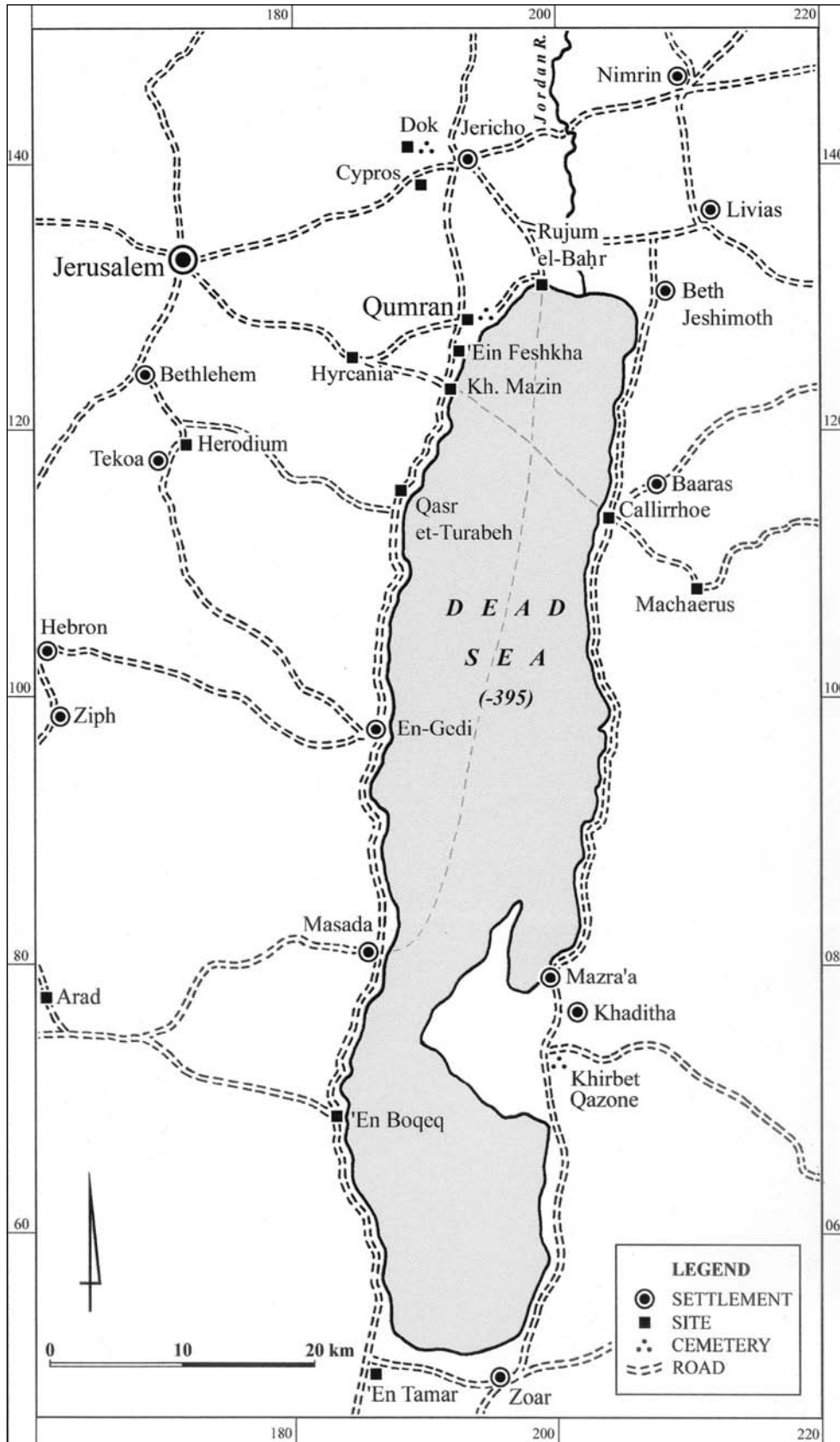


Fig. 11.2. The Dead Sea region in the Second Temple Period.

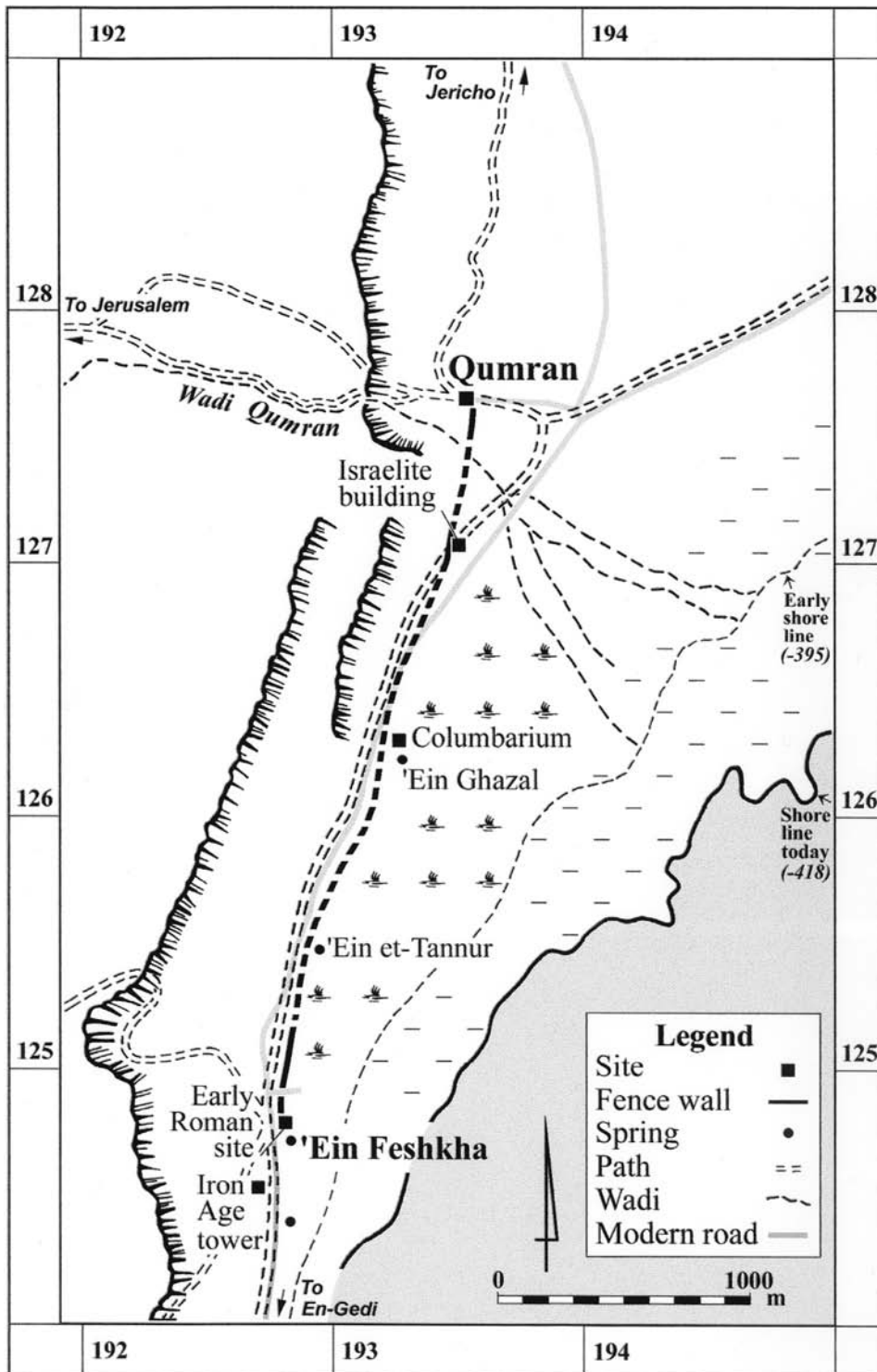


Fig. 11.3. Map showing the remains between 'Ain Feshkha and Qumran.

‘Ain el-Ghuweir.²⁴ It, thus, emerges that Qumran was located at a central crossroad bustling with activity during the Second Temple period.

The most prominent component of the Hasmonaean stage at Qumran is the central building. This building is notable for its straight walls; the walls form a square built around an internal courtyard, which is equipped with a corner tower surrounded by a massive stone glacis.²⁵ This is the best-preserved part of the site; the walls of the tower soar to a height of 4.5 m above the floor, and the walls of the rooms to its east and south attain a height of 2–3.5 m (fig. 11.8).

The exterior walls of the building on the north and west emerge from the northwestern corner of the tower. The northern wall is 37 m long and preserved to a height of 2.1 m. Close to its eastern end, one can discern a seam line separating it from a building addition from the later Herodian phase. The eastern wall extends from this corner for 37 m. According to the data, one can reconstruct the building as a square structure, each side of which measured 37 m (fig. 11.9). The area of the building, including the tower whose walls project outward slightly, is ca. 1,400 m². On the basis of this datum, one may estimate that some 30 people lived permanently at Qumran in the earlier Hasmonaean stage.²⁶

In this early stage, the building’s courtyard was probably large and spacious. Its area was surrounded by residential wings with a uniform width of ca. 10 m. If this assumption is correct, the courtyard measured 17 × 17 m and its overall area was approximately 290 m². The best-preserved

wing is that on the west of the courtyard. Three rooms were revealed there: a vestibule (locus 4) and two smaller rooms (loci 1 and 2) behind it. Preserved in the vestibule close to the front of the wall, is a flight of stairs (1 m wide) that led up to the rooms of a second story and probably also to the first story of the tower (fig. 11.10). It may be assumed that the upper rooms served as living quarters, while those on the ground floor were used for service purposes and for storing produce.

The water supply during the early building stage at Qumran was probably based on two reservoirs: a rectangular one (loci 56 and 58) built below the foundations on the southern wing of the central building, and one that was round in shape (locus 110) and was located c. 15 m west of the central building.

The rectangular reservoir was incorporated in the water system of the Herodian period (see below), but its origins could date back to the Hasmonaean building period. In support of this assumption, one can point to the correlation between the sides of the reservoir and the walls of the central building.

The round cistern, located to the west of the central building, is well preserved; it has a diameter of 5.2 m and a depth of 6.3 m. According to these data, its volume can be estimated at ca. 103 cubic m.²⁷ The walls of the cistern are coated with white hydraulic plaster containing fine stone grits, which is typical of the late Hellenistic period. Similar cistern plaster was found at sites such as Hyrcania and Khirbet Mazin (Qasr el-Yahud), which are dated to the time of the Hasmonaean.²⁸ The cistern lacks steps, and, from this, it follows

²⁴ For the Hasmonaean sites along the western shore of the Dead Sea see P. Bar-Adon, “The Hasmonaean Fortresses and the Status of Khirbet Qumran.” *EI* 15 (1981): 349–52 [Hebrew].

²⁵ Humbert 1994: 170–3 proposed a similar, but not identical reconstruction. He, too, isolates the central building of Qumran, dates it to the Hasmonaean period (Stratum II in his words), and compares its plan to farm buildings from the Second Temple period that were found near the Dead Sea at, e.g., ‘Ain Feshkha and ‘Ain Boqeq. On the basis of these data, Humbert suggests that Hasmonaean Qumran be regarded as the center of an agricultural estate. However, Humbert’s proposed plan disregards the corner tower of the main building and, thus, neglects its fortified character.

²⁶ At settlement sites it is customary to calculate the population according to a factor of 15–25 people per 1,000 m². I have used an average factor number of 20 people per 1,000 m² (20 by 1.4 = 28). For a lower factor of 15 people per 1,000 m², see W.M. Sumner, “Estimating Population by Analogy.” In: *Ethnoarchaeology: Implications of Ethnography for Archaeology* (Edited by C. Kramer; New York: Columbia University Press, 1979), 164–74. For a higher factor of 25

people per 1,000 m², see M. Broshi, “The Population of Western Palestine in the Roman-Byzantine Period.” *BASOR* 236 (1980): 1–10; I. Finkelstein, “A Few Notes on Demographic Data from Recent Generations and Ethnoarchaeology.” *PEQ* 22 (1990): 47–52.

²⁷ On the water supply system of Qumran, see K. Galor, “Plastered Pools: A New Perspective.” In: *Khirbet Qumrân et ‘Ain Feshkha. Vol. 2: Études d’anthropologie, de physique et de chimie. NTOA.SA 3* (Edited by J.-B. Humbert and J. Gunneweg; Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht, 2003), 291–320.

²⁸ On the hydraulic plaster at Hyrcania, see J. Patrich, “The Aqueducts of Hyrcania-Castellion.” In: *The Aqueducts of Israel. JRA.SS 46* (Edited by D. Amit, Y. Patrich and Y. Hirschfeld; Portsmouth: Journal of Roman Archaeology, 2002), 336–52. Bar-Adon 1989, 18–9 dates the site of Kh. Mazin to Iron Age II, but it seems that its main construction took place during the reign of Alexander Jannaeus (103–76 B.C.E.). In a section of the shore opposite the site, I recently found more than a thousand coins of the “anchor-and-star” type, which were minted during the reign of

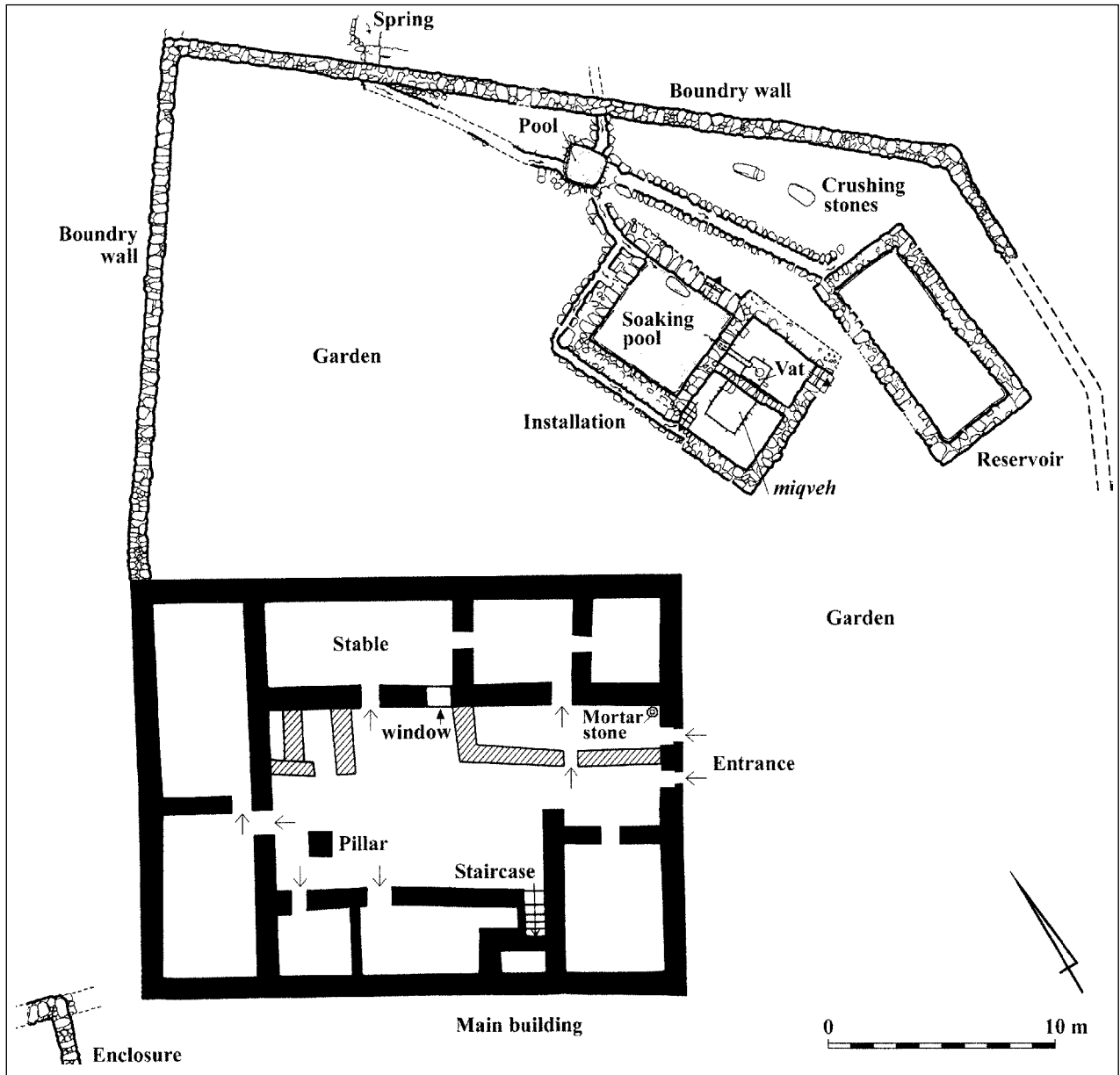


Fig. 11.4. Plan of the farmhouse and industrial installation at 'Ain Feshkha.

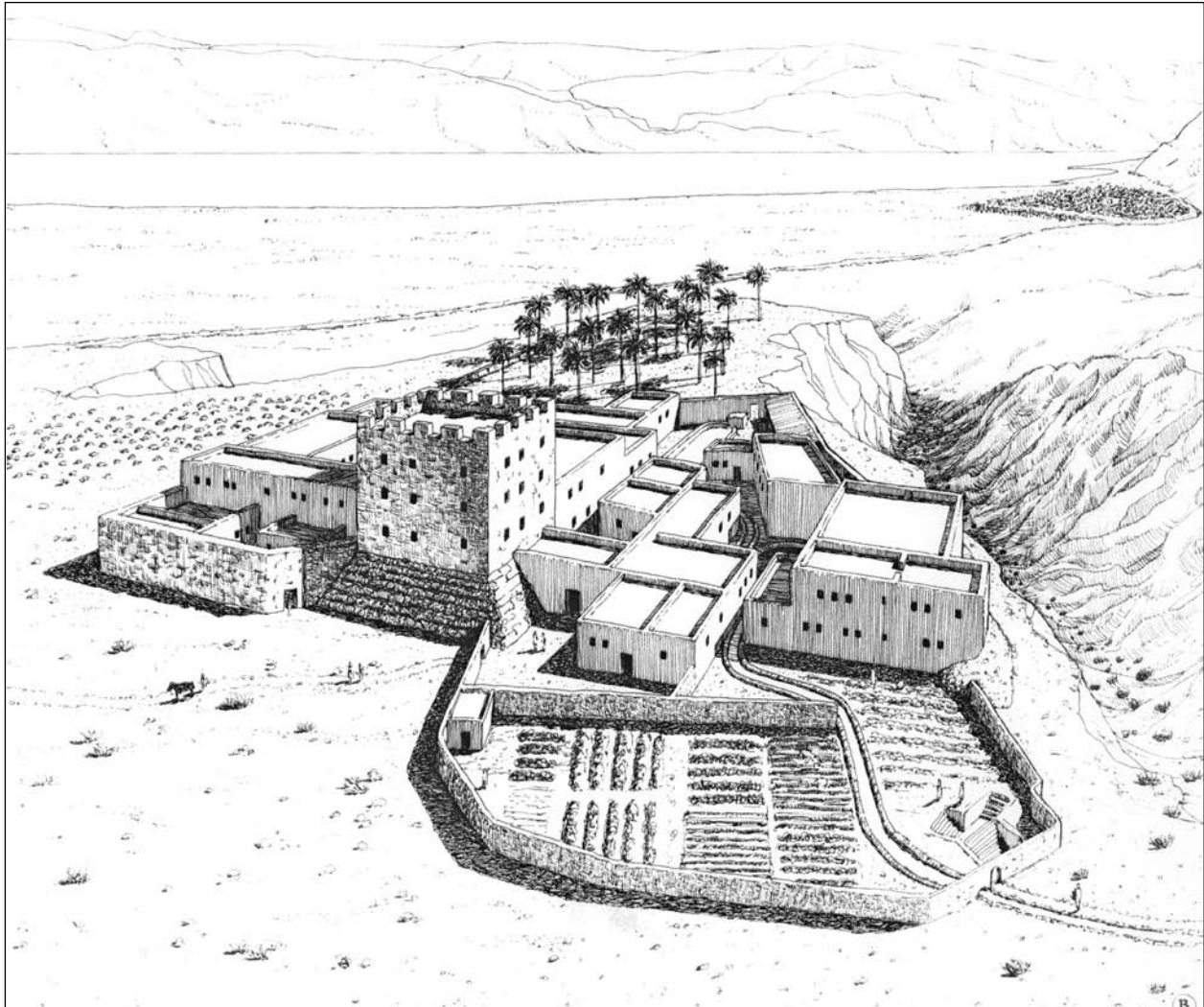


Fig. 11.5. Proposed reconstruction of Qumran during the Herodian Period. (drawn by B. Balogh)

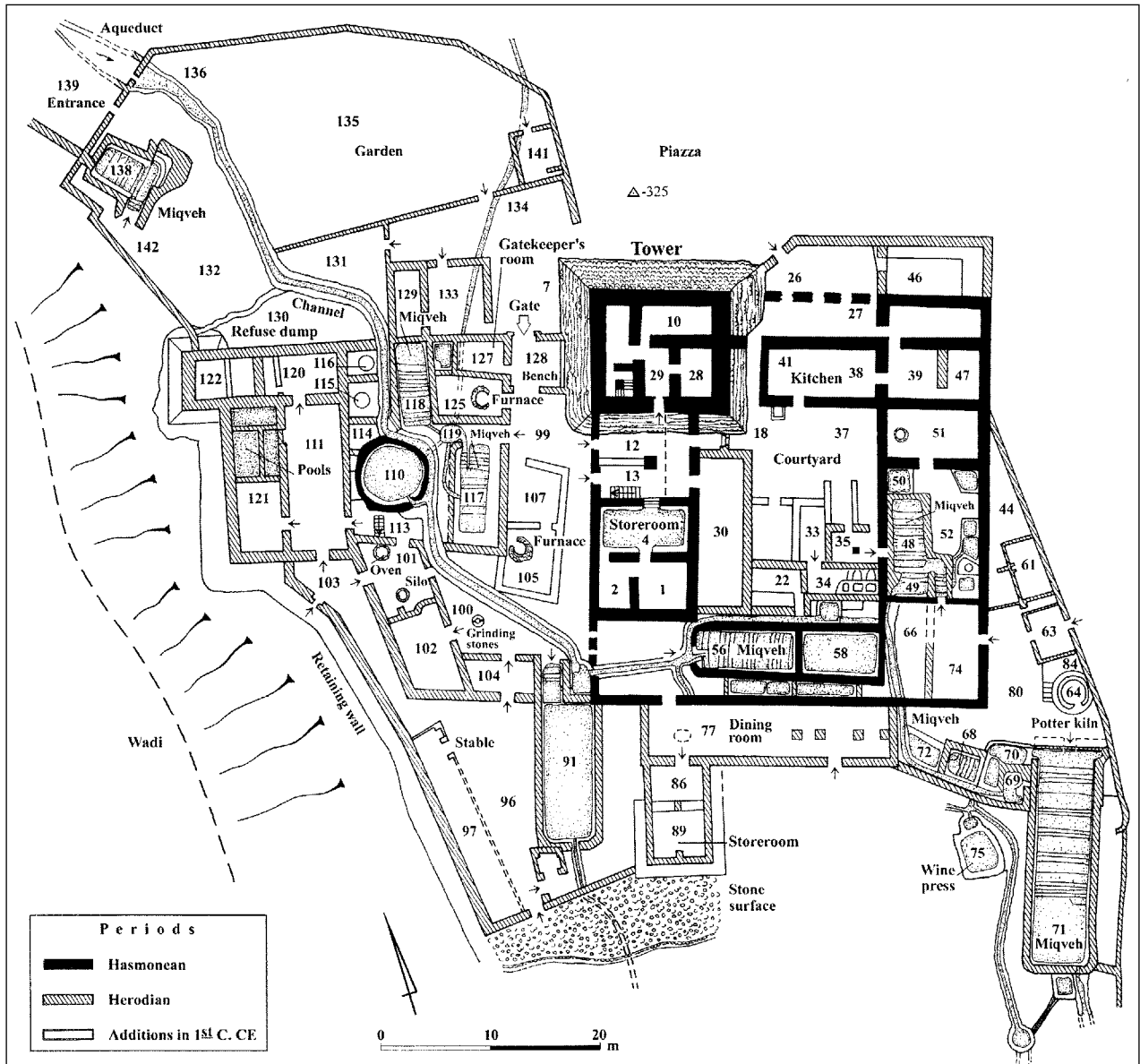


Fig. 11.6. Plan of the remains at Qumran. The first stage is highlighted in black.

that the water was drawn by means of a bucket and rope. The cistern was probably fed by one or more channels that drained runoff from the surface of the nearby area. From the location of the cistern outside the building, we learn that the complex was used not only for military purposes, as one might surmise from its fortifications, but also to meet the needs of travelers and caravans that halted there.

The architectural data at our disposal make it possible to reconstruct Qumran during the Hasmonean period as a fortified, right-angled building equipped with a large, impressive corner tower (fig. 11.11). Analysis of the architectural remains permits the assumption that the building was erected as a fortress. On the basis of the numismatic evidence, one may assign the construction of the fortress building at Qumran to the days of John Hyrcanus I (134–104 B.C.E.). For support of this assumption, one can point to the architectural similarity between Qumran and the palace built by John Hyrcanus to the west of Jericho. The palace building has a square shape and is built around a courtyard surrounded by rooms with a corner tower built of ashlar.²⁹ According to the excavator, Ehud Netzer, the palace was intended to ensure the safety of the king and his cortege. The elevated status of the palace's builder and owner allows the assumption that its structure served as a model not only for the building at Qumran but also for a group of similar fortified structures elsewhere in Judaea.³⁰

The location of Qumran on the summit of a hill ensured control over the road leading from Jerusalem to the southeastern part of the kingdom of Judaea. Its fortified building offered the inhabitants the possibility of defending themselves when the need arose. The lengthy wars of John Hyrcanus I and his son Alexander against the Nabataeans

dictated the fortified, military form of the complex.³¹ Later on, during the reign of Herod the Great, the kingdom attained stability and a long period of economic prosperity ensued, from which the inhabitants of Qumran also benefited.

*Qumran during the Herodian Period:
A Rural Estate Complex*

What I consider to be the main, second stage, in the history of Qumran lasted from Herod's reign (37–4 B.C.E.) until its destruction at the end of the Great Revolt (66–70 C.E.). During the course of its destruction, the building was buried beneath the debris of its upper parts. Thanks to the latter fact, the dry desert climate, and de Vaux's excavations, our knowledge of Qumran in its final form is better than that of other sites of this type. The plan of the site has been revealed in its entirety (general fig. 2). During the excavation, a great wealth of finds—including architectural elements—came to light that may help to identify the site's function and clarify the nature of its inhabitants. Most of the finds in the nearby caves, including the treasure of scrolls hidden on the eve of the destruction of the site during the Jewish Revolt, can be attributed to the late period at Qumran.

The second building stage at Qumran is characterized by extension in almost every direction. The primary additions are noted on the west of the main building (hereafter: the western wing), but others are discernible to the southeast and north of this structure and also within it (fig. 11.6). The late-stage construction at Qumran is characterized by less rigid planning than that of the early stage. This is notable both in the orientation of the walls, which are not exactly parallel or at right angles to one another, and in the adaptation of

Jannaeus. On this, see Y. Hirschfeld, "A Royal Marina on the Dead Sea?" *Eretz: The Geographic Magazine from Israel* 83 (2002): 38–43; 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.

²⁹ On the fortified palace of John Hyrcanus I (the 'Buried Palace') in Jericho, see Netzer 2001: 13–70. On the role of John Hyrcanus I and his building projects in the Dead Sea region, see Bar-Adon 1981: 349–52.

³⁰ Some ten other sites of the "Qumran type" in the Hebron Hills alone are listed in Y. Barouch, "Road Stations in Judea during the Second Temple Period." *Judea and Samaria Research Studies* 6 (1996): 125–36 [Hebrew]. For a review of

other parallels see Y. Hirschfeld, "Early Roman Manor Houses in Judaea and the Site of Khirbet Qumran." *JNES* 57 (1998): 161–89.

³¹ On the conquests of John Hyrcanus in Transjordan, see G. Foerster, "The Conquest of John Hyrcanus I in Moab and the Identification of Samaga-Samoge." *EI* 19 (1981): 353–5. On Alexander Jannaeus and his wars against the Nabataeans, see A. Kasher, "The Wars of Alexander Jannaeus against the Nabataeans." In: *The Hasmonean State: The History of the Hasmoneans during the Hellenistic Period* (Edited by U. Rappaport and I. Ronen; Jerusalem: Yad Izhak Ben-Zvi, 1993), 379–93 [Hebrew].

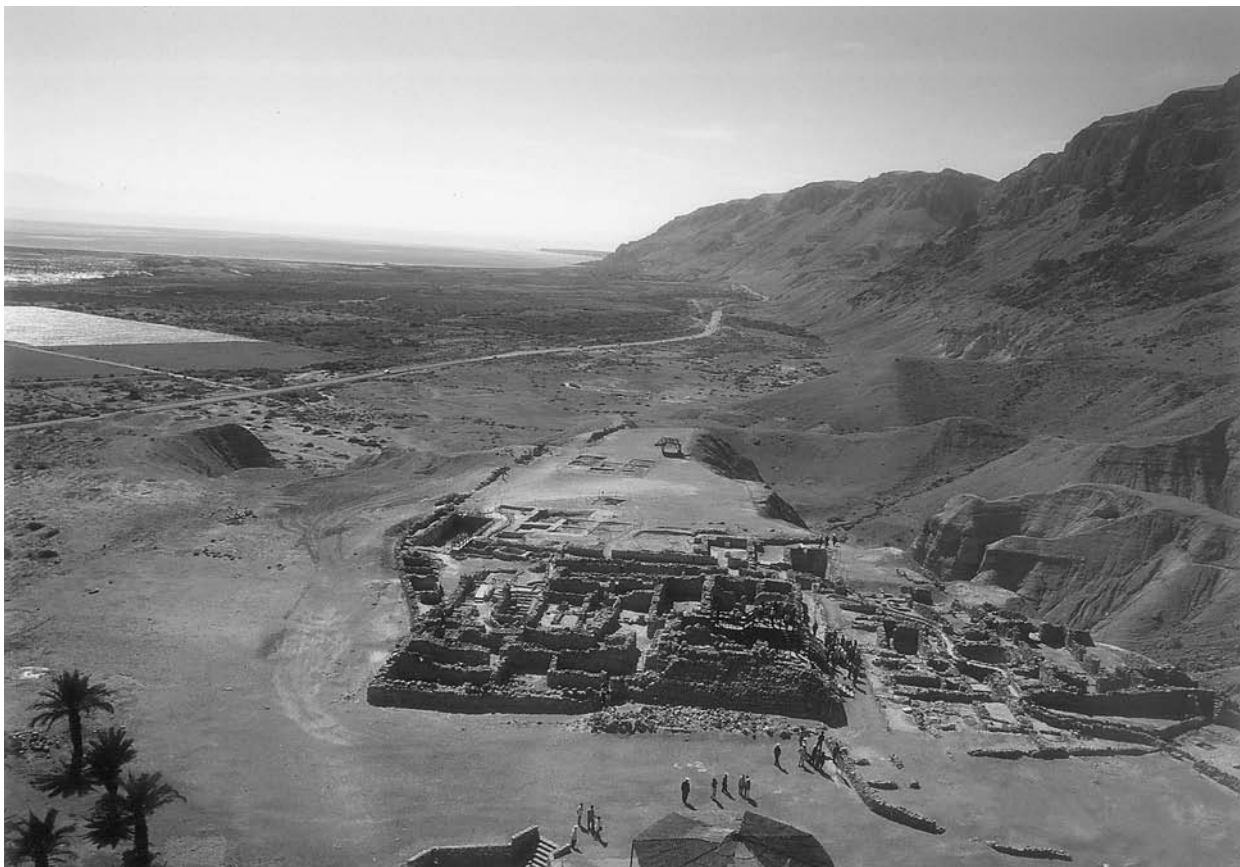


Fig. 11.7. Aerial view of Qumran, looking south.

the constructed additions to the site's topographical infrastructure.

The late-stage construction greatly enlarged the area of the site. Its maximum length, in an east-west direction, reaches ca. 80 m; its width, in a north-south direction, is ca. 60 m; its overall built-up area can be estimated at 4,800 m², i.e., three–four times that of the building from the early stage. From the three stairways found at the site (two in the main building and one in the western wing), it seems that the main living quarters were

in the upper stories of the central building and in the western wing.³² The number of permanent residents at the site can be estimated at around 100 people.³³

De Vaux and many scholars after him assessed that Qumran served as a center for a large population of cave- and tent-dwellers who lived in the vicinity of the site, but no proof of this has been found to date—neither permanent living quarters in the caves nor the existence of encampments.³⁴ Living quarters in caves are by no means

³² On the stairways at Qumran, see R. Donceel, "Qumran." *OEANE* 4 (1997): 392–6.

³³ The area of the Herodian Qumran (4.8 dunams—4,800 m²) per a factor 20 per dunam gives us a population of 96 people; see n. 26 above.

³⁴ In 1996 and 1997, Broshi and Eshel carried out excavations in caves close to Qumran in order to prove that they had served as permanent living quarters for the people of Qumran (see M. Broshi and H. Eshel, "Residential Caves at Qumran." *DSD* 6 [1999]: 328–48). However, as Patrich has shown, in the caves that Broshi and Eshel excavated—as in those that de Vaux excavated—only movable finds (ceramic and stone vessels, wooden poles, etc.) were found,

which are not indicative of permanent living quarters but, at most, of temporary dwellings of shepherds, hermits, or refugees; see J. Patrich, "Khirbet Qumran in Light of New Archaeological Explorations in the Qumran Caves." In: *Methods of Investigation of the Dead Sea Scrolls and the Khirbet Qumran Site: Present Realities and Future Prospects*. ANYAS 722 (Edited by M.O. Wise et al.; New York: Academy of Sciences, 1994), 73–96; id., "Did Extra-Mural Dwelling Quarters Exist at Qumran?" In: *The Dead Sea Scrolls Fifty Years after Their Discovery. Proceedings of the Jerusalem Congress, July 20–25, 1997* (Edited by L.H. Schiffman, E. Tov and J.C. VanderKam; Jerusalem: Israel Exploration Society, 2000), 720–7.

convenient and tent-dwellers usually belong to nomadic populations whose way of life does not accord with the character of the group of people who built and used the site of Qumran. The only place in which an actual complex of living quarters was found, aside from the one in Qumran, was at nearby 'Ain Feshkha.

The water supply system at Qumran may be attributed to the expansion stage. The system consisted of a series of six or seven ritual baths and three water reservoirs, connected to one another by a central channel that drained winter floodwater by means of a conduit originating from nearby Nahal Qumran.³⁵ A calculation of the volume of all the ritual baths and reservoirs (including the round cistern) shows that Qumran may have stored c. 1,200 m³ of water—a considerable quantity—but the site's water supply certainly was not exceptional when compared to the quantities of water stored in the other fortresses in the Judaean desert.³⁶

Scholars supporting the Essene-Qumran hypothesis frequently point to the numerous ritual baths at Qumran as indicative of the exceptional piety of the inhabitants.³⁷ At the time of de Vaux's excavation, the number of ritual baths at Qumran was indeed considered exceptional, but today, after numerous excavations and studies have been carried out at various Second Temple period sites in the country, it seems that their number is large but not exceptional. For example, a complex from the early Roman period was exposed near Shoham

on the coastal plain. Smaller than the one at Qumran, with an area of 2,800 m², it contains four ritual baths of various sizes.³⁸ During his studies in the Hebron Hills, David Amit discovered a few sites with two or three ritual baths as well as huge public ritual baths, which he claims were intended for pilgrims journeying to Jerusalem.³⁹ During the late Hellenistic and early Roman periods, Hyrcania had three ritual baths, Masada at least 15, and the palace complex at Jericho more than 30.⁴⁰ It, thus, emerges that the number of ritual baths at Qumran is not exceptional but close to the customary norm in the houses owned by affluent Judaean Jews at the time.

Some of the most striking features of the Herodian period at Qumran are the numerous industrial installations found throughout the site.⁴¹ The large number of these installations is particularly notable in the western wing. For example, a large, well-preserved oven was uncovered in locus 105 (fig. 11.12). On the oven's plastered rim is still visible the imprint of a large vessel, probably a bronze cauldron that once stood there. Next to it, in locus 125, another oven was found. In addition to the ovens, three uniform-sized pools adjacent to one another have been found in locus 121. The pools are relatively shallow and their walls are only 20 cm thick (fig. 11.13). Thus, it seems, they served as soaking pools, an important step in processing balsam perfume.⁴² For the purpose of marketing their products, the inhabitants of

³⁵ For a description of Qumran's water conduit, see Z. Ilan and D. Amit, "The Aqueduct of Qumran." In: Amit, Patrich and Hirschfeld 2002, 380–6.

³⁶ Hidiroglou points out that the volume of stored water at Qumran was a modest one when compared to the quantities of water stored in the fortresses of the Judaean Desert during the period under discussion (see P. Hidiroglou, "Aqueducts, Basins and Cisterns: The Water Systems of Qumran." *NEA* 63 [2000]: 138–9). On the water systems of the Judaean Desert fortresses, see G. Garbrecht and Y. Peleg, "The Water Supply of the Desert Fortresses in the Jordan Valley." *BA* 57 (1994): 161–70.

³⁷ Thus, for example, Broshi determines that ten ritual baths are located at Qumran and that is "the strongest argument for defining Qumran as a religious site. Nowhere in Palestine [...] do we have such density of these religious installations", see id., "Was Qumran, Indeed, a Monastery? The Consensus and Its Challengers. An Archaeologist's View." In: *Caves of Enlightenment* (Edited by J.H. Charlesworth; North Richland Hills: Bibal, 1998), 19–37 (= *Bread, Wine, Walls and Scrolls*. JSP.SS 36 [Edited by M. Broshi; Sheffield: Sheffield Academic Press, 2001], 259–73). On the other hand, Ronny Reich, on whom Broshi relies, examined and found that the phenomenon of ritual baths at Qumran is close to the customary norm in Jerusalem domiciles at the time (R. Reich,

"Miqva'ot at Khirbet Qumran and the Jerusalem Connection." In: Schiffman, Tov and VanderKam 2000, 730).

³⁸ U. Dahari and U. Ad, "Shoham Bypass Road." *HA* 108 (1998): 79–83 [Hebrew].

³⁹ D. Amit, "Ritual Baths (Mikva'ot) from the Second Temple Period in the Hebron Mountains." *Judea and Samaria Research Studies* 3 (1993): 157–89 [Hebrew].

⁴⁰ At Hyrcania, Patrich (2002, 336–52) surveyed three stepped water installations that he proposes to interpret as ritual baths. This is in addition to some fifteen cisterns and two large pools that were installed on the saddle to the west of the site. In the final report on the stratigraphy and architecture of Masada the remains of at least fifteen different ritual baths are described (E. Netzer, *Masada: The Yagael Yadin Excavations 1963–1965, Final Reports. Vol. 3: The Buildings—Stratigraphy and Architecture* [Edited by J. Aviram, G. Foerster and E. Netzer; Jerusalem: Israel Exploration Society, 1991]). On the ritual baths of Jericho see E. Netzer, "Miqvaot (Ritual Baths) of the Second Temple Period at Jericho." *Qad* 11/42–43 (1978): 54–9 [Hebrew].

⁴¹ On the industrial installations at Qumran, see R. Donceel and P. Donceel-Voûte, "The Archaeology of Khirbet Qumran." In: Wise et al., 1994, 25–77.

⁴² P. Donceel-Voûte, "Traces of Fragrance Along the Dead Sea." *Res Orientales* 11 (1998): 93–117.

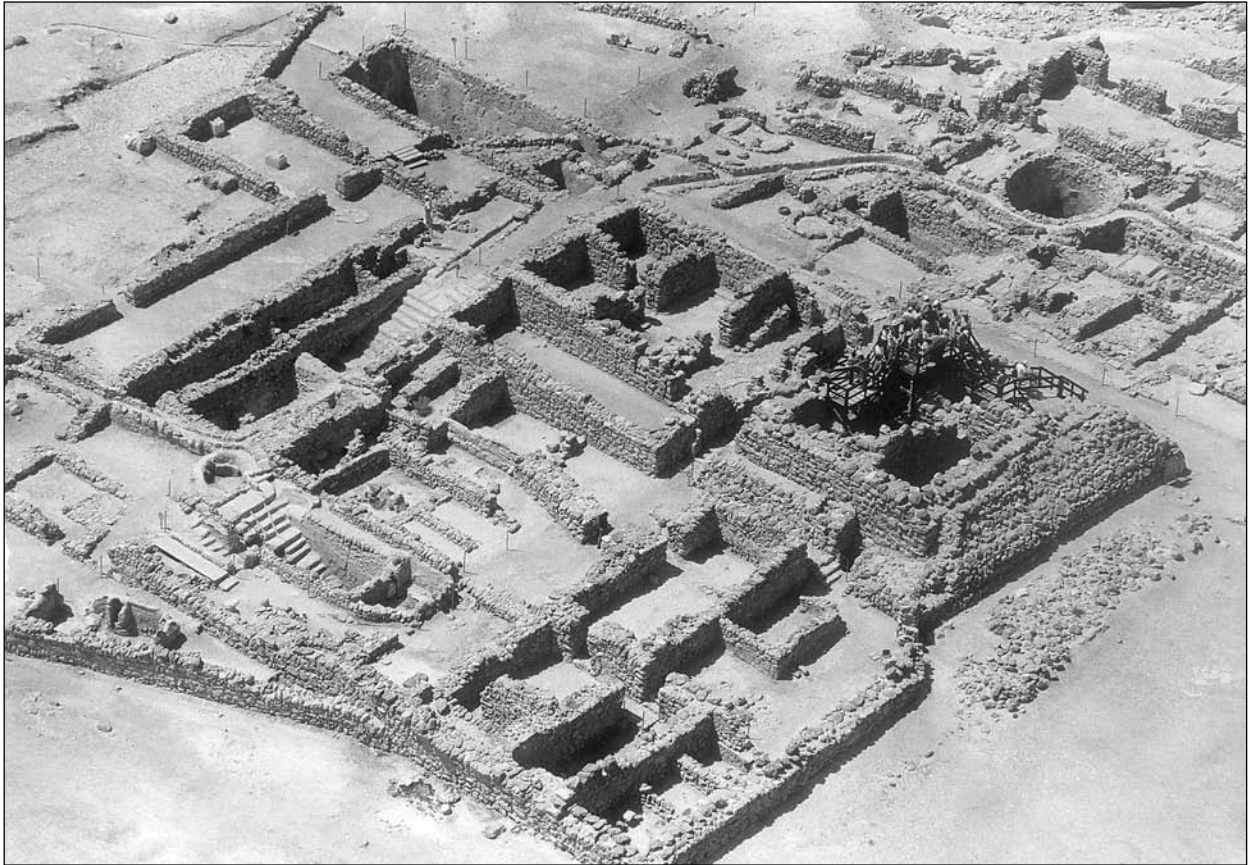


Fig. 11.8. The main building at Qumran, looking southwest.

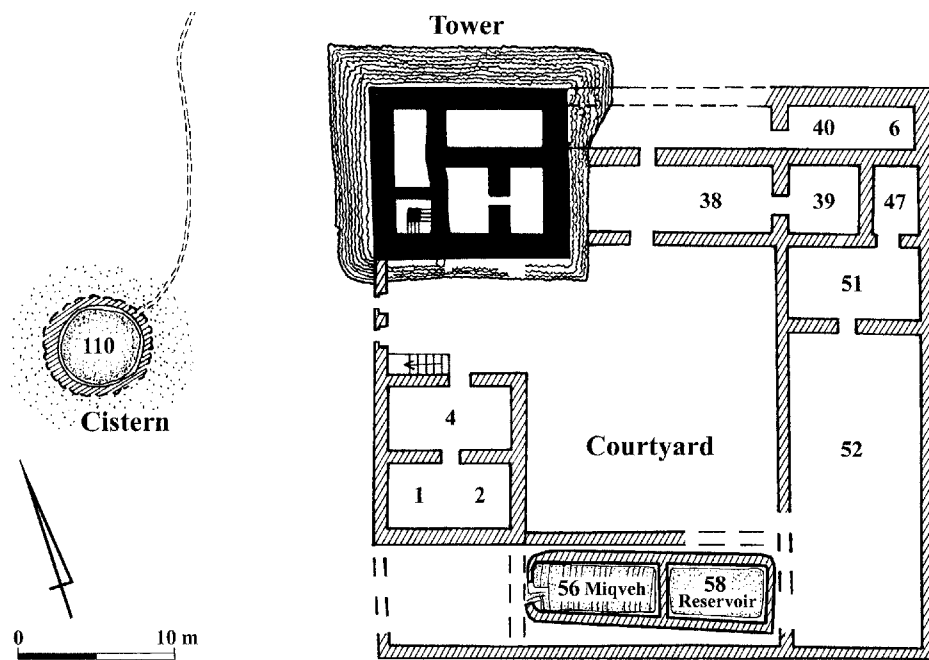


Fig. 11.9. Plan of Qumran in the Hasmonaean Period.

Qumran installed a stable in a long, narrow building on the southwestern side of the site.

From the numerous industrial installations at Qumran, one learns that at least in its Herodian stage of existence, the main occupation of the inhabitants was agricultural. Lending support to the assumption, are the remains of irrigation systems and cultivated plots which were found in the elevated area on which Qumran lies, and in the estate of 'Ain Feshkha, located 3 km to the south.

In my excavation in April, 2001 at the site of 'Ain Feshkha, I was able to date the complex exposed by de Vaux to the time of Herod the Great.⁴³ 'Ain Feshkha and Qumran were linked in this period by a long boundary wall, the remains of which are still preserved. This wall bounded the area of a large agricultural estate irrigated by three water sources: 'Ain Ghazal, 'Ain el-Tannur, and 'Ain Feshkha (fig. 11.3). The present drop in the level of the Dead Sea has led to a much greater salinity in these springs. However, as hydrologist Emmanuel Mazor has shown in several articles, even fifty years ago, when the Dead Sea's surface was 395 m below sea level, the springs afforded fresh water for every kind of agriculture.⁴⁴ A survey done by Yosef Porat in 1998 in the area north of 'Ain Ghazal revealed remains of irrigation channels and cultivated plots from the early Roman period.⁴⁵

The farmhouse de Vaux uncovered to the north of 'Ain Feshkha is fairly large (430 m²) and built around an inner courtyard, with an entrance on its eastern side and a two-storied wing on its western side (fig. 11.4). Next to it, he uncovered a fully preserved industrial installation, which was intended for the production of perfume essence created from balsam groves and date palm honey

(the two famous products of the Dead Sea Valley mentioned by Flavius Josephus, Pliny the Elder, Strabo, and other writers).

Figure 11.5 presents a proposed reconstruction of the enlarged Qumran complex during the Herodian period. At its center, stood the central building with its tower rising to a height of 3–4 stories, and around it were various wings that served residential and agricultural functions. From an analysis of the remains, we learn that the construction was non-military in character, and, hence, it follows that the complex served as the center of a rural estate similar to contemporary sites recently discovered in Judaea.⁴⁶

Summary

The archaeological picture that emerges from the Qumran excavations does not accord well with the description of the Essenes as a “solitary tribe which has no women, no money, and has only palm trees for company,” as Pliny the Elder described them.⁴⁷ The Herodian complex revealed a large, well-built structure extending over an area of 4,800 m². The various finds are indicative of the wealth of those who owned Qumran. From the various industrial installations found at the site—such as ovens and soaking pools—and the industrial installation revealed at nearby 'Ain Feshkha, we learn that the main occupation of the inhabitants of Qumran was the production of date-palm honey and balsam perfume.

The location of Qumran on a crossroad descending from Jerusalem and Jericho to 'En Gedi is recognized as an important asset. The demand for perfumes in the western markets of the Empire

⁴³ Y. Hirschfeld, “Excavations at 'En Feshkha, 2001: Final Report.” *IEJ* 54 (2004): 37–74.

⁴⁴ E. Mazor and M. Molcho, “Geochemical Studies on the Feshkha Springs, Dead Sea Basin.” *Journal of Hydrology* 15 (1972): 37–47; E. Mazor, “Groundwaters along the Western Dead Sea Shore.” In: *The Dead Sea: The Lake and Its Setting* (Edited by T.M. Niemi, Z. Ben-Avraham and G.R. Gat) (New York: Oxford University Press, 1997), 267–75.

⁴⁵ Y. Porat, “Horvat Qumran.” *ESI* 18 (1998): 84.

⁴⁶ See n. 30 above.

⁴⁷ Pliny, *Nat. Hist.* V:73 (LCL, 277). This is the only source that places the Essenes in the Dead Sea area. Pliny first describes Callirrhoe to the east of the Dead Sea and then describes the Essenes on the western shore, mentioning that 'En Gedi is located below the place of their settlement (in Latin: *infra hos*). F.-M. Abel had no doubts with regard to

the location of the Essenes in the area of 'En Gedi; see F.-M. Abel, *Géographie de la Palestine. Vol. 2* (Paris: Lecoffre, 1938), 316–7. Only later, following the discovery of the scrolls and the excavations at Qumran, did the possibility that the Essenes dwelled in the Qumran area come into consideration, despite the fact that this contradicts the text of the source. Menahem Stern has suggested that the Essenes lived in various places along the western shore of the Dead Sea, and this is in accord with the archaeological finds; see M. Stern, *Greek and Latin Authors on Jews and Judaism. 3 Volumes* (Jerusalem: Israel Academy of Sciences and Humanities, 1974–84), 1:481. On the possible archaeological remains of sites in which the Essenes and other hermits lived in the Dead Sea area, see Y. Hirschfeld, “A Settlement of Hermits above 'En Gedi.” *TA* 27 (2000): 103–55.



Fig. 11.10. The west wing of the main building, looking south. Note the stairway built to the right of the entrance doorway.

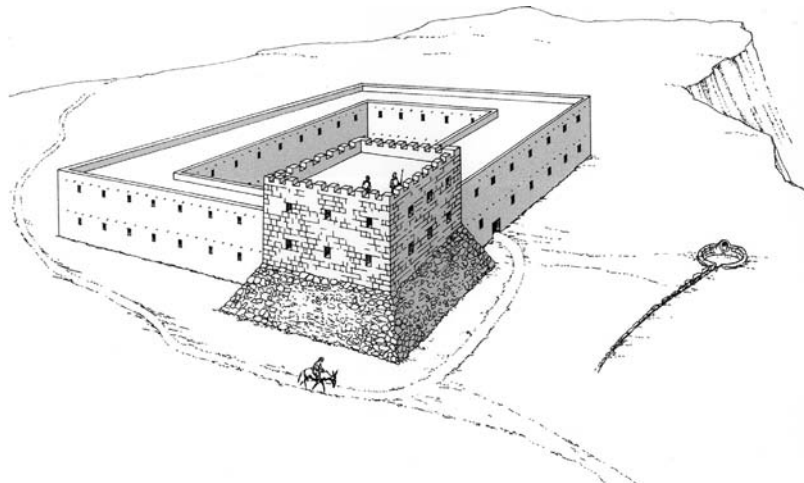


Fig. 11.11. Proposed reconstruction of the Hasmonaean stage at Qumran. (drawn by Shlomo Rotem)



Fig. 11.12. Industrial oven in the western wing of Qumran, looking west.



Fig. 11.13. Shallow pools in the western wing of Qumran, looking north.

and, especially, in Rome was enormous, and Herod understood the economic value of this industry as well. To this end, he established a new and sophisticated port in Caesarea and prepared two roadways from the Dead Sea area to Caesarea—one through Jerusalem and Antipatris and the other through Phasaelis and Sebaste (fig. 11.1). The perfume roads gave Herod control of both the means of production in places such as Jericho, Qumran, 'En Gedi, and 'En Boqeq, and in the mode of marketing. This, together with Herod's control over the final segments of the Nabataean trade routes, enriched the kingdom and enabled the king to execute his ambitious building projects.

The owner of Qumran and 'Ain Feshkha (including the plantations) was probably a member of the ruling class in Jerusalem, either a relative or a friend of the king himself, who enjoyed the pros-

perity that the kingdom of Judaea offered during the reign of Herod the Great.

Like scholars who disagree with the accepted interpretation of Qumran, I am of the opinion that: (a) the scrolls were brought for concealment in the nearby caves from some public library, probably located in Jerusalem (i.e., they do not represent a remote desert sect but one of the socio-religious factions characteristic of Judaism in the Second Temple Period); (b) the inhabitants of Qumran may have rendered assistance in concealing the scrolls, but it is doubtful whether they should, in fact, be identified as the writers of the scrolls; (c) a comparison of the archaeological finds at Qumran with those at other sites in Judaea reveals that the owners were certainly not ascetic but, on the contrary, affluent people, probably belonging to the ruling class in Judaea at that time.

CHAPTER TWELVE

AGRICULTURAL DEVELOPMENT IN ANTIQUITY:
IMPROVEMENTS IN THE CULTIVATION AND PRODUCTION OF BALSAM*

Joseph Patrich

Balsam sap (*opobalsamum* / ὀποβάλασαμον), a viscous liquid,¹ was produced from a plant that grew only in Judaea and nowhere else throughout the Graeco-Roman world. According to Josephus Flavius,² it was the choicest of perfumes, and according to Pliny the Elder (d. 79 C.E.), it was the best material for fragrance.³ Balsam sap was a fragrant ointment, produced directly from the plant, with no need to treat it by using an essential oil as a solvent for the odoriferous ingredient, which is the way most other perfumes were produced.⁴ This perfume, which was also of medicinal value, was in high demand throughout the Graeco-Roman world – hence its great economic

importance. In every period, the rulers of the country kept balsam plantations as their private property, seeking to preserve this important source of income for themselves.

The sources that discuss balsam (*balsamum* / βάλασαμον) are many and varied,⁵ beginning with Theophrastus in the fourth century B.C.E.⁶ Diodorus Siculus followed him,⁷ and then Strabo of Amaseia⁸ in the first century B.C.E. Following them were Pompeius Trogus,⁹ Dioscurides,¹⁰ Pliny the Elder,¹¹ Josephus Flavius,¹² and Tacitus¹³—all of the first century C.E. In the second century there was Galen,¹⁴ in the third century there was Solinus,¹⁵ and finally we have Eusebius¹⁶ and Jerome,¹⁷ from

* My interest in this topic was aroused while preparing for publication the results of the archaeological excavations of Cave 13 near Qumran (see n. 1 below), which entailed detailed examination of the literary sources touching on the subject. In reading the Greek and Latin sources, I was assisted by Leah Di Segni, to whom I am very grateful. The main points of this paper were presented in a lecture at a conference dealing with rural life in Palestine in late antiquity, held at Bar-Ilan University on 17 May 1989. The present article is a translation from the Hebrew, by Jeffrey Green, of: "Agricultural Development in Antiquity: Improvement in the Growing and Manufacturing of Balsam," in: *Hikrei Eretz. Studies in the History of the Land of Israel: Dedicated to Prof. Yehuda Feliks* (Edited by Y. Friedman, Z. Safrai, and J. Schwartz. Ramat Gan: Bar-Ilan University), 139–48 [Hebrew]. References to more recent major publications pertaining to the topic are incorporated.

¹ J. Patrich and B. Arubas, "A Juglet Containing Balsam Oil (?) From a Cave near Qumran," *IEJ* 39 (1989): 43–59.

² *Ant.* 14:54.

³ Pliny, *Nat. Hist.* XII.111.

⁴ See for example M. Billot and F.V. Wells, *Perfumery: Technology, Art, Science, Industry*. Chichester: Ellis Horwood, 1975; P. Faure, *Parfums et aromates de l'antiquité*. Paris: Fayard, 1987; R.J. Forbes, *Studies in Ancient Technology. Vol. 3: Cosmetics, Perfume and Food*. Leiden: Brill, 1965, 1–49; Ch. Singer, E.J. Holmyard and A.R. Hall, *A History of Technology. Vol. 1: From Early Times to Fall of Ancient Empires*. Oxford: Clarendon Press, 1956, 260–1, 285–92; P. Donceel-Voûte, "Traces of Fragrance along the Dead Sea," *Res Orientales* 11 (1998), 93–117; on the production of perfume and other agricultural products in the Dead Sea region see also M. Gichon, "Industry." In: M. Fischer, M. Gichon and O. Tal, *En Boqeq – Excavations*

in an Oasis on the Dead Sea. II: The officina. An Early Roman Building on the Dead Sea Shore. Mainz: Philipp von Zabern, 2000: 93–126.

⁵ Most sources are to be found in: M. Stern, *Greek and Latin Authors on Jews and Judaism. Vol. 1 and 2*. Jerusalem: Israel Academy of Sciences and Humanities, 1974 and 1980. For a survey based on the Greek and Latin sources see P. Wagler, "Balsambaum". *PRE* I.4 (1896), cols. 2836–9. See also E. Schürer, *The History of the Jewish People in the Age of Jesus Christ (175 B.C.–A.D. 135)* (Edited by G. Vermes, F. Millar, M. Goodman and M. Black). Vol. 1. Edinburgh: T & T Clark, 1973, 298–300, n. 36.

⁶ Theophrastus, *Historia Plantarum* IX, 6.1–4 (see Stern, no. 9).

⁷ Diodorus Siculus, *Bibliotheca Historica* II.48.9 (see Stern, no. 59).

⁸ Strabo of Amaseia, *Geographica* XVI.2.41 (see Stern, no. 115).

⁹ Pompeius Trogus, *apud Iustinus, Historia Philippicae*, Libri XXXVI Epitoma, 3.1 (see Stern, no. 137).

¹⁰ Pedanius Dioscurides, *De Materia Medica* I.19.1–2 (see Stern, no. 179).

¹¹ Pliny, *Nat. Hist.* XII.111–23.

¹² *Ant.* 4:100; 8:174; 9:7; 14:54; 15:96; *J.W.* 1:138; 1:361; 4:469.

¹³ Tacitus, *Historiae* V.6.1 (see Stern, no. 218).

¹⁴ Galen, *De Antidotis* I.4 (see Stern, no. 391).

¹⁵ Solinus, *Collectanea* 35.5.5–6 (see Stern, no. 449).

¹⁶ Eusebius, *Onomastikon* (*GCS* 11.1, ed. E. Klostermann, Leipzig: Hinrichs, 1904), p. 86.

¹⁷ Hieronymus, *Commentarii in Hiezechielem*, XXXII: 17 (*PL* XXV, col. 256 = *CCSL* LXXV, p. 371); idem, *Epistula 108 ad Eustochium* 11 (*CSEL* 55, 11.5).

the early and late fourth century respectively. Important information can also be found in rabbinical literature, especially the Jerusalem and Babylonian Talmud.¹⁸ The most important of these sources, which describe the appearance of the plant, the manner in which its products are produced, and its uses, are Theophrastus, Dioscurides, and Pliny. The latter also presents interesting information about innovations recently introduced in the cultivation of balsam groves.

The Places of Cultivation

According to Theophrastus, the *balsamon* grew in only two plantations in a valley of Syria. The area of one of these was twenty *plethra* (πλέθρα),¹⁹ and the second was much smaller. According to Diodorus Siculus, this plant was cultivated only in a certain valley in Judaea. Strabo was the first to speak specifically of Jericho, as does Pompeius Trogus.²⁰ Josephus Flavius was the first to mention

explicitly an additional plantation in 'En Gedi.²¹ The view prevalent among scholars is that the larger of the two plantations of which Theophrastus speaks was in Jericho, and the smaller one was in 'En Gedi. Theophrastus' testimony reflects the reality of the end of the Persian period and the early Hellenistic period.²²

During the Persian period, the Jericho district, rich in palm and balsam groves, was already a royal possession, as it continued to be in the following periods.²³ Against this background, it is easier to understand the visit of Zenon and his retinue there in 259 B.C.E., on behalf of Apollonius, the treasurer of Ptolemy II (Philadelphus).²⁴ The site of Hellenistic Jericho has not yet been discovered. The results of the excavations show clearly that it was not Tell es-Sultan, the site of biblical Jericho, nor was it Tulul Abu Alaiq, where the palaces of the Hasmoneans and of Herod were later built. John Hyrcanus I (134–104 B.C.E.) established a royal plantation on an area of about 450 dunams adjacent to his palace.²⁵ Thus, this was clearly not

¹⁸ S. Krauss, *Talmudische Archäologie*, Leipzig: Fock, 1910, 234–5 and 686–90; I. Löw, *Die Flora der Juden* I, Wien, 1924 (reprinted 1967), 299–304; S. Lieberman, "A Preliminary Remark on the Inscription of 'En Gedi," *Tarbiz* 40 (1971), 24–6 (Hebrew).

¹⁹ Theophrastus, *Historia Plantarum* IX, 6.1. This Greek unit of area, whose name means "yoke of oxen", equalling one hundred by one hundred feet, or 10,000 square feet. See N.G.L. Hammond and H.H. Scullard (eds.), *The Oxford Classical Dictionary*², Oxford, 1970, 659. The "foot" is ca. 30 cm long, and thus, this comes to about 900 square meters. The area of the larger plantation was thus eighteen dunams. Strabo, *Geographica* XVII.1.15 states that the Jews intentionally reduced the area of balsam (and date) orchards, to raise their price.

²⁰ He gives the name of the place as Aricus and speaks of a valley whose area was 200 *jugera*, where dates and *balsamon* grow. If there is no contradiction or error here in relation to the words of Theophrastus or Pliny, *Nat. Hist.* XII.111—where he apparently draws from Theophrastus), then the ratio of the area of the date grove to that of the *balsamon* was 10:1. *Jugerum* refers to an area of about 2.6 dunams. Thus, according to this source, the area of the valley was 520 dunams. This is about the same as the area of the royal farm attached to the palaces of the Hasmoneans and of Herod (see below, n. 25). According to Josephus Flavius, the irrigated area in the Jericho Valley was over 48,000 dunams, see n. 28 below.

²¹ *Ant.* 9:7.

²² On the settlement in Jericho in the Persian period and its destruction at the end of that period see E. Stern, *Material Culture of the Land of the Bible in the Persian Period 538–332 B.C.* Warminster: Aris & Phillips, 1982, 38. See also D. Barag, "The Effects of the Tennes Rebellion on Palestine." *BASOR* 183 (1966): 11 and N. Avigad, *Bullae and Seals from a Post-Exilic Judaean Archive*. Qedem 4. Jerusalem: Institute of Archaeology, Hebrew University, 19–20. On the settlement in 'En Gedi during that period (Stratum IV) and its destruction see Stern 1982, 38–39; B. Mazar, T. Dothan, I. Dunayewski, *'En Gedi. Archaeological*

Excavations 1961–1962. Jerusalem: Israel Exploration Society, 1963, 59–60 (Hebrew); B. Mazar, *Excavations and Discoveries*, Jerusalem: Bialik and Israel Exploration Society, 1986, 86–8 (Hebrew); id., "'En Gedi." *NEAEHL* 2:399–405. The Roman-Byzantine settlement has been under excavation by Y. Hirschfeld in recent years, on behalf of the Hebrew University of Jerusalem. The final report is under preparation. For the agricultural remains in the oasis and beyond see: G. Hadas, "Irrigation Agriculture in the Oasis of 'En Gedi and Its Parallels in the Oases around the Dead Sea in the Roman-Byzantine Period." Ph.D. Dissertation, The Hebrew University of Jerusalem, 2002 (Hebrew). According to Pliny, *Nat. Hist.* XII.117, the plantations existed when Alexander the Great encamped in Palestine. There is no doubt that the words of Theophrastus reflect the reality of the end of the Persian period, see Z. Safrai, *Borders and Rule in Eretz Israel in the Period of the Mishnah and the Talmud*, Tel Aviv: Hakibbutz Hameuchad, 1980, 67 (Hebrew); G. Hölscher, *Palästina in der persischen und hellenistischen Zeit, Eine historisch-geographische Untersuchung*. Berlin: Weidmann, 1903, 49.

²³ Safrai 1980; M. Avi-Yonah, *Historical Geography of Palestine*³, Jerusalem: Bialik, 1963, 119 (Hebrew). Also see Pliny, *Nat. Hist.* XII.111 and below n. 29 and 30. See also J. Schwartz, "On Priests and Jericho in the Second Temple Period." *JQR* 79 (1988): 26–7.

²⁴ Jericho is mentioned in Papyrus Zenon PCZ 59004, which contains a list of places in Palestine along with the amount of wheat that was purchased in each of them. Balsam is not mentioned in it, but the importance of the place is clear for the establishment of commerce between Egypt and Syria. See V.A. Tcherikover, *The Jews in the Graeco-Roman World*. Jerusalem: Dvir, 1963, 62–5 (Hebrew).

²⁵ E. Netzer and G. Garbrecht, "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.SS 46. Portsmouth: Journal of Roman Archaeology, 2002, 366–79.

the location of the plantation of which Theophrastus spoke at the end of the fourth century B.C.E. That plantation, which demanded regular irrigation, was probably located near the perennial stream of 'Ain es-Sultan (Elisha Spring).²⁶ The Hasmoneans, who were the first to develop a sophisticated system of irrigation in the Jericho valley, expanded the area of the groves and established a new plantation near their palace. It seems likely that they grew balsam here, and it is possible that Strabo was referring to the new plantation, for he mentions it along with the palace of the king in Jericho.²⁷ However, it is likely that in one manner or another, not only did the farm under discussion, which was largely devoted to the cultivation of dates, belong to the crown, but most of the irrigated area of the Jericho valley.²⁸ This category doubtless includes the balsam plantation of the early Hellenistic period.²⁹ Anthony confiscated these areas from Herod's control, and, under pressure from Cleopatra, he transferred them to her in 34 B.C.E. She then leased them

to Herod for an annual income of 200 talents. Only after her death in 30 B.C.E. did Octavian restore the area to Herod's control, and from him it passed to his son Archelaus.³⁰

In Pliny's day, the plantations in Jericho were in the possession of the Roman treasury (*fiscus*),³¹ and this was apparently also the case during the Temple period, at the time of the Roman procurators in Judaea.³² Pliny recounts that in his time the plantations expanded and covered all the ridges of the hills.³³ This expansion is also reflected in an early *baraita*, which speaks about the balsam plantations from 'En Gedi to Ramata.³⁴ The balsam plantations in 'En Gedi also passed into the possession of the Roman *fiscus* after the destruction of the Temple.³⁵ A bath installed at 'En Gedi in that period³⁶ probably served the Roman administration. In erecting this structure, splendid Herodian stones were reused. These had apparently belonged to the Herodian administrative center. The Roman villa, which was erected on the ruins of Herod's third palace in Jericho, might have

²⁶ This conjecture was presented by Yosef Porat, "Ancient Irrigation Agriculture and Its Installations in the Arid Areas of Palestine", Ph.D. Dissertation, University of Tel Aviv, 1984, 182–3 (Hebrew). Porat suggests that the location of the second (small) plantation, of which Theophrastus and other sources speak, was also near Jericho, perhaps near Ein Duyuq, and not in 'En Gedi. See also id., "Aspects of the Development of Ancient Irrigation Agriculture in Jericho and Ein-Gedi." In: *Man and Land in Eretz-Israel in Antiquity* (Edited by A. Kasher, A. Oppenheimer and U. Rappaport. Jerusalem: Yad Izhak Ben-Zvi), 127–41 [Hebrew]. The fortress of Dok, one of the fortresses of Bacchides, was also built above Elisha Spring, near the conjectural Early Hellenistic settlement that is thought to have been there. As noted, its exact location has not yet been determined.

²⁷ Strabo, *Geographica* XVI.2.41. He does not state that the balsam plantation was close to the palace. Rather he indicates that both the palace and the plantation were located in Jericho. However, it seems probable that balsam was also grown on the farm adjacent to the palace. According to Strabo, the irrigated palm grove was 100 *stadia* in length (about 18.5 km.). Compare this to the testimony of Josephus, below n. 28. Pliny, *Nat. Hist.* XII.111 says that both plantations belong to the king. In Millar's opinion, this refers to the Seleucid monarchs and Pliny was therefore not referring to the plantation of the Hasmoneans and of Herod. See F. Millar, "The Fiscus in the First Two Centuries." *JRS* 53 (1963): 30. However, it is more likely that he is referring to the Hasmonean kings and to Herod, whose palaces were nearby.

²⁸ According to Josephus Flavius (*J.W.* 4:467), the length of the Jericho valley, which was irrigated by the waters of the streams, was seventy *ris* (*stadia*), around 13 km, and its breadth was twenty *ris*, about 3.7 km. That is to say, its area was 48,100 dunams. Compare this to the testimony of Strabo cited in the previous note.

²⁹ According to Pliny, *Nat. Hist.* XII.111, the area of the

large balsam plantation in Judaea was no greater than twenty *jugera* (which is about 50 dunam, see n. 20 above). However, he seems to be referring to the plantation mentioned by Theophrastus (whose area was, as noted, about eighteen dunams), and *jugera* here is the Latin translation of the Greek *plethra*.

³⁰ *Ant.* 15:88–103, 217; 17:317–23; *J.W.* 1:361–2, 396; Plutarch, *Anthony* 36; Schürer 1.1973, 298–300, 302; E.M. Smallwood, *The Jews under Roman Rule. From Pompey to Diocletian.* SJLA 20. Leiden: Brill, 1976, 62, 70.

³¹ Pliny, *Nat. Hist.* XII.113. See also H.J. Loane, "Vespasian's Spice Market and Tribute in Kind." *CP* 39 (1944): 16–7.

³² M. Stern, "The Roman Regime in the Province of Judaea from the Destruction of the Temple until the Bar-Kokhba Revolt." In: Z. Baras et al. (eds.), *Eretz Israel from the Destruction of the Second Temple to the Muslim Conquest.* Vol. 1. Jerusalem: Yad Izhak Ben-Zvi, 1982, 14 (Hebrew).

³³ Pliny, *Nat. Hist.* XII.111–112. Solinus repeats Pliny's description.

³⁴ BShabb. 26a; S. Klein, *The Land of Judah.* Tel Aviv: Dvir, 1939, 93–4 (Hebrew).

³⁵ Smallwood 1976, 340; Mazar 1963, 9. 'En Gedi was destroyed in the first revolt by the zealots who entrenched themselves at Masada (*J.W.* 4:398–409). Pliny also mentions the destruction of 'En Gedi (*Nat. Hist.* V.17). It is also missing from the list of *toparchiae* (districts) of Judaea in the time of Vespasian (*Nat. Hist.* V.14), cf. also H.M. Cotton, "En Gedi Between the Two Revolts." *SCI* 20 (2001): 139–54.

³⁶ B. Mazar 1970, 445; id. 1987, 90–1; B. Mazar and E. Dunayewski, "The Third Season of Excavations at Ein Gedi." *Yediot* 28 (1964): 149–52 (Hebrew). This remnant and the findings in the Cave of the Letters indicate a renewal of the settlement between the first and second revolts. On the boundaries of the agricultural area in the 'En Gedi oasis and its installations see Porat 1984, 94–108.

served as an administrative center for the district after the destruction of the Temple. This villa was burned in a large fire, apparently at the time of the Bar-Kokhba revolt. The bath in 'En Gedi was also destroyed at that time, and similarly the *officina* (agricultural workshop) at 'En Boqeq—a branch of 'En Gedi.³⁷

This rebellion, which severely damaged the Jewish settlement in Judaea, apparently put an end to the plantations in Jericho. Perhaps this time the Jews succeeded in cutting down the balsam trees, something they had not been able to do during the great revolt. In any event, in the second half of the second century C.E., the period of Marcus Aurelius, Galen praises the ὀποβάλαμον called Ἐνγαδίνη after the place where it was grown, although there were other places in Palestine where it was cultivated and produced.³⁸ Unlike his predecessors, Galen does not mention Jericho as a place where it was grown. Eusebius and Jerome mention only the groves of 'En Gedi.

As noted, the balsam groves of Judaea were under direct Roman supervision and administration for a long period. Pliny's account shows that particularly during the time when the groves were under the supervision of the Roman treasury, far-reaching changes were made regarding the methods of cultivation and production (see below). Consequently, it is doubtful whether the "secret of the city" (*razah deqartah*), which is mentioned in an Aramaic inscription from the second half of the fifth century C.E., which was discovered in the synagogue of 'En Gedi, was the secret of the cultivation and care of balsam groves, as Lieberman suggested.³⁹ Indeed, Mazar, Urbach, Dotan, and others have proposed alternative interpretations.⁴⁰

When did the groves of 'En Gedi die out? The excavations in and around the synagogue indicate destruction of the settlement at the time of

Justinian.⁴¹ This destruction probably put an end to all the balsam groves there.

The Appearance of the Plant

Theophrastus speaks of a tree the height of a tall pomegranate tree (ῥοιῶ), with many branches. Constant pruning prevents the tree from growing very tall. Its leaves are similar to the rue (*ruta* / *πήγανον*), but it is paler and an evergreen. The fruit is similar in size, form, and color to that of the terebinth, and its fragrance is very intense.⁴² Later sources—beginning with Strabo at the end of the first century B.C.E., and after him Dioscurides and Pliny, speak of a rather low bush. According to Strabo, balsam is of the type of bushes (θάμνος) similar to broom (*cytissus*) and the terebinth. Dioscurides says that the plant is the height of boxthorn (*lycium*) or the fiery thorn (πυρακάνθαξ), and its leaves are similar to those of the rue. He also speaks of several types, which differ with respect to their roughness, length, and thinness.

According to Pliny,⁴³ who states that in his day the appearance of the plant is entirely different from the description of his predecessors, it is more similar to a grapevine than to a myrtle. These are the plants he uses for comparison, estimating its height to over two cubits (about one meter). The description of the leaves and fruit is defective. The plant is an evergreen and three types of it are known. Tacitus also defines the balsam as a bush. The description by Solinus derives from that of Pliny, and he, too, says that the stem is like a grapevine. Jerome, at the end of the fourth century, calls the balsam groves vineyards.

How can we reconcile the apparent contradiction between the description of Theophrastus and those some 350 to 400 years after him? In my

³⁷ E. Netzer, *Jericho: Findings from the Second Temple Period*. Jerusalem: Yad Izhak Ben-Zvi, 1978, 19–29 (Hebrew); id., "The Winter Palaces and the Royal Estate in Jericho." *Qadom* 28–30 (July 1983): 112 (Hebrew); id., "The Hasmonean and Herodian Winter Palaces of Jericho." *Qad* 7/25–26 (1974): 36 (Hebrew); Fischer, Gichon and Tal 2000, 137–8.

³⁸ See above n. 14.

³⁹ See Lieberman 1971.

⁴⁰ B. Mazar, "The Inscription on the Floor of the Synagogue in En Gedi." *Tarbiz* 40 (1970): 18–23 (Hebrew); E. Urbach, "The Secret of the En-Gedi Inscription and Its Formula." *Tarbiz* 40 (1971): 27–30 (Hebrew); A. Dotan, "The 'Secret' in

the Synagogue Inscription of 'En Gedi." *Lešonenu* 36 (1970–71): 211–7 (Hebrew). For a discussion of the various conjectures see L.I. Levine, "The Inscription in the 'En Gedi Synagogue." In: id. (ed.), *Ancient Synagogues Revealed*. Jerusalem: Israel Exploration Society, 1981, 140–5. On p. 145, Levine also points out the difficulty with Lieberman's hypothesis, since the details of the cultivation of balsam were well known to non-Jews.

⁴¹ D. Barag, Y. Porat, E. Netzer, "The Synagogue at 'En Gedi." In: Levine 1981, 116–9. D. Barag, "'En Gedi—The Synagogue." *NEAEHL* 2: 405–9.

⁴² Theophrastus, *Historia Plantarum* IX, 6.1.

⁴³ Pliny, *Nat. Hist.* XII.112.

opinion, there is no contradiction. Rather, the differences arise from changes and improvements that were introduced over the years in the cultivation of groves and the production of the sap or oil of the *opobalsamum*, as discussed below.

According to Josephus Flavius, the balsam was brought to Judaea by the Queen of Sheba as a gift to Solomon. No reference of it is made in the Bible, but the words of Josephus imply the belief that the plant originated in southern Arabia. This also emerges from the words of Strabo. Pausanias speaks of balsam only in relation to the Arabs.⁴⁴

The Cultivation of Groves

The sources, especially Pliny's description, imply the following details regarding the cultivation of balsam:

The groves were irrigated. Theophrastus states that the groves were regularly watered, and that people say that the tree does not grow anywhere in the wild. Other sources also speak of watering and emphasize the plentiful water with which the Jericho valley is blessed.

The soil is aerated by hoeing and raking. This matter is mentioned only by Pliny.⁴⁵ Theophrastus mentions the regular pruning of the tree—preventing it from growing very tall.⁴⁶ The pruning was done at the end of the notching to remove the sap, which was done in the summer.

Pliny was the first to mention vegetative reproduction and training.⁴⁷ According to him, they had recently learned how to cause twigs to take root. The plants would have developed and be nurtured from twigs that were rooted and trained, like grapevines. The rooting of shoots from twigs of grapevines was a method known and developed

in the Hellenistic world and among the Romans, as we learn from Theophrastus, Varro, Virgil, Columella, and other authors.⁴⁸ The Romans were familiar with the method of nurturing branches in orchards of various kinds of fruit trees. This method was thus also applied in the balsam groves of Jericho. Pliny's account shows that this method of propagation was introduced by the Roman *fiscus*, not long after the destruction of the Temple. Roman knowledge led to a revolutionary change in the methods of cultivating orchards and the manufacture of their products.

Three years after the twig had rooted, the bush produced fruit. From that stage on, the quality of the tree diminished.⁴⁹ The quantity of produce might also have diminished, and for these two reasons, they preferred to cut down the bush after a three-year cycle of growth. An indication to this is found in Pliny's account: he says that the notching is done for three summers,⁵⁰ and afterward the bush is cut down.

The Products and their Manner of Production

The products were:

- The oily, fragrant sap (*sucus* / ὀπός), which, because of its high price, was sold in the form of drops (*lacrimae*);
- twigs and branches (*linio*), which is balsam wood (*xylobalsamum*);
- the bark (*cortex*); and finally:
- the fruit (*pomum* / καρπός) or the seed (*semen*) found in it.

According to Pliny,⁵¹ the liquid drops were the most valuable product, followed by the seeds, and the bark. The wood was of very little value. The sap flowed from notches made in the trunk and

⁴⁴ *Ant.* 8:174; Strabo, *Geographica*, XVI.4; Pausanias, *Description of Greece* IX, 28.3.

⁴⁵ Pliny, *Nat. Hist.* XII.112.

⁴⁶ Theophrastus, *Historia Plantarum* IX, 6.3 and see also Pliny, *Nat. Hist.* XII.112, 117.

⁴⁷ Pliny, *Nat. Hist.* XII.112, 117.

⁴⁸ Theophrastus, *Historia Plantarum* book 2; Marcus Terentius Varro, *Rerum Rusticarum Libri III.*, I; Publius Vergilius Maro, *Georgica* II; Lucius Junius Moderatus Columella, *De Arboribus* (ed. E.S. Forster and E.H. Heffner. LCL, Vol. III), 342–411. See also D. Zohary, M. Hopf, *Domestication of Plants in the Old World: the Origin and Spread of Cultivated Plants in West Asia, Europe and the Nile Valley*. Oxford: Clarendon Press, 1988, 128–31.

⁴⁹ Pliny, *Nat. Hist.* XII.120.

⁵⁰ Pliny, *Nat. Hist.* XII.117: *Ter omnibus percutitur aestatibus, postea deputatur*. In the opinion of Leah Di Segni, with whom I consulted to understand this text, this is the correct translation, and not “three times every summer”, the meaning implied by Rackham's English translation (and hence Porat 1984, 140). In that case, the end of the sentence must be understood as cutting down for the purpose of uprooting and not for pruning. A three-year cycle is quite consistent with the decline in the quality of the sap after the bush has borne fruit, and with the vegetative method of propagation. According to Theophrastus, *Historia Plantarum* IX, 6.2, the sap was collected all summer long.

⁵¹ Pliny, *Nat. Hist.* XII. 118.

the branches by means of a blade made of stone, glass, bone, or pottery.⁵² The use of iron claws (ὄνυχαι σίδηροι), a practice of the fourth century B.C.E., was later abandoned, because contact with the metal caused the plant to wither. Josephus Flavius, a native of Palestine, mentions tearing the bark with a sharp stone,⁵³ showing that as early as the Second Temple Period, before the groves passed to the supervision of the Roman treasury, it was known that iron blades damaged the tissue of the plant, and the method had been changed. Pliny also mentions knives of glass and bone, adding that care must be taken not to cut through the bark.⁵⁴

According to Pliny, the liquid, which flowed from the notches in droplets, was immediately soaked up by balls of wool, or in little horns (*parva cornua*), and from there it was poured into new clay vessels.⁵⁵

At the time of Theophrastus, the large plantation produced 12 ἡμιχοαῖα (about 20 liters), and the small plantation, which was a tenth of the area of the large garden (see below), produced a sixth of that amount. It was then worth twice its weight in silver. The official exchange rate in Pliny's days was 300 *denarii* to a *sextarius*.⁵⁶ Production in that period rose by a considerable degree—a single bush supplied more than one

concha (κόγχη)—corresponding to a full day's work at the time of Theophrastus.⁵⁷ The harvest season was the hot days of the summer, in the months of July and August.⁵⁸

According to Pliny, the trimmings and the shoots were marketed as wood (*xylobalsamum*) in order to extract the fragrance from them. There was also demand for the trimmings that accumulated annually from the treatment of the tree, as early as the time of Alexander the Great, and they commanded a high price. In Pliny's time its price was six *denarii* per pound (= 454 gr).⁵⁹ Pliny reports that during the first five years of the conquest of Judaea, the trimmings brought 800,000 *sestertii* to the Roman *fiscus*, to which the supervision of the groves had been delivered. According to the exchange rate that he gives, this is an annual production of 6.666 pounds of wood, in a grove whose area was about 30 dunams.⁶⁰ The bark was used for medicines.⁶¹

It was also possible to produce oil from the seeds, which were in a pod, but its taste was bitterer than that of the liquid produced from scratching the bark. Hence, it was possible to distinguish between the more and less expensive kinds of oil.⁶² To increase the profit, they used to mix seeds or fruit of the balsam with a certain seed (σπέρμα) similar to Saint-John's-wort (*hypericum*). This plant

⁵² Pottery blades are mentioned only by Tacitus, *Historiae* V.6.1.

⁵³ *Ant.* 14:54; *J.W.* 1:138.

⁵⁴ Pliny, *Nat. Hist.* XII.115.

⁵⁵ Pliny, *Nat. Hist.* XII.116.

⁵⁶ Pliny, *Nat. Hist.* XII.123. A *sextarius* (pint) is 0.546 liter. From Pliny, *Nat. Hist.* XII.122 and Dioscurides, *De Materia Medica* I.19.2 one may conclude that the unit weight of the liquid was close to one gram. This in turn implies that the price of one gram was 0.55 *denarius*. In that period, after the reform of Nero, the average real weight of a *denarius* was about 3.25 grams, and its silver content was less than 80%. See L. Di Segni, "The Systems of Weight in Palestine." In: B.Z. Kedar, T. Dothan, S. Safrai (eds.), *Commerce in Palestine throughout the Ages: Studies*. Jerusalem: Yad Izhak Ben-Zvi and Israel Exploration Society, 1990, p. 219 (Hebrew). The weight of 0.55 *denarius* thus contained less than 1.43 gram of silver. The value of balsam sap at that time was therefore less than twice its weight in silver. The increase in production thus led to a decline in the price by a factor of more than 25%.

⁵⁷ In my opinion, this is how Pliny, *Nat. Hist.* XII.117 is to be understood—the LCL edition, p. 82. There we find in a note that the volume of a small *concha* was a bit more than 1/100 pint (*sextarius*), or 5.46 cm. The volume of a large *concha* was three times greater. Also see Theophrastus, *Historia Plantarum* IX, 6.2.

⁵⁸ Theophrastus, *Historia Plantarum* IX, 6.1–4; Dioscurides, *De Materia Medica* I.19.1–2; Pliny, *Nat. Hist.* XII.117.

⁵⁹ Pliny, *Nat. Hist.* XII.123. The economic importance of *xylobalsamum* is also implied by one of the Latin papyri discovered at Masada. See H.M. Cotton, J. Geiger, *Masada: The Yigael Yadin Excavations 1963–1964. Final Reports. Vol. 2: The Latin and Greek Documents* (Edited by J. Aviram, G. Foerster and E. Netzer; Jerusalem: Israel Exploration Society, 1989), 68–70, 77, 98–9. See also H.M. Cotton and W. Eck, "Ein Staatsmonopol und seine Folgen: Plinius, *Naturalis Historia* 12,123 und der Preis für Balsam." *Rheinisches Museum für Philologie* 140 (1997): 153–61; Donceel-Voûte 1998 (I am indebted to Y. Hirschfeld for this reference); M. Gichon, "Industry." In: Fischer, Gichon and Tal 2000, 93–126.

⁶⁰ Pliny, *Nat. Hist.* XII.118. There were four *sesterces* per *denarius*. The overall income for the five years under discussion was then 200,000 *denarii*. That figure comes from the data given by Pliny in *Nat. Hist.* XII.123 (see the previous note). An annual production of 6.666 pounds is the equivalent of 3.026 kg. If we assume that each bush produced one kilogram of trimmings annually, we find that the plantation in Jericho contained about 3,000 bushes. Assuming a density of 100 bushes per dunam, we find that the area of the plantation was thirty dunams. Higher density per dunam or a high production of trimmings would of course decrease the estimated size of the plantation. Compare n. 19 above.

⁶¹ Pliny, *Nat. Hist.* XII.111

⁶² Pliny, *Nat. Hist.* XII.120.

was imported from Petra, though its odor was like that of pepper, and not like the fragrance typical of the true balsam seed,⁶³ and it is emptier and more elongated in form.⁶⁴

This survey shows that far-reaching changes took place in the cultivation of balsam and its production over the years. The early balsam grove, of which Theophrastus speaks, is not to be sought near Tulul Abu el-‘Alaiq. The archaeological findings show that in the days of the Hasmonaeans and of Herod, a revolutionary change took place in the methods of irrigation used in the Jericho valley. For the first time aqueducts were built which significantly increased the amounts of water available and the areas of orchards. This applies first of all to date palm orchards. The Hasmonaeans built a new farm for themselves near their palace; Herod expanded the date orchards to Phasaelis,⁶⁵ and added an orchard near Archelais.⁶⁶ A similar development took place at ‘En Gedi.⁶⁷ During the Second Temple Period it was already known that iron blades damaged the tissue of the balsam plant, and therefore notching the branches with iron blades was avoided. However, Pliny’s account shows that only after the destruction of the Temple were the groves expanded to cover extended areas, through the introduction of vegetative reproduction and growth by rooting, as with the cultivation of grapevines.

If we wish to identify the balsam today, we must examine the literary sources in the spirit presented above and see the difference between the accounts of Theophrastus and Pliny not as a contradiction, but as complementary, a direct result of the agricultural progress and improvement in cultivation and production that took place in the interim. One must especially note that the material that dripped from the notches and was collected was an oily liquid and not drops of viscous resin.

Does this description fit the characteristics of *commiphora opobalsamum*, which is also called *balsamodendron opobalsamum*, which has been identified with ancient balsam? And is there a possibility of bringing it back to our region and cultivating it in groves, as it flourished in the past? Botanists will have to provide the answer to these questions.

* * *

How does all this bear upon the interpretation of Qumran?—I was asked to address this issue by the editors. They were also kind enough to show me in advance Broshi and Eshel’s article “Agriculture at Qumran” published here. There is no need to repeat here details on the climatic and geophysical conditions at Qumran and ‘Ain Feshkha given there. Let me also state that I belong to those who maintain that Qumran was a sectarian settlement. This is attested by the four anomalies of the site:

- a dining hall with an annexed storeroom with ca 1500 pieces of table ware;
- a large number of *miqvaoth*, two of them of exceptionally big dimensions;
- a cemetery with ca. 1200 tombs—much larger than a site of modest dimensions such as Qumran will require—well organized and of individual cist burials, rather than of family, rock-cut tombs;
- the scrolls found in an immediate adjacency to the site, sectarians in their essence, with emphasis on ritual purification and communal meal, in accord with the architectural features found at the site.

The existence of installations at the site, that indicate a lucrative rather than a contemplating community at the site, busy not only in scribal activity, but also in agricultural production, do not contradict that its occupants were sectarian in their religious approach. In the Byzantine periods many monasteries were lucrative agricultural centers, yet inhabited by monks of various theological stances.

Was balsam ointments one of the products of Qumran? *A priori*, this could have been only *xylobalsamum* and *cortex* (unless they were sold in the markets as trimmed pieces). The oily sap (*sucus*) was collected in the orchards, and the seeds were sold as such; no installation other than a store room was needed for such products. Vats, soaking bins and heating installations similar to those found at Qumran could have been in operation in the extraction process from twigs and bark, but we

⁶³ Dioscurides, *De Materia Medica* I.19.2; Pliny, *Nat. Hist.* XII.119.

⁶⁴ Saint-John’s-wort bears fruit in pods, as does the balsam.

⁶⁵ *Ant.* 15:145; *J.W.* 1:417; Pliny, *Nat. Hist.* XIII.4.

⁶⁶ *Ant.* 17:340; 18:31; Pliny, *Nat. Hist.* XIII.9.

⁶⁷ See the extended discussion in Porat 1984.

have no certain evidence about the actual process, just guesses. On the other hand, such installations are known to be used even today wherever palm date products such as “cooked date cakes”, sap, or “honey” are manufactured in traditional methods (cf. Josephus, *J.W.* 4:469).⁶⁸

The “winepress” (loci 75; 69—for dates wine rather than for grapes wine)⁶⁹ and the stone surface located near the southeastern corner of Qumran (loci 90, 93, 98), where quantities of date stones were found, are in accordance with such workmanship, not with balsam products. The “winepress” mentioned above resembles similar installations in the Royal Estate in Jericho. On the other hand, a neat complex in which balsam products seem to have been produced—such as the combination of a double-stairway pool, work-floor, and horse-shoe-shape oven with a horizontal stokehole, similar to those found in areas FA, FC and AB in the industrial zone of the Royal Estate in Jericho—cannot be traced in Qumran.⁷⁰

Three other points could be raised against balsam industry at the site:

- The production of balsam seems to have been controlled by the central authorities in Jericho and ‘En Gedi (be it Hasmonaean/Herodian, or Roman), and Qumran does not seem to fall in this category.
- Its inhabitants (sectarians in my opinion), maintained that oil defiles the body (Josephus, *J.W.* 2:123),⁷¹ and balsam sap was an oily ointment.
- Palm trees, not balsam, were associated with the Essenes living on the shores of the Dead Sea (Pliny, *Nat. Hist.* V.73).

The last two points are not valid, of course, for those who maintain that Qumran was a regular agricultural manor, ignoring the four anomalies mentioned above. Yet, the actual installations and finds are not proofs that balsam was produced at Qumran.⁷² The case for palm-dates products seems to me more plausible.

This epilog of mine is not a conclusion derived from my paper; as was stated above, it was appended in response to the editors’ request.

⁶⁸ See: B. Landsberger, The Date Palm and its Byproducts According to the Cuneiform Sources. *Archiv für Orientforschung Beihefte* 17. Graz: Weidner, 1967; E. Ayalon (ed.), *The Palm Tree—Tree of Life. Its Features and Use*. Tel Aviv: Eretz Israel Museum, 1987 (Hebrew).

⁶⁹ S. Pfann, “The Wine Press (and *Miqveh*) at Kh. Qumran (loc. 75 and 69”, *RB* 101–102 (1994): 212–14. For the correct interpretation of this installation, see Broshi and Eshel’s article in this volume, with references to similar installations in the royal estate of Jericho. But besides this “wine press,” there are numerous other installations at Qumran, which indicate the lucrative daily schedule of the Qumranites. Agricultural by-products seem to be the most plausible outcome of these installations. Scribal, maintenance and transportation (by mule driving?) are other daily tasks of the

Qumranites. Josephus (*J.W.* 2:128–133) emphasizes that work was the daily schedule of the Essenes.

⁷⁰ For the industrial installations at Jericho, their purpose and function see: E. Netzer (ed.), *Hasmonaean and Herodian Palaces at Jericho: Final Reports of the 1973–1987 Excavations*, Vol. II (Jerusalem 2004): 131–44 (by E. Netzer and R. Laureys-Chachy).

⁷¹ See also J.M. Baumgarten, “The Essene Avoidance of Oil and the Laws of Purity.” *RevQ* 6 (1967): 183–92.

⁷² The juglet found in a cave to the north of Qumran (Patrich and Arubas 1989), does not seem to have been owned by a member of Qumran, see 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: Present Realities and Future Prospects*. ANYAS 722. New York: Academy of Sciences, 91.

WAS THERE AGRICULTURE AT QUMRAN?

Magen Broshi and Hanan Eshel

There are a dozen theories about Qumran and its inhabitants but eleven of them (at least) must be wrong, as they are incompatible.¹ The Qumranites could not have been both Sadducees and Christian; nor could the site not have been one and at the same time a citadel as well as a caravansery. Our paper wants to examine one of these theories: that Qumran was some kind of an agricultural establishment. Usually the non-consensual theories (i.e., those that disagree with the Essene identification) have only one proponent, their author. The agricultural theory has quite a number of proponents.² A serious discussion of this school of thought is evidently vital.

First, a methodological remark. A new theory (or paradigm to use a Kuhnian term) trying to replace the standard paradigm (that Qumran was an Essene monastery) is expected to be more solid and convincing. Most of the proponents of the farm (*villa rustica*, manor house, etc.) do not supply, or even try to supply, an adequate explanation to the basic archaeological facts of this particular site: the “library” of 900 scrolls—the backbone of which are Essene books; the ten *miqva’ot*, which

represents the densest concentration as well as some of the largest of the 500 found so far in Israel; the lack of living quarters at the site proper; and the existence of artificial caves that were used for habitation.³ Last and not least, there is the issue of the cemetery with at least 1,200 burials.⁴ Not that some attempts have not been made, such as Donceel-Voûte suggestion to interpret locus 30 as a triclinium⁵ or Hirschfeld’s proposal to move the Essene monastery to ‘En Gedi,⁶ but both ideas are absolutely unacceptable.

The proponents of the agriculture theory have two things in common: the belief compound was just a *villa rustica* (or a manor house), and that its owners delved into agriculture. This is not the place to discuss the viability of the villa interpretation (except to ask: Why should anybody in his right mind choose to live in this god-forsaken place with its harsh climate and lack of water?)—this has been ably done by Jodi Magness.⁷ What kind of farming existed here? Most scholars of the agricultural school agree that it was balsam, but while the Donceel and Donceel-Voûte and Zangenberg place the activity on the southern terrace of

¹ See M. Broshi and H. Eshel, “Qumran and the Dead Sea Scrolls: The Contention of the Twelve Theories.” In: *Religion and Society in Roman Palestine: Old Questions, New Approaches* (Edited by D.R. Edwards; New York and London: Routledge, 2004), 162–9.

² They will be enumerated alphabetically: P. Donceel-Voûte, “Traces of Fragrance along the Dead Sea.” *Res Orientales* 11 (1998): 93–124, esp. 104–6 (for the identical views of her husband, cf. p. 103, n. 49); Y. Hirschfeld, “Early Roman Manor Houses in Judaea and the Site of Qumran.” *JNES* 57 (1998): 161–89; J.-B. Humbert, “L’espace sacré à Qumran: Propositions pour l’archéologie.” *RB* 101–2 (1994): 161–214 (Humbert does not speak explicitly about agriculture, but his proposition that the first phase of Qumran was a Hasmonaean villa should mean that it was an agricultural establishment); Y. Porath, “Horvat Qumran.” *ESI* 18 (1998): 84; O. Röhrer-Ertl and F. Rohrhirsch et al., “Über die Gräberfelder von Khirbet Qumran, insbesondere die Funde der Campagne 1956. II: Naturwissenschaftliche Datenvorlage und Befunddiskussion, besonders der *Collectio Kûrth*.” In: *Jericho und Qumran: Neues zum Umfeld der Bibel*. Eichstätter Studien 45

(Edited by B. Mayer; Regensburg: Pustet, 2000), 227–69; J. Zangenberg, “Wildnis unter Palmen? Khirbet Qumran in regionalen Kontext des Toten Meers.” In: Mayer 2000, 129–63; Y. Hirschfeld, *Qumran in Context: Reassessing the Archaeological Evidence* (Peabody: Hendrickson, 2004).

³ M. Broshi and H. Eshel, “Residential Caves at Qumran.” *DSD* 6 (1999): 328–48. Recent excavations by these authors unearthed another residential cave.

⁴ H. Eshel et al., “New Data on the Cemetery East of Khirbet Qumran.” *DSD* 9 (2002): 135–65.

⁵ P. Donceel-Voûte, “Coenaculum: La Salle à l’étage du locus 30 à Khirbet Qumrân.” *Res Orientales* 4 (1992): 61–84. See different opinions: R. Reich, “A Note on the Function of Room 30 (the ‘Scriptorium’) at Khirbet Qumran.” *JJS* 46 (1995): 157–60; M. Broshi, “Scriptorium.” *EDSS* 2: 831–2.

⁶ Y. Hirschfeld, “A Settlement of Hermits above ‘En Gedi.” *TA* 27 (2000): 103–55; D. Amit and J. Magness, “Not a Settlement of Hermits or Essenes: A Response to Yizhar Hirschfeld.” *TA* 27 (2000): 273–85.

⁷ J. Magness, “A Villa at Khirbet Qumran?” *RevQ* 16/63 (1994): 397–419.

Qumran,⁸ Hirschfeld is of the opinion that it was at the nearby oasis of 'Ain Feshkha ('Enot Zukim).⁹

Balsam (*Commiphora opobalsamum*, *Balsamum gileadensis*, etc.)¹⁰ was the most famous product of Hellenistic-Roman Palestine and by far the most expensive—in the fourth century B.C.E. it was worth twice its weight in silver; in the first century C.E., the ratio was 1 (balsam juice): 1.43 (silver).¹¹ There were two balsam plantations in Palestine: one in Jericho and one at 'En Gedi. These were the only ones in the Roman empire, and perhaps the only such plantations in the world, since balsam, like frankincense and myrrh, was produced in southern Arabia from wild trees. The Palestinian balsam growth is discussed by no less than a dozen classical authors.¹² A Talmudic source suggests that a balsam plantation existed once at Ramtha (Livias) in the Plain of Moab, across the Jordan, some 17 km southeast of Jericho.¹³

All these sites are situated on alluvial fans and enjoy an ample supply of high quality water. But was balsam also cultivated at Qumran?

The Southern Terrace

The plateau south of Qumran has no agricultural potential whatsoever. The suggestion that balsam

orchards existed there is unacceptable. In its natural habitat, on mountains on both sides of the Red Sea, the trees are irrigated by the monsoon rains (i.e., in the summer, when the need is greater!) to the amount of 250–350 mm annually.¹⁴ At Qumran, with an annual rainfall of 50–100 mm,¹⁵ and annual evaporation of 2600 mm,¹⁶ with no irrigation installations, balsam does not stand a chance. A decisive argument in Donceel and Donceel-Voûte's quiver is what they define as huge "flower pots"¹⁷ made for the balsam shrubs.¹⁸ Indeed, these are typical Iron Age underground silos, hundreds of which were dug in almost every settlement of this period.¹⁹ These are most probably the בשררה אטאטאם of Jeremiah 41:8, the likes of which have been used in Palestine until our own times.²⁰

In 1988, J. Patrich and B. Arubas excavated a cave 2.8 km to the north of Qumran, which they dubbed Cave 13. There, they unearthed a Herodian juglet wrapped in palm fibers containing oil and they suggested (with a question mark) that it might be balsam oil.²¹ As we do not have any balsam oil to which it can be compared, nothing conclusive can be said.²² Feliks is of the opinion that it cannot be balsam oil.²³ The assertion of Donceel-Voûte that, "the sap of balsam tree miraculously intact [found] inside its late Hellenistic (sic) juglet [is one] of the recently discovered pieces

⁸ Cf. n. 2 above.

⁹ Cf. Hirschfeld 2004b, 185–208; id., "Excavations at 'Ein Feshkha, 2001: Final Report." *IEJ* 54 (2004): 37–74; E. Netzer, "Did Any Perfume Industry Exist at 'Ein Feshkha?" *IEJ* 55 (2005): 97–100.

¹⁰ On this plant, see J.R.I. Wood, *A Handbook of the Yemen Flora* (London: Kew Royal Botanic Gardens, 1997), 197; S.A. Ghazanfar and M. Fisher (eds.), *Vegetation of the Arabian Peninsula* (Dordrecht, Boston and London: Kluwer, 1998), index, s.v. *Commiphora gileadensis*.

¹¹ J. Patrich, "Agricultural Development in Antiquity: Improvements in the Growth and Production of Balsam." In: *Hikrei Eretz: Studies in the History of the Land of Israel Dedicated to Prof. Yehuda Feliks* (Edited by Y. Friedman, Z. Safrai, and J. Schwartz; Ramat Gan: Bar Ilan University, 1997): 139–48, esp. 142 [Hebrew] and his contribution in this volume. On balsam in ancient Palestine, see Donceel-Voûte 1998; Y. Feliks, "The Incense of the Tabernacle." In: *Pomegranates and Golden Bells: Studies in Honor of Jacob Milgrom* (Edited by D.P. Wright, D.N. Friedman and A. Hurvitz; Winona Lake: Eisenbrauns, 1995), 125–49.

¹² Patrich 1997, 140 and his article in this volume.

¹³ A baraita quoted in *b. Shabb.* 26a. However, it is difficult to establish the exact time to which this information refers. Cf. S. Klein, *The Land of Judah* (Tel Aviv: Dvir, 1939), 94 [Hebrew].

¹⁴ On the climate of the original areas of this plant, cf. Ghazanfar and Fisher 1998: 5–38.

¹⁵ In agriculture, only the minimum counts. In an area where evaporation reaches such extremities, the balsam would not survive drought years without generous irrigation.

¹⁶ Y. Goldreich, *The Climate of Israel. Vol. 2* (Ramat Gan: Bar Ilan University; Jerusalem: Magnes, 1998), 38–9 [Hebrew]. In the arid zones, the minimum amount counts. At Qumran, no rainfall measurements have been made but from nearby sites we can learn about extreme cases of draught years. In a site north of the Dead Sea, the rainfall of 1931–32 was only 22 mm³ and 1946–47 it was 23.2 mm³. In these years, Jericho received 64.9 and 59.6 mm³. Cf. D. Ashbel, *Regional Climatology of Israel* (Jerusalem: Dept. of Meteorology, Hebrew University, 1951), 160 [Hebrew].

¹⁷ These are round holes with a diameter of c. 1 meter and lined with pebbles excavated by A. Drori and Y. Magen in 1993. See the report by Yizhak Magen and Yuval Peleg in this volume.

¹⁸ Donceel-Voûte 1998: 104–6.

¹⁹ I. Finkelstein, *The Archaeology of the Israelite Settlement* (Jerusalem: Israel Exploration Society, 1988), 264–9 and index, s.v.

²⁰ S. Avitzur, *Man and his Work: Historical Atlas of Tools and Workshops in the Holy Land* (Jerusalem: Carta and Israel Exploration Society, 1976): 38–9 [Hebrew].

²¹ J. Patrich and B. Arubas, "A Juglet Containing Balsam Oil (?) from a Cave Near Qumran." *IEJ* 39 (1989): 43–5.

²² Z. Aizenshtat and D. Aschengrau, "Appendix to Patrich and Arubas 1989: Analyses of Oil Contained in a Herodian Juglet from Qumran." *IEJ* 39 (1989): 55–9. The authors of this study are wrong in saying that "the balsam plant has been extinct in the last 1500 years" (p. 58); balsam trees still grow on both sides of the Red Sea.

²³ Feliks 1995: 146–7.

of evidence [. . .] about the wealth of the Jericho area” is, to say the least, inaccurate.²⁴

Certain scientists came to the absurd conclusion that chemical analysis of the glass found at Qumran proves that the site was a “center of perfume production.”²⁵

Balsam at ‘Ain Feshkha? Hirschfeld suggests that here was a large balsam plantation.²⁶ The oasis has plenty of water, some twenty springs discharging ca. 40 million m³ annually, but the salinity of the water is very high, between 1700 and 40,000 mg Cl.²⁷ Such water, as we shall see below, can be used only for irrigation of palms and perhaps beets. Balsam trees can not grow in salt marshes.

Palm Groves at ‘Ain Feshkha

It is quiet certain that the oasis, the largest one on the shores of the Dead Sea, was exclusively, or almost exclusively, devoted to monoculture; the growth of the date palm. Dates were the second most important export item of Roman Palestine, just after balsam. The famous plantations were in the oases on the shores of the Dead Sea, with the foremost being Zo’ara on the southern tip, ‘En Gedi, and, most probably, ‘Ain Feshkha, as well as nearby Jericho.²⁸ Pliny the Elder (*Nat. Hist.* XIII:26–49) describes the palm trees of Judaea at great length and regards them as the best in the

world.²⁹ From the papyri of the Babatha archive, we learn about the prices, yields, harvesting details, etc. for no less than five kinds of dates.³⁰

The oasis of ‘Ain Feshkha, today a nature reserve called ‘Enot Zukim, is some 3 km long, but when the Dead Sea level was 395 m below mean sea level, it was only a few hundreds meters wide.³¹ The sea has receded significantly in the second half of the twentieth century due to Israeli and Jordanian irrigation programs, reaching a level of 415.65 m, that is, 23 m below what it was only a few decades ago. As a result, the oasis is much wider.³² The agricultural potential of the area was dictated by the position of the springs, which are located in proximity to the shore. Furthermore, the irrigation occurred naturally by gravity. ‘Ain Feshkha is 250 m. from the waterfront; ‘Ain el-Tannur is 300 m; ‘Ain Ghazal is c. 100 m.³³

The cultivation of dates by the Qumranites is attested to by Pliny the Elder (*Nat. Hist.* V:73: “[The tribe of the Essenes] has only palm trees for company”), as well as the palm trunks (used most probably for roofing),³⁴ palm fronds and leaves, and a great number of charred dates.³⁵ Two pools unearthed by de Vaux served most probably for the production of date wine.³⁶

Four similar winepress installations were unearthed in Jericho in the excavations conducted between 1973 and 1987 by E. Netzer.³⁷ These installations are located on the fringe of an ancient farm, the royal estate of Hasmonaean kings and

²⁴ Donceel-Voûte 1998: 93.

²⁵ See reference to, and refutation of, this assertion in H. Wouters et al. “Antique Glass from Khirbet Qumran: Archaeological Context and Chemical Determination.” *Institut Royal du Patrimoine Artistique, Bulletin* 28 (1999–2000): 9, n. 1.

²⁶ Cf. note 2.

²⁷ E. Mazor and M. Molcho, “Geochemical Studies of the Feshkha Springs, Dead Sea Basin.” *Journal of Hydrology* 15 (1972): 37–47 (plan of the site with its springs, p. 38; composition of water, p. 41); E. Mazor, “Groundwaters along the Western Dead Sea Shore.” In: *The Dead Sea: The Lake and Its Setting* (Edited by T.M. Niemi, Z. Ben-Avraham and G.R. Gat (New York: Oxford University Press, 1997), 265–76 (the bibliography ought to have included the pioneering work: *Chemical Analyses of Water from Rivers, Springs, Wadis and Wells* [Department of Land Settlement and Water Commissioner, Government of Palestine: Jerusalem, 1948]: 138–9).

²⁸ M. Broshi, “Agriculture and Economy in Roman Palestine: Seven Notes on the Babatha Archive.” *IEJ* 42 (1992): 232–4.

²⁹ M. Stern, *Greek and Latin Authors on Jews and Judaism. Vol. 1* (Jerusalem: Israel Academy of Sciences and Humanities, 1974), 490–5.

³⁰ Broshi 1992a.

³¹ M. Broshi, “Was Qumran a Crossroads?” *RevQ* 19/74

(1999): 273–5. A similar conclusion was independently reached by the geologist Revital Kantor (oral communication).

³² We wish to thank Mrs. H. Bitan who helped us obtain these data.

³³ The data are derived from a 1:20,000 map (19/12) printed in 1942. See also General Illustration 6 in this volume.

³⁴ R. de Vaux, *Archaeology and the Dead Sea Scrolls* (London: London: Oxford University Press, for the British Academy, 1973), 74; F.E. Zeuner, “Notes on Qumran.” *PEQ* 92 (1960): 27–36.

³⁵ A. Roitman (ed.), *A Day at Qumran* (Jerusalem: Israel Museum, 1997), 32. The dates were discovered in 1993 (cf. n. 16).

³⁶ De Vaux 1973, 75–83, pls. 37 and 41. Originally, de Vaux was of the opinion that he had found here a workshop for curing hides (being so much in demand by the Qumran scribes), but it seems that Zeuner is right in his refusal to accept this interpretation (Zeuner 1960). Cf. also J.-B. Humbert and A. Chambon (eds.), *Fouilles de Khirbet Qumrân et de Ain Feshka. Vol. 1: Album de photographies. Répertoire du fonds photographiques. Synthèse des notes de chantier du Père Roland de Vaux.* NTOA.SA 1 (Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht, 1994), 250–2; pls. 504–8.

³⁷ See Netzer 2005.

Herod the Great. In Jericho and in 'Ain Feshkha, heavy stone cylinders, most probably rollers made for crushing the dates, were found. Water was mixed with the dates in order to create the necessary fermentation. The pools in both sites were connected to aqueducts, except for one that was near a conduit. The need for water was not only for the preparation of pulp but also for cleaning the pools. Furthermore, a small winepress unearthed in Qumran may have been used for the production of date wine.³⁸

Recently, it was suggested that the pools were used for the dying of textiles. R. Donceel is of the opinion that the pigment was made of madder and that the plant was grown in the oasis.³⁹ M. Béliis has made a similar suggestion. In her opinion, the

dye was indigo, and was also grown at 'Ain Feshkha.⁴⁰ Both suggestions are untenable as the salinity of the springs would not allow such plants to grow.

Conclusion

In Qumran itself, no agriculture could have existed, but at 'Ain Feshkha ('Enot Zukim), there must have been extensive palm groves. The buildings unearthed there, would certainly have been appropriate for such a farm.

Undoubtedly, the extensive Qumran compound (almost 5000 m²) was not meant to serve the 'Ain Feshkha farm.

³⁸ Compare S. Pfann, who interpreted the installation as a press for grape wine; S. Pfann, "The Winepress (and Miqveh) at Khirbet Qumran (loci 75 and 69)." *RB* 101–2 (1994): 212–4.

³⁹ R. Donceel, *Synthèse des observations faites en fouillant les*

tombes des nécropoles de Khirbet Qumrân et des environs. The Khirbet Qumran Cemeteries: A Synthesis of the Archaeological Data. QC 10 (Cracow: Enigma, 2002), 44–9.

⁴⁰ In a paper read at the Brown University conference, November 2002; see Mireille Béliis in this volume.

THE PRODUCTION OF INDIGO DYE IN THE INSTALLATIONS OF 'AIN FESHKHA

Mireille Bélis

The deep blue indigo colour of textiles, wherever in the world they have been made, always has the same suggestive, almost sombre resonance. However worn and faded, the material yet retains its strange lustre.¹

Between 1956 and 1958, during the excavations at 'Ain Feshkha, Roland de Vaux discovered evi-

dence of workshops (figs. 14.1 and 14.2). Although puzzled by the presence of the workshops, he was, all the same, eager to prove, without any convincing evidence, that the workshops could have provided the leather for the Dead Sea Scrolls.² The lack of proof of such an industry compelled de Vaux to confess that it was impossible to reach any

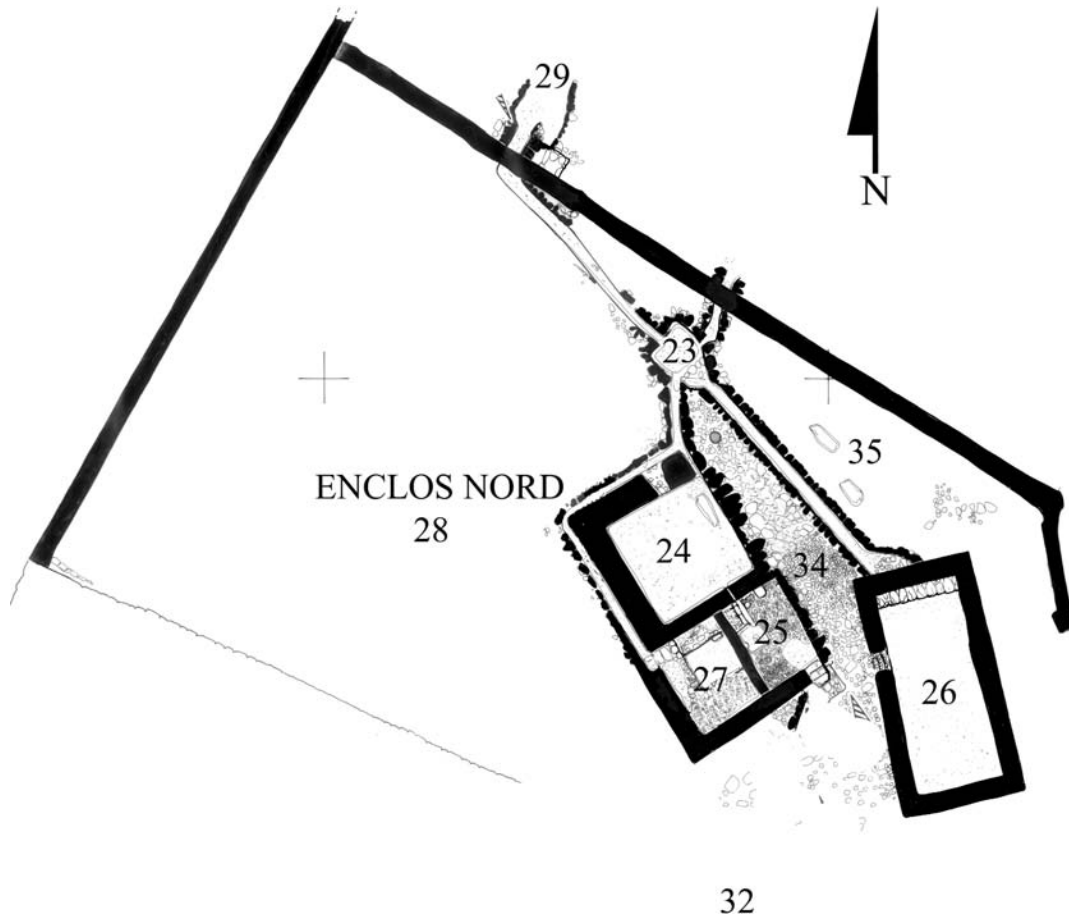


Fig. 14.1. Plan showing the industrial installations of the northern enclosure in 'Ain Feshkha. (Humbert and Chambon 1994: 250, Plan 45)

¹ G. Sandberg, *Indigo Textiles: Technique and History* (Asheville: Lark Books, 1989), 19.

² For the latest critique of the tannery hypothesis, see F. Rohrhirsch, "Die Geltungsbegründungen der Industrie-

Rolle-Theorie zu Chirbet Qumran und En Feshcha auf dem methodologischen Prüfstand: Relativierung und Widerlegung." *DSD* 6 (1999): 267–81 (with references).



Fig. 14.2. Basins in loci 24, 25, and 27; note the three steps that lead down into basin 27. (Cat. ÉBAF. 14188, 600; Humbert and Chambon 1994: 254, photo 512)

certitude, and, he concluded—to quote his own words—“the reader has to adopt this solution, or to discover a better one for himself.”³ The purpose of this essay is to reconsider the ‘Ain Feshkha workshops and suggest an “alternative” and hopefully a “better” explanation for the use of the installations uncovered.

The textiles discovered at Qumran and other related sites will be used to further the research of the area.⁴ Except for the seventy-five linen cloths from Cave 1Q described by G.M. Crowfoot in *DJD I* (1955), the most significant portion of the textiles recovered from the sites connected with Qumran have never been studied or published. Research on these unpublished textile remains has finally begun, and a partial inventory with commentary as well as some scientific analyses are now available.⁵

The primary goal of our research is to determine the link between the published scroll-wrappers found in Cave 1Q and the workshops at ‘Ain Feshkha. The superior weaving techniques of the scroll-wrappers are unparalleled in the ancient world. Seventy-five pieces of cloth, left behind after the eleven scrolls were taken away by the Bedouin, were collected in cave 1Q, some of them close to its entrance. Most scholars agree that additional scrolls originally existed. Those, however, were destroyed some time after their initial deposit. All of the cloths were linen; the majority were plain, and some had fringes. Sixteen of the scroll-wrappers had a distinct design of blue stripes, which was never repeated in exactly the same fashion. That is, the design follows a general pattern: a blue line consisting of two threads, which are never at the same

³ “L’hypothèse de la tannerie n’est pas écartée mais elle a peu de soutien; je souhaite qu’on en propose une meilleure”, thus R. de Vaux, “Fouilles de Feshkha.” *RB* 66 (1959): 225–55. All English quotations in this paper are from R. de Vaux, *Archaeology and the Dead Sea Scrolls* (London: Oxford University Press, for the British Academy, 1973), 60–83.

⁴ The textiles are part of the original material excavated by the École Biblique et Archéologique Française de Jérusalem, which retains the sole right of publishing the finds.

⁵ M. Bélis, “Des textiles, catalogues et commentaires.” In: *Khirbet Qumrân et ‘Ain Feshkha. Vol. 2: Études d’anthropologie, de physique et de chimie. NTOA.SA 3* (Edited by J.-B. Humbert and J. Gunneweg; Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht, 2003), 207–76; M. Müller et al., “Identification of the Textiles Using Microscopy and Synchrotron Radiation X-Ray Fibre Diffraction.” In: Humbert and Gunneweg 2003, 277–86. See also the extensive dis-

cussion with references and bibliography in M. Bélis, *Les textiles de Qumrân. Archéologie, technologie, histoire*. Ph.D. Dissertation (Paris: École Pratique des Hautes Études, V^e Section-Sciences Religieuses, 2004). For more examples of indigo-dyed textiles from the region, cf. Y. Yadin, *Finds from the Bar Kokhba Period in the Cave of Letters. JDS 1* (Jerusalem: Israel Exploration Society, 1963), esp. 171–8 and 270–9 (with further references); A. Schmidt-Colinet, A. Stauffer and K. al-As‘ad, *Die Textilien aus Palmyra: Neue und alte Funde* (Mainz: Philipp von Zabern, 2000), esp. 88–90 (with further references and discussion about the possible origin of indigo used for Palmyrene textiles in India, via the Silk Road, rather than from indigenous production); A. Sheffer and H. Granger-Taylor, “Textiles from Masada: A Preliminary Selection,” in: *Masada: The Yigael Yadin Excavations 1963–1964. Final Reports. Vol. 4* (Edited by J. Aviram, G. Foerster and E. Netzer; Jerusalem: Israel Exploration Society), 151–256.

distance from each other or in the same number on the different cloths. A special motif, skillfully woven and consisting of a concentric blue rectangular pattern, is found on nine of the cloths.

Instead of selecting the obvious manner of inserting the blue threads, the weavers adopted a highly complicated technique. Each rectangle was made of one single blue thread: first as a weft, then turning the same thread ninety degrees at rectilinear corners to become a warp. In an attempt to imitate this ancient weaving technique, a professional modern-day weaver had to spend 24 hours to complete the task. Scientific analysis confirmed that the blue on the cave 1Q wrappers was authentic indigo of superior quality.

It is important to note that indigo is not an ordinary dyestuff. The origin of true indigo always remained a mystery in the Graeco-Roman world. Its exquisite blue was of great value, but even the learned Pliny the Elder failed to fathom its origin; he only ascertained that the hard indigo-bricks⁶ were imported from India. Misled by what seemed to him to be light stones, he concluded that indigo was actually a stone or a sea-deposit—the hardened froth exuded from Indian reeds (Pliny, *Nat. Hist.* 35:46). Hence, the Greek and Latin names for the dye are *indikon* and *indicum*, the *Indian product*. Aside from purple, it was one of the most expensive dyes, in part because of its status as an import from distant India.

The Dead Sea linen scroll-wrappers were dyed with true indigo. The dyestuff—or, rather, its synthetic substitute—is nowadays cheap and available everywhere, but in the Graeco-Roman world, its cost was beyond the means of ordinary people. It is estimated, for example, that fifty-five pounds of indigo were required to dye no more than a pound of linen threads. This cost was beyond words; an equivalent amount of money could have purchased four thousand chickens.⁷ Moreover, flax is a very dye-resistant fiber, which requires twice

as much dyestuff as other fibers, such as wool. It is no surprise, therefore, that the expression “indigo-dyers” was used as a synonym for “crooks:” when requested to dye flax, one could replace linen threads with easier-to-dye woollen threads. The dyer’s profit could be increased by charging the customer for a quantity of dyestuff which was not, in fact, used. For the Greeks and Romans, it was nothing more than a fraud. For the Jews, in contrast, the issue was far more severe. Purity and not just commercial integrity was at stake. Jewish religious law did not allow the mixing of vegetal and animal species in fabrics, that is the mixing of wool and linen threads.

What was the Jews’ knowledge regarding indigo? How could they avoid this risk? No doubt, they knew more than Pliny about the nature of indigo. A hint can be found in the Hebrew word for indigo, “*qla-ilan*,” a name quite different from the Greek and Latin terms. The Hebrew word is descriptive, meaning “tree-ashes,” emphasizing the nature of the substance rather than its place of origin.⁸ In other words, the term evokes a vegetal origin. An additional problem regarding the purity control of the Cave 1Q scroll-wrappers exists. How did those who ordered the blue ornamentation for the scroll-wrappers manage to avoid the traditional fraud and get both true indigo and actual dyed-linen threads? The most secure way was to have the indigo grown and produced under close surveillance.

Who was closer to the truth: the learned Roman writer or the ordinary Jew? Is it likely that the Hebrew term was chosen randomly? This assumption is not likely. Jews were aware of the fact that indigo was a plant growing wildly in the Jordan Valley and on the southern shores of the Dead Sea.⁹ Beth Shean was once famous for its indigo gardens.¹⁰ The plant was still harvested and used by Palestinians up to the 1950s. It is, therefore, worth exploring whether ʿAin Feshkha possessed the necessary fields and installations

⁶ In French, *carreaux*.

⁷ It remained very expensive for centuries. According to Balfour-Paul, *Indigo* (London: British Museum, 1998, 60 quoting L.C. Gray, *History of Agriculture in the Southern United States to 1860* (Gloucester: Peter Smith, 1958) “it was said that a planter in South Carolina could fill his bags with indigo and ride to Charleston to buy a slave with its contents, exchanging indigo pound for pound of negro weighed naked”.

⁸ A. Brenner, *Colour Terms in the Old Testament*. JSOT.SS 21 (Sheffield: Sheffield Academic Press), 199.

⁹ F.-M. Abel, *Une croisière autour de la Mer Morte* (Paris: J. Gabalda, 1911): 78–9 writes: “La côte au sud de la Lisân:

Zoar. Une température élevée, aidée d’une irrigation constante, y entretenait depuis des temps reculés une végétation luxuriante. Le baumier, l’indigo, le dattier surtout y croissaient comme par enchantement. [...] Au X^e siècle, Istakhri et Ibn Haukal la célébraient comme remplie de bonnes choses, comme centre d’un trafic important et d’une grande culture d’indigo”.

¹⁰ C.W.M. Van de Velde, *Narrative of a Journey through Syria and Palestine in 1851 and 1852* (Edinburgh and London: W. Blackwood and Sons, 1854), 353 reports: “the palm groves of Beisan, of which the ancients speak in glowing terms, have entirely disappeared, the gardens and indigo-fields are no more”.

appropriate for the cultivation and preparation of the Qumran indigo.

Production and Use of Indigo

Although dyeing with indigo has been known for nearly 5,000 years, little is known about indigo production and related technology in Palestine and Israel.¹¹ A comparative study might open new approaches to the use of indigo at Qumran (figs. 14.3 and 14.4).

The following descriptions of indigo production, excerpted from Sandberg, apply to all the plantations in India and South America, as well as in France's Saint-Domingue [Haiti] and its other overseas colonial possessions:¹²

The harvesting of the indigo bushes usually began in the middle of June just before they flowered. This was men's work for which they used special knives to cut down the plants. Each plant should be cut in exactly the right place, neither too high, nor too low down, but just by two hands' breadth above the ground.

The plants were grown in large open fields, where in the middle of the day the heat was what we would consider intolerable—sometimes above 100°F (40°C) in the shade. During the harvest, however, the plants were cut in the early morning, before the worst of the heat, then bundled up and quickly taken to the factory with its large rectangular fermentation vats. The plants were placed upright in the vat to make it easy for the air bubbles produced during the fermentation process to escape, and also to enable the fluid to run off quickly after completion of the preliminary process.

A vat of some 1,000 cubic feet could hold between 1,100 and 1,500 pounds (500–700 kg) of indigo plants which were covered with a number of poles weighed down with a couple of massive baulks of wood before the liquid was allowed in. . . . The vat was filled with the water until it was within an inch or two of the wooden baulks. For the next few hours, nothing special happened for it took quite a long time for the indigo leaves to become saturated. Once sufficient saturation had been achieved, however, the desired process of fermentation began by itself. Sure indications of this process were indicated by a rise in the

level of the water in the vat, and the formation on the leaves and stalks of fine bubbles that gradually detached themselves and rose to the surface in an ever-thickening stream. Before long, the entire vat was seething and bubbling, and eventually the surface was covered with a thick layer of blue scum. Towards the end of the process, which took a day and a half to complete, repeated tests were made to determine how far the process of fermentation had progressed. This was determined partly by the smell, but mostly by the taste of the fluid. Accuracy was important, for allowing the fermentation process to continue too long, even by just an hour, could endanger the entire yield of months of labour.

As soon as the blue scum appeared on the surface, the smell and taste of the liquid was tested more frequently, for now it was merely a matter of minutes. As soon as the liquid tasted sweet and was dark blue in colour, it was quickly drawn off from the vat into a tank on a lower level where labourers stood ready with long sticks in their hands. As soon as the tank was full they began stirring and beating the liquid. With rhythmic movements they whipped the liquid until the entire surface was covered with a thick layer of blue scum, which became increasingly whiter during the agitation before finally disappearing altogether.

After nearly a couple of hours of this whisking, the liquid became more and more yellow-brown and patches of dark blue began to appear. It was then left alone so that the blue patches, which were composed of the dye-stuff now being formed, might settle on the bottom. To hasten the process soda, lye, powdered unslaked lime, sugar-of-lead, a decoction of plant parts containing tanning agents, or other such things might be added. . . .¹³

The first process to which the vegetable mass was subjected, that of fermentation, induced an enzyme reaction that released the indigo proper from its preliminary state of indican; when oxygen was added during the subsequent "whipping", it became oxidized and so turned into indigo blue. Indigotin, is what in everyday parlance we now call indigo. A further couple of processes remained, before the circle of production was complete.

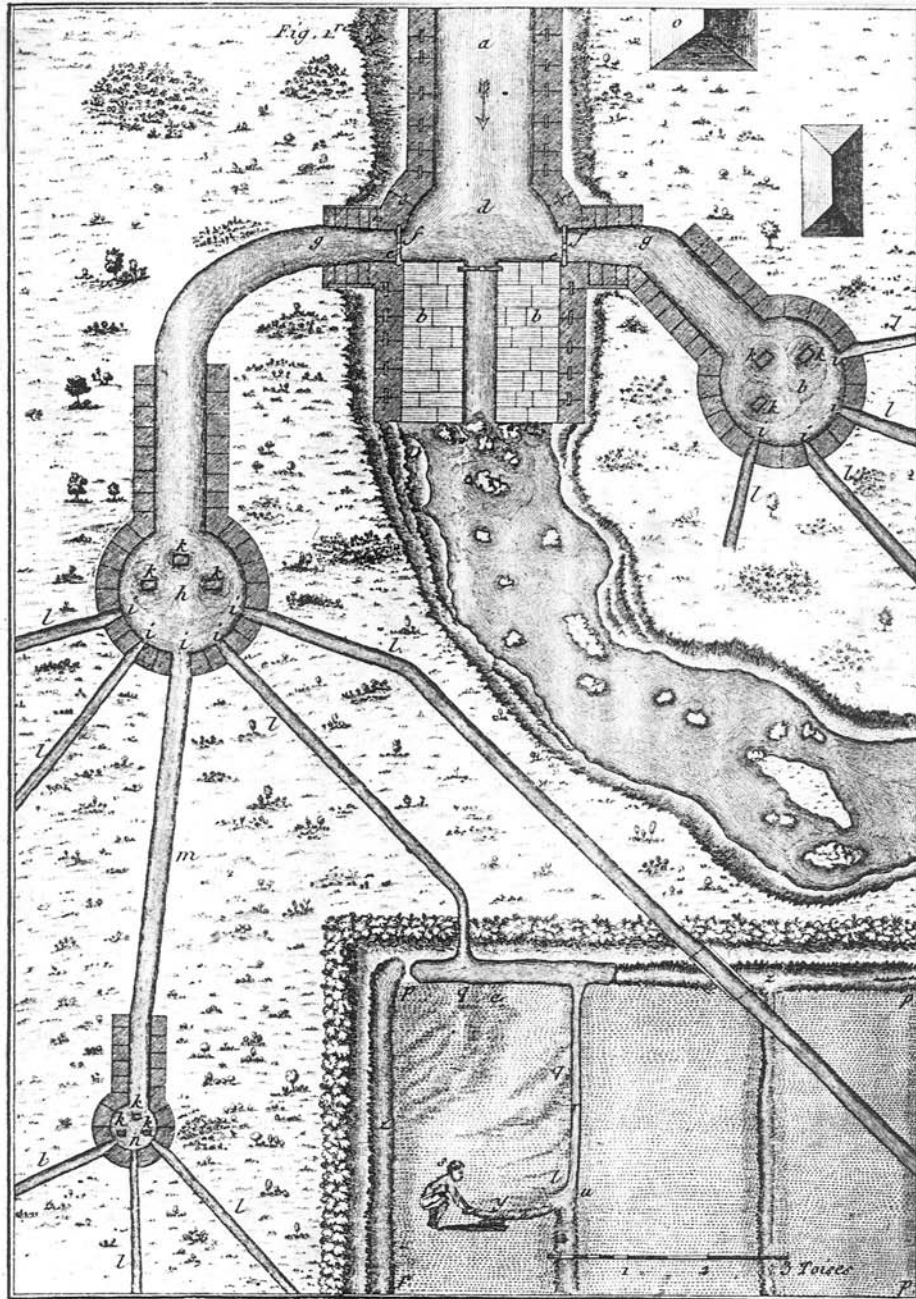
It took a couple of hours after the whisking stopped for all the patches of blue to have settled to the bottom of the vat. Once this had occurred, the liquid was drawn off, leaving only the masses of blue paste in the vat.

The final stage of this long, complicated process was for the cubes of indigo to be dried slowly for two or three months in a special shed. If the

¹¹ For Egyptian textiles, see Schmidt-Colinet, Stauffer and As'ad 2000, 88.

¹² The following excerpts are taken from Sandberg 1989, 19–22; see also Balfour-Paul 1998, 59–66, 100–3, 108–2.

¹³ At 'Ain Feshkha, an agent of this type (whatever it could have been, perhaps urine) may have been contained in the jar found in a hole carved in the open area next to the complex.



Indigoterie, Plan d'un terrain disposé p'arroser les plantation de l'Indigo

Fig. 14.3. Plan of an indigo workshop with adjacent fields. (Encyclopédie de Diderot)

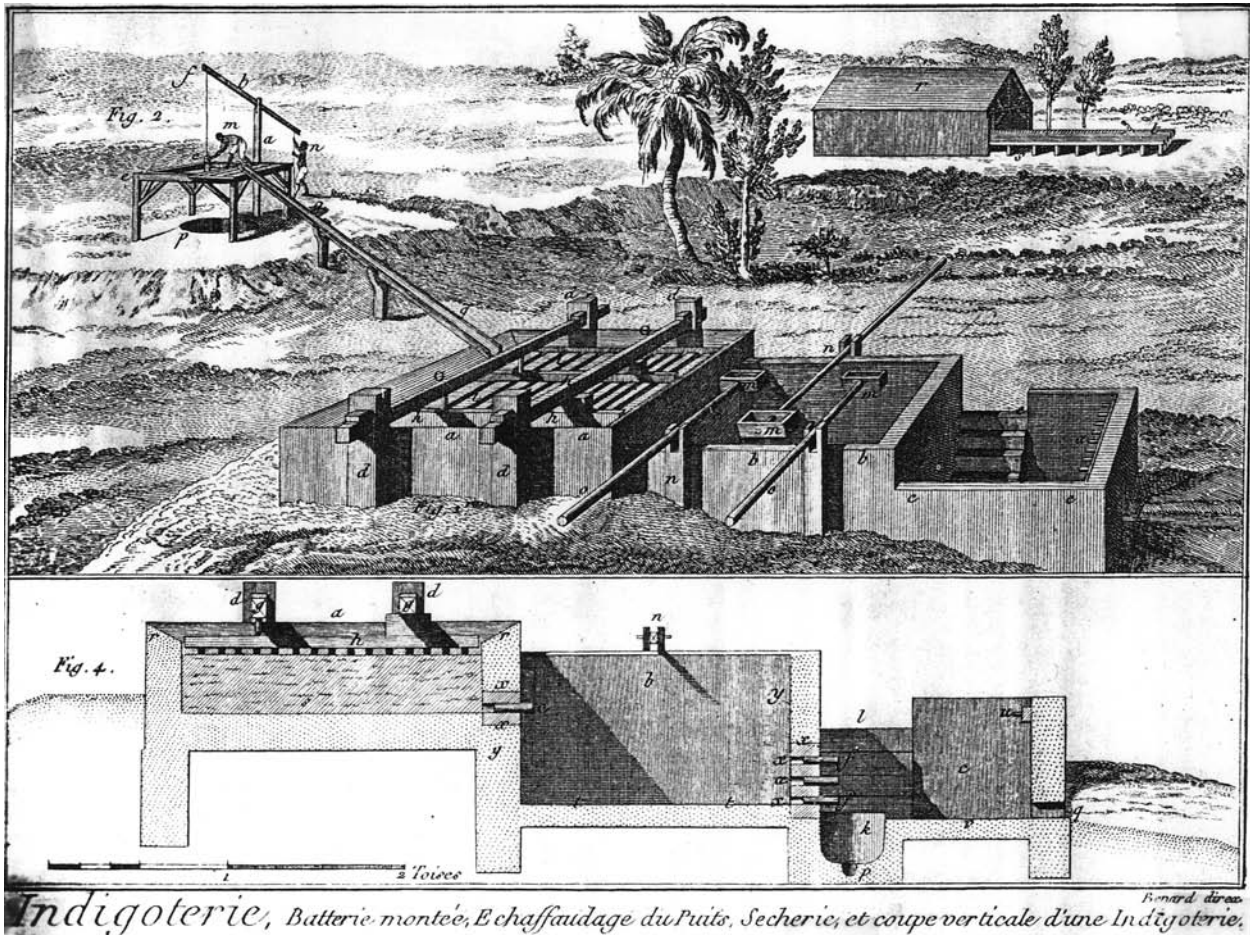


Fig. 14.4. Section of the indigo workshop from figure 14.3. (Encyclopédie de Diderot)

drying process was too quick the cubes would split or crack, thereby losing value. Storage of the indigo cubes in a drying shed protected them from direct sunlight, which would not only have caused them to dry too quickly, but would also have bleached their valuable color.

We can obviously not assume that an indigo factory in the ancient world would have been identical to those functioning in French or English colonies of the seventeenth–nineteenth centuries. There is, however, one particular unifying element to the process, irrespective of the time period: the provisioning of water. Indigo requires plenty of water both for growing the plants and for preparing the dyeing paste. At first sight, the similarity between the channels south of ‘Ain Feshkha and those of an indigo farm in Saint-Domingue

[Haiti] is striking: both consist of basins built sequentially at decreasing levels and sizes, a prime necessity for the three stages of transformation of indigo leaves into dyestuff.

We must now examine in detail the workshops at ‘Ain Feshkha in order to see whether they could have served for the processing of indigo (fig. 14.5). The installations consist of a system of channels and basins of different sizes, dug into the ground of a gravelled courtyard. The complex of channels is designed to supply each basin with fresh water, except locus 25—which is situated so that the only fluid it received came out of the largest vat, locus 24 (fig. 14.6). The water was provided by a nearby spring (now dried up), and was conducted into the ‘Ain Feshkha installations via locus 29.¹⁴

¹⁴ De Vaux failed to find the original spring, despite the search conducted to locate it.



Fig. 14.5. Basins of loci 24, 25, and 27; note the channel circumventing locus 24 and leading into locus 27.
(Cat. ÉBAF. 12972, 601)



Fig. 14.6. Locus 24 towards the north; note the stone drum at the bottom of the basin.
(Cat. ÉBAF. 14183, 602)

It passed through the north wall of the enclosure by way of two openings separated by a dressed stone slab. An overflow was provided by means of a short channel leading out northwards under the boundary wall, after which the water drained away down the natural slope of the ground. The main flow was directed south-eastwards down a channel opening in a rectangular tank, locus 23 of 0.80 m in depth.¹⁵

From that tank (locus 23), the water could either reach locus 26, the largest basin at the site, or, alternatively, flow down into two different loci: locus 24 or locus 27. Locus 24 was fed by the first branch of the channel; the second branch of the channel turned westwards alongside the basin, then around its corner, until it could pour its water down a flight of three steps into locus 27.

These vats were meant to form a unit. They are in proximity to one another and they present two main features: (1) they are of decreasing capacity: locus 24 is larger than locus 25, the smallest being the pit hollowed in the ground of locus 25; (2) they are built on graduated levels, which means the flow entering 24 continues into 25, the lower tank, and not the other way around. The upper vat, locus 24, is the largest of the three, measuring 5 by 5 m and being 1 m deep.

The 'Ain Feshkha workshops contain all the facilities expected for preparing indigo. The initial vat is suitable for the first tank of any indigo-workshop, called the soaking vat (*trempoire* in French). It would have been packed with freshly harvested indigo leaves and then soaked with water. An average of 12 hours was enough to provoke their fermentation. Long sticks or beams could have functioned to keep the leaves under water as the wooden baulks described above.

This practice is still in use today, for example, on farms in El Salvador. The decay is stopped when bubbles appear on the top of the liquid. The basin is emptied and immediately cleaned, and then, another process begins in the following vat, at 'Ain Feshkha, locus 25.

The floor and walls of loci 24 and 25 were coated with hydraulic plaster. Since the floor of locus 24 gently slopes downward, toward the open-

ing of locus 25, de Vaux found a thicker deposit of lime piled up against the eastern corner. Lime is not only renowned for helping indigo fermentation—it is an indispensable requirement. The liquid was allowed to flow into the second vat by removing the stone closing the opening carved through the wall between loci 24 and 25. This vat (locus 25) is smaller, and a conduit has been cut into the paved floor, leading to a rectangular pit dug against the wall that separates loci 25 and 27. This pit is 1.3 m deep.

From the eastern corner, a flight of steps provides access to the paved floor surrounding the basin. The water was drained out by a short channel next to the steps. It is possible that this locus and its pit were meant for the beating of the dyestuff. The whole tank was filled with the liquid pouring out from locus 24. It was then stirred until enough oxygen had been incorporated for the indigo to form. Long paddles or sticks could be used, but it is also possible that workers would have climbed down into the vat to beat the mixture.

There would most likely have been a skilled overseer for this entire process—someone who supervised the labourers and, more importantly, who controlled and was able to judge the chemical change necessary for the formation of the dyestuff. This “dye-master” would periodically sample the mixture in order to decide when to halt the beating. This step is the trickiest point in the process of making indigo. Diderot states that the supervisor deserved the title of “artist” because of the skill he had to show. The Spanish refer to them as “punteros,” the “point-watchers.”

Despite its indigo-like appearance, the blue scum, which appears on the surface, is not ready for the dyeing process. Once the liquid has been sufficiently agitated and the blue scum turns white and eventually disappears, it is directed into the final vat. The indigo-residue is left undisturbed in a small pit, ominously nicknamed in the French colonies “the little devil’s tank,” *le diablotin*.¹⁶

The subsequent gathering of the indigo residue was hard work, and the labourers assigned to the task suffered from breathing the pernicious fumes

¹⁵ De Vaux 1973, 70.

¹⁶ Sandberg 1989, 1 writes: “[The water is then] drawn off, leaving all the indigo in a corner of the bottom of the

slightly tilted vat”. This describes a situation similar to that in locus 25 of 'Ain Feshkha.

exuded from the drying indigo-paste. Often this task fell to slaves, whose suffering during the work was expressed in the indigo-mood of the songs they sang while labouring—a beautiful form of music that would come to be known by the world as the “blues.”

Where was “the devil’s tank,” or, in more traditional French, the *repositoire* (“the resting-vat”) at ‘Ain Feshkha? Was it in locus 25 or in locus 27? As a matter of fact, there is a deep small pit in locus 25, and beyond the separating wall, another vat in locus 27. Either could have been used as a *repositoire*. In his publications, however, de Vaux never refers to a channel or an opening connecting loci 25 and 27. I have checked the site (April 2003), and, indeed, there was none. If some kind of connection existed, then the whole process was executed in vats loci 24 and 25. In 1958, water continuously filled up the two pits in loci 25 and 27 during de Vaux’s excavations, and the bottom of the pits remained covered with a thick blackish and stinking deposit. Unfortunately, no samples were gathered from the main complex of basins for analysis. The samples R. de Vaux chose were taken out of locus 24, but their analyses were only for remains of hides or tannin—and the results were negative.¹⁷

A further element needs to be considered. The recent excavation in the installation uncovered the bottom of a small pit in locus 25.¹⁸ A horizontal slab which has been used as a step to climb up and down the pit is still inserted at mid-height of the western wall and belonged to locus 25. But what is even more interesting is the cylindrical-shaped stone (most likely a column drum) found sitting on the floor of the rectangular pit in locus 25. Its surface is even and smooth, and its color is slightly bluish. The fragment stands just above the level of the plaster preserved in the bottom and on the walls of the tank. This means that the worker could have stood upon the stone without having to spoil the indigo paste. This data supports the evidence of a vat, where the indigo paste was allowed to dry and where a labourer

could stand up above the precious mud he collected in the final stages of the process.

Conclusion

The indigo on the linen-wrappers is one of the most important pieces of data relating to the manuscripts. Certainly, the use of indigo on flax was a very deliberate choice. Indigo had to be dyed locally, since this latter process had to take place immediately after the spinning and before the weaving. This blue dye was produced by artists, in appropriate workshops. The climate and alkaline soil of the Dead Sea allowed the indigo flora to grow, and ‘Ain Feshkha could have provided sufficient water for irrigation and dye manufacturing.

Knowledge of the technique for indigo-production remained a well-kept secret throughout the ancient world. This secret was not unveiled in other parts of the Graeco-Roman world until the second century C.E., when indigo was extensively cultivated under close imperial control. Before that time, apart from the Indian professionals exporting their indigo, only the Jews understood it as being “the ashes of a tree.” Jews may have had the opportunity to witness workshops producing the “indigo-stones”—to share their secrets—during their exile in Babylon. In Mesopotamia, there were indigo-craftsmen as well as in India. Indigo-dyed linen and blue-striped borders of plain linen mummy cloths from the Fifth Dynasty (ca. 2400 B.C.E.) were also found in Egypt. But the dyestuff may have been imported amongst the luxury goods traded northwards up the Red Sea from Punt or southern Arabia.

If ‘Ain Feshkha was actually an indigo-factory, then it provides the explanation of the very puzzling question about the provenience of the first-rate indigo found on the Qumran textiles. If not, we will have to explore another origin for the dyestuff, and in the meantime, seek musical comfort in indigo blues, to quote Duke Ellington, “bluer than blue can be.”

¹⁷ F.E. Zeuner, “Notes on Qumran. *PEQ* 92 (1960): 27–36.

¹⁸ See Y. Hirschfeld, “Excavations at ‘En Feshkha, 2001: Final Report.” *IEJ* 54 (2004): 37–74.

QUMRAN AND THE HASMONAEAN AND HERODIAN WINTER PALACES OF JERICHO:
THE IMPLICATION OF THE POTTERY FINDS ON THE INTERPRETATION OF THE
SETTLEMENT AT QUMRAN

Rachel Bar-Nathan

Introduction

The settlement of Qumran is still a controversial subject. Continuing archaeological research and recent excavations have raised issues about the character of the site and brought to light new evidence, which may help to reinterpret the site's nature.¹ The problem with certain established theories is that the interpretation of the site is not based on valid archaeological data. Therefore, it is essential that all archaeological evidence be carefully analyzed prior to drawing any historical conclusions.

Pottery from Qumran has not been given the attention it deserves.² While examining the pottery of the Hasmonaean and Herodian winter palaces of Jericho (90 B.C.E.–48/73 C.E.), I noted a striking similarity between the Hasmonaean-period pottery from Jericho and that of Qumran.³ In addition, parallel changes in the character of the

pottery types took place at both sites during the reign of Herod the Great and during the first century C.E. Therefore, the evidence from Jericho may supply chronological evidence for the different strata of settlements at Qumran and, most significantly, shed light on the character of the settlement itself.

As a result of such findings, questions must be raised about current interpretations of Qumran. In fact, only by comparing the material evidence (with other) and using accepted archaeological methods can we arrive at any objective conclusions concerning Qumran and its inhabitants. Moreover, it appears that it is necessary to reexamine Qumran in connection to other Judaean sites of the Second Temple period, especially those on the plain of Jericho and the shore of the Dead Sea, such as Jericho, Kypros, and Masada as well as Herodium and Jerusalem.

¹ Research on Qumran is divided into two opposing approaches. The conventional view is that Qumran was a settlement of the Essenes and that the architecture conforms to the customs and observances of the sect. This view is supported by the fact that the type of storage jars containing the scrolls in the caves around the site has also been found within the settlement. Furthermore, the discovery of the "scriptorium" where, according to this view, tables and inkwells were found, led to the idea that the inhabitants of the site were the scribes of the scrolls. The other view disassociates the scrolls from the site. This interpretation sees the site as an estate, a caravansary, a fortress, etc., and assumes that the scrolls were brought from a library in Jerusalem and hidden in the desert during the Great Revolt.

² For the preliminary data published by R. de Vaux, see "Fouille au Khirbet Qumrân. Rapport préliminaire." *RB* 60 (1953): 83–106; id., "Exploration de la région de Qumrân. Rapport préliminaire." *RB* 60 (1953): 540–61; id., "Fouilles au Khirbet Qumrân: Rapport préliminaire sur la deuxième campagne." *RB* 61 (1954): 206–36; id., "La Poterie." In: *Qumran Cave 1. DJD 1* (Edited by D. Barthélemy and J.T. Milik; Oxford: Clarendon, 1955), 8–18; id., "Fouilles de Feshkha." *RB* 66 (1959): 225–55; id., "Archéologie." In: *Les Grottes de Murrabba'ât* (Edited by P. Benoit, J.T. Milik and R. de Vaux; Oxford: Clarendon, 1961), 3–66. Jodi Magness has discussed the pottery of Qumran as relating to a separatist sect while ignoring the archaeological facts and has concluded that the ceramic evidence reflects the character of the community

and is special to Qumran; see J. Magness, "The Community at Qumran in Light of Its Pottery." In: *Methods of Investigation of the Dead Sea Scrolls and the Khirbet Qumran Site: Present Realities and Future Prospects*. ANYAS 722 (Edited by M.O. Wise et al.; New York: Academy of Sciences, 1994), 39–48. However, in her book, *The Archaeology of Qumran and the Dead Sea Scrolls* (Grand Rapids: Eerdmans, 2002), 73–89, Magness admits that the pottery of Qumran accords with that of other Dead Sea sites, yet she maintains her former view that the pottery of Qumran is specific to the site and reflects the character of its inhabitants: "The pottery from Qumran thus sheds a great deal of light on the character of the community. It suggests that the inhabitants practiced a deliberate and selective policy of isolation, manufacturing ceramic products to suit their special needs and concerns with purity" (Magness 2002, 89). On this subject, see also J. Zangenberg, "Qumran und Archäologie. Überlegungen zu einer umstrittenen Ortslage." In: *Zeichen aus Text und Stein. Studien auf dem Weg zu einer Archäologie des Neuen Testaments*. TANZ 42 (Edited by S. Alkier and J. Zangenberg; Tübingen: Francke, 2003), 262–306, esp. 281–8; id., "Opening Up Our View: Khirbet Qumran in a Regional Perspective." In: *Religion and Society in Roman Palestine: Old Problems and New Approaches* (Edited by D.R. Edwards; New York and London: Routledge, 2004), 170–87.

³ R. Bar-Nathan, *Hasmonaean and Herodian Palaces at Jericho: Final Reports of the 1973–1987 Excavations. Vol. 3: The Pottery* (Jerusalem: Israel Exploration Society, 2002).

Jericho and Qumran in the Hasmonaean Period

The Hasmonaean and Herodian Winter Palaces of Jericho, excavated by Ehud Netzer,⁴ are situated in the western part of the plain of Jericho, on both sides of Wadi Qelt, on a site known in the past as Tulul Abu el-‘Alaiq.⁵ The excavations brought to light a series of palaces from the Hasmonaean period (dating from the end of the second century B.C.E.), which began as a royal estate (Stage 1) and developed into a large complex of palaces (Stages 2–7).⁶ Three Herodian palaces dating from the time of Herod the Great until their destruction in the earthquake of 48 C.E. were also uncovered. An industrial zone was annexed to the palaces, probably for the production of balsam and date wine,⁷ and a Roman villa was built at the site following the earthquake (48/73–115 C.E.). Jericho, thus, offers a unique opportunity to study the architecture, material culture, and religion of Judaea during the Second Temple period, as well as the activity of the Hasmonaean and Herodian kings in the Jericho Valley.

Qumran is situated only 14 km south of Jericho. Although traditionally identified with an ascetic Judean Desert sect, its pottery is most similar to the pottery found at the royal palaces of Jericho. The Hasmonaean-period pottery from Qumran Ib is almost identical in date, shape, and character to that of Hasmonaean-period Jericho (fig. 15.1). It, therefore, provides evidence for dating the establishment of the two sites to the same

period, i.e., the time of Alexander Jannaeus.⁸

The typical pottery assemblages of the Hasmonaean palaces at Jericho are local, coarse ware, crudely made and limited to houseware forms. Only a few are decorated or slipped,⁹ and these were apparently made in regional workshops from near the Dead Sea and the plain of Jericho, such as at Qumran and Jericho. This is despite the fact that no pottery workshop from the Hasmonaean period has yet been found in proximity to the palaces. However, a lamp mold from the time of Herod¹⁰ and a first century C.E. kiln found in the industrial section of Jericho¹¹ suggest that a pottery workshop might have existed in the general vicinity. At Qumran, evidence of a pottery workshop indicates that a particular chemical subgroup of vessels (Gunneweg’s chemical group I) was produced locally,¹² while different vessels (Gunneweg’s chemical groups III and V) were produced at Jericho.¹³ Since some of the pottery of Jericho is identical to that of Qumran, it is very likely that both sites were supplied by the same workshop during the Late Hellenistic (Hasmonaean) period. This typological observation has been supported by petrographic studies and neutron activation analysis (NAA).¹⁴

Clearly, the two sites reflect the same Judaeo-Hasmonaean ceramic tradition, the center of which was most probably Jerusalem, which was quite different from the Hellenistic pottery of the same period.¹⁵ Jericho and Qumran, however, display typological characteristics that are probably

⁴ E. Netzer, *Hasmonaean and Herodian Palaces at Jericho. Final Reports of the 1973–1987 Excavations. Vol. 1: Stratigraphy and Architecture* (Jerusalem: Israel Exploration Society, 2001).

⁵ All the photographs in this article were taken by Gabi Laron, unless otherwise indicated.

⁶ Netzer 2001; Netzer and Bar-Nathan in Bar-Nathan 2002, 13–9.

⁷ Netzer and Bar-Nathan in Bar-Nathan 2002, 19–20; E. Netzer, R. Laureys-Chachy and Y. Meshorer, *Hasmonaean and Herodian Palaces at Jericho: Final Reports of the 1973–1987 Excavations. Vol. 2: Stratigraphy and Architecture. The Coins* (Jerusalem: Israel Exploration Society, 2004).

⁸ While the date of the pottery types, in both Qumran and Jericho, seems to be no earlier than the first century B.C.E. (see discussion Bar-Nathan 2002, 203), the two sites could have been established earlier, at the time of John Hyrcanus I (134–104 BCE), as evidenced by the coins and probably by the stratigraphy of the first Hasmonaean palace at Jericho. However, the earliest pottery exposed, thus far, in the Hasmonaean-Herodian complex at Jericho should be attributed to a period not earlier than 100–90 B.C.E. (Bar-Nathan 2002, 193–4). The existence of Qumran Ia, which de Vaux attributed to the time of John Hyrcanus, or perhaps his father, Simon, is usually ignored; see J.-B. Humbert,

“The Chronology during the First Century BC. De Vaux and his Method: A Debate.” In: *Khirbet Qumrân et ‘Ain Feshkha. Vol. 2: Études d’anthropologie, de physique et de chimie*. NTOA.SA 3 (Edited by J.-B. Humbert and J. Gunneweg; Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht, 2003), 444; Magness 2002, 68. As noted above, the pottery from Qumran Ib closely resembles the pottery from the Hasmonaean palaces of Jericho.

⁹ Bar-Nathan 2002, 119–24.

¹⁰ Bar-Nathan 2002, 108–9.

¹¹ Bar-Nathan 2002, 146.

¹² R. de Vaux, *Archaeology and the Dead Sea Scrolls* (London: Oxford University Press, for the British Academy, 1973), 7, 16–9, 28, 44, 120; see also Yizhak Magen and Yuval Peleg in this volume.

¹³ J. Gunneweg and M. Balla, “Neutron Activation Analysis: Scroll Jars and Common Ware.” In: Humbert and Gunneweg 2003, 10–3, 22.

¹⁴ Gunneweg and Balla 2003; personal communication from J. Gunneweg.

¹⁵ H. Geva, *Jewish Quarter Excavations in the Old City of Jerusalem Conducted by Nahman Avigad, 1969–1982. Vol. 2: The Finds from Area A, W and X–2. Final Report* (Jerusalem: Israel Exploration Society, 2003).

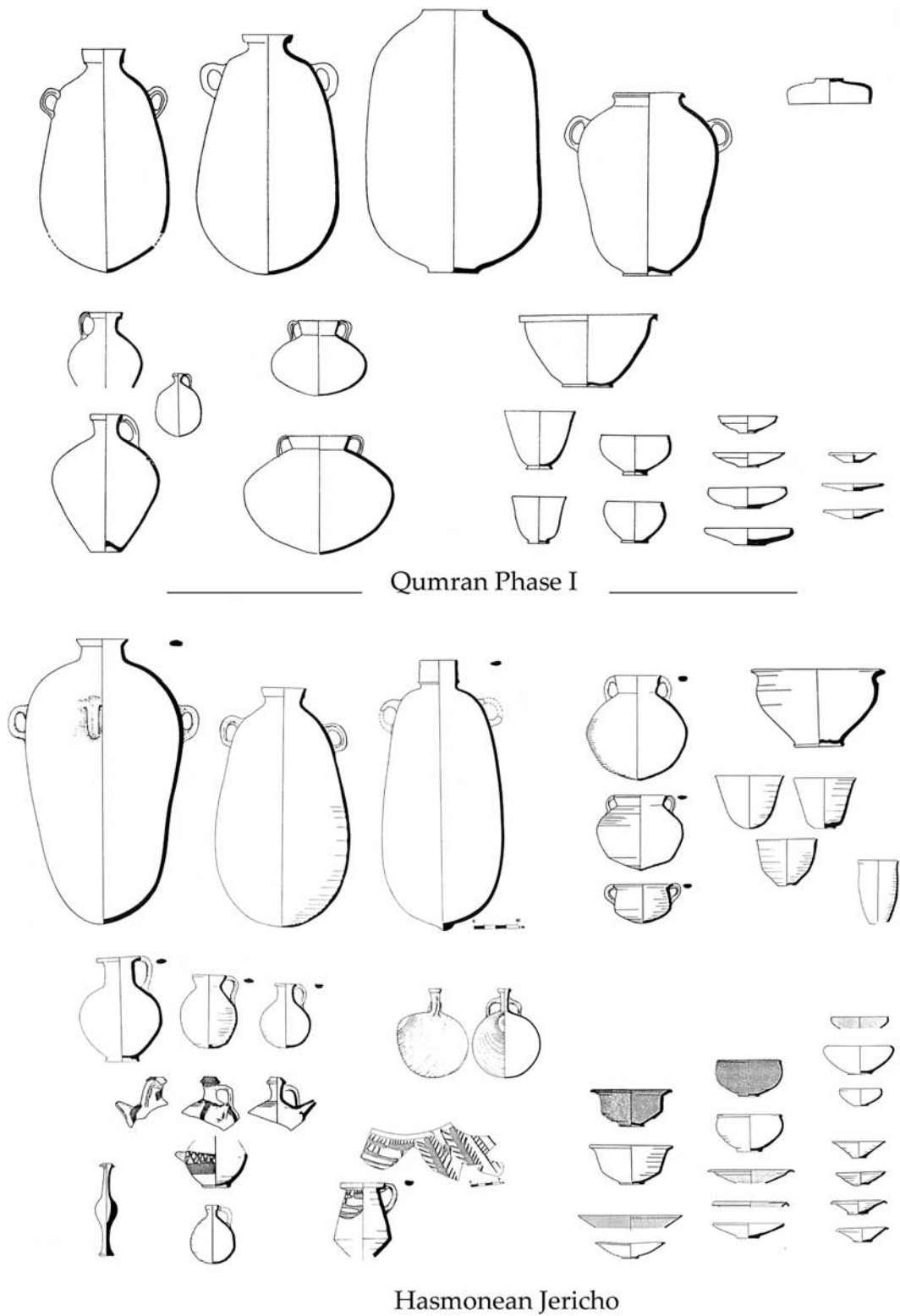


Fig. 15.1. Comparison between the pottery of Qumran I and the pottery of Hasmonean Jericho.

common to pottery workshops along the western shore of the Dead Sea.

In Jericho and Qumran, as in other Judean workshops, two distinct ceramic traditions (local and Hellenistic), can be identified. The local tradition at Jericho was marked by the continuation of Judean forms derived from the Persian period or even earlier, such as the four-handled jar (Jericho type J-SJ1), the folded lamp (Jericho type J-LP1A; fig. 15.2:4), and saucer lamp (Jericho type J-LP1B; (figs. 15.2:1–3)).¹⁶ Surprisingly, the Hellenistic influences are few. Although Judean potters were certainly familiar with Hellenistic forms and techniques, they may have chosen to ignore or perhaps even reject them. Nevertheless, a few Hellenistic types, or imitations thereof, did enter the local repertoire. The fusiform *unguentarium* (Jericho type J-UN1), one of the most popular Hellenistic types, was either manufactured locally or imported.¹⁷ Several types of bowls and plates are local imitations of Hellenistic wares, such as the bowl with an incurved rim (Jericho type J-BL3; fig. 15.4, lower right), the bowl with an outcurved rim (Jericho types J-BL1–J-BL2; fig. 15.4, lower left), and the small local fish-plates (Jericho type J-PL1).¹⁸ Widespread techniques, such as the use of molds in the lamp industry (fig. 15.2:5–7), were also adapted locally (Jericho type J-LP2).¹⁹ This was rare, however, since saucer-lamps and other wheel-made local types were preferred at Jericho (Jericho types J-LP1–J-LP3, J-LP4, and J-LP5; figures 15.2:4 and 15.3, three in upper row).²⁰ Similar trends have been noted at Qumran. In fact, what had been considered a lamp type unique to Qumran, the “Qumran Lamp,” (a wheel made lamp with an elongated pinched nozzle, a ridge around the filling hole, an ovoid body, and a

slightly raised flat base (fig. 15.3) has also been found at other Judean sites, namely Jericho (Jericho type J-LP3A1–A2)²¹ and Masada.²² This may indicate that the type is either regional to the plain of Jericho and the Dead Sea area, or has simply not yet been found elsewhere similar, but mold-made lamp has been found in a Herodian-period house in the Upper City of Jerusalem.²³

The type of pottery found at Hasmonaean Jericho and Qumran is best demonstrated by the enormous quantities of tableware, especially small bowls and cups. Particularly striking is the presence of a large quantity of cups and bowls, both at Qumran (locus 89—the “pantry”) and Jericho (see above).²⁴ The considerable amount of this kind of pottery uncovered in locus 89 at Qumran was attributed to the custom of communal dining within the Essene sect (is in question).²⁵ In the Hasmonaean palaces, tableware constitutes more than 50% of the entire corpus of pottery. Two types of tableware were particularly popular at Jericho (fig. 15.4): the small Hasmonaean bowl with an incurved rim (average diameter 10 cm, height 4 cm, Jericho type J-BL3A3)²⁶ and the small plate with an infolded rim (rim diameter 10–14 cm, height 2.5 cm) Jericho type J-PL1, subtypes J-PL1A3–J-PLIB3).²⁷ Although these vessels were found throughout the palace complex, approximately 2,000 intact bowls and plates were found in the water installations alone. There is still no satisfactory explanation for the large quantity of these vessels or for their use at Jericho. A clue, however, may be provided by the approximately 1000 complete plates and bowls unearthed within the deep layer of sediment in a mikveh [locus A(b) 209–A(b) 243 A(b)] situated in the corner of the

¹⁶ Bar-Nathan 2002, 22–3, pl. 1, no. 1; 103–4, pl. 17, nos. 284 and 285.

¹⁷ Bar-Nathan 2002, 57–9, pl. 10, nos. 93–102.

¹⁸ Bar-Nathan 2002, 83–7, pls. 14 and 15, nos. 187–228; 183, pl. 28, no. 524; 81–3, pl. 14, nos. 180–6; 91–7, pl. 16, nos. 248–63.

¹⁹ Bar-Nathan 2002, 105–10, pls. 17–8, nos. 286–98.

²⁰ Bar-Nathan 2002, 103–5, pl. 17, nos. 284–5; 110–5, pl. 18, nos. 299–304.

²¹ Bar-Nathan 2002, 110–2, pl. 18, nos. 299–302, ill. 87–8.

²² D. Barag and M. Hershkovitz, “Lamps from Masada.” In: *Masada: The Yigael Yadin Excavations 1963–1964. Final Reports. Vol. 4* (Edited by J. Aviram, G. Foerster and E. Netzer; Jerusalem: Israel Exploration Society, 1994), 7–78. See no. 124 = fig. 21 in Barag and Hershkovitz 1994, 71–2.

²³ N. Avigad, *Discovering Jerusalem* (Nashville: Thomas Nelson, 1983), 88, ill. 70.

²⁴ This idea was also adopted by Gunneweg. Gunneweg and Balla 2003, 19.

²⁵ Referred to as the “pantry”; see R. de Vaux, “Fouilles au Khirbet Qumrân: Rapport préliminaire sur les 3e, 4e et 5e campagnes.” *RB* 63 (1956): 562, fig. 2; see also id., *Fouilles de Khirbet Qumrân et de Ain Feshka. Vol. 1: Album de photographies. Répertoire du fonds photographiques. Synthèse des notes de chantier du Père Roland de Vaux*. NTOA.SA 1 (Fribourg: Éditions Universitaires; Göttingen: Vandenhoeck & Ruprecht, 1994), 164–5; 318–9, pls. 341–4; on the “pantry,” see also the articles by Jean-Baptiste Humbert and Stephen Pfann in this volume.

²⁶ Bar-Nathan 2002, 85–7, pls. 14–5, nos. 199–228; 183, pl. 28, no. 524.

²⁷ Bar-Nathan 2002, 91 and 93–4, pl. 16, nos. 250–63.

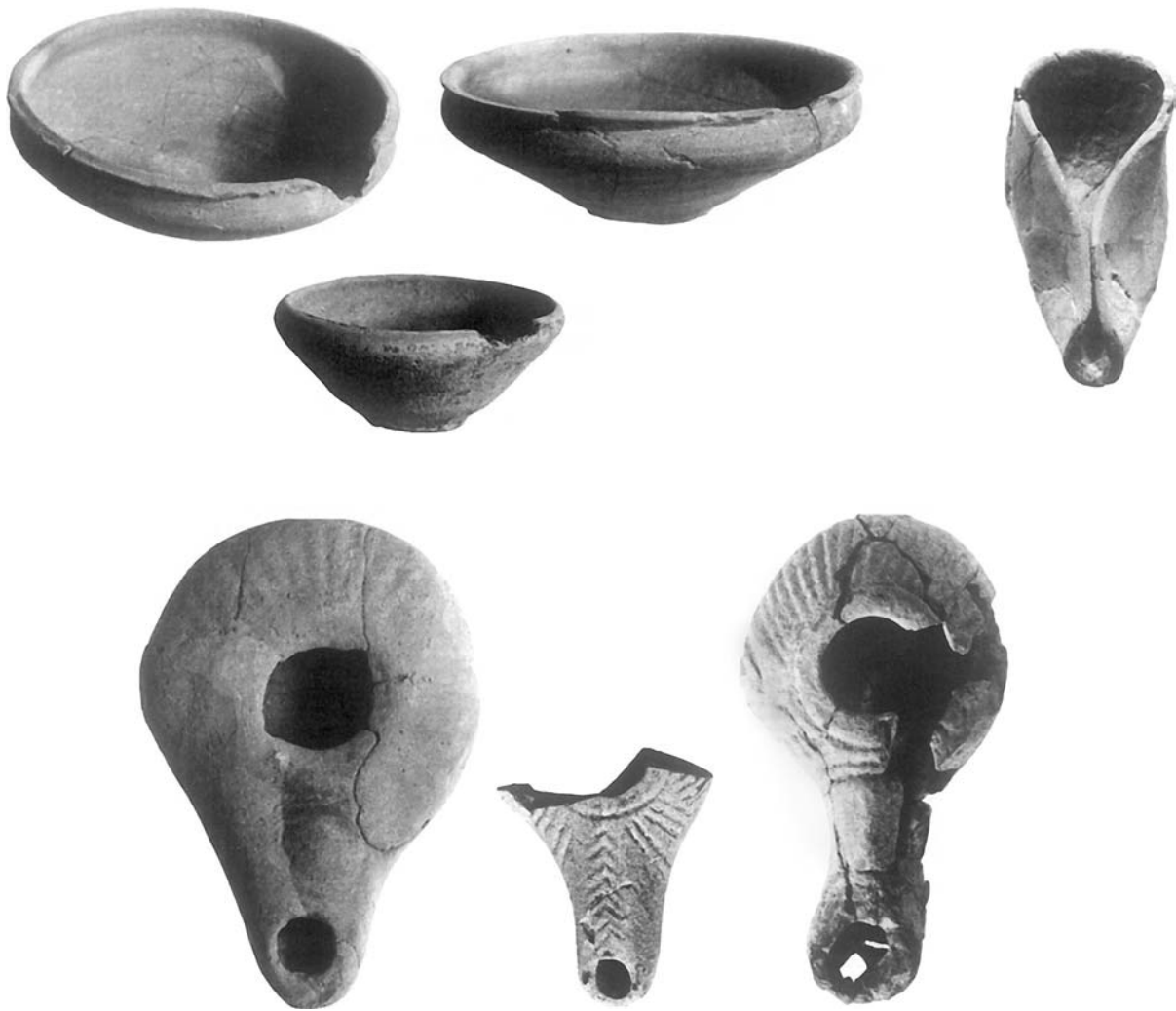


Fig. 15.2. Several types of Hasmonaean lamps from Jericho.

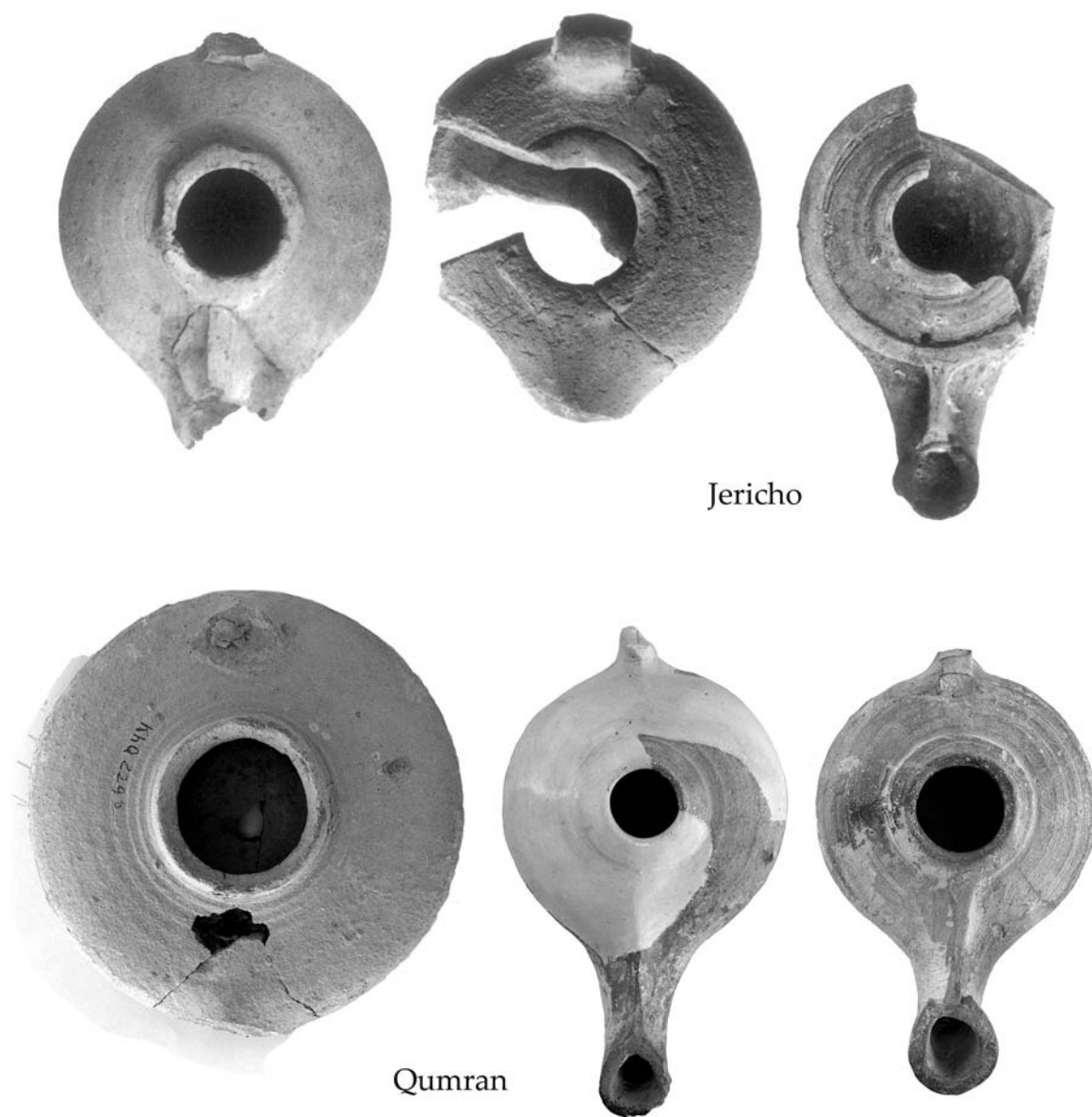


Fig. 15.3. The so-called Qumran lamp from Jericho and Qumran.
(courtesy of the École Biblique)



Fig. 15.4. The Hasmonaean bowls and plates from Jericho found in a ritual bath.



Fig. 15.5. Bowls and plates from a pool at Qumran, locus 58 (courtesy of ÉBAF)

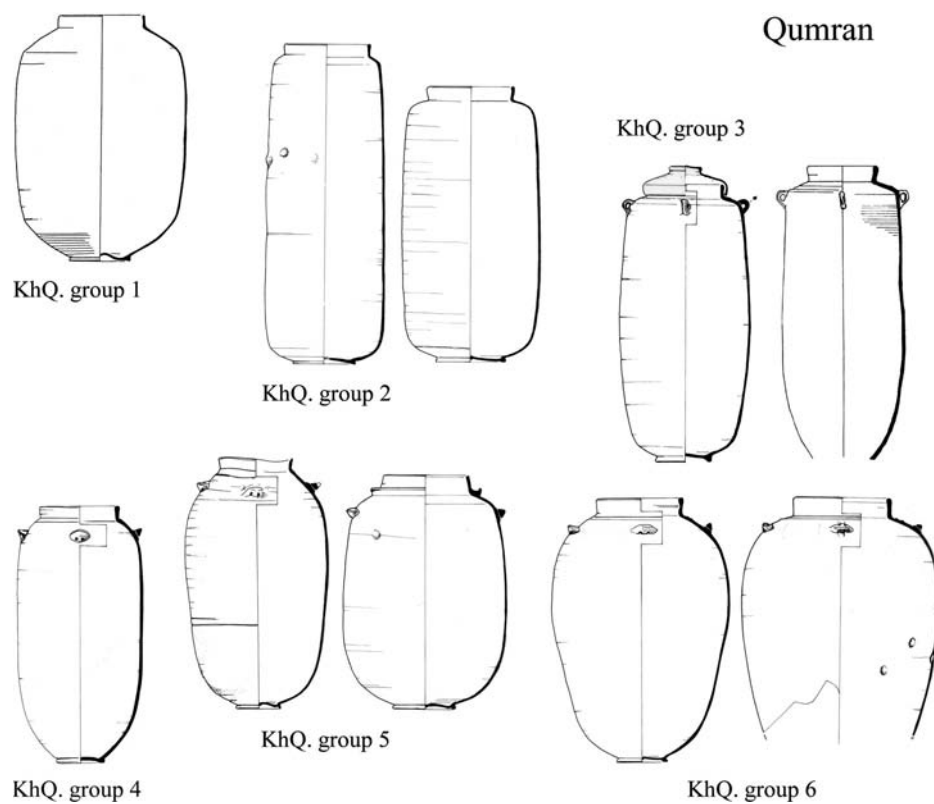


Fig. 15.6. Qumran “scroll jars.” (courtesy of École Biblique)

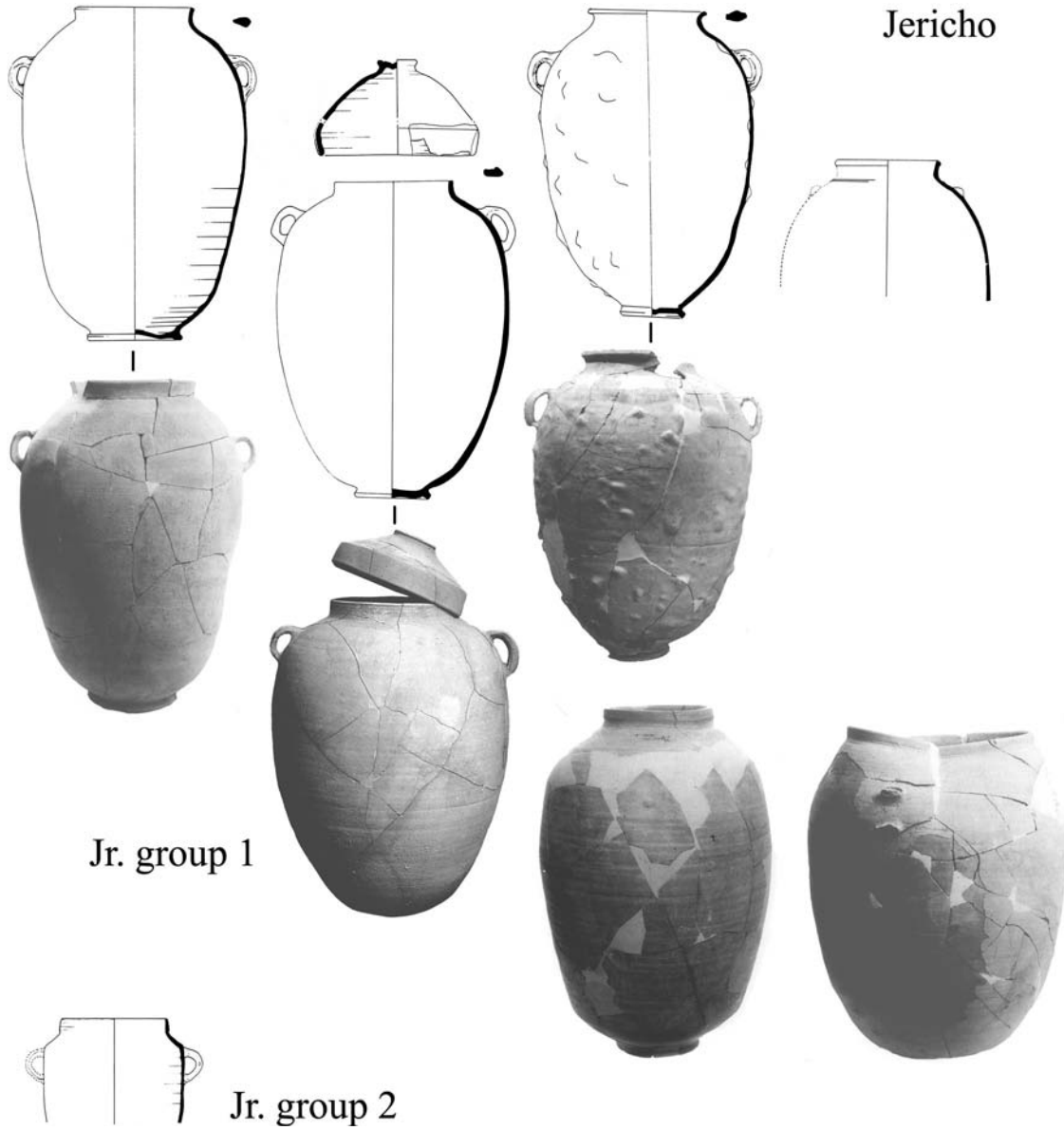


Fig. 15.7. Jericho "scroll jars."

main Hasmonaean palace (fig. 15.4).²⁸ This is rather unusual, since there is no known ritual law for purifying such clay vessels. Perhaps their association with water installations, especially the many *mikva'ot* of Jericho, indicates a ritual or *halakhic* purpose or some unknown tenet of the Sadducean sect, to which the Hasmonaean king/priests adhered.²⁹ Interestingly, a comparable phenomenon was found in the Upper City of Jerusalem,³⁰ where many bowls and cups similar to the Jericho types were found in the water installations, and in Qumran, such as in pool, locus 58 (fig. 15.5). This could perhaps be attributed to the fact that the residents of the Upper City of Jerusalem were from priestly families. Alternatively, it might be considered as a characteristic of Hasmonaean Judaea in general.³¹

Another important comparison between Jericho and Qumran can be made by considering what is absent, rather than what is present. Imported ware is virtually non-existent at both sites, although the import of pottery vessels into Hellenistic sites was widespread during this period. At Jericho, there is also a striking lack of luxury ware, with only a few painted sherds present in the repertoire.³² The unusual "Jericho Cornucopia" might be interpreted as luxurious palace ware³³ or the symbol of the royal Hasmonaean family, but, in fact, it may have served as a lamp³⁴ or incense burner. The only example of fine ware is the local red-slipped ware, an imitation of Eastern terra sigillata.³⁵ The evidence from the Upper City of Jerusalem shows that even in the center of Judaea, no imported Eastern terra sigillata was found in

Hasmonaean strata. In Jerusalem, as in Jericho, the red-slipped ware produced by local workshops was merely an imitation of Eastern terra sigillata.³⁶ Therefore, it appears that during the Hasmonaean period, there was no imported Eastern terra sigillata in Judaea,³⁷ even though it is common in the Hellenistic sites of Palestine of this period.

The lack of amphorae (imported storage jars) during the Hasmonaean period at Jericho and Qumran is a further example of the absence of imported ware. During the third and second centuries B.C.E., the Greek and Hellenized Jewish populations of Palestine adopted the Hellenistic custom of fine-wine consumption and imported quality wines from famous centers of wine production, such as Cos, Knidos, Rhodes, and Thassos. However, with the advent of the Hasmonaean kingdom at the beginning of the first century B.C.E., this practice disappeared from both urban and rural Jewish communities, seemingly replaced with a preference for locally produced wines and oils. Only two sherds of Hellenistic wine amphorae, from Knidos and from Rhodes, were found at Jericho. In the Upper City of Jerusalem, the import of wine ceased in the middle of the second century B.C.E. A small number of amphorae were uncovered, but, if there was trade, it was only on a very limited scale.³⁸

The import of amphorae also came to an end in the middle of the second century B.C.E., at least in the City of David³⁹ and, at the end of that century, in the Upper City⁴⁰ and the entire South-western Hill.⁴¹ Geva himself agrees that Jerusalem did not develop strong trading ties with

²⁸ Bar-Nathan 2002, 5–6, ill. 1; Netzer and Bar-Nathan in Bar-Nathan 2002, 14–5.

²⁹ Bar-Nathan 2002, 79 and 85–6.

³⁰ Avigad 1983, 74–5, ill. 45–6.

³¹ It is possible that the so-called refectory with adjacent "pantry" is associated with ceramic production. In that case, the larger hall would have been used as the workshop to accommodate the potters' wheel as well as for drying the pottery, and the small room would have served as the storage area for the vessels. This topic, however, is reserved for a separate paper.

³² Bar-Nathan 2002, 122–4.

³³ Bar-Nathan 2002, 114–5, ill. 90.

³⁴ Fragments of a similar vessel were found in the Upper City of Jerusalem, see the discussion by R. Rosenthal-Heginbottom, "Hellenistic and Early Roman Fine Ware and Lamps from Area A." In: Geva 2003, 198, as well as 244–5, pl. 6.7:1.

³⁵ Bar-Nathan 2002, 119–21, examples in pl. 20, nos. 324–6.

³⁶ Rosenthal-Heginbottom 2003, 210.

³⁷ This is true, for example, of Machaerus (S. Loffreda, *La ceramica di Macheronte e dell'Herodion [90 a.c.–135 d.c.]*, SBF.CMa 39 [Jerusalem: Franciscan Printing Press, 1996]) and Kypros (Bar-Nathan, forthcoming), except Gezer stratum 2A (S. Gitin, *Gezer. Vol. 3: A Ceramic Typology of the Late Iron II, Persian and Hellenistic Periods at Tell Gezer* [Jerusalem: Hebrew Union College, 1990], pl. 42) and Jerusalem (Rosenthal-Heginbottom 2003: 214–5).

³⁸ Avigad 1983, 88.

³⁹ D.T. Ariel, *Excavations at the City of David 1978–1985 Directed by Yigal Shiloh. Vol. 2: Imported Stamped Amphora Handles, Coins, Worked Bone, Ivory and Glass*. Qedem 30 (Jerusalem: Institute of Archaeology, Hebrew University, 1990); G. Finkielstzajn, "Hellenistic Jerusalem: The Evidence of the Rhodian Amphora Stamps." In: *New Studies on Jerusalem: Proceedings of the Fifth Conference* (Edited by A. Faust and E. Baruch; Ramat Gan: Bar Ilan University, 2000), 21*–36*.

⁴⁰ D.T. Ariel, "Imported Greek Stamped Amphora Handles." In: Geva 2003, 267–9.

⁴¹ Finkielstzajn 2000, 22–4.

Hellenistic cities during most of the Hasmonaean period.⁴² The absence of these vessels is also apparent in the rural communities of Benjamin⁴³ as well as among the Samaritan population.⁴⁴ Greek imported ware is also very rare or completely absent at other Judaeen sites and in Jewish areas of Galilee in the Hellenistic period.⁴⁵ It is, therefore, not surprising that amphorae were not imported to sites outside of Jerusalem, such as Qumran. The absence of imports in the Hasmonaean palaces precludes any argument in favor of economic motives, such as the need to protect local production, although such arguments can be made for the more impoverished rural communities. The reason for the absence of imported pottery in Hasmonaean Judaea (namely Jericho, Qumran, and Jerusalem) is most likely related to *halakha*, which contains strict laws regarding the impure and the pure, and, especially, proscribes against the gentiles, whose impurity (*tum'a*) stems from paganism (*avoda zara*), as reflected in the decrees of the Mishna, Tosefta, and Talmud. These prohibitions applied not only to vessels produced by gentiles, but also their drinks and foodstuffs—especially wine, which was prohibited because it may have been used for pagan libations (*ya'in nesekh*). This interdiction may have had an economic basis aimed at protecting local producers of both wine and pottery vessels,⁴⁶ but the end result would have been the same.⁴⁷ The strict observance of these prohibitions would have prevented observant Jews from importing pottery vessels from abroad. The absence of imported amphorae may, therefore, be a result of the prohibitions regarding the impurity of their contents and not necessarily against the vessels themselves.

⁴² Geva 2003, 115–6.

⁴³ Y. Magen, “The Land of Benjamin in the Second Temple Period.” In: *Judea and Samaria Research Studies* 4 (1995): 75–102 (here, 94–5) [Hebrew].

⁴⁴ Y. Magen, “Mt. Gerizim: A Temple City.” *Qad* 33/120 (2000): 74–118 [Hebrew].

⁴⁵ D. Adan-Bayewitz and M. Aviam, “Iotapata, Josephus, and the Siege of 67: Preliminary Report on the 1992–1994 Seasons.” *JRA* 10 (1997): 131–65.

⁴⁶ G. Alon, *Studies in Jewish History in the Times of the Second Temple, the Mishna and the Talmud. 2 Volumes* (Tel Aviv: Hakibbutz Hameuchad, 1957) [Hebrew].

⁴⁷ Alon 1957 also postulates that the proscriptions regarding gentiles were the earliest of Jewish halakhic decrees. The Pharisees, by their strict observance of the laws of purity, were most certainly stringent in their observance of the rules

It is possible that the material culture of the Hasmonaean Winter Palaces at Jericho reflects the religious outlook of the Sadducees, since it is known that the Hasmonaean rulers, especially Alexander Jannaeus, were connected to this sect of Judaism. Thus, the use in Jericho of locally produced pottery with a continuous Judaeen tradition, the lack of imported pottery, and the profusion of bowls and their relationship to the *mikva'ot*, might all be related to unwritten Sadducean laws and customs.⁴⁸ This is also evident in the Upper City of Jerusalem, the seat of the aristocratic priestly families. However, Queen Alexandra supported the Pharisees, which raises the possibility that the strict observances evident at Jericho may stem from Pharisean rather than Sadducean influences. Since the pottery finds of Qumran Ib bear a close resemblance to those of Hasmonaean Jericho, it is possible that a similar population or sect occupied both sites.⁴⁹ Many researchers, however, have attributed the finds to the Essenes.⁵⁰ Rather than to solve the debate concerning the religious sects of the Second Temple period, the above discussion is intended to point out the dangers of exclusively attributing strict observance of Jewish laws to any particular sect during the Second Temple period. In any event, it appears that all factions of the Jewish population, urban or rural, tended toward a strict observance of the laws of purity, at least according to the archaeological evidence. Qumran, therefore, is no exception.

Jericho and Qumran in the Herodian Period

An especially important contribution of Jericho to the study of pottery is the opportunity it affords

regarding the impurity of foreigners. Those laws came into effect with the beginning of the Hasmonaean uprising.

⁴⁸ Bar-Nathan 2002, 196–8.

⁴⁹ Several researchers now claim that Qumran Ib was an agricultural estate; see J.-B. Humbert, “L'espace sacré: Qumrân: Propositions pour l'archéologie.” *RB* 101–2 (1994): 161–214; Y. Hirschfeld, “Early Roman Manor Houses in Judaea and the Site of Khirbet Qumran.” *JNES* 57 (1998): 161–89; see also Y. Hirschfeld, *Qumran in Context: Reassessing the Archaeological Evidence* (Peabody: Hendrickson, 2004). This may confirm our view that the population of the site was comprised of landed aristocracy. On possible aristocratic inhabitants in Qumran, see also the article by Olav Röhrer-Ertl in this volume.

⁵⁰ Magness 2002, 73–89.

to isolate ceramic groups from the time of Herod.⁵¹ The parallels between Jericho and Qumran clearly show that there is a phase of occupation from the time of Herod the Great at Qumran. This is also true of de Vaux's period Ib, an assumption accepted today by many scholars.⁵² What is certain is that the earthquake of 31 B.C.E. did not put an end to the settlement at the two sites nor did it cause any change in the repertoire of vessels.⁵³ In fact, between 31 and 20 B.C.E. (designated at Jericho as Herodian I), there was continuity in Hasmonaean pottery types while very few new types were introduced. The greatest change in pottery, according to the ceramic evidence from Jericho, occurred with the Romanization of pottery types in Judaea during the middle of Herod's reign, toward 20 B.C.E. (designated at Jericho as Herodian II). At Jericho, we find a few morphological changes in the local pottery and some imitations of Roman shapes.⁵⁴ More significantly, there is a clear reduction in the quantity of small bowls compared with the Hasmonaean period. The impact of Roman pottery, especially the influence of Augustan arretine ware, is evident not only in the local pottery but also in the imported wares at Jericho that were absent from Hasmonaean assemblages.⁵⁵ Beginning at the time of Herod the Great, the ruling elite and the aristocracy of Jerusalem, including the priestly families, flaunted their status by the consumption of imported wine and other goods and the acquisition of fine, red-slipped tableware. These imports include Eastern terra sigillata, "Nabataean" terra sigillata (Sigillata D),⁵⁶ and fine tableware from central and southern Italy, such as Western terra sigillata, thin-walled ware, and Pompeian red ware, as well as pottery (such as Knidian bowls) from Hellenistic centers and imported amphorae

containing wine from Italy and the Aegean, apples and oil from Italy, and fish products (*garum*) from southern Spain.⁵⁷ Imported amphorae were distributed not only to Jericho, but also to Herod's palaces at Jericho, Masada, Herodium and to urban centers, such as Jerusalem, Samaria, and Caesarea [...].⁵⁸ However, they are found in quantities that do not indicate large-scale commercialization but, rather, that they may have been imported only for the royal court and the Jewish aristocracy in Jerusalem. This practice continued in Judaea until the destruction of the Second Temple in 70 C.E.

As for Qumran in the Herodian period, recent excavations by Magen and Peleg,⁵⁹ as well as the original excavations by de Vaux, have uncovered, in addition to local types, a few Eastern and Nabataean terra sigillata and local imitations of Western (Roman) fine tableware.⁶⁰ The scarcity of imported ware at Qumran, therefore, is not a unique phenomenon, but is rather parallel to the scarcity of such finds at rural sites in the Dead Sea region, including 'En Boqeq,⁶¹ Khirbet el-Ghuweir,⁶² Rujm el-Bahr,⁶³ and 'Ain ez-Zara/Callirrhoe.⁶⁴ This does not include palatial sites, such as Jericho, Masada, and Machaerus, as mentioned above. Furthermore, the fragments of Nabataean painted bowls and cream-ware jugs found at Qumran seem to indicate that the population of Qumran, as at other sites in the Dead Sea region in which Nabataean ware was found, was probably commercially tied to the Nabataean trade in the region. In this respect, the population of Qumran is not isolated from the rest of the region. Other finds from Qumran, such as cosmetic appurtenances, also indicate that the finds from Qumran are of a type and variety no different from those from other sites in the region, although

⁵¹ Bar-Nathan 2002.

⁵² Humbert 1994, 211; Humbert 2003, 444; Magness 2002, 68.

⁵³ Bar-Nathan 2002, 194–5.

⁵⁴ Bar-Nathan 2002, 199–204.

⁵⁵ Herod opened the country to imports from Hellenistic and Italian markets. This is evident not only in the pottery but also in his architectural preferences. At Jericho, for example, the Third Palace includes opus sectile. This is true also of the mosaics and the wall paintings (Netzer 2001).

⁵⁶ "Nabataean" terra sigillata is found in most of the Herodian sites in Judaea, especially in palaces (Bar-Nathan, forthcoming).

⁵⁷ Bar-Nathan 2002, 129–44.

⁵⁸ Rosenthal-Heginbottom 2003, 219–20.

⁵⁹ See Yizhak Magen and Yuval Peles in this volume.

⁶⁰ See R. Donceel and P. Donceel-Voûte, "The Archaeology of Khirbet Qumran." In: Wise et al. 1994, 10.

⁶¹ M. Fischer, M. Gichon and O. Tal, 'En Boqeq: Excavations in an Oasis on the Dead Sea. Vol. 2: The officina. An Early Roman Building on the Dead Sea Shore (Mainz: Philipp von Zabern, 2000).

⁶² P. Bar-Adon, "Another Settlement of the Judean Sect at 'En-Ghuweir on the Shores of the Dead Sea." *BASOR* 225 (1977): 1–25.

⁶³ P. Bar-Adon, *Excavations in the Judean Desert*. 'Atiqot 9 (Jerusalem: Israel Antiquities Authority, 1989) [Hebrew].

⁶⁴ C. Clamer, *Fouilles archéologiques de 'Ain ez-Zara/Callirrhoe: villégiature hérodiennne* (Beirut: IFAPO, 1997). A similar phenomenon is observed in the agricultural manor house at Ramat Hanadiv, which dates from the Herodian period. There, too, the percentage of imported ware is minute; see R. Calderon, "Roman and Byzantine Pottery." In: *Ramat Hanadiv Excavations: Final Report of the 1984–1998 Seasons* (Edited by Y. Hirschfeld; Jerusalem: Israel Exploration Society, 2000), 91–103.

the proportion of luxurious to plain objects is smaller at Qumran.

The "Scroll Jars"

One of the symbols of Qumran is the "scroll jar" (fig. 15.6). It is usually a cylindrical or ovoid jar covered with a bowl-shaped lid. Most of the jars were found in the nearby caves,⁶⁵ and several were found at Qumran in contexts associated by de Vaux with Periods Ib and II. An intact, but empty storage jar, covered with a limestone slab, was found sunk into the floor of one of the rooms (locus 2) together with a Roman procurator coin dated ca. 10 C.E. According to de Vaux, cylindrical jars were found in Period Ib and II contexts at Qumran. However, the revised chronology of period Ib⁶⁶ dates these cylindrical jars to the post 31 B.C.E. phase (i.e., between 31 and ca. 9/8 B.C.E.). There are no published examples from contexts that clearly antedate 31 B.C.E.

In the recent excavations by Magen and Peleg at Qumran, wasters of "scroll jars" were found in the eastern garbage dump. This indicates that some of the jars were produced on the site. NAA examination, however, showed that the jars originated from several different locations, including Qumran, Jericho, and possibly Jerusalem.⁶⁷ In fact, similar jars were also found at Jericho, Masada, and Qalandiya.⁶⁸

At Jericho, this type of jar (Jericho type J-SJ2A–B; fig. 15.7: Jr.group 1)⁶⁹ was found in both the palaces of the Hasmonaeans and of Herod the Great. In fact, using the material from Jericho, it is possible to trace a typological development of this group of jars. The ovoid type (the earliest type, Jericho type J-SJ2) appears in contexts dated to the Hasmonaean period and Herod the Great, whereas the cylindrical type (Jericho type J-SJ2B; fig. 15.7: Jr.group 2) develops during the period

of Herod the Great, i.e., sometime between 31 and 4 B.C.E.⁷⁰

The locations of these jars at Jericho are revealing. One intact ovoid jar with a bowl-lid was found standing in the corner of the room near the vestibule of one of the Hasmonaean Twin Palaces.⁷¹ Most of the ovoid jars were found in the industrial zone and date to the time of Herod. Four were sunken in a wall niche in one of the storerooms (Jericho type J-SJ2A2). The cylindrical jar (Jericho type J-SJ2B), which first appears in the time of Herod, was also found in the industrial section.⁷²

At Masada (fig. 15.8), similar cylindrical "scroll jars" with bowl lids were found in Zealot contexts but without any scrolls.⁷³ They were found mostly in the Western Palace, near entrance rooms, and in the rebels, (Zealots) casemate dwellings.

As mentioned above, comparison of the jars of Jericho and Qumran indicates that the ovoid shape J-SJ2A (Jr.group 1) is characteristic of the period of the Hasmonaeans and Herod the Great) whereas the cylindrical shape J-SJ2B (Jr.group 2) appears first at Jericho during Herod's reign⁷⁴ and at Qumran (KhQ.group 2) and Masada (M.group 2) in the first century C.E. The great similarity between the jars of Masada dating to the period of the Great Revolt (66–73/4 C.E.) and in particular those of the Qumran caves⁷⁵ permits us to narrow the date of the Qumran scroll jars to the years of the Great Revolt, that is between 66–68 and 74 C.E. Analysis of pottery from the Qumran caves shows that it, too, does not antedate the first century C.E. Furthermore, the vessel types are typical of the first century C.E. and are similar to "Zealot" assemblages at Masada.

We have no clear evidence of the function of the jars, except for the evidence from Qumran Cave 1 where scrolls were reportedly found inside cylindrical jars.⁷⁶ In fact, the shape is well suited for the storage of documents. The jar stands

⁶⁵ *Les 'Petites Grottes' de Qumrân*. DJD 3 (Edited by M. Baillet, J. T. Milik and R. de Vaux; Oxford: Clarendon, 1962).

⁶⁶ Bar-Nathan 2002, 203–4; Magness 2002, 68; Humbert 1994: 211.

⁶⁷ Gunneweg and Balla 2003.

⁶⁸ Personal communication from Y. Magen.

⁶⁹ Bar-Nathan 2002, 23–5, 26–7.

⁷⁰ Bar-Nathan 2002, 24, pl. 2, no. 2.

⁷¹ Bar-Nathan 2002, 23, pl. 1, no. 2.

⁷² Bar-Nathan 2002, 24–5, pl. 2, nos. 6, 8.

⁷³ Bar-Nathan, forthcoming.

⁷⁴ Bar-Nathan 2002, 23–7.

⁷⁵ There is a close connection between the "scroll jars" of Masada and Qumran (see figs. 6, 8). Further parallels of those groups with an additional discussion will be published by the author in the forthcoming final report of the Masada pottery.

⁷⁶ There are other ancient reports of scrolls stored inside jars in the caves near Jericho. The early Christian scholar Origen (185–254 C.E.) mentioned that the sixth Greek version of the Psalms he presented in his Hexapla had been

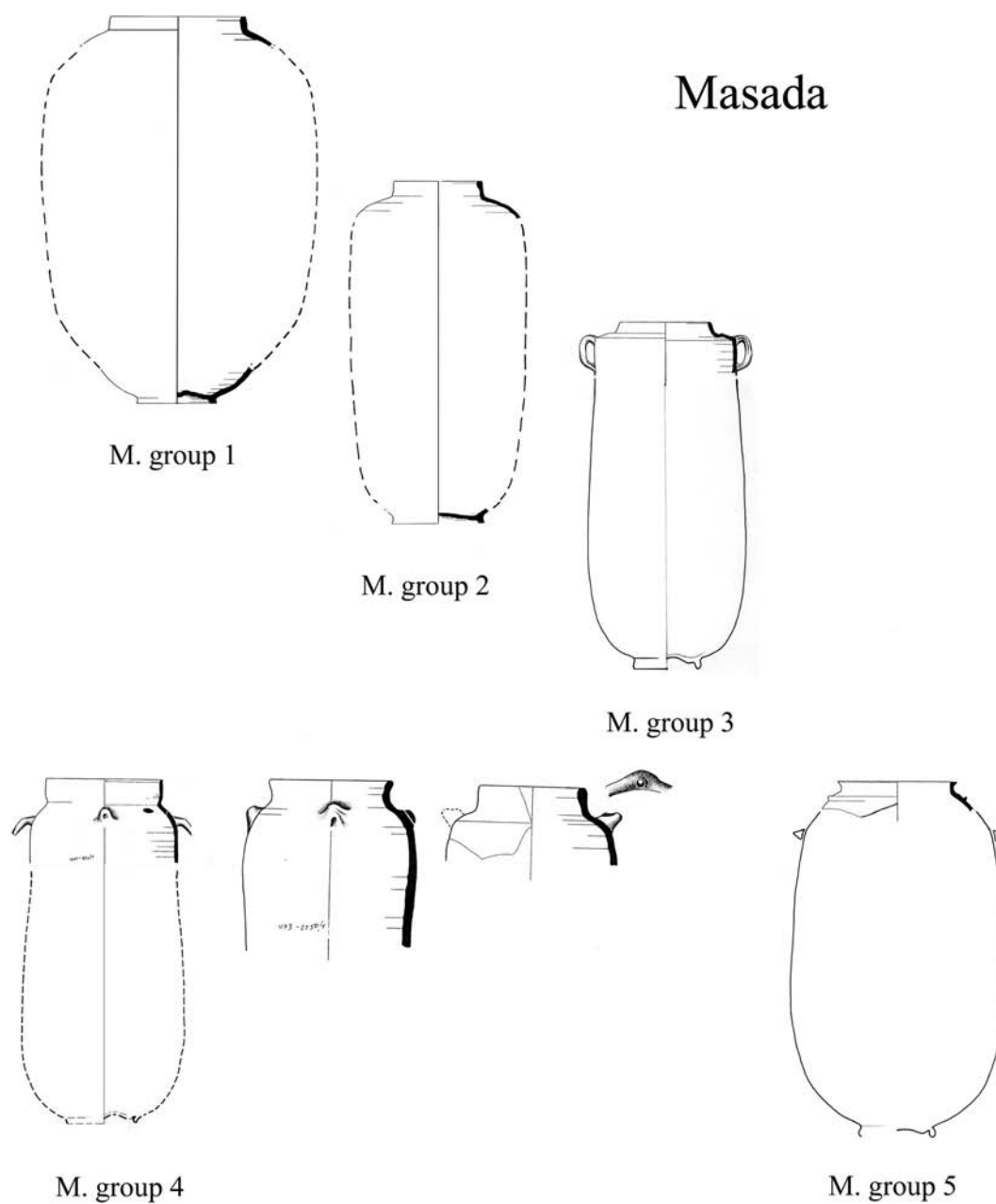


Fig. 15.8. Masada “scroll jars.” (reconstruction based on Qumran documentation)

upright on its own; its lid is very easy to remove and, therefore, is not suitable for storing food.⁷⁷ It also has a wide mouth that is suitable not only for pouring but also for inserting hands in order to remove the contents. Furthermore, the cover (bowl-lid) is easy to remove and not intended to keep products sealed.⁷⁸ Therefore, the term “archival” or “Geniza” jars seems more fitting. Since these jars were found in special spots (either close to entrances, sunk into the floor, or placed into a wall niche), it seems that their function was very specific. Their absence from other sites is, thus, not surprising, since they would have been found only in places associated with archives or libraries. They have not yet been found, however, in Jerusalem, whose archives and library—according to Josephus—were completely burnt to the ground.⁷⁹

Conclusion

(1) There is a striking similarity, in all aspects, between the pottery of Hasmonaeon Jericho and of Qumran Ib. This seems to indicate that the settlement of these sites did not occur before the time of Alexander Jannaeus, probably around 100/90 B.C.E. This is also true of other Dead Sea and Jericho Valley settlements and is probably due to the increased economic interests of the Hasmonaeans in this region.

(2) In both Qumran and Jericho of the Hasmonaeon period, no imported ware has been found. In fact, this is characteristic of all of Judaea during this period. Therefore, the material culture of Qumran cannot be considered a criterion for social or sectarian isolation. In fact, the similarity between the two sites may hint to a common workshop.

(3) Starting in the time of Herod the Great, there is an influx of imported ware in Judaea, which appears also at Qumran, although in small quantities. The presence of Nabataean ware indicates that during this period Qumran was not an

isolated community but part of the economic fabric of the Dead Sea region.

(4) The scroll jar is a well-known vessel within the repertoire of the Second Temple period, particularly in the plain of Jericho and the Dead sea region. Its primary function was probably in archival contexts, but it could have been used for other storage functions as well.

The pottery evidence indicates that the use of the caves around Qumran does not predate the time of Herod the Great. In fact, except for isolated vessels in Cave I, most of the pottery from the caves dates to the first century C.E.; more specifically, to the days of the Great Revolt, between 66 and 73/4 C.E. Therefore, there is no clear link between the caves and the settlement of Qumran during the Hasmonaeon period. Furthermore, there is no necessary link between the jars found in the caves and those found at the site. The jars were produced in several places, including Qumran, and may also have been brought from Jerusalem and Jericho.

The pottery from Qumran does not assist in differentiating the community at Qumran from that at other Judaeon sites, especially in the Dead Sea region. There is nothing to prove that the inhabitants of Qumran practiced a deliberate and selective policy of isolation nor that they manufactured ceramic products to suit their special needs and concerns with purity. In contrast, we do seem to have evidence that some of the ceramics produced at the site were distributed to other sites in the region. The large number of identical, undecorated plates, cups, and bowls found at Qumran is no different from similar assemblages at other sites in Judaea, especially Jericho.

The similarity between the pottery of Jericho and Qumran, as well as their close geographic proximity, indicates, without doubt, that the inhabitants of both sites shared a close affinity. The pottery is only one of the aspects of both sites in which parallels were found. Further investigation will most likely reveal similarities in other areas as well.

found in a jar near Jericho. In describing the same text, the church historian Eusebius (c. 260–340 C.E.) added that a Greek version of the Psalms and other Greek and Hebrew manuscripts had been found in a jar at Jericho during the reign of Caracalla (Ecclesiastical History 6:16). Around 800 C.E., Timothy I, the Nestorian patriarch of Seleucia, reported that books of the Old Testament had been found in a cave near Jericho.

⁷⁷ There is no reason to believe that the “scroll jars” were

used for storing food for a high degree of purity; see Magness 2002, 79–89; cf. J. Zangenberg’s review in *DSD* 11 (2004): 365–72; Magness 2004. The bag-shaped storage jars found in great numbers at Herodian and Zealot Masada, as at other Judaeon sites, are the common storage container.

⁷⁸ At Jericho, Masada and Qumran, clay, lime, and stone stoppers were used to hermetically seal the contents.

⁷⁹ N. Golb, *Who Wrote the Dead Sea Scrolls? The Search for the Secret of Qumran* (New York: Scribner, 1995).

PART V

APPENDIX, BIBLIOGRAPHY, AND INDEX

APPENDIX

QUMRAN: THE SITE OF THE DEAD SEA SCROLLS
ARCHAEOLOGICAL INTERPRETATIONS AND DEBATES

November 17–19, 2002
Conference Schedule

SUNDAY, NOVEMBER 17

SESSION I: Opening Session

2:30–3:00 PM Smith Buonanno, Room 106

❖ *Session Chair*

Martha Sharp Joukowsky
(Brown University)

❖ *Opening Remarks*

Martha Sharp Joukowsky
(Director, Center for Old World Archaeology and Art, Brown University)

❖ *Greetings*

Ernest Frerichs
(Brown University and Dorot Foundation)

❖ *Introduction*

Katharina Galor
(Brown University)

❖ *De Vaux's Interpretation in Perspective*

Jean-Baptiste Humbert
(École Biblique et Archéologique Française de Jérusalem)

SESSION II: Archaeological and Textual Evidence from the Qumran Region

3:30–5:00 PM Smith Buonanno, Room 106

❖ *Session Chair*

R. Ross Holloway
(Brown University)

❖ *Qumran without Texts, and Texts without Qumran: The Quest for Archaeological Objectivity*

James Tabor
(University of North Carolina at Charlotte)

❖ *Qumran in a Regional Context*

Jürgen Zangenberg
(University of Wuppertal, Germany)

RECEPTION and PHOTO EXHIBIT

5:15–6:15 PM Robinson Hall Rotunda

MONDAY, NOVEMBER 18

Morning

SESSION I: Recent Discoveries at Qumran

8:00–9:30 AM Brown Faculty Club

❖ **Session Chair**

Stanley Stowers
(Brown University)

❖ ***The 1996 Excavations at Qumran: The Context of the Ostrakon***

James Strange
(University of South Florida)

❖ ***Important New Findings at Qumran***

Yizhak Magen and Yulav Peleg
(Israel Antiquities Authority)

❖ ***Artificial Caves at Qumran***

Hanan Eshel
(Bar Ilan University, Israel)

SESSION II: Questions of Chronology, Context and Religious Identity

10:00–11:30 AM Brown Faculty Club

❖ **Session Chair**

Rolf Winkes
(Brown University)

❖ ***Correction of an Error in Archaeological Interpretation: The Dating of the Qumran Cave Scroll Deposits***

Gregory Doudna
(University of Copenhagen, Denmark)

❖ ***Qumran in Period III***

Joan Taylor
(Waikato University, New Zealand/University of London, UK)

❖ ***Contextual Archaeology and the Qumran-Essene Origins***

Minna Lönnqvist and Kenneth Lönnqvist
(University of Helsinki, Finland)

Afternoon

SESSION I: Material Traces of Industrial and Ritual Uses

12:30–2:00 PM Brown Faculty Club

❖ **Session Chair**

Saul Olyan
(Brown University)

❖ *The Workshops at 'Ain Feshka: A New Hypothesis*

Mireille Bélis
(École Biblique et Archéologique Française de Jérusalem)

❖ *Qumran's Plastered Installations: Cisterns or Immersion Pools?*

Katharina Galor
(Brown University)

❖ *Qumran, 'Ain Feshka, and the Perfume Industry of Judea During the Reign of Herod the Great*

Yizhar Hirschfeld
(Hebrew University of Jerusalem, Israel)

SESSION II: Agriculture, Anthropology and Religious Symbolism

2:30–4:00 PM Brown Faculty Club

❖ *Session Chair*

Ross Kraemer
(Brown University)

❖ *Was There Agriculture at Qumran?*

Magen Broshi
(Israel Museum)

❖ *Generating Sacred Space at Qumran: Walls as Markers and Dividers*

Joan Branham
(Providence College)

❖ *Married Economists: Dates and Results Based on Skeletal Remains from Qumran*

Olav Röhrer-Ertl
(Ludwig-Maximilians-Universität München, Germany)

TUESDAY, NOVEMBER 19

Morning

SESSION I: Analyzing Qumran Pottery

9:00–10:30 AM Brown Faculty Club

❖ *Session Chair*

Pura Nieto Hernandez
(Brown University)

❖ *Why Scroll Jars?*

Jodi Magness
(University of North Carolina at Chapel Hill)

❖ *The Pottery of Qumran and that of the Winter Palaces at Jericho*

Rachel Bar-Nathan
(Israel Antiquities Authority)

❖ *Pantries and Communal Meals at Qumran*

Stephen Pfann
(University of the Holy Land, Israel)

SESSION II: Cemeteries at Qumran and Other Regional Sites

11:00–12:30 AM Brown Faculty Club

❖ *Session Chair*

Michael Satlow
(Brown University)

❖ *Skeletal Remains from the Cemetery at Qumran: The French Collection*

Susan Sheridan
(University of Notre Dame)

❖ *The Discovery and Excavation of the Khirbet Qazone Cemetery, and its Significance Relative to Qumran*

Konstantinos Politis
(British Museum, UK)

❖ *New Insights on the Cemetery of Qumran*

Richard Freund
(University of Hartford)

Afternoon

SESSION I: Archaeometric Studies

2:00–3:45 PM Brown Faculty Club

❖ *Session Chair*

David Konstan
(Brown University)

❖ *The Archaeometry of Plasters: Qumran Installations as an Example*

Aryeh Shimron
(Geological Survey of Israel)

❖ *Dating Qumran by Optically Stimulated Luminescence*

Edward Rhodes (University of Oxford, UK), Aryeh Shimron (Geological Survey of Israel) and Richard Hoptroff (University of Oxford, UK)

❖ *Neutron Activation Analysis*

Jan Gunneweg
(Hebrew University of Jerusalem, Israel)

❖ *Concluding Remarks*

Jürgen Zangenberg
(University of Wuppertal, Germany)

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